[SUBCOMMITTEE PRINT]

COMPENDIUM ON MONETARY POLICY GUIDELINES AND FEDERAL RESERVE STRUCTURE

PURSUANT TO H.R. 11

SUBCOMMITTEE ON DOMESTIC FINANCE

OF THE

COMMITTEE ON BANKING AND CURRENCY

HOUSE OF REPRESENTATIVES

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LETTER OF TRANSMITTAL

Transmitted herewith for the use of the Subcommittee on Domestic Finance and other members of the Banking and Currency Committee and the Congress are the replies received from the Federal Reserve, the Treasury, the Council of Economic Advisers and 71 academic, bank and research monetary economists in response to a questionnaire sent out on July 9, 1968. Respondents were asked to express their opinions on questions pertaining to H.R. 11, a bill "To make the Federal Reserve System responsive to the best interests of the people of the United States and to improve the coordination of monetary, fiscal, and economic policy." (A reproduction of H.R. 11 introduced on January 10, 1967, in the first session of the 90th Congress is found on pages 1–5.)

Questionnaires were sent to the seven members of the Board of Governors of the Federal Reserve System and the 12 Reserve bank presidents, the Secretary of the Treasury, the members of the President's Council of Economic Advisers and 125 prominent academic, bank and research monetary economists; representing all schools of thought on the fundamental question of how to manage the Nation's money and credit. Replies are printed verbatim, as they were received, with only minor editorial changes. In addition, the staff letter of transmittal which follows contains a question-by-question summary of the replies and analysis of the response of the Federal Reserve whose 19 highest officials replied as one man to the questions asked. Neither the staff analysis nor any of the responses to the questionnaire which follow herein necessarily represent the views of any member of the subcommittee.

I am sure that all members of the subcommittee join me in expressing gratitude and appreciation to those who took the time to think about our questions and submit replies thereby giving us the benefit of their valuable experience and training.

Reform of our monetary policy system is needed now. Our economy has been in the expansion phase of the business cycle now for nearly 8 years. The expansion, however, has been marred by a minirecession in late 1966 and early 1967 and by inflations of prices and interest rates first in late 1965 and early 1966 and more recently in 1968. Monetary policy has played an important role in all these movements. Favorable monetary trends contributed substantially to the powerful upsurge which has dominated our economic performance since February 1961, and perverse monetary developments contributed to the recent short-lived minirecession and low-level inflationary episodes that have flawed this performance. We must realize that continuation of the upswing and minimization of future destabilizing developments, whether in the direction of recession or inflation, depend strategically on our achievement in future years of favorable monetary trends and avoidance of perverse departures from these trends.

Monetary trends emerge primarily from policy actions of our monetary authorities, that is, the policy making officers of the Federal Reserve System. Nothing can be plainer, therefore, than the need to structure the Federal Reserve and define its role in the context of the totality of the Government's economic policies so that we are assured of monetary trends favorable to stable economic growth and avoid destabilizing monetary developments. H.R. 11 was conceived for this purpose. I believe that this compendium furnishes an indisputable basis for reform of the Federal Reserve System and amendment of the Employment Act, essentially as provided for by H.R. 11.

H.R. 11 provides for:

(1) Reducing the number of members of the Federal Reserve Board to 5 and their term of office to 5 years and making the term of the Chairman of the Board coterminous with that of the President of the United States;

(2) Vesting all power to direct open market operations in the Federal Reserve Board and coordinating such operations with the economic programs and policies of the President pursuant to the Employment Act;

(3) Requiring that the President, in submitting his annual economic report pursuant to the Employment Act, shall include, along with his recommendations on fiscal and debt-management policy, guidelines concerning monetary policy including the growth of the money supply as defined by him;

(4) Retiring Federal Reserve bank stock;

(5) Annual audit of the Federal Reserve Board and banks and their branches; and

(6) Funds to operate the Federal Reserve System to be appropriated by the Congress of the United States.

Still another reform which the compendium demonstrates we must adopt is the transfer of all but a small fraction of the Federal Reserve's portfolio of U.S. Government securities—now totaling more than $53 billion—to the Treasury. As long as the Federal Reserve holds these securities many persons, as the compendium shows, will fail to see that open market purchases of U.S. Government securities increase the public's financial wealth or net worth, and thereby cause increased spending and activity in the economy at large. The keystone of the matter is that open market purchases reduce the public's holdings of the Federal debt and liability for it by equal amounts, and thus the net effect is to increase net worth by the amount of currency and reserves the Federal Reserve uses to pay for its purchases of U.S. Government securities. What many do not seem to understand is that taxpayers are liable for U.S. Government securities and the interest thereon only so long as these securities are held outside the Federal Reserve. When the Federal Reserve uses the Nation's money and credit to buy U.S. Government securities it retires them just as surely as if the Treasury had bought them. Taxpayer liability ceases. The law must be changed so that no one fails to recognize this. Transfer of all but a small fraction of the Federal Reserve's portfolio to the Treasury and automatic transfer of all new purchases is urgently needed therefore. With these transfers there will be no failure to see that open market operations directly change the public's financial wealth or net worth, and thereby change spending and economic activity. And seeing this will make it

possible at long last to develop a viable monetary policy—a policy tuned in to the realities of monetary and economic processes.

In transmitting this compendium to the subcommittee it is my hope that it will be read and discussed not only by members of the Banking and Currency Committee but also by the entire Congress and the general public as well.

The questionnaire and analysis which follows was done under the immediate supervision of Dr. Robert E. Weintraub, professor of economics at the University of California at Santa Barbara.

Sincerely yours,

WRIGHT PATMAN,
Chairman, House Committee on Banking and Currency.

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TEXT OF H.R. 11

[H.R. 11, 90th Cong., first sess.]

A BILL To make the Federal Reserve System responsive to the best interests of the people of the United States and to improve the coordination of monetary, fiscal, and economic policy

It provides for:

(a) Retiring Federal Reserve bank stock;

(b) Coordinating Federal Reserve bank policies and programs with those of the President of the United States in keeping with the provisions of the Employment Act of 1946;

(c) Reducing the number and term of office of members of the Federal Reserve Board;

(d) Making the term of Chairman of the Board coterminous with that of the President of the United States;

(e) An audit for each fiscal year of the Federal Reserve Board and the Federal Reserve banks and their branches by the Comptroller General of the United States;

(f) Funds to operate the Federal Reserve System to be appropriated by the Congress of the United States.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

RETIREMENT OF FEDERAL RESERVE BANK STOCK

SECTION 1. (a) The last sentence of the first paragraph of section 2 of the Federal Reserve Act (12 U.S.C. 222) is amended by changing "subscribing and paying for stock" to read "obtaining a certificate of membership".

(b) The last sentence of the third paragraph of such section 2 (12 U.S.C. 282) is amended by changing "subscribe to the capital stock of such Federal reserve bank in a sum equal to 6 per centum of the paid-up capital and surplus of such bank, one-sixth of the subscription to be payable on call of the organization committee or of the Board of Governors of the Federal Reserve System, one-sixth within three months and one-sixth within six months thereafter, and the remainder of the subscription, or any part thereof, shall be subject to call when deemed necessary by the Board of Governors of the Federal Reserve System, said payments to be in gold or gold certificates." to read "obtaining a certificate of membership pursuant to the provisions of this Act."

(c) The fourth paragraph of such section 2 (12 U.S.C. 502) is repealed.

(d) The paragraphs which, prior to the repeal made by subsection (c) of this section, were the eighth, ninth, tenth, eleventh, and twelfth paragraphs of such section 2 (12 U.S.C. 283–286) are repealed.

(e) The first sentence of the last paragraph of such section 2 (12 U.S.C. 281) is repealed.

SEC. 2. (a) The last sentence of the first paragraph of section 4 of the Federal Reserve Act is amended by changing "a subscription to the capital stock of" to read "an application for a certificate of membership in".

(b) The second paragraph of such section is amended (1) by changing "when the minimum amount of capital stock prescribed by this Act for the organization of any Federal reserve bank shall have been subscribed and allotted," to read "when the organization committee shall deem that a sufficient proportion of eligible banks have applied for membership in a Federal Reserve bank in process of organization,", (2) by striking "the amount of capital stock and the number of shares into which the same is divided,", (3) by changing "subscribed to the capital stock of" to read "applied for membership in", (4) by striking "and the number of shares subscribed by each", and (5) by changing "subscribed or may thereafter subscribe to the capital stock of" to read "applied or may thereafter apply for membership in".

(c) The subparagraph numbered "Eighth" of the fourth paragraph of such section 4 (12 U.S.C. 341) is amended by striking "stock".

(d) The tenth paragraph of such section 4 is amended by changing "stockholding" to read "member".

(e) The second sentence of the twelfth paragraph of such section 4 is amended by changing "subscriptions to the capital stock" to read "applications for membership".

SEC. 3. Section 5 of the Federal Reserve Act (12 U.S.C. 287) is amended to read:

"CERTIFICATES OF MEMBERSHIP

"SEC. 5. (a) The Federal Reserve banks shall have no capital stock.

"(b) A bank applying for membership in the Federal Reserve System at any time after the date of enactment of this subsection shall submit such application, in accordance with the regulations of the Federal Reserve Board, to the Federal Reserve bank of its district. Such application shall be accompanied by a membership fee of $10, which shall not be refundable unless such application is disapproved or withdrawn before approval.

"(c) Upon the approval of an application submitted pursuant to subsection (b) of this section, the Federal Reserve bank shall issue to the applicant a certificate attesting the membership of the applicant in such Federal Reserve bank and in the Federal Reserve System.

"(d) When a member bank voluntarily liquidates, it shall surrender its certificate of membership and cease to be a member of the Federal Reserve bank of its district and of the Federal Reserve System."

SEC. 4. (a) The first paragraph (12 U.S.C. 288, first paragraph) of section 6 of the Federal Reserve Act is repealed.

(b) The second sentence of the paragraph which, prior to the repeal made by subsection (a) of this section, was the second paragraph (12 U.S.C. 288, second paragraph) of such section 6, is amended to read: "The certificate of membership held by said national bank shall be surrendered to the Federal Reserve bank of its district, and said national bank shall cease to be a member of such Federal Reserve bank and of the Federal Reserve System."

SEC. 5. (a) The first paragraph (12 U.S.C. 289) of section 7 of the Federal Reserve Act is amended by striking "the stockholders shall be entitled to receive an annual dividend of 6 per centum on the paid-in capital stock, which dividend shall be cumulative. After the aforesaid dividend claims have been fully met,".

(b) The second sentence of the second paragraph (12 U.S.C. 290) of such section 7 is amended by striking "dividend requirements as hereinbefore provided, and the par value of the stock.".

(c) The third paragraph (12 U.S.C. 531) of such section 7 is amended by striking "capital stock and".

SEC. 6. (a) The first paragraph (12 U.S.C. 321, first paragraph) of section 9 of the Federal Reserve Act is amended (1) by changing, in the first sentence, "the right to subscribe to the stock of" to read "membership in", (2) by striking the second and third sentences, and (3) by changing, in the last sentence, "stockholder" to read "member".

(b) The first sentence of the second paragraph (12 U.S.C. 321, second paragraph) of such section 9 is amended by changing "Federal reserve bank stock owned by the national bank shall be canceled and paid for as provided in section 5 of this Act." to read "membership of such national bank shall be extinguished and the certificate of membership canceled as provided in section 5 of this Act."

(c) The first sentence of the third paragraph (12 U.S.C. 321, third paragraph) of such section 9 is amended (1) by changing "stockholder" to read "member", and (2) by changing "stock" to read "membership".

(d) The fifth paragraph (12 U.S.C. 323) of such section 9 is repealed.

(e) The first sentence of the paragraph which, prior to the repeal made by subsection (d) of this section, was the ninth paragraph (12 U.S.C. 327) of such section 9, is amended by striking out "stock" and inserting in lieu thereof "certificate of membership".

(f) The paragraph which, prior to the repeal made by subsection (d) of this section, was the tenth paragraph (12 U.S.C. 328) of such section 9, is amended (1) by changing, in the first sentence thereof, "all of its holdings of capital stock" to read "its certificate of membership", (2) by striking the second proviso of the first sentence thereof, (3) by changing, in the last sentence thereof, "stock

holdings" to read "certificate of membership", and (4) by striking, in the last sentence thereof, "a refund of its cash paid subscription with interest at the rate of one-half of 1 per centum per month from date of last dividend, if earned, the amount refunded in no event to exceed the book value of the stock at that time, and shall likewise be entitled to".

(g) The paragraph which, prior to the repeal made by subsection (d) of this section, was the sixteenth paragraph (12 U.S.C. 333) of such section 9, is amended (1) by striking, in the first sentence thereof, ", except that any such savings bank shall subscribe for capital stock of the Federal reserve bank in an amount equal to six-tenths of 1 per centum of its total deposit liabilities as shown by the most recent report of examination of such savings bank preceding its admission to membership", (2) by striking all of the remaining sentences of such paragraph except the last sentence thereof, and (3) by striking, in the last sentence of such paragraph, ", except as otherwise hereinbefore provided with respect to capital stock".

(h) The paragraph which, prior to the repeal made by subsection (d) of this section, was the twenty-second paragraph (12 U.S.C. 337) of such section 9, is amended (1) by changing, in the third sentence thereof, "stock" to read "certificate of membership", and (2) by changing, in the last sentence thereof, "stock" to read "certificates of membership".

(i) The last paragraph (12 U.S.C. 338) of such section 9 is amended by changing, in the last sentence thereof, "stock" to read "certificates of membership".

SEC. 7. The amendments made by the first six sections of this Act shall take effect on the thirty-first day after the date of enactment of this Act.

SEC. 8. (a) Not later than thirty-one days after the date of enactment of this Act, each holder of stock in any Federal Reserve bank shall surrender such stock to such bank, which shall, as of the thirty-first day after the date of enactment of this Act, cancel and retire the same and pay or credit to such former holder the par value thereof, plus interest at the rate of one-half of one per centum per month from the date of the last dividend, less a membership fee of $10, which shall not be refundable.

(b) Upon the cancellation and retirement of Federal Reserve bank stock as provided in subsection (a) of this section, each Federal Reserve bank shall issue to each such former holder thereof a certificate attesting its membership in such Federal Reserve bank and in the Federal Reserve System.

SEC. 9. The eleventh paragraph of section 9 of the Federal Reserve Act is amended to read:

"Any applying bank shall be eligible for membership if it is an insured bank as defined in subsection (h) of section 3 of the Federal Deposit Insurance Act. The capital stock of a State member bank shall not be reduced except with the prior consent of the Federal Reserve Board."

COORDINATION OF MONETARY POLICIES AND PROGRAMS

SEC. 10. (a) Section 12A of the Federal Reserve Act (12 U.S.C. 263) is amended to read:

"SECTION 12A. OPEN MARKET OPERATIONS

"(a) No Federal Reserve bank shall engage or decline to engage in open-market operations under section 14 of this Act except in accordance with the direction of and regulations adopted by the Board. The Board shall consider, adopt, and transmit to the several Federal Reserve banks regulations relating to the open-market transactions of such banks.

"(b) All purchases and sales by Federal Reserve banks of paper described in section 14 of this Act as eligible for open-market operations, as well as all other actions and policies of the Federal Reserve banks and the Board in the field of monetary affairs, shall be conducted in accordance with the programs and policies of the President pursuant to the Employment Act of 1946 and other provisions of law.

"(c) The Board shall submit a quarterly report to the Congress stating, in comprehensive detail, its past and prospective actions and policies under this section and otherwise with respect to monetary affairs, and indicating specifically how such actions and policies facilitate the economic program of the President."

ABOLITION OF FEDERAL OPEN MARKET COMMITTEE

(b) The Federal Open Market Committee is abolished.

FEDERAL RESERVE BOARD MEMBERSHIP AND TENURE

SEC. 11. (a) The first and second paragraphs (12 U.S.C. 241 and 242) of section 10 of the Federal Reserve Act are amended to read as follows:

"The Federal Reserve Board (hereinafter referred to as the 'Board') shall be composed of five members appointed by the President by and with the advice and consent of the Senate. Each member shall be appointed for a term expiring on June 30 of one of the first five calendar years succeeding the year in which he is appointed, as designated by the President at the time of nomination, subject to the limitation that not more than one member of the Board may have a term scheduled to expire within the same calendar year. The members of the Board shall devote their entire time to the business of the Board.

"The members of the Board shall be ineligible during the time they are in office and for two years thereafter to hold any office, position, or employment in any member bank, except that this restriction shall not apply to a member who has served the full term for which he was appointed. The President shall designate one member as Chairman, to serve as such until the expiration of his term of office as a member, or until the President shall designate another member to serve as Chairman, whichever is earlier. The Chairman of the Board, subject to its supervision, shall be its active executive officer. The Chairman may designate one member as Vice Chairman, who shall have power to act in the temporary absence or disability of the Chairman, or in the event of the death, resignation, or permanent incapacity of the Chairman, to act as Chairman pending appointment of his successor. Each member of the Board shall within fifteen days after notice of appointment make and subscribe the oath of office. Upon the expiration of their terms of office, members of the Board shall continue to serve until their successors are appointed and have qualified."

(b) The Board of Governors of the Federal Reserve System established under authority of the Federal Reserve Act as in effect prior to the effective date of the amendment made by subsection (a) of this section is abolished. Each member of the Board of Governors of the Federal Reserve System in office immediately prior to the taking effect of such amendment shall be paid one year's salary at his then current rate.

(c) On and after the effective date of the amendment made by subsection (a) of this section, any reference (other than the reference in subsection (b) of this section) to the Board of Governors of the Federal Reserve System in any law, rule, or regulation of the United States or any department or agency thereof shall be deemed a reference to the Federal Reserve Board.

AUDIT OF FEDERAL RESERVE SYSTEM BY COMPTROLLER GENERAL

SEC. 12. (a) The Comptroller General shall make, under such rules and regulations as he shall prescribe, an audit for each fiscal year of the Federal Reserve Board and the Federal Reserve banks and their branches.

(b) In making the audit required by subsection (a), representatives of the General Accounting Office shall have access to all books, accounts, financial records, reports, files, and all other papers, things, or property belonging to or in use by the entities being audited, including reports of examinations of member banks, and they shall be afforded full facilities for verifying transactions with balances or securities held by depositaries, fiscal agents, and custodians of such entities.

(c) The Comptroller General shall, at the end of six months after the end of the year, or as soon thereafter as may be practicable, make a report to the Congress on the results of the audit required by subsection (a), and he shall make any special or preliminary reports he deems desirable for the information of the Congress. A copy of each report made under this subsection shall be sent to the President of the United States, the Federal Reserve Board and the Federal Reserve banks. In addition to other matters, the report shall include such comments and recommendations as the Comptroller General may deem advisable, including recommendations for attaining a more economical and efficient administration of the entities audited, and the report shall specifically show any program, financial transaction, or undertaking observed in the course of the audit which in the opinion of the Comptroller General has been carried on without authority of law.

(d) The Comptroller General is authorized to employ such personnel and to obtain such temporary and intermittent services as may be necessary to carry out the audit required by subsection (a), at such rates as he may determine, without regard to the civil service and classification laws, and without regard to section 15 of the Act of August 2, 1946, as amended (5 U.S.C. 55a).

RECEIPTS AND EXPENDITURES OF FEDERAL RESERVE SYSTEM

SEC. 13. Section 7 of the Federal Reserve Act is amended by inserting immediately after the section heading the following new paragraph:

"The full amount of all interest, discounts, assessments, and fees received by Federal Reserve banks shall be paid or credited by such banks to the Secretary of the Treasury and covered into the Treasury as miscellaneous receipts. The expenses of such banks may be paid only from such funds as may be specifically authorized or appropriated for that purposes."

SEC. 14. (a) The third paragraph (12 U.S.C. 243) of section 10 of the Federal Reserve Act is amended to read:

"There are hereby authorized to be appropriated such sums as may be necessary to pay the expenses of the Federal Reserve Board and the salaries of its members and employees. Subject to the availability of appropriations, the Board may maintain, enlarge, or remodel its office building in the District of Columbia and shall have sole control of such building and space therein."

(b) The fourth paragraph (12 U.S.C. 244) of section 10 of the Federal Reserve Act is amended by striking the third sentence.

EFFECTIVE DATE: ACCOUNTING PERIOD

SEC. 15. Sections 13 and 14 of this Act shall take effect on the first day of the first fiscal year which begins after the date of enactment of this Act. During the period between the date of enactment of this Act and the effective date of such sections, the several Federal Reserve banks and the Federal Reserve Board shall take such steps as may be necessary to change their accounting period from the calendar year to the fiscal year and otherwise to bring their accounting practices and procedures into conformity with those employed by other agencies of the United States operated with appropriated funds.

AMENDMENT OF EMPLOYMENT ACT OF 1946

SEC. 16. Subsection (a) of section 3 of the Employment Act of 1946 (15 U.S.C. 1022(a)) is amended by adding the following new sentence at the end thereof: "Such program shall include the President's recommendations on fiscal and debt management policy and guidelines concerning monetary policy, domestic and foreign, including the growth of the money supply as defined by him."

COMPENDIUM ON MONETARY POLICY GUIDELINES AND FEDERAL RESERVE STRUCTURE

Staff Report for the Subcommittee on Domestic Finance of the Committee on Banking and Currency

Summary and Analysis

Dear Mr. Chairman: Replies to the questionnaire have been received from the Federal Reserve, the Secretary of the Treasury, the Council of Economic Advisers, and 71 academic, bank, and research monetary economists in response to your letter of inquiry on H.R. 11 of July 9, 1968. These replies are transmitted herewith along with a summary of the responses and an analysis of the reply of the Federal Reserve.

I. VIEWS ON COORDINATING MONETARY AND FISCAL POLICIES

The first two questions of the questionnaire concerned the matter of coordinating fiscal, debt management, and monetary policies. Specifically, respondents were asked:

1. Do you believe that a program coordinating fiscal, debt management, and monetary policies should be set forth at the beginning of each year for the purpose of achieving the goals of the Employment Act, or alternatively, should we treat monetary and fiscal policies as independent, mutually exclusive stabilization policies?

2. If you believe a program should be specified, do you believe that the President should be responsible for drawing up this program, or alternatively, should such responsibility be dispersed between the Federal Reserve System and agencies responsible to the President?

1. Summary of respondents' views

By more than a 3-to-2 majority respondents favored the principle of requiring the President to present annually an economic program coordinating fiscal, debt management, and monetary policies. Moreover, only half of the dissenting respondents—comprising only about one-fifth of all respondents—favored the system now in force. Under this regime, monetary policy in no way is constrained or even guided by an economic program or monetary rule but rather is used flexibly for purposes of cushioning unexpected shocks and reversing emerging undesired economic trends, and fiscal policy is used only by way of trying to correct major disequilibriums. The other half of the dissenting group—also comprising one-fifth of all respondents—opposed discretionary management of our money and credit whether orchestrated, as now, by the Federal Reserve authorities with reference to the fiscal policy extant, or as provided for in H.R. 11, by the President together with his fiscal and debt management policies. Respondents in this group

regarded fiscal policy as too slow and cumbersome for use as a stabilization tool, and were not sanguine about discretionary monetary management. They therefore favored the development of a clearly defined monetary strategy or rule. Thus, if respondents are divided by their views on the present system of uncoordinated discretionary monetary management, we find they are opposed by a nearly 4-to-1 majority.

For readers' convenience, table I lists respondents by their broad views on questions 1 and 2. Respondents are classified by whether they (1) oppose the present schema wherein the monetary authorities have full discretion and act independently of the fiscal authorities and, if so, favor (*a*) requiring the President annually to present a program coordinating monetary and fiscal policies, though on a provisional basis, or (*b*) constraining the use of discretion in monetary management by adopting some clearly defined strategy or rule, or (2) favor the present system. Of course the finer points of respondents' views on these complex questions are not captured by our category titles, and therefore some respondents' views may be misinterpreted in table I. We hope not. In any case respondents' views should be read in full.

TABLE I.—TABULATION OF VIEWS ON COORDINATING MONETARY AND FISCAL POLICIES

Respondents' views		
Opposed to the present regime wherein the Federal Reserve is neither guided by a program coordinating monetary and fiscal policies on a provisional basis, nor constrained by a monetary rule		In favor of the present regime
Favor a coordinated program	Favor a rule [1]	
Chairman Okun	Aschheim	Governor Martin
Arlt	Bronfenbrenner	Secretary Fowler
Bach [2]	Brunner	Adams
Burstein	Cagan	Eckstein
Chow [2]	Christ	Hester
Cohen	Crouch	Kane
Davidson	Culbertson	Madden
Dewald	Friedman	Minsky
Earley	Grossman	Ross
Fand	Harwood	Teigen
Fishman	Melitz	Walker
Frazer [2]	Meltzer	Wallich
Gaines	Pesek	Whittlesey
Greenwald [2]		Wilde
Harris, S.		
Harriss, L.		
Hauge		
Havrilesky [2]		
Hoadley		
Horwich		
Hosek [2]		
Johnson [2]		
Keiser		
Kent		
Keyserling [2]		
Leijonhufvud [2]		
Luckett [2]		
Mayer [2]		
McCracken		
McDonald		
Morrison [2]		
Morton		
Noyes		
Scott		
Sprenkel [2]		
Stucki [2]		
Thompson [2]		
Thorn		
Voorhis [2]		
Warburton [2]		
Weintraub		
Yeager [2]		

[1] Dr. Harwood proposed adopting a full-bodied gold money. The others in this group favored a percent per annum monetary growth rule, or at least constraining the Fed to focus on money supply.

[2] However, also favor constraining Federal Reserve actions by imposing a clearly defined money supply strategy or alternatively, a monetary growth rule valid for the year.

A large number of the 3-to-2 majority favoring coordination of stabilization policies as provided by H.R. 11 based their support on the assumption that fiscal and monetary policies are substitutable one for the other, and therefore, unless they are coordinated, sometimes will work at cross purposes and other times to compound disequilibriums in the economy at large.[1] The validity of this assumption is undeniable if fiscal and monetary actions are distributed through the future in similar time patterns, with repercussions from both policies occurring in the current quarter and the bulk of all effects occurring within 9 months or a year. Under this regime, it would be irresponsible not to coordinate monetary and fiscal policies.

But the case for coordinating also is strong if the lags between actions and effects—the so-called impact or outside lags—differ for monetary and fiscal actions. If the outside lag of monetary policy is shorter than that of fiscal policy, the success of current fiscal actions will depend significantly on future monetary policy. Under this regime fiscal policy cannot be programed rationally to achieve the goals of the Employment Act without some idea of future monetary actions. Clearly, in this case, if fiscal policy is used for stabilization purposes, those who present the program for current fiscal policy must also present at least a general near-future monetary policy program. The alternative to doing this is our present system in which, as was noted above, fiscal policy is used only to correct major disequilibriums and discretionary authority characterizes monetary management. Discussion of this alternative is resumed later in analyzing the Federal Reserve's views on coordinating monetary and fiscal policies.

Conversely, if the outside lag of monetary policy is longer than that of fiscal policy, monetary policy cannot be programed rationally even from day to day without knowledge of future fiscal policy. The alternative to coordination in this case is to establish a neutral monetary strategy to endure regardless of the economic winds. Discussion of this alternative also is resumed later.

Respondents who favored coordinating monetary and fiscal policies recognized that any annual economic program presented in January had to be both general and provisional to permit adapting to undesired changes in economic trends. To this there can be no disagreement. To remove any doubt that may exist about the intent of H.R. 11 in this respect it is recommended that section 10(b) be amended, as was suggested by Mr. Keyserling, to read that open-market operations "shall be conducted *insofar as feasible* in accordance with the programs and policies of the President pursuant to the Employment Act of 1946 and other provisions of law." [Emphasis supplied.]

It also is noteworthy that several of the respondents who favored the principle of requiring the President to coordinate macroeconomic policies urged that our action options for coordinating monetary and fiscal policies be widened by delegating limited power to change tax rates to the President. This idea, however meritorious, takes us afield from the committee's jurisdiction and the immediate subject at hand.

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[1] The danger of monetary and fiscal policies working at cross-purposes often has been recognized. For example, in 1964, many feared that the Federal Reserve would cancel the stimulus of the tax cut by tightening money. The danger, under the present system that monetary policy will compound an undesired thrust from fiscal policy has not been so widely recognized. But it exists. To illustrate, in the first half of this year, 1968, monetary policy was extremely expansionary in respect to the growth of the money supply (conventionally defined) and thereby compounded the inflationary thrust of the fiscal policy then extant. The Federal Reserve authorities apparently decided the 1968 inflation had to be tackled by fiscal policy, and failed to reverse their inflationary policy.

Also, many respondents who favored requiring that the President coordinate monetary and fiscal policies as provided by H.R. 11 stipulated that this requirement should be coupled with a statutory directive instructing the Federal Reserve to regulate the money supply to achieve maximum employment and price level stability. It is important to recognize that this suggestion is similar to the recommendation to develop a clearly defined monetary strategy or rule which was made by half of the respondents who opposed requiring the President to make recommendations concerning monetary policy along with his recommendations on fiscal and debt management policies. The similarity of these views indicates that coordination can be carried out in the context of a clearly defined monetary strategy.

To further pursue this matter, some respondents argued that there is little advantage to coordinating monetary and fiscal policies inasmuch as neither the President and his advisers nor the Federal Reserve authorities have yet bothered to acquire adequate knowledge of how monetary policy affects economic activity. Instead of discretionary coordination we now need, in the view of these respondents, a clearly defined strategy or rule for the conduct of monetary policy. The staff shares this group's concern for developing an appropriate strategy for monetary policy, and also joins with them in deploring the fact that the Federal Reserve authorities have neglected to develop a validated theory of how monetary policy works. However, we believe that the development of a clearly defined monetary strategy is not inconsistent with coordination. In support of this belief we note again that many of the respondents who favored coordination also wanted a statutory instruction to regulate the money supply to achieve maximum employment and price-level stability. In this regard, H.R. 11 directs the President to specify guidelines for the growth of the money supply along with his other stabilization recommendations. In other words, the operational assumption for monetary policy of H.R. 11 is that the quantity of money is the crucial variable by which Federal Reserve actions are transmitted to the economy in the large. Thus, it is the clear intent of H.R. 11 that the President's program for achieving the goals of the Employment Act be centered on a money supply growth strategy. In the later review of respondents' views on monetary policy guidelines we will see that the overwhelming majority of respondents, including many who favor that the President coordinate monetary and fiscal policies, favor the development and specification of a money supply growth strategy.

The second group of respondents who were opposed to coordination, comprising once again about one-fifth of all respondents, held the view that the monetary authorities must retain virtually unlimited freedom to take whatever actions they deem wise. The Federal Reserve was among those respondents favoring the fullest use of discretionary authority in monetary management. The argument of this group is analyzed below in considering the Federal Reserve's views on coordinating monetary and fiscal policies.

2. The Federal Reserve's views on coordinating monetary and fiscal policies

In replying to the two questions on coordination the Federal Reserve concluded that for purposes of achieving full employment, price-level stability and balance-of-payments equilibrium, there is a natural

division of labor and responsibility between monetary policy and fiscal- and debt-management policies (hereafter simply fiscal policy). In reaching this conclusion the Federal Reserve observed that "major changes in the intensity of fiscal stimulation or restraint are not everyday occurrences," and therefore fiscal policy is not well suited for adjusting the economy to minor swings in business activity and reacting to unexpected events in the short run. Rather, the Federal Reserve's view is that fiscal policy is the appropriate tool for countering gross maladjustments in the macroeconomy, for example, mass unemployment and rapid inflation. But, concerning monetary policy on the other hand, the Federal Reserve's view is that it "is well suited to rapid and marginal response to the emerging requirements of the economy. It is continually under review and subject to gradual, flexible and even reversible adjustments. It is the very essence of monetary policy that it can respond to the unexpected developments and that it can adjust for divergencies between unfolding economic events and projections."

Assuming the validity of this argument "it would seem," as the Federal Reserve asserted, "most unwise to commit monetary policy in advance. * * * To do so would rob it of the very flexibility and adaptability that constitute the unique contribution of monetary policy to the economic stabilization instruments at the Government's disposal." Rather, given this argument, optimal stabilization policy requires that fiscal policy be set at the beginning of each year and that monetary policy be used flexibly within the year to adjust to changing business and international conditions. Responsibility should be divided accordingly—fiscal policy with the President and monetary policy with the Federal Reserve. It is asserted that, "This division of responsibilities in the field of economic policy is one of the desirable checks and balances in our system of government."

The Federal Reserve's argument, however, is not persuasive. To begin with it calls for operational procedures which are the antithesis of democratic procedures. For, if we accept the premise that monetary policy is "unique"—the only flexible instrument at the Government's disposal for achieving economic stabilization, then it is just plain wrong that control of monetary policy should be vested in authorities (Federal Reserve officers) who are only remotely responsible to the people. The details of the structure of the Federal Reserve are discussed later. Here our only concern is that if the premise is accepted that the economic state of the union rests so strategically on the satisfactory use of monetary policy, then surely, under our form of government, the President must control or at least guide the monetary authorities in their use of the only flexible instrument we have for achieving economic stabilization. Furthermore, the operational procedures called for by the Federal Reserve's argument contravene the requirements of existing law. For it is impossible for the President to discharge the responsibilities assigned him by the Employment Act of 1946 if he cannot guide the use of the only effective tool at the Government's disposal for achieving "Maximum employment, output and purchasing power."

Second, as a matter of economics and logic the Federal Reserve's argument is not persuasive. It rests on the fact that, *under present institutional arrangements*, monetary policy can be changed more rapidly than fiscal policy. But there is nothing sacred about these arrange-

ments. If the Congress so desires it can give the President clearly defined limited powers to change tax rates, a course of action many persons have recommended. This would make fiscal policy just as well suited as monetary policy "to rapid and marginal response * * * and subject to gradual, flexible, and even reversible adjustments." Moreover, if the so-called "impact" or "outside lag" between actions of the Federal Reserve and changes in employment, production, and purchasing power is *longer* than the outside lag for fiscal policy, then effective economic stabilization strategy would in fact require using fiscal policy counter-cyclically, not monetary policy. That is, under this structure of outside lags the Federal Reserve's argument should be turned around. Fiscal policy should be used flexibly and monetary policy changed only infrequently and within clearly prescribed limits, if at all.

The Federal Reserve, of course, must live in the world as it is, not in some theoretically ideal world. And, in the world as it is, there are constraints on changing fiscal policy promptly but none on changing monetary policy promptly. However, this does not mean that monetary policy should be used flexibly—only that it can be. In fact, for the world as it is, many economists argue that the degree of monetary stimulation should be kept relatively constant over time because we lack both foresight about future economic trends and knowledge about the outside lag for monetary policy, which are required if we are to benefit from changes in the degree of monetary stimulation. The Federal Reserve does not claim ability to forecast. Indeed the Federal Reserve's reply asserts that "the possibility of error in forecasting * * * remains disturbingly high." Nor does the Federal Reserve claim knowledge of the outside lag for monetary policy. The System's reply does not cover this important subject in any substantive detail. Thus it is curious that the Federal Reserve argues against limiting "the flexibility and adaptability that constitute the unique contribution of monetary policy to the economic stabilization instruments at the Government's disposal." For, clearly, given both the primitive state of the art of economic forecasting and our lack of knowledge on the outside lag for monetary policy, using monetary policy flexibly involves awesome risks as well as a high potential for serving well the public interest. For example, today a trend to recession may be forseen and monetary policy eased to prevent it. But by the time today's action takes effect the problem may be inflation and we will wish that the monetary authorities had tightened when they eased. But, if the impact lag is short or no other change occurs, today's shift to monetary ease will work effectively, preventing the predicted recession without contributing to inflation.

Because the flexible use of monetary policy involves risks as well as potential benefits it is imperative to safeguard against monetary policy being used unwisely while at the same time not eliminating its potential for good. This is the purpose of the provision in H.R. 11 requiring the President to set *guidelines* for monetary policy at the beginning of the year along with his recommendations on fiscal and debt management policy. The guidelines would serve as a warning against unduly frequent or large changes in the degree of monetary stimulation or restraint without interfering with the "rapid and marginal response" the Federal Reserve argues monetary policy is well suited to. The case for such guidelines appears indisputable.

II. VIEWS ON MONETARY POLICY GUIDELINES

Question 3 concerned the nature of details of Presidential guidelines on monetary policy. Specifically, respondents were asked:

*A. Should monetary policy be used to try to achieve the goals of the Employment Act via intervention of money supply (defined as desired) as provided in H.R. 11, or alternatively should H.R. 11 be amended to make some other variable or variables the immediate target of monetary policy; for example, interest rates, bank credit, liquidity, high-powered or base-money, total bank reserves, excess reserves, and free reserves? * * * It would be most helpful if, in providing the reasons for your choice, you list the actions the Federal Reserve should take to control the target variable (or variables) and also explain the link between your recommended target of monetary policy and the goals of the economy as defined by the Employment Act.*

B. Should the guidelines of monetary policy be specified in terms of some index of past, present, or future economic activity, or alternatively in terms of the target variable's value or growth?

C. For only those persons who recommend that some index of economic activity be used to guide the monetary authorities in controlling the target variable: Should we use a leading (forward looking), lagging (backward looking) or coincident indicator of economic activity?

D. For only those persons who recommend that the guidelines be put in terms of the target variable's value or growth: Should the same guidelines be used each year into the foreseeable future, or alternatively, should new guidelines be issued at the beginning of each year conditioned on expected private investment, Government spending, taxes, et cetera?

E. For only those persons who recommend that the guidelines be put in terms of the target variable's value or growth and who also recommend that the same guidelines be used year after year into the foreseeable future: What band of values or range of growth do you recommend?

*F. For all those persons recommending that the guidelines be put in terms of the target variable's value or growth, * * * Under what circumstances, if any, should the monetary authorities be permitted during the year to adjust the target variable so that it exceeds or falls short of the band of values or range of growth defined by the guidelines issued at the beginning of the year?*

1. Summary of respondents' views

By a more than 2 to 1 majority, respondents favored making the growth of the money supply or its cognate, base money, the target of monetary policy. The larger part of the minority was eclectic in its approach to the kinds and means of monetary management.

Respondents in the majority group differed in respect to the details of managing the growth of the money supply. To begin with a few of these respondents wanted to use base money, defined as bank reserves plus publicly held currency and coin, as the target variable. But the overwhelming number in the majority urged that policy focus on some money supply measure. On this question the staff concurs with the larger number of these respondents who believe it would

be more productive to use a money supply measure than to use base money as the target of monetary policy. Base money affects economic activity largely by changing the money supply and the correspondence between changes in base money and money supply is not a constant. At different times a given change in, say, the conventional money supply requires different input of base money. Thus, though the Federal Reserve controls money supply largely by changing base money, money supply is the appropriate vehicle for transmitting monetary policy actions to the economy in the large.

Second, there were differences about the most useful definition of money. These differences centered on whether to include time deposits in commercial banks or to count as money only publicly held demand deposits and currency and coin. But no one argued that this question is crucial. In fact, many of the respondents in the money supply group did not specify which measure to use and many others indicated that either one might be used. The staff agrees that this matter is not crucial.

Last, there were differences about how to specify the guidelines for money supply growth. Roughly half of the group favored specifying a target percentage change in money supply for 6 months to a year ahead in terms of the economy's expected or actual performance. A fairly popular plan of this type, advanced by several respondents, requires the President to specify every January the estimated change in money supply that is needed to enable us to achieve our full employment real gross national product in the year ahead without generating inflation. Under this plan the Federal Reserve would be allowed to vary the growth of the money supply around the target growth rate. The President would set the limits, say plus or minus 2 percentage points, around his target percent per annum growth rate. Other plans of this type which were advanced by respondents would require the monetary authorities to generate whatever money supply growth it takes (1) to keep the rate of unemployment under some desired maximum, say 4 percent, or (2) to prevent the price level from rising faster than some minimum rate, say 3 percent per year for the CPI.

The other half of the many respondents urging adoption of a money supply target recommended that the Congress or the President set guidelines for money supply growth in terms of a band or range of percent per annum values. The major argument for this strategy is that it would mute the development of economic disequilibriums because of mistakes in monetary management. The most popular bands of values recommended were 3 to 5 and 2 to 6 percent per annum.

Several respondents among those urging the specification of a percent per year range for money supply growth suggested that the President also set a target growth rate within the guideline range every 6 months or year. This could be done using econometric techniques, if desired. The Federal Reserve would be allowed to use discretion to regulate the growth of the money supply around the target rate but not enough to violate the guideline range.

A few respondents here recommended setting a quasi-permanent relatively-narrow band of values for monetary growth and instructing the Federal Reserve to stay within this range. The range would be

adjusted outward only if it was proved to be clearly inappropriate by a persistent inflationary trend or persistent unemployment. But others wanted the range reviewed each year. Still another strategy that was suggested called for specifying a fairly broad range of allowable money supply growth and using triggers to collapse the range. Thus, the maximum allowable range of money supply growth might be set as zero to 10 percent per year. And the Federal Reserve would be directed to reduce the upper limit to, say, 8 percent when the CPI advances more rapidly than 2 percent per year and by 1 additional percentage point for every additional point of inflation. In the same way the lower limit of allowable money supply growth would be set at, say, 2 percent per year when the rate of unemployment reached 3 percent and raised one point for every point rise in unemployment. Last, some suggested trying to hit an interest rate target subject to the constraint that monetary growth stay within a specified range.

The staff sees no need at this time to choose among the various strategies recommended by respondents for setting monetary policy guidelines. Rather, the conclusion that should be drawn from this listing of possible montary policy strategies is that issuing guidelines for money supply growth, as provided for by H.R. 11, keeps the door open for fruitful innovations in monetary policy while at the same time protecting against major errors in monetary management.

As was earlier noted, the major alternative to adopting a money supply target for monetary policy which was advanced by respondents calls for eclectism in monetary management. The eclectic approach to monetary policy is discussed next in analyzing the Federal Reserve's views on monetary guidelines, for the System was a strong advocate of this approach.

2. The Federal Reserve's views on monetary policy

The Federal Reserve's reply to this series of questions is in a sense a nonreply. The Federal Reserve's view is that it is necessary to be eclectic in managing the Nation's money and credit. Neither the kind nor even the means of management can be specified. For, as asserted by the Federal Reserve, "monetary policy cannot be formulated solely in terms of any single financial variable or any single class of variables." Rather the kind of monetary management, and the means of manage-, ment, must be adapted to the particular requirements of each new crisis, new situation, new day. For each particular crisis, situation, day, in the Federal Reserve's view, "incoming information on both financial quantities and financial prices must be assimilated and interpreted. Movements in financial quantities—such as total bank reserves, the money stock, commercial bank time deposits—and claims against nonbank intermediaries—on the one hand, together with indications of cost and availability of credit—including interest rates and nonprice terms of credit—on the other, must be evaluated jointly to assess what effects monetary policy currently is having * * *."

To justify its eclectism the Federal Reserve argued that, "The effects that stem from any given monetary policy depend fundamentally on private reactions to the policy, and these are not static. They change over time * * *." Thus, beginning in the 1950's, "the monetary authorities have had increasingly to take into consideration the effects of changes in policy on a broad range of financial assets * * *. In par-

ticular, monetary policy decisions have had to take into account the potential effect of variations in time deposit growth * * *. [Also] we cannot afford to exclude the major nonbank thrift institutions from consideration in formulating monetary policy * * *. Still another complexity arising in the late 1950's and continuing throughout the 1960's has been the serious imbalance in the U.S. balance of payments."

Distilled to its essence, the Federal Reserve's reply here argues that because there nearly always is something undesirable happening (e.g., an outflow of funds from nonbank thrift institutions, imbalance in our external payments, etc.), and also because there are many possible target variables or vehicles for transmitting monetary actions to the macroeconomy (e.g., money supply, interest rates, etc.), the monetary authorities must be allowed to "play it by ear"—to use a familiar analogy. The plea should be denied. To say that something undesirable nearly always happens and that there are many possible monetary policy targets is no substitute for the difficult theoretical analysis and hard empirical research that would have led the Federal Reserve to provide a validated or at least verifiable theory of how their actions affect employment, production, and prices.

Manifestly, the Federal Reserve's eclectic views on the nature of monetary policy guidelines in no way whatever casts doubt on the usefulness of requiring the President to specify monetary guidelines for the Federal Reserve "including the growth of the money supply as defined by him," as provided by H.R. 11.

The staff's view is that the purposes of the Employment Act, which we conceive as the minimization of both unemployment and inflation, will be served by the President's setting money supply guidelines, as provided by H.R. 11. In principle, changes in money supply that originate in open market operations change spending and economic activity by changing the size and composition of the public's nominal or financial wealth. When the Federal Reserve buys U.S. Government securities on the open market the public's assets are unchanged since increases in holdings of base-money are offset by decreases in holdings of securities but taxpayers' liabilities fall by the amount of Federal debt retired and hence there is a rise in net worth. In turn, the rise in net worth acts directly to increase consumption and investment. Added stimulus is provided because increases in money supply necessarily change the composition of financial wealth. As a result the return to holding money falls relative to other returns and spending on the whole spectrum of assets (real and financial) and on goods increases as the public attempts to realign returns. Moreover, there is at least a *prima facie* empirical case tht perverse changes in money supply have contributed substantially to past episodes of inflation and recession.

Guidelines will impel, but not compel, the Federal Reserve to dampen and perhaps even prevent sharp destabilizing changes in money supply in future years. As was observed earlier, the overwhelming number of persons responding to the committee's questions share this view.

The staff sees no technical problem in using money supply as the target variable of monetary policy. In this connection the staff recognizes that money supply tends to fall in recessions and rise in periods

of economic expansion. But this does not disqualify money supply from being used as the target variable of monetary policy. The Federal Reserve has ample powers to overwhelm cyclical movements of money supply and make monetary growth whatever it desires from quarter to quarter though not day to day. Thus, the fact that money supply has a procyclical component in no way disqualifies it from being used as the target variable. Indeed, this property makes money supply especially well suited to serve as the target variable of monetary policy. For, because money supply has a procyclical component, the Federal Reserve cannot be deceived into thinking it has tightened (or eased) when it has not if money supply is used as the target variable. In expansion periods when the natural tendency is for monetary growth to accelerate the goal of policy is to decelerate the growth of the money stock, and only such restraint can be regarded as proof that monetary policy has been tightened successfully. Conversely, in recessions when the money stock tends to fall, the goal of policy is to increase monetary growth, and only this acceleration can be regarded as proof that monetary policy has been eased sufficiently. Thus, money supply is a technically usable as well as a potentially useful vehicle for transmitting monetary actions to the macroeconomy.[2]

One final remark is in order here. The Federal Reserve, having asserted that "monetary policy cannot be formulated in terms of any single financial variable or any single class of variables," did not, of course, reply to the questions (3.B), (3.C), (3.D), (3.E), and (3.F) concerning guideline details. But clearly the setting of money supply guidelines, as provided by H.R. 11, will involve consideration of (3.B) whether the growth of the money stock should be tied to some index of economic activity, or alternatively, whether percentage per annum growth guidelines should be specified without regard to the behavior of economic indexes, and (3.C), if the former, what index, or (3.D), (3.E), and (3.F) if the latter, whether the growth rate should be reviewed annually, what band or range of percentage growth rates should be specified and what circumstances, if any, should trigger violations of the guidelines. H.R. 11, wisely in the opinion of the staff, leaves these details to the President. Hopefully, the replies of many of the respondents to questions (3.B), (3.C), (3.D), (3.E), and (3.F), which were summarized in the preceding section and are printed as received in the text of this report, will throw light on how they should be worked out.

For readers' convenience table 2 lists respondents by their broad views on question 3. Respondents are classified by whether they favored (1) a money supply target, (2) an interest rate or bank credit target, or (3) the eclectic approach to monetary management. The staff recommends reading respondents' replies to question 3 to capture the full flavor of their views.

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[2] Our objection to using interest rates as the target variable may now be noted. It is that, though interest rates undeniably help to transmit monetary actions to the macroeconomy, movements of interest rates may provide misleading information about the thrust of monetary policy. In expansions when the aim of monetary policy is to tighten money and credit we can be deceived into believing policy was tight when it wasn t because in such periods interest rates tend to rise because of increases in credit demand. In the same way, in recessions we might believe that policy was easy when it wasn t because interest rates tend to fall in such periods as a result of decreases in credit demand.

TABLE II.—TABULATION OF VIEWS ON MONETARY POLICY TARGETS

Respondents' targets		
Money supply, more specifically, percent per annum growth of the money stock, or a money supply cognate	The rate of interest or credit flows or both	Eclectic
Arlt	Chairman Okun [1]	Governor Martin
Aschheim [3]	Adams	Secretary Fowler
Bach	Cohen	Burstein
Bronfenbrenner	Gaines	Earley
Brunner	Hauge	Eckstein
Cagan	Horwich	Hester
Chow	Scott	Hoadley
Christ		Kane
Crouch		Madden
Culbertson		Minsky
Davidson		Noyes
Dewald		Ross
Fand		Teigen [1]
Fellner		Walker [2]
Fishman		Wilde
Frazer		Whittlesey
Friedman		
Greenwald		
Grossman [3]		
Harris, S. [3]		
Harriss, L.		
Havrilesky		
Hosek		
Johnson		
Keiser [3]		
Kent		
Keyserling [3]		
Latané [3]		
Leijonhufvud		
Levy [3]		
Luckett		
Mayer		
McCracken [3]		
McDonald		
Melitz		
Meltzer		
Morrison		
Morton [3]		
Pesek		
Sprenkel		
Stucki		
Thompson		
Thorn		
Voorhis		
Wallich [3]		
Warburton		
Weintraub		
Yeager		

[1] Subject, however, to not using free reserves as the target and requiring that the rate of growth of the money stock be greater than zero.
[2] Favors, however, that the Federal Reserve explain monetary growth outside the 2 to 6 percent per year range.
[3] Supplemented by or in association with interest rates or bank credit or both.

III. VIEWS ON DEBT MANAGEMENT

Question 4 concerned debt management policy. Specifically, respondents were asked:

4. Given the goals of the Employment Act, what can debt management do to help their implementation?

1. Summary of respondents' views

Roughly 25 percent of all respondents did not comment on this question.

In principle, debt management can influence aggregate demand by shortening maturities in recessions, which would increase the public's liquidity and thereby propensities to consume and invest, and conversely, increasing the maturity of the debt in inflations to decrease liquidity and hence spending. But only about 15 percent of all respondents recommended pursuing this strategy aggressively. At the other extreme about 40 percent of all respondents opposed changing

the maturity of the debt—shortening it in recessions and lengthening it in inflations—by way of attempting to offset cyclical movements in economic activity. Some persons in this group favored rather managing the debt to minimize the carrying cost even though this entails procyclical changes in the public's liquidity. The argument underlying this view is that the Federal debt is too small a part of total financial wealth and too narrowly held to be able to affect the public's liquidity by altering its age-mix, and hence debt management is not a useful stabilization tool. Under this assumption it is eminently sensible to adopt a policy that minimizes carrying costs. But the majority in the group of respondents who opposed using debt management for stabilization purposes did not recommend using it to minimize carrying costs. Rather they favored adopting a passive strategy, one of keeping the maturity-composition of the debt relatively constant and thus not interfering with the stabilization effects of monetary and fiscal policies. It would appear that this group, though not believing that the public's liquidity and/or propensities to spend and invest could be changed by altering the age-mix of the Federal debt, did not want to risk affecting aggregate demand procyclically by altering the age-mix to minimize carrying costs—i.e., by lengthening the maturity of the publicly held debt in recessions and shortening it in inflations.

Roughly 20 percent of all respondents, including the Federal Reserve, viewed debt management as having "some" or "limited" potential for influencing economic trends via intervention of liquidity and the propensities to consume and invest. They recognized, however, that the usefulness of debt management as a stabilization tool is constrained both by the purely housekeeping requirement of holding down carrying costs and the fact that holdings of Federal debt comprise only a small part of a small part of the public's total financial wealth. Some of the respondents in this group observed that because of the housekeeping goal there was some danger that debt management would be destabilizing. They recommended, therefore, that at minimum the debt *not* be managed to minimize carrying costs over the cycle.

This viewpoint is discussed further immediately below in presenting the Federal Reserve's views on debt management. Here it is noted only that, with respect to policy, 60 percent of all respondents and 75 percent of those who commented on debt management would appear to agree that the important contribution debt managers can make to economic stability is simply not to interfere with other stabilization policies. This majority consists of the respondents who stated that debt management has no potential as a stabilization policy yet recommended keeping the age-mix of the debt constant, and those respondents who concluded that debt management would be destabilizing if used to minimize carrying costs and recommended that it definitely not be used for this purpose.

2. The Federal Reserve's views on debt management

On this matter the Federal Reserve replied that, "Shifts in the maturity composition of the Federal debt * * * alter the liquidity of the debt and/or term structure of interest rates. [Thereby] they will have *some* impact on financial flows and private spending * * *." [Emphasis supplied.] However, the Federal Reserve, correctly we think, concluded that, regardless of the potential for influencing "financial flows and private spending" by changing the age-mix of the Federal debt, the role that debt management can play as a stabiliza-

tion tool is clearly circumscribed. As the Federal Reserve's reply noted, it is limited because technical and housekeeping considerations make debt lengthening "most feasible in periods of declining interest rates * * * [but] when interest rate declines are associated with an undesirable slackening of economic activity, the economic goals of the country may indicate the desirability of keeping debt lengthening to moderate dimensions so as to encourage investors to lend more to finance capital outlays of private sectors of the economy." In the same way from the standpoint of housekeeping considerations it is most feasible to shorten the debt in periods of rising interest rates. But just as interest rate declines are symptomatic of recessions so rising interest rates are a symptom of inflation, and manifestly, it would be unwise to add to the public's liquidity by debt-shortening operations during inflationary periods.

H.R. 11 neither specifies nor suggests debt management targets. Respondents were questioned about the potential benefits from debt management policies to determine whether H.R. 11 should be amended to require the President to make recommendations on the term structure of interest rates or the age-mix of the publicly held Federal debt. No substantial reason has been developed for such an amendment.

IV. VIEWS ON POLICY INSTRUMENTS

Question 5 explored several aspects of the use of policy instruments. Specifically, respondents were asked:

5.A Do you see any merit in using open-market operations for defensive purposes or should they be used only to facilitate achievement of the President's economic program and the goals of the Employment Act?

5.B Do you believe that monetary policy can be effectively and efficiently implemented solely by open-market operations?

5.C For what purposes, if any, should (a) rediscounting, (b) changes in reserve requirements, and (c) regulation Q be used?

5.D Do you see any merit in requiring the Federal Reserve Board to make detailed quarterly reports to the Congress on past and prospective actions and policies?

5.E What costs and benefits would accrue if representatives of the Congress, the Treasury, and the CEA were observers at Open Market Committee meetings?

1. Summary of respondents' views

One-fourth of all respondents did not comment on the merits of using open-market operations for so-called defensive purposes. Those who did approved defensive open-market transactions by a nearly 4-to-1 margin. Many respondents pointed out in support of their view that defensive transactions to absorb certain transient influences are essential in order to closely control the rate of growth of the money supply. Monetary growth can be influenced perversely at any point in time by sudden, unexpected, and ephemeral changes in such elements as U.S. gold holdings, the public's preferences for currency and time deposits and banks' desires to hold excess reserves. But open-market operations can be used to prevent these influences from modifying significantly desired money supply growth. Clearly, in the limited sense of maintaining desired money supply growth against perverse influences defensive open-market operations have merit. Respondents who opposed defensive operations, however, would not appear to have had this meaning in mind. Rather, their opposition is to using open-mar-

ket operations to assist Treasury financing operations and otherwise maintain order in the money market. The staff agrees both that open-market operations should not be used for such purposes and must be used to maintain desired money supply growth in the face of perverse transient influences.

A fourth of all respondents also failed to comment on questions 5.B and 5.C. Of the remainder, half stated that monetary policy can be effectively and efficiently implemented solely by open-market operations. But many in this group recommended nevertheless retaining some of the other currently used tools of monetary policy, especially rediscounting, for such special purposes as providing a sure source of short-term funds to banks.

The other half of respondents commenting on questions 5.B and 5.C concluded that monetary policy would be *less* effectively and efficiently implemented by using only open-market operations than by using, in addition, some of the other policy instruments now being used. However, even among this group there was strong sentiment for rescinding regulation Q.

The staff believes that questions concerning monetary policy instruments or tools are a secondary matter compared to the questions of monetary and fiscal policy coordination, the target and guideline specification for monetary policy, and the structure of the Federal Reserve. These latter are the subjects of H.R. 11. Respondents were questioned about instruments to determine whether there was reason for amending H.R. 11 to modify the currently used kit of monetary policy instruments. But substantial argument was not developed for amending the bill to modify the Federal Reserve's existing powers to set rediscount rates and rediscount eligible paper, change reserve requirements, and regulate interest paid on time deposits. On the other hand the bill might be amended to assure that these powers, as open market powers, are used insofar as feasible to implement the President's economic program pursuant to the Employment Act. However, in view of the heavy sentiment against regulation Q, the committee might want to take up the question of reevaluating regulation Q separately.

Roughly one-sixth of all respondents did not comment on the merits of requiring the Federal Reserve to make detailed reports on its actions to the Congress. Respondents who commented on this question favored the reporting requirement by a nearly 4-to-1 majority. Some, however, wanted any report confined to past actions. Others recommended that the report be limited to explaining money supply growth. Another recommendation called for full discussion of *proposed* changes in regulations covering rediscounting, reserve requirements, and commercial banking activities.

One-third of all respondents did not comment on the costs and benefits of having administration observers at OMC meetings. Those who commented were opposed to the idea by more than a 5-to-1 majority.

2. The Federal Reserve's views

Concerning the usefulness of defensive open-market operations, the Federal Reserve replied that "if the financial markets are to respond as intended to national policy action, the [money and credit] mechanism must be protected from short-run swings in such factors as the public's demand for currency, the speed of check collections, international currency flows, or the size of Treasury balances held at Federal Reserve banks." Because all the factors listed affect money supply growth the staff has no quarrel with this view. As was earlier noted, in

the limited sense of offsetting undesired autonomous influences on money supply growth defensive open-market operations are an essential part of monetary policy.

It is gratifying that the Federal Reserve did not attempt to also justify using open-market operations to maintain order in the money market. It makes little or no sense to use open-market operations to insulate money-market variables—and thereby players—against the economic winds of the day.

On the questions pertaining to the instruments of monetary policy, the Federal Reserve argued that monetary policy can be more effectively implemented by using rediscounting, reserve requirement changes, and changes in regulation Q along with open-market operations than by open-market operations alone. The Federal Reserve's argument that changes in reserve requirements have advantages over market operations in special circumstances that "require a massive and immediate tightening or easing of bank reserve positions" is especially compelling. The Korean war inflation was quickly and substantially damped by increasing reserve requirements in January 1951. More important, now might be another time when an upward revision of reserve requirements would be an effective way of decelerating inflation.

But the System's argument on regulation Q is not persuasive. The Federal Reserve would retain regulation Q to protect "thrift institutions" whose "earning power is limited by their necessarily heavy commitment in long-term assets * * * [which commitment] has limited the ability of these institutions to meet the competition of rising open market rates." The staff shares the Federal Reserve's concern for thrift institutions. But, if desired, these institutions and the mortgage and other markets they serve can be protected in periods of disintermediation by Federal Reserve purchases of the obligations of Federal home loan banks and its members, the Federal National Mortgage Association and other agencies.

Concerning the merits of monetary policy reports, the Federal Reserve argued that "it could be seriously misleading to the public for the Federal Reserve to present, at the beginning of a quarter, a detailed prospectus of future actions and policies when in fact the actual policies adopted would depend so heavily on the extent to which domestic and foreign developments within the quarter alter the System's assessment of future monetary and credit needs."

The Federal Reserve is not, of course, opposed to reporting to the Congress about its past actions. It does so now. The staff believes, however, that there is merit in providing a projection of the money stock and of the broad actions that will be taken to achieve this target along with the explanation of past money supply growth in the Fed's quarterly reports to the Congress. Such requirement will impel development of validated theory on money supply and of the relationships of employment and prices to money supply. Few persons care to make wrong forecasts.

To pursue this matter, it is vital that the reports be substantive. On this the Federal Reserve's response indicates that its future reports will be as meaningless as its past and current ones have been. The Federal Reserve stated that "such reports, to be useful, should include an analysis of *all* major monetary and financial developments of the preceding calendar quarter." [Emphasis supplied.]

We see no advantage in covering the spectrum of major monetary and financial developments. Rather, to obtain maximum benefits from

monetary policy reports they must focus on the behavior of the money supply. Specifically, they must explain both the proximate causes of money supply growth in the preceding quarter or 6 months and how the observed growth has or will implement the President's economic program and the goals of the Employment Act. The educational value—to the Federal Reserve authorities—of having to prepare and discuss such reports will be large. The System, therefore, should not be permitted in reporting to the Congress to substitute extensive descriptions of monetary and financial developments for meaningful, empirically verifiable, statements about the policy of the immediate past.

The Federal Reserve was opposed to having administration observers at meetings concerned with open market policy. The System argued that this would restrict "full and frank" discussion. H.R. 11 does not now call for administration observers at these meetings. And, in view of the fact that H.R. 11 requires the President to make monetary policy recommendations, including guidelines on money supply growth, the staff sees no need for amending H.R. 11 to provide for such observers, especially inasmuch as their presence might inhibit discussion.

For reader's convenience, table 3 lists respondents' votes, "yes" or "no," on questions 5.D. and 5.E. Respondents' views, especially on 5.D., should be read in full.

V. VIEWS ON THE FEDERAL RESERVE'S STRUCTURE

H.R. 11 provides for the following structural changes in the Federal Reserve System:

1. Retiring Federal Reserve bank stock;
2. Reducing the number of members of the Federal Reserve Board to five and their terms of office to no longer than 5 years;
3. Making the term of the Chairman of the Board coterminous with that of the President of the United States;
4. An audit for each fiscal year of the Federal Reserve Board and the Federal Reserve banks and their branches by the Comptroller General of the United States; and
5. Funds to operate the Federal Reserve System to be appropriated by the Congress of the United States.

Respondents were asked:

Please comment freely on these several provisions. In particular, it would be most helpful if you would indicate any risks involved in adopting these provisions and discuss whether their adoption would facilitate the grand aim of H.R. 11, which is to provide for coordination by the President of monetary and fiscal policies.

By heavy majorities respondents favored all provisions except No. 5. Respondents' votes on these matters, including the Federal Reserve's votes, are recorded in table 4.

In addition, H.R. 11 provides for the vesting of all open market powers in the five-man Federal Reserve Board. Respondents were not asked to comment on this provision directly, though many recognized that any surviving open market committee would have to be drastically reduced in size if the Board were reduced to five members. Among those who commented, some respondents favored doing away entirely with Reserve bank representation in formulating open market policy but others favored retaining some representation.

TABLE III.—TABULATION OF VOTES ON QUESTIONS 5.D AND 5.E

Respondents' votes			
On the desirability of reporting past and prospective policies and actions		On the desirability of having observers at OMC meetings	
For	Against	For	Against
Governor Martin [1]	Burstein	Davidson	Governor Martin
Secretary Fowler [1]	Chow	Earley	Secretary Fowler
Chairman Okun [1]	Davidson	Havrilesky	Chairman Okun
Arlt [1]	Hester	Keiser	Aschheim
Aschheim	Hoadley	Keyserling	Bach
Bach [1]	Leijonhufvud	Melitz	Burstein
Brunner	Melitz	Warburton	Cagan
Cagan [2]	Morton		Chow
Cohen	Pesek		Crouch
Crouch [2]	Scott		Culbertson
Culbertson [2]	Teigen		Dewald
Dewald	Wallich		Fand
Earley			Frazer
Fand			Gaines
Fishman [3]			Greenwlad
Frazer			Harris, S.
Friedman			Hauge
Fromm			Hester
Gaines [1]			Hoadley
Harris, S.			Horwich
Harriss, L.			Hosek
Hauge [1]			Johnson
Havrilesky			Kent
Horwich			Leijonhufvud
Hosek [1]			Madden
Johnson			Mayer
Kane			McDonald
Keiser			Morrison
Kent [2]			Morton
Keyserling			Noyes
Luckett [1]			Pesek
Madden [1]			Ross
McDonald			Scott
Meitzer			Sprenkel
Minsky [1]			Stucki
Morrison [3]			Teigen
Noyes [1]			Walker
Ross			Wallich
Sprenkel			Weintraub
Stucki			Wilde
Thorn			
Voorhis			
Walker [1]			
Warburton			
Weintraub [1]			
Whittlesey			
Yeager [2]			

[1] Confined, however, to past actions.
[2] Reporting, however, not essential if guidelines are issued; serve to check conformity with guidelines.
[3] Explain only (past) variations in monetary growth.

Putting aside consideration of the requirement that funds to operate the Fed be appropriated by Congress, we consider below the other structural provisions of H.R. 11. The case for the bill's other provisions would appear indisputable. To begin with rigorous analysis and hard empirical work can play no role in monetary policy as long as open market policy is set by general agreement of 19 men. Federal Reserve policy is eclectic in the kinds, means, and timing of monetary atcions because it is a consensus policy that is reached by softening and blending the opinions of all participants at open market committee meetings. In this connection, we note how few dissents there are to OMC decisions, a fact which supports that the aim of the OMC decision process is not to produce a socially optimal policy but rather to conceal differences of opinion. If monetary policy ever is to be based on validated theory the Federal Reserve's decisionmaking machinery will have to be overhauled. H.R. 11 provides necessary and sufficient streamlining by vesting all open market powers in a five-man Board of Governors.

Second, the Federal Reserve's many ties to the commercial banking business and to the New York money market tend inevitably to produce in our monetary authorities a limited and ofttimes dangerously deceptive view of what is in the national interest and how best to achieve these goals. Commercial bank members of the Fed elect two-thirds of their Reserve bank's directors and not surprisingly there is a strong banking orientation among those chosen to direct the affairs of the Reserve banks and select their presidents—men who now serve on the Federal Open Market Committee. In addition, the Federal Reserve serves and supervises commercial banks in a variety of ways from clearing checks to rediscounting eligible paper. Also, the Federal Reserve is the largest transactor in Government securities doing business on a day-to-day basis. Inescapably Federal Reserve authorities obtain a substantial proportion of their information and feel about the economy's trends and problems from members of the banking community and transactors in the money market. More important, they get an exaggerated notion of the remedial effects of using monetary policy to solve the problems encountered by loan and other bank officers, bank examiners, and money market technicians and transactors. This is an intellectual form of myopia: viz, that the problems of the banking business and money market are problems the monetary authority must solve and to which they must furthermore give the highest priority. It is not a sound working hypothesis for the exercise of monetary policy.

The principal operating mistake deriving from the Federal Reserve's ties to commercial banking and the money market is that too much attention is given to interest rates, free reserves, and other money market and credit variables, and too little is paid to the money supply. The money supply has behaved erratically because the growth of M has emerged as a byproduct of the Federal Reserve's emphasis on credit variables and especially interest rates. In the 1953–60 period low monetary growth often was consistent with the Federal Reserve's interest rate targets in this period. At times in the years after 1953 the achieved low monetary growth doubtless was desired; for example, in the second half of 1956. But at other times; for example, in the fall and winter of 1957–58, it was not.

More recently rapid monetary growth has been consistent with the Federal Reserve's interest rate and other credit targets. Because interest rates have been high and free reserves low by historical standards the Federal Reserve has been deceived lately (mid-1967 to mid-1968) into thinking it has been following a tight money policy. But in fact the thrust of policy judged by changes in money supply has been aggressively expansionary, and inflation of both prices and interest rates has resulted.

A change in the priority target of monetary policy definitely is in order. But it is naive and romantic to believe that under present structural arrangements the Federal Reserve authorities will make money supply their target the variable for transmitting its actions to the economy at large and achieving the goals of the Employment Act. We cannot expect money to be the target of monetary policy as long as the Federal Reserve's ties to the banking business remain in force. Further, we cannot expect appropriate coordination of monetary and fiscal policies as long as the members of the Board of Governors, by reason of their 14-year terms and the lack of effective appoint-

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ment control by the incumbent President, have no financial or political incentive to correct their mistakes and misconceptions. The restructuring provisions of H.R. 11 do not guarantee a sensible and sound monetary policy but unless they are adopted, sensible and sound monetary developments will emerge only as happy accidents. The national interests can be more rationally implemented.

TABLE IV.—TABULATION OF VIEWS ON THE STRUCTURE OF THE FEDERAL RESERVE SYSTEM

Respondents' votes					
Retiring the capital stock		Decreasing the number of Governors and their terms [1]		Making the term of the FRB Chairman coterminus with that of the President	
For	Against	For	Against	For	Against
Chairman Okun	Governor Martin	Secretary Fowler	Governor Martin	Governor Martin	Burstein
Arlt	Secretary Fowler	Chairman Okun	Adams	Secretary Fowler	Fellner
Aschheim	Adams	Aschheim	Arlt	Chairman Okun	Hoadley
Cohen	Bach	Bach	Fellner	Adams	Horwich
Crouch	Fellner	Brunner	Gaines	Arlt	Madden
Davidson	Hoadley	Burstein	Hauge	Aschheim	Morton
Dewald	McCracken	Chow	Hester	Bach	Noyes
Earley	McDonald	Cohen	Hoadley	Brunner	Pesek
Fand	Noyes	Crouch	Horwich	Chow	Sprenkel
Fishman	Sprenkel	Dewald	Madden	Cohen	Thorn
Frazer	Walker	Earley	McDonald	Crouch	
Friedman		Eckstein	Minsky	Davidson	
Gaines		Fand	Morton	Dewald	
Hauge		Fishman	Noyes	Earley	
Havrilesky		Frazer	Pesek	Eckstein	
Hester		Friedman	Scott	Fand	
Horwich		Harris, S.	Sprenkel	Fishman	
Hosek		Havrilesky	Walker	Friedman	
Johnson		Hosek		Gaines	
Kane		Johnson		Harris, S.	
Keiser		Kane		Hauge	
Kent		Keiser		Havrilesky	
Keyserling		Kent		Hester	
Leijonhufvud		Keyserling		Johnson	
Macesich		Leijonhufvud		Kane	
Madden		Mayer		Keiser	
Mayer		McCracken		Kent	
Melitz		Melitz		Keyserling	
Meltzer		Meltzer		Leijonhufvud	
Morrison		Morrison		Mayer	
Morton		Ross		McCracken	
Pesek		Stucki		McDonald	
Ross		Teigen		Melitz	
Scott		Thorn		Meltzer	
Teigen		Voorhis		Minsky	
Thorn		Wallich		Morrison	
Voorhis		Warburton		Ross	
Wallich		Weintraub		Scott	
Warburton		Whittlesey		Stucki	
Weintraub		Wilde		Teigen	
Whittlesey		Yeager		Voorhis	
Yeager				Walker	
				Wallich	
				Warburton	
				Weintraub	
				Whittelsey	
				Yeager	

See footnotes at end of table.

TABLE IV.—TABULATION OF VIEWS ON THE STRUCTURE OF THE FEDERAL RESERVE SYSTEM—Continued

Respondents' votes			
Auditing Federal Reserve spending		Providing that funds to operate the Federal Reserve be appropriated by Congress	
For	Against	For	Against
Aschheim	Governor Martin	Chow	Governor Martin
Chow	Secretary Fowler	Cohen	Secretary Fowler
Cohen	Chairman Okun	Crouch	Chairman Okun
Crouch	Adams	Davidson	Adams
Dewald	Arit	Dewald	Arit
Fand	Bach	Fand	Aschheim
Fishman	Brunner	Fishman	Bach
Frazer	Burstein	Friedman	Brunner
Friedman	Earley	Harris, S.	Burstein
Gaines	Hester	Hosek	Earley
Greenwald	Hoadley	Keiser	Frazer
Harris, S.	Kent	Keyserling	Gaines
Hauge	Madden	Leijonhufvud	Greenwald
Havrilesky	Mayer	Melitz	Hauge
Hosek	Minsky	Meltzer	Havrilesky
Johnson	Morton	Morrison	Hester
Keiser	Noyes	Morton	Hoadley
Keyserling	Pesek	Voorhis	Horwich
Leijonhufvud	Ross	Yeager	Johnson
McCracken	Scott		Kent
McDonald	Sprenkel		Madden
Melitz	Thorn		Mayer
Meltzer	Walker		McCracken
Morrison	Wallich		McDonald
Stucki	Whittlesey		Minsky
Teigen			Noyes
Voorhis			Pesek
Warburton			Ross
Weintraub			Scott
Wilde			Sprenkel
Yeager			Stucki
			Teigen
			Thorn
			Walker
			Wallich
			Warburton
			Weintraub
			Whittlesey
			Wilde

[1]Not necessarily exactly as provided by H.R. 11. We note here also that some respondents expressed their own ideas on restructuring the Federal Reserve System. Brofenbrenner stated that the restructuring proposals of H.R. 11 were "matters of subsidiary importance. I should, instead be interested in procedures for identifying and disciplining members of the Board of Governors, or subsidiary staff members, responsible for egregious and continued breaches of the proposed monetary rule." (Brofenbrenner proposed that monetary growth be calculated each year, based on expected labor force, output and velocity changes, and that exchange rates be competitively determined.) Grossman was against Federal Reserve independence but did not specify structural changes or comment on the provisions of H.R. 11. Luckett favored making the Secretary of the Treasury and Chairman of the CEA voting members of the Federal Reserve Board. Last, several respondents observed that the restructuring details in H.R. 11 would be unnecessary if there was a clearly defined monetary growth strategy which the Federal Reserve was instructed to follow, including Culbertson, Friedman, Leijonhufvud, and Yeager.

REPLY OF HON. WILLIAM McC. MARTIN, CHAIRMAN, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, FOR THE MEMBERS OF THE BOARD OF GOVERNORS AND THE RESERVE BANK PRESIDNTS OF THE FEDERAL RESERVE SYSTEM

BOARD OF GOVERNORS
OF THE FEDERAL RESERVE SYSTEM,
Washington, September 9, 1968.

HON. WRIGHT PATMAN,
Chairman, Committee on Bank and Currency,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: Each of the members of the Board of Governors and each of the presidents of the Reserve banks has received your letter of July 9, 1968 regarding plans of the Subcommittee on Domestic Finance to hold hearings on H.R. 11 later this year, and requesting views by September 1 on certain questions pertaining to monetary policy guidelines and open-market operations, some aspects of the structure of the Federal Reserve System, and recent monetary developments.

The members of the Board and the Reserve bank presidents have each considered your questions. As you know, most of these issues have been raised on previous occasions and have been carefully reviewed within the System. The members of the Board and Reserve bank presidents concluded that for the present review and in view of the time limit prescribed it would be suitable to join in submitting to you a single document, a copy of which is enclosed. The enclosed answers reflect the views generally held by the members of the Board and the presidents, although understandably some of us may have different shadings of view and emphasis on some points.

Sincerely yours,

WM. MCC. MARTIN, JR.

STATEMENT OF WILLIAM McC. MARTIN, JR., CHAIRMAN OF THE BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM FOR THE MEMBERS OF THE BOARD AND THE RESERVE BANK PRESIDENTS

Question I.1. Do you believe that a program coordinating fiscal, debt management, and monetary policies should be set forth at the beginning of each year for the purpose of achieving the goals of the Employment Act, or alternatively should we treat monetary and fiscal policies as independent mutually exclusive stabilization policies?

Answer. It is important that monetary policy and fiscal policy be coordinated in the promotion of our national economic goals. Pursuant to the Employment Act of 1946, early each year the President transmits to the Congress, among other things, an economic report, a review of the economic program of the Federal Government and a program for carrying out the policy declared in the act, together with such recommendations for legislation as he may deem necessary or desirable. In addition, the Council of Economic Advisers presents its appraisal of the various programs and activities of the Federal Government and its recommendations regarding national economic policy.

The President's program customarily specifies the fiscal actions needed, in his judgment, to achieve the goals of the Employment Act, and often notes the monetary policies that he believes would appropriately accompany the proposed fiscal and debt management actions.

Any economic program submitted must of necessity be provisional. While the art of economic projection has progressed significantly in postwar years, the possibility of error in forecasting the timing and detail of actual economic performance—and, on occasion, in the whole profile of developments to come—remains disturbingly high. Also there is a high incidence with which unexpected events having major economic implications take place—international political and economic disturbances, civil disorders, strikes, and the like.

It must also be emphasized that any proposals with respect to future monetary policies must also be provisional since the choice of appropriate monetary policy will be contingent on the extent to which actual economic developments conform to those projected, and on the extent to which actual fiscal and debt management actions conform, in both substance and timing, to those proposed in the President's program.

Finally, any overall stabilization program must recognize the inherent advantages and disadvantages of alternative economic tools of public policy. Some policy instruments are capable of gradual and continuous shadings in degree of impact, while others require specific actions involving time-consuming procedures. The major influence of some on the economy appears only with a considerable lag, others achieve their influence more promptly. The nature of the linkages is both variable and imprecise. Generally, massive present or prospective economic imbalances are best dealt with through adjustments in fiscal policy. The distortions introduced when monetary policy is pushed to extremes—in terms of effects on financial values, investment incentives, potential cyclical instability, and international relationships—are large. But major changes in the intensity of fiscal stimulation or restraint are not everyday occurrences; they take time to plan, enact, and implement, as experience with both the tax cuts of 1964 and the surcharge of 1968 attest, and, once made, they are not quickly reversible. Similarly, expenditure programs—based on a history of political determination of social and national needs—are not usually susceptible to abrupt and reversible changes of pace.

Monetary policy, on the other hand, is well suited to rapid and marginal response to the emerging requirements of the economy. It is continuously under review and subject to gradual, flexible, and even reversible adjustments. It is the very essence of monetary policy that it can respond to the unexpected development and that it can adjust for divergencies between unfolding economic events and projections. Given the lags involved in some of the effects of monetary policy, it is important that it be free to respond to the earliest indicators of a need for action.

While it is possible to describe, in general terms, the profile of monetary policy that would be consistent with a given economic projection, and that, in combination with an appropriate fiscal program, should help to achieve the Nation's overall economic goals, it does not seem desirable to specify in advance the precise combination of stabilization tools. In particular, it would seem most unwise to com-

mit monetary policy in advance to a particular course of development without regard to the varying and frequently conflicting economic and financial tendencies—domestic and foreign—that do in fact emerge with the passage of time. To do so would rob it of the very flexibility and adaptability that constitute the unique contribution of monetary policy to the economic stabilization instruments at the Government's disposal.

Question I.2. If you believe a program should be specified, do you believe that the President should be responsible for drawing up this program, or alternatively should such responsibility be dispersed between the Federal Reserve System and agencies responsible to the President? (Please note that informal consulting arrangements can be made as desired whether responsibility is assigned to the President or divided between the President and the Federal Reserve. The concern here is with the assignment of formal responsibility for drawing up the economic program.)

Answer. The responsibility for recommending to the Congress changes in Federal expenditure and revenue programs clearly rests with the President. Suggestions and advice may be sought from interested Federal agencies as to specific content, of course, and frequently the Federal Reserve has contributed to this process.

In the President's report there often is reference to monetary as well as fiscal policy, and the Council's report customarily discusses monetary policy developments at some length. We believe that such references are wholly appropriate, in view of the importance of financial developments to economic conditions generally, and in recognition of the role of monetary policy in the Government's economic stabilization effort. Views as to what constitutes appropriate monetary policies must of necessity be provisional for the reasons stated in answer to question I.1, but such policies must be taken into account as an important factor conditioning, and conditioned by, the economy's prospects.

We believe, however, that any specifications as to monetary policy should continue to be regarded in the nature of suggestions of what constitutes appropriate policy under clearly stated assumptions—which may or may not prove correct—rather than as instructions to the Federal Reserve System. The System was created by Congress, and is answerable for its actions to the Congress; its role is that of advising and cooperating with the executive branch of Government in the public management of economic affairs, without being formally a part of it. This division of responsibilities in the field of economic policy is one of the desirable checks and balances of our system of government, and we do not believe that the Congress should cede its ultimate authority in the monetary sphere to the executive branch.

Question I.3. Concerning monetary policy guidelines:

A. Should monetary policy be used to try to achieve the goals of the Employment Act via intervention of money supply (defined as desired) as provided in H.R. 11, or alternatively should H.R. 11 be amended to make some other variable or variables the immediate target of monetary policy; for example, interest rates, bank credit, liquidity, high-powered or base-money, total bank reserves, excess reserves and free reserves? Please define the target variable or combination of variables recommended and state the reasons for your choice. (If desired, recommend a target variable

or variables not listed here.) It would be most helpful if, in providing the reasons for your choice, you list the actions the Federal Reserve should take to control the target variable (or variables) and also explain the link between your recommended target of monetary policy and the goals of the economy as defined by the Employment Act.

B. Should the guidelines of monetary policy be specified in terms of some index of past, present, or future economic activity, or alternatively in terms of the target variable's value or growth? For example, should the President's 1969 program for achieving the goals of the Employment Act be formulated to require consistency with some set of overall indicators of economic activity, or alternatively so that your target variable attains a certain value or growth regardless of the economic winds? Please indicate the reasons for your preference.

C. For only those persons who recommend that some index of economic activity be used to guide the monetary authorities in controlling the target variable: Should we use a leading (forward looking), lagging (backward looking), or coincident indicator of economic activity? It would be most helpful also if you would identify the index you would like to see used and specify how the target variable should be related to this index.

D. For only those persons who recommend that the guidelines be put in terms of the target variable's value of growth: Should the same guidelines be used each year into the foreseeable future, or alternatively, should new guideline be issued at the beginning of each year conditioned on expected private investment, Government spending, taxes, etc.? Please indicate the reasons for your preference.

E. For only those persons who recommend that the guidelines be put in terms of the target variable's value or growth and who also recommend that the same guidelines be used year after year into the foreseeable future: What band of values or range of growth do you recommend? (By way of clarification, a band of values appears appropriate if your target variable is, say, free reserves, whereas a range of growth is appropriate if it is, say, money supply.)

F. For all those persons recommending that the guidelines be put in terms of the target variable's value of growth (regardless of whether you recommend using the same guidelines year after year or revising them each year in light of expected private investment and fiscal policy): Under what circumstances, if any, should the monetary authorities be permitted during the year to adjust the target variable so that it exceeds or falls short of the band of values or range of growth defined by the guidelines issued at the beginning of the year?

Answer:

Summary.—In a dynamic and complex economy, with a particularly dynamic and complex financial system, monetary policy cannot be formulated solely in terms of the behavior of any single financial variable or any single class of variables. Over the postwar decades, there have been major shifts in the financial structure and financial environment: shifts in savers' preference among the rapidly proliferating

variety of financial assets available through institutions and financial markets; changes in borrowers' dependence on particular sources and types of credit; changes in spheres and intensity of competition among financial institutions; and shifts in emphasis in the monetary/fiscal mix of stabilization policy. In light of these major structural and behavioral changes, it would have been most unwise to have determined policy targets and objectives solely in terms of desired levels or changes in a particular financial quantity or a particular financial price. Policy decisions have always been based, and must continue to rest, on assessments of the impact of policy changes on a wide range of financial markets and institutions, and on interpretations of the significance of these changes for the ultimate goals of policy relating to employment, prices, growth, and international equilibrium.

Background.—The philosophy of economic stabilization policy that has developed in the United States over the past several decades increasingly has come to recognize that governmental policies can moderate the business fluctuations normally experienced in a dynamic economy. The Employment Act of 1946 envisaged that the Federal Government had clear responsibilities for adopting stabilization policies that would temper economic fluctuations, and thereby foster conditions conducive to the attainment of high-level employment and output, and the maximum rate of economic growth that can be sustained without inflation.

The task of realizing the goals set forth in the Employment Act of 1946 is not, of course, an easy one. The sources of disturbance to sustainable, noninflationary economic expansion are numerous. The sources of instability often are difficult to identify, in particular when they are associated with shifts in spending propensities in the private sector.

Disturbances originating in the monetary and financial sectors of the economy are also potential initiating sources of economic instability. For example, shifts in the public's financial asset preferences—between currency and bank deposits, between classes of bank deposits, or between bank deposits and other types of financial assets—may lead to disruptive changes in financial market conditions. At the same time, the possibility always exists that central bank policies could themselves be an initiating source of economic instability. The tools of monetary policy are powerful and must be administered with care if our economic objectives are to be achieved.

The Employment Act of 1946 did not in fact attempt to prescribe any specific policies or techniques for achieving the goals it seeks. Wisely, it recognized that stabilization policies would have to be adapted to the needs of an ever-changing economy and that—in any case—our understanding of economic fluctuations, and how to moderate them, had not reached the stage at which the precise amount and combination of monetary-fiscal policies needed to assure stable economic growth could be really determined.

We have learned much during the years since its passage about what can be accomplished with timely application of the tools of economic stabilization. One important lesson has been that there is no simple touchstone by which to guide the conduct of monetary policy. In an economy as dynamic as ours, no single measure of monetary stimulus or restraint has been sufficient to serve adequately as an

exclusive indicator of what monetary policy has been, or as an exclusive guide to what it should be. The effects that stem from any given monetary policy depend fundamentally on private reactions to the policy, and these reactions are not static. They change over time, partly because of the adaptive behavior of the private economy to the policy measures themselves. Similarly, the international impact of domestic policy measures, including monetary policy actions, cannot always be gaged precisely.

There have been considerable changes in the structure of financial markets and in financial market responses to monetary policy during the postwar years. They have affected significantly the variables that the Federal Reserve must be concerned with in its assessment of monetary policy and its effects on economic activity and the international position of the dollar. During the early years of the postwar period, Federal Reserve policies were directed principally at preventing variations in the prices and yields of Treasury securities, rather than at the more fundamental objectives of economic stabilization. Part of the excess liquidity inherited from World War II was worked off during this period; nontheless, when monetary policy turned from pegging bond prices to accomplish the objectives of stabilization policy in 1951, its operations for a number of years took place in the context of a financial climate that heavily reflected the influence of the enormous wartime buildup of liquid assets in the hands of the public and of financial institutions.

During the first decade of the postwar period, therefore, the effects of Federal Reserve policies on financial institutions were confined more heavily to the commercial banks—and, indeed, to the impact on commercial bank demand deposits—than has subsequently been the case. Time deposits of commercial banks, during those years were held primarily by small savers whose financial asset holdings were relatively insensitive to changes in monetary policy. Major nonbank financial institutions, with ample amounts of Treasury securities to sell in order to meet private credit demands, felt only moderate effects of changes in monetary policy on the growth of their resources.

The complexity of financial behavior that began to develop in the latter part of the 1950's further complicated the task of central banking. On the one hand, financial institutions have become much more aggressive in their competition for funds, largely as a consequence of the progressive decline in their liquidity since the end of World War II interacting with mounting demands for credit to finance expenditures. This increased competition has resulted in markedly higher interest rates paid by the various competing institutions on their deposits or shares, and it has also produced a diversification in types of instruments offered by the institutions for the financial investor to hold.

Another development of major importance in financial markets relates to the increased sensitivity of financial investors to considerations of yield in the placement of their financial savings, and their growing willingness to substitute among a wider range of financial assets. As a consequence, the monetary authorities have had increasingly to take into consideration the effects of changes in policy on a broad range of financial assets, including savings and loan shares, mutual savings bank deposits, time deposits of commercial banks, policy loans of

insurance companies, and intermediate- and long-term securities issued by the Federal Government, by States and municipalities, and by corporations.

In particular, monetary policy decisions have had to take into account the potential effect of variations in time deposit growth on credit-financed spending, and hence on the pace of economic expansion. The accelerated growth in time deposits that has normally accompanied an increase in rates paid by banks, for example, to some degree represents funds that otherwise might have been invested in market securities, or in the deposits and shares of nonbank thrift institutions. To that extent, the effects of larger supplies of funds made available to borrowers by commercial banks have been offset by the lesser rise in funds supplied to credit markets by nonbank intermediaries, or directly by nonfinancial businesses and consumers. But to some degree, the accelerated growth of time deposits reflects direct substitutions by businesses and consumers of time deposits for demand balances in their liquid asset portfolios. Substitutions of that kind, since reserve requirements are lower on commercial bank time deposits than on demand balances, permits commercial bank credit to grow without a corresponding reduction in credit supplies through other channels. To that extent, the effect of increased time deposit growth rates is expansionary.

The significance of any given change in the growth rate of time deposits, therefore, depends on whether it does or does not imply changes in the total supply of credit, and in credit cost and availability that are detrimental to the maintenance of economic stability. And these effects in credit markets depend, in turn, on the factors motivating the change in the public's demand for time deposits during any particular period of time.

The spreading of the effects of monetary policy beyond the commercial banking system to include the major nonbank financial institutions has complicated the problems of monetary decisionmaking still more, although the substantive issues involved are similar to those to be dealt with in connection with commercial bank time deposits. It has become amply evident since 1966 that we cannot afford to exclude the major nonbank thrift institutions from consideration in formulating monetary policy. Flows of deposits and shares to these institutions, and hence the amount of credit supplied by them to finance spending, tend to be reduced markedly by policies of monetary restraint that lead to increasing yields on substitutes for the liabilities of these institutions, since the ability of these institutions to increase the rates they pay is limited by the fact that their current incomes respond very slowly to changing market rates of interest. Similarly, easing conditions in the money and capital markets stimulate inflows into these institutions. Because these institutions are heavily specialized in supplying funds for homebuilding, such variations in flows of funds through them can have major effects on residential construction. The home-building industry is heavily dependent upon a steady flow of mortgage money from nonbank intermediaries.

The growth rate of credit supplied to borrowers through these nonbank intermediaries need not be associated closely with growth rates of the money stock, or of commercial bank time deposits, or of total bank reserves, or of other variables that are at times suggested as sufficient guides for the conduct of monetary policy. Indeed, at critical times

in the recent past it has not. During the early months of 1966, for example, the effects of monetary policy working through the inflows to nonbank thrift institutions began to exert a major restrictive impact on the supply of mortgage money and hence on housing starts. The money stock, on the other hand, continued to grow quite rapidly through April. To establish monetary policy by fixing the growth rate of any single variable, ignoring such evidence as may be available on the effects of monetary policy through other channels, would be to court disaster.

Still another complexity arising in the late 1950's and continuing throughout the 1960's has been the serious imbalance in the U.S. balance of payments. One effect has been the development of new financial instruments and markets, such as the Eurodollar market, in which the effect of domestic policy actions are registered.

It is sometimes suggested that the way around the problems posed by the increasing complexity of financial market behavior is to adopt even broader definitions of "money," in the hope that a definition might be found that would somehow cope with the broader influence of monetary policy in financial markets. Undoubtedly, monetary processes are better understood by expanding analytic horizons to include variables other than currency and demand balances in our efforts to understand the effects of monetary policy on the economy. But since the interpretation of changes in nonmonetary financial asset holdings depends on an understanding of the sources from which funds flow into these assets, and the reasons for these flows, we cannot expect to develop an adequate guide for the conduct of monetary policy simply by the construction of a new definition of money. Our monetary history does not indicate that there is any single financial asset, or combination of financial assets, that uniquely satisfies the public's liquidity preference.

As noted earlier, the significance to be attached to the growth of the public's holdings of particular kinds of liquid assets, and combinations of them, depends importantly on whether the associated changes in credit market conditions are in the interests of economic stability. Changes in interest rates and in other dimensions of loan contracts, can therefore provide useful information on the course of monetary policy. Credit market conditions must always be given close attention in establishing guidelines for monetary policy, since it is through the credit markets that monetary policy has its most direct effect on spending. But like changes in the money stock, changes in credit market conditions are partly the result of Federal Reserve policy, and also partly the result of decisions of commercial banks, of nonbank financial institutions, and of nonfinancial businesses and consumers. For that reason credit market conditions cannot be an exclusive guide in the formulation of policy decisions.

In seeking guidance for the conduct of monetary policy, therefore, incoming information on both financial quantities *and* financial prices must be assimilated and interpreted. Movements in financial quantities—such as total bank reserves, the money, stock, commercial bank time deposits, and claims against nonbank intermediaries—on the one hand, together with indications of cost and availability of credit—including interest rates and nonprice terms of credit—on the other, must be evaluated jointly to assess what effects monetary policy cur-

rently is having on the total supply of funds, its distribution among the various sectors of the economy, and hence on the availability of funds to finance spending.

This interpretation must, of necessity, seek to evaluate the behavior of financial variables in light of underlying real developments in markets for goods and services. It is particularly important to distinguish between the variations in demands for and supplies of credit that are produced by changes in decisions to spend on goods and services, and those associated with the public's desires to rearrange financial asset portfolios, corporate mergers, and similar transactions. Decisions giving rise to the first kind of variation in credit conditions can lead directly to economic instability. The latter class of decision does not directly alter the pace of economic expansion, but the resulting side effects in financial markets may do so. The appropriate monetary policies to be followed, in response to an observed variation in credit demands or supplies, depend on which of these two classes of decisions is responsible.

In the final analysis, evalution of whether monetary policy has contributed positively to economic stabilization cannot be judged simply on the behavior of financial variables, no matter how carefully they are intepreted. The ultimate test of monetary policy is the extent to which it has succeeded in promoting our national economic goals of maximum sustainable economic growth, maximum practicable employment, reasonable price stability, and a strong dollar at home and abroad.

Question I.4. Concerning debt management policy: Given the goals of the Employment Act what can debt management do to help their implementation? (If you believe that debt management has no role to play in this matter, please explain why.)

Answer. As a stabilization tool, debt management can play a useful although circumscribed, role in implementing the goals of the Employment Act, as a complement to fiscal and monetary policies. In the early 1960's, for example, debt management contributed to maintenance of upward pressures on short-term interest rates for balance-of-payments purposes, thus giving monetary policy somewhat greater flexibility for adapting its policies to domestic credit needs. But a number of considerations, including budgetary and legal constraints and the need for a balanced debt structure, tend at most times to limit the contribution that debt management can make to economic stabilization. In any event, any contribution of debt management may be overweighted by ongoing fiscal and monetary policies, which between them tend to have larger, more pervasive, and more sustained effects on interest rates and credit availability.

Debt management policies are those related to the structure—primarily the maturity composition—of the outstanding publicly held Federal debt. Shifts in the maturity composition of the Federal debt, which is the main aspect of debt management, alter the liquidity of the debt and/or the term structure of interest rates. Market expectations as to the future course of interest rates also play an important role in affecting the term structure.

In the degree that changes in the relative supply of short- and long-term securities affect the interest rate structure and the availability of funds, they will have some impact on financial flows and private

spending in various sectors of the economy. In particular, the distribution of liquid assets in the hands of commercial banks and elsewhere in the economy may have a considerable effect on the nature and timing of the responses of the financial markets to monetary policy. Changes in market interest rates, particularly short- and intermediate-term rates, may affect the ability of savings and loan associations and mutual savings banks to compete for the public's savings, and thereby influence the cost and availability of credit for housing. Changes in short-term interest rates also particularly affect the ability of major commercial banks to attract funds from corporations through large negotiable time certificates of deposit, and influence bank ability to finance other businesses. On the other hand, a debt management policy that stresses debt lengthening operations would affect the availability of funds for investment in State and local government and corporate bonds, since insurance companies, trust funds, and others who purchase long-term Government debt may be using funds that would otherwise be placed in private markets.

Because various segments of the domestic credit market, as well as international flows of funds, may be affected by debt management decisions, the debt managers are always faced with the need to evaluate how the cash raising and refunding problems connected with the Government debt interact with economic and credit trends in the country and how they phase in with fiscal and monetary policies.

There are, however, important technical problems of orderly debt management procedure which sometimes tend to conflict with economic goals. It is generally desirable to maintain a balanced debt structure—with maturities reasonably spaced and not excessively large at any one time—so as to avoid the continuous or awkwardly large refunding operations that might tax the market's capacity to absorb Treasury issues, given the steady flow of private issues into the market. Since the public debt continuously shortens with passage of time, a balanced debt structure requires the Treasury to be alert to opportunities for debt lengthening operations. These operations are most feasible in periods of declining interest rates (when rising bond prices make them an attractive investment to hold). However, when interest rate declines are associated with an undesirable slackening of economic activity, the economic goals of the country may indicate the desirability of keeping debt lengthening to moderate dimensions so as to encourage investors to lend more to finance capital outlays of private sectors of the economy. Thus, considerations aiming at achieving an appropriate debt structure must be reconciled with the objectives of the Employment Act. It must also be kept in mind that the flexibility of debt management in maintaining a balanced debt structure is limited by the 4¼-percent interest rate ceiling on Treasury bonds, which eliminates sales of long-term debt at times when the market may be receptive, and when the absorption of savings into long-term Treasury issues would be consistent with economic stabilization goals.

Question I.5.A. H.R. 11 makes no provision whatever for conducting open market operations for so-called defensive or road-clearing purposes, that is to counteract seasonal and other transient factors affecting money market and credit conditions. Do you see any merit in using open market operations for defensive purposes or should they be used only to facilitate achievement of the President's economic pro-

gram and the goals of the Employment Act? What risks and costs, if any, must be faced and paid if open market transactions are used to counteract transient influences?

Answer. The Federal Reserve System must be concerned both with providing an efficient monetary system, which handles routinely the multiplicity of daily payments of economic life, and with fostering economic growth at a high level of employment while seeking to maintain the purchasing power of the currency at home and abroad. Section 12A of the Federal Reserve Act points up this dual responsibility and focus of open market operations in the following language:

3. *Governing principles.*—(c) The time, character, and volume of all purchases and sales of paper described in Section 14 of this Act as eligible for open-market operations shall be governed with a view to accommodating commerce and business and with regard to their bearing upon the general credit situation of the country.

Indeed, the two aims of a smoothly functioning monetary mechanism on the one hand, and a monetary policy geared to the achievement of national economic goals on the other, are not readily separable. An efficient monetary system is needed if monetary policy is to be used effectively, for if the financial markets are to respond as intended to national policy actions the mechanism must be protected from short-run swings in such factors as the public's demand for currency, the speed of check collections, international gold or currency flows, or the size of Treasury balances held with the Federal Reserve banks. A striking recent example is the statement week encompassing the July 4 holiday in 1968 when open market operations routinely compensated for the $740 million outflow of currency into the hands of the public. Another important example occurred recently when the United Kingdom repaid its short-term swap drawings by funds obtained through the International Monetary Fund, causing an absorption of $700 million of member bank reserves which had to be offset to maintain the overall policy posture. So-called defensive operations, then, simply prevent operating transactions from interfering with the effective implementation of monetary policy.

In our flexible financial system the Federal Open Market Committee directs open market operations to aim at maintaining a degree of ease or pressure on the banking system that is intended at the same time (1) to foster monetary and credit conditions appropriate to national economic objectives, and (2) to insulate the monetary system from the effects of various factors, including temporary influences, that are unrelated to policy. In this way, changes in monetary and credit conditions over a period of time flow from conscious decisionmaking on the part of the Federal Open Market Committee, rather than being subject to sharp up-and-down swings as a result of short-term or other special influences that have no policy relevance. To exert its desired influence over the growth path of the banking system's reserve base, the Federal Reserve must take account of all the forces affecting reserves.

If the central bank permitted wide week-to-week fluctuations in reserve availability to take place, and did not attempt to offset those fluctuations as is done now, the cost would be considerable. Fluctuations in reserves would generate changes in bank credit that might well be perverse from the standpoint of monetary policy objectives. Another highly probable effect would be a sharp increase in short-term varia-

tions in interest rates, as markets generally sought to adjust to quick ebbs and flows in reserve availability. In order to compensate investors for the great uncertainty of sharply fluctuating interest rates, it is likely that average levels of interest rates, particularly short-term rates, would tend to be higher than otherwise. The U.S. Treasury, as the largest borrower in the short-term market (with over $60 billion of bills outstanding), might bear a particularly heavy share of the higher interest costs.

While the question cited above refers to the "risks and costs" of using open market operations to counteract transient influences, it would rather seem to be the case that the significant risks and costs lie on the side of *not* using open market operations for defensive purposes. Nor is the task of mapping out defensive operations, and executing them, a significant drain on resources that could otherwise be better employed. For as developed above, the planning and execution of these operations is in practice inseparable from, and essential to, the carrying out of operations designed to achieve national economic objectives.

Question I.5.B. Do you believe that monetary policy can be effectively and efficiently implemented solely by open market operations?

Answer. Sole reliance by the Federal Reserve on open market operations in the conduct of monetary policy would greatly reduce the effectiveness and flexibility of such policy. Even if reserve requirements were not subject to change and discounting were abolished, the System would of course still be able to influence the volume of bank reserves through open market policy. Nevertheless, there are many situations in which the conduct of policy is greatly improved by the availability of the other policy instruments and some situations that can properly be treated only through the use of these other instruments.

Open market operations are the preferred technique for day-to-day operations and, in many situations, as a vehicle of policy change. The special advantages of the other instruments and the situations in which they assist the development of effective monetary policies are developed below in answer to question I.5.C.

Question I.5.C. For what purposes, if any, should (a) rediscounting, (b) changes in reserve requirements, and (c) regulation Q be used? How might H.R. 11 be amended to implement your recommendations?

Answer. (*a*) *Rediscounting.*—Discounting and changes in the rate charge on discounts constitute the oldest tool of monetary policy and the one whose use is most widespread among the world's central banks. The discounting mechanism permits the performance of the central bank's role of lender of last resort and allows a broader variety of debt to be monetized than if only open market operations were permitted. From the point of view of the individual bank it provides a means of meeting temporary reserve needs which frequently, in the nature of the banking business, are unforeseen. Second, the existence of rediscounting provides a means through which the Federal Reserve can supply reserves immediately and directly to the banks under pressure. Open market operations do not provide such assurance. Third, the existence of a discount mechanism cushions the impact of open market operations not only on individual banks but also on the money market generally, and thus permits such operations to be undertaken more aggressively without fear that they will have seriously disruptive effects. Fourth, the existence of a discounting mechanism is an important di-

rect channel of communication between the Federal Reserve and its member banks which increases the System's knowledge of trends and developments in the market and in the banking system.

Changes in the discount rate are an important instrument of monetary policy. The precise role of discounting as a part of policy in the future depends upon what actions may be taken in light of the reappraisal of the discount mechanism currently underway in the System. But as long as a discount facility exists there must be a discount rate and policies with regard to changing its level. There have been occasions in the past, and may well be in the future, when the decisive influence of a change in the discount rate on market psychology, interest rates, and expectations generally, can be quite useful. This might perhaps be especially the case when dealing with problems in foreign exchange markets where clear-cut and massive action is sometimes required to stem the tide of adverse developments. Most of the major central banks of the world have indeed used discount rate changes as a principal means of dealing with foreign exchange market problems. It might be noted, incidentally, that the usefulness of discounting would be increased if proposed legislation removing the technical requirements for the eligibility of paper for discounting were enacted.

(*b*) *Changes in reserve requirements.*—In principle, any change in the overall credit-creating capacity of the banking system that can be accomplished through changes in reserve requirements could also be accomplished through open market operations. There are at least four situations in which reserve-requirement changes may have particular advantages. First, special situations might require a massive and immediate tightening or easing of bank reserve positions. Such situations are hardly likely to be frequent and, indeed, are difficult to spell out; but, as long as the possibility exists, there are obvious advantages in holding changes in reserve requirements available for use. A second advantage of reserve-equipment changes, in some circumstances, is the fact that they impinge immediately on every member bank, whereas open-market operations impinge first on banks in the money market centers, with the influence spreading only gradually to the rest of the banking system. Third, changes in reserve requirements may be designed to have specific effects on the composition of bank assets and on the structure of interest rates. This sort of consideration has been an important reason for changes in reserve requirements during this decade, especially when it was desired to supply reserves without encouraging an outflow of volatile short-term funds or when it was desired to maintain flows of bank funds into mortgage finance in a context of overall credit restraint. Finally, a change in reserve requirements can be used in appropriate circumstances to give a clear indication to the public that the System intends to change the direction of policy or to pursue further an existing path.

(*c*) *Regulation Q.*—We believe that the rates paid by financial institutions to attract funds ideally should be completely free to reflect market forces, and that healthy competition among financial institutions in this respect, as well as others, should be encouraged. The financial conditions of the past few years, however, have made interest-rate ceilings unavoidable. High and rapidly rising interest rates have at times in recent years put great pressure on financial institutions such as the mutual savings banks and the savings and loan associations. The

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earning power of these institutions is limited by their necessarily heavy commitment in long-term assets bearing the lower interest rates characteristic at the time they were issued. This has limited the ability of these institutions to meet the competition of rising open-market rates by raising the rates they offer to savers on their own liabilities. Thus, for the proper functioning of these institutions and of the markets they serve, notably the mortgage market, it has been necessary to reduce the pressure on them by limiting the rates they are allowed to offer and, at the same time, by limiting the rates that could be offered by the commercial banks as their competitors. As long as our financial institutions are so varied in size, scope, and powers, it is not feasible to eliminate the power to establish ceilings on interest rates paid on time deposits when this appears necessary. Once the need for such ceilings is acknowledged, the need to change them from time to time must also be admitted in view of the substantial fluctuations that are often experienced in open-market rates. Under the circumstances, then, flexibility in setting these rates has been necessary to increase the efficiency of monetary policy and to protect the health of financial institutions.

With regard to ways in which H.R. 11 might be amended the System has, on a number of occasions, recommended that the Congress modify the laws relating to "nonpar clearance" of checks, those limiting the System's flexibility in fixing reserve requirements, and those relating to the eligibility of member bank assets for discounting. These matters continue to deserve congressional consideration.

Question I.5.D. Do you see any merit in requiring the Federal Reserve Board to make detailed quarterly reports to the Congress on past and prospective actions and policies? Are there any risks and costs in this procedure? In what ways, if any, would you modify the reporting provision? What information do you believe should be included in such reports as you recommend the Federal Reserve submit to the Congress?

Answer. The Federal Reserve welcomes opportunities for full and frequent interchanges of view with appropriate committees of the Congress regarding the discharge of its responsibilities for monetary policy. It does not see merit, however, in a legislative requirement for "detailed quarterly reports to the Congress on past and prospective actions and policies."

The Board now makes public the records of recent policy actions of the Federal Open Market Committee, prepared for inclusion in the Board's annual report to the Congress, on a current basis throughout the year, with a lag of approximately one-quarter. Information on changes in discount rates and on changes in Board regulations, including those relating to reserve requirements and ceiling rates on time and savings deposits is, of course, released at the time of the actions.

Discussions are currently underway with the Joint Economic Committee of the Congress regarding possible arrangements for quarterly reports by the Board to that committee. It is the tentative view of the Board that such reports, to be most useful, should include an analysis of all major monetary and financial developments of the preceding calendar quarter. In any case, the Federal Reserve believes that the purposes of such reports are most likely to be best served

if their content, frequency, and timing remain subject to modification over time in light of accumulated experience. A specific legislative requirement in this area would sacrifice the flexibility that may be important in insuring that the reports are of maximum usefulness.

With respect to *prospective* policy actions, we believe that a legislative requirement for detailed quarterly reports would involve major risks and costs. Advance commitments as to policy would seriously damage the ability of the Federal Reserve to formulate and implement appropriate monetary policies. Furthermore, such commitments could possibly generate unwarranted expectations in financial markets, in which expectations play such an important role.

Monetary policies are formulated by the Board and the FOMC in light of a wide spectrum of current information available at the time on current economic conditions, including data that are often preliminary, and on the economic outlook as best as it can be assessed at the time. But policies are modified when conditions are found to depart from expectations, and/or when the expectations themselves change.

In the nature of the case, then, monetary authorities should not commit themselves on policy actions beyond the immediate future. The deliberations of the Board and the FOMC concerning the policy responses that might be appropriate, at later times, if events follow specified alternative courses, hinge on specific assumptions, and the range of alternative policy responses is often modified as economic developments unfold. Thus, it could be seriously misleading to the public for the Federal Reserve to present, at the beginning of a quarter, a detailed prospectus of future actions and policies when in fact the actual policies adopted would depend so heavily on the extent to which domestic and foreign developments within the quarter alter the System's assessment of future monetary and credit needs.

Moreover, regular prognostication by the Federal Reserve regarding its future policy actions—such as would be involved in the proposed quarterly reports—would be likely to stimulate large anticipatory swings in financial market conditions. Market participants are themselves always speculating—in their actions as well as assessments—about the possible course of monetary policy and the prospects for particular policy actions. Such activity frequently has significant effects on short-run changes in financial market conditions, including interest rates. Market conditions might well come to be more strongly influenced by the System's quarterly statements than primarily by the basic underlying forces of supply and demand. This, in turn, would not only damage the ability of financial markets to perform their essential function of resource allocation, it would also interfere with the ability of the Federal Reserve to assess the underlying strength of market demands and supplies and to formulate policies appropriate to the basic domestic and international economic situation.

Question I.5.E. What costs and benefits would accrue if representatives of the Congress, the Treasury and the CEA were observers at Open Market Committee meetings?

Answer. Congress and the public are, of course, entitled to know what actions are taken as a result of the discussions at meetings of the FOMC, and the reasons for these actions. This information is made public in a variety of ways as promptly as feasible, as noted in the

answer to the preceding question (I.5.D). We are inclined to believe, therefore, that it would be unproductive for representatives of the Congress, the Treasury, and the Council of Economic Advisers to sit in at meetings at which, as observers, they would have no right to vote or otherwise participate actively, and the results of which are, in any event, made public in extensive detail. Neither does it appear likely that the proposal would improve on present procedures for coordinating monetary policy with fiscal and debt management policies.

One obvious drawback to the proposal would be that the presence of such observers might inhibit the full and frank exchange of views that are essential to enable the Federal Open Market Committee to operate effectively. We believe that all similar bodies that are assigned comparable policy responsibilities are also given the opportunity to meet in private to discuss how best to carry out their responsibilities. This principle clearly extends to various regulatory agenices and commissions of Government, as well as to committees of Congress, and we think it should apply to the FOMC as well.

Question II. H.R. 11 provides for the following structural changes in the Federal Reserve System:

1. Retiring Federal Reserve bank stock;

2. Reducing the number of members of the Federal Reserve Board to five and their terms of office to no longer than 5 years;

3. Making the term of the Chairman of the Board coterminous with that of the President of the United States;

4. An audit for each fiscal year of the Federal Reserve Board and the Federal Reserve banks and their branches by the Comptroller General of the United States; and

5. Funds to operate the Federal Reserve System to be appropriated by the Congress of the United States.

Please comment freely on these several provisions. In particular it would be most helpful if you would indicate any risks involved in adopting these provisions and discuss whether their adoption would facilitate the grand aim of H.R. 11, which is to provide for coordination by the President of monetary and fiscal policies.

Answer. II.1. Retiring Federal Reserve bank stock.

While ownership of Federal Reserve bank stock by member banks of the Federal Reserve System is not essential, there appears to be no compelling reason for eliminating such ownership. Such a change would involve the loss of some intangible but important advantages that result from such ownership of Reserve bank stock and could involve a risk of diminishing the effectiveness of the System's operations. In addition, retirement of Federal Reserve bank stock could be construed, both at home and abroad, as indicating a change in the structure and character of the Federal Reserve System.

There is clearly no foundation for any assumption or inference that ownership of Reserve bank stock by member banks enables them to "control" the operations of the Reserve banks or to determine System policies. The true effect and the advantages of such ownership of Reserve bank stock were described in one of Chairman Martin's replies to the 1952 Patman Questionnaire:

> As a consequence of the public nature of the Federal Reserve banks, ownership of their stock does not carry with it the same attributes of control and financial interest usually attached to stock ownership in private corporations. The amount of Reserve bank stock which a member bank must own is fixed by law

in relation to the member bank's own capital and surplus. Such stock may not be transferred or hypothecated. Ownership of stock entitles the member banks to no voice in the management of the affairs of the Reserve bank other than the right to participate in the election of six of the nine directors of the Reserve bank. As the result of the election procedure prescribed by the Federal Reserve Act, each member bank votes for only two of the nine directors. Under the law, dividends on Federal Reserve bank stock are limited to 6 percent per annum; and in the event of the liquidation of a Federal Reserve bank, any remaining surplus would be paid to the United States.

Ownership of Federal Reserve bank stock by member banks is an obligation incident to membership in the System—in effect, a compulsory contribution to the capital of the Reserve banks. It was not intended to, nor does it, vest in member banks the control of the Reserve banks or the determination of System policies. Such control would obviously be inappropriate in view of the functions exercised by the Reserve banks.

Stock ownership by the member banks has certain definite advantages. It provides a wide decentralized base for the organization of a Federal Reserve bank. The element of member bank interest, though without control, has contributed to a breadth of judgment and experience on the part of the Reserve bank directors in evaluating business-like methods in the operations of the Reserve banks as public institutions. It gives to each member bank a tangible interest in, and direct connection with, the Federal Reserve bank of its district, and this has real psychological value. It helps to create in member banks a greater interest in the affairs of the System and understanding of its purposes and operations than would be the case in the absence of such ownership. (Joint Committee Print of the Joint Committee on the Economic Report regarding "Monetary Policy and the Management of the Public Debt," 1952, pt. 1, pp. 261, 262.)

II.2. Reducing the number of members of the Federal Reserve Board to five and their terms of office to no longer than 5 years.

The original Federal Reserve Act provided for a Board of two *ex officio* members, the Secretary of the Treasury and the Comptroller of the Currency, and five members appointed by the President for 10-year terms. In 1922, provision was made for an additional appointive member. The Banking Act of 1933 increased the terms of the six appointive members to 12 years. The Board was reconstituted by the Banking Act of 1935, effective February 1, 1936, to eliminate the *ex officio* members and to provide for a Board of seven appointive members with staggered terms of 14 years, with a prohibition against reappointment of a member after serving a full term.

With respect to the size of the Board, the possible advantages and disadvantages of reducing the number of members were stated by Chairman Martin in one of his replies to the 1952 Patman questionnaire:

Over a considerable period of time there have been proposals that the membership of the Board be reduced from seven to some lesser number, such as five or three. The reason most commonly advanced for such proposals is that greater importance would be attached to individual membership and that the position would be more attractive to men of higher caliber. Another reason is that Board decisions probably would be made more promptly. The timeliness of policy decisions is often extremely important and the need for expediting such decisions is strongly stressed by those students of monetary policy who have come to feel that the chief shortcoming of reserve banking policy over the years has been that important decisions have frequently come too late.

Against proposals to reduce the size of the Board, it has been maintained that the advantages of collective deliberation and judgment would be correspondingly lessened, that there is at least safety and perhaps greater wisdom in numbers, and that a reduction in the size of the Board would necessarily require reconsideration of the composition and possibly even the status of the Federal Open Market Committee. Moreover, it is believed that a smaller board would find it more difficult to operate effectively and promptly on some occasions because of necessary absences, from illnesses or other causes, and the resulting lack of

a quorum. (Joint Committee Print of the Joint Committee on the Economic Report regarding "Monetary Policy and the Management of the Public Debt," 1952, pt. 1, pp. 302, 303.)

On balance, the disadvantages of a reduction in the membership of the Board from seven to five would outweigh any possible advantages.

With respect to the length of terms of Board members, it is important to bear in mind that the relatively long term of office provided for Board members since the establishment of the Federal Reserve System has always been regarded as a means of protecting members from political pressures. It is possible that the accomplishment of this objective does not require a term as long as 14 years; but it is questionable whether a term as short as 5 years would achieve this purpose. Moreover, if reappointment should be precluded after service of a full term, as under present law, a qualified candidate for membership might be reluctant to interrupt his career for that period of time. If the prohibition against reappointment should be eliminated, on the other hand, considerations relating to possible reappointment could conceivably inhibit objective public interest considerations.

Again balancing the pros and cons, we are inclined to believe that a term of 5 years, with or without provision for reappointment would appear to be undesirable.

It is noted that the provisions of H.R. 11 reducing the number of members of the Board would be accompanied by provisions that would abolish the Federal Open Market Committee and transfer regulation of open market operations to the reconstituted Board. Such a transfer of authority over open market operations to the Board would not be desirable.

As Chairman Martin pointed out in replying to the 1952 Patman questionnaire:

> The present arrangement under which open market operations are placed under the jurisdiction of a committee representing the Reserve banks as well as the Board is consistent with the basic concept of a regional Federal Reserve System. It provides a means whereby the viewpoints of the presidents of the Federal Reserve banks located in various parts of the country, with their technical experience in banking and with their broad contacts with current credit and business developments, both indirectly and through their boards of directors, may be brought to bear upon the complex credit problems of the System. It promotes System-wide understanding of these problems and closer relations between the presidents and the Board in the determination of System policies. In practice the open market policies of the Open Market Committee and the credit policies of the Board have been coordinated and the existing arrangement has worked satisfactorily. (Joint Committee Print of the Joint Committee on the Economic Report regarding "Monetary Policy and the Management of the Public Debt," 1952, pt. 1, p. 294.)

II.3. Making the term of the Chairman of the Board coterminous with that of the President of the United States.

It would be desirable to amend the law to make the terms of the Chairman and Vice Chairman of the Board more nearly coterminous with the term of the President.

In 1952, in his replies to the Patman questionnaire, Chairman Martin noted that, when the Board was reconstituted by the Banking Act of 1935, it was specifically provided that the Chairman and Vice Chairman should be designated for terms of 4 years and that the possible purpose of this provision was to afford a new President an

opportunity to designate the Chairman and Vice Chairman. He stated, however, that:

* * * Assuming such a purpose, the provision has not worked out satisfactorily in practice because it has not been feasible to make appointments so that they would coincide with the term for which the President is elected. It might be preferable if the law were changed to provide that the President shall designate the Chairman and Vice Chairman for terms expiring on a selected date, say March 31, 1953, and on March 31 of every fourth year thereafter. (Joint Committee Print of Joint Committee on the Economic Report regarding "Monetary Policy and the Management of the Public Debt," pt. 1, 1952, p. 301.)

On April 17, 1962, President Kennedy submitted to Congress a message recommending such an amendment to the law that would make the terms of the Chairman and Vice Chairman of the Board generally coterminous with the term of the President. Stating that Chairman Martin concurred in this proposal, the President's message contained the following paragraph:

Federal Reserve monetary policies affect, and are affected by, the economic and financial measures of other Federal agencies. Federal Reserve actions are an important part, but not the whole, of Government policies for economic stabilization and growth at home and for the defense of the dollar abroad. Therefore, as has been recognized throughout the history of the Federal Reserve, the principal officer of the System must have the confidence of the President. This is essential for the effective coordination of the monetary, fiscal, and financial policies of the Government. It is essential for the effective representation of the Federal Reserve System itself in the formulation of Executive policies affecting the System's responsibilities.

In a letter dated October 6, 1966, to Representative Abraham J. Multer, chairman of the Subcommittee on Bank Supervision and Insurance of the House Banking and Currency Committee, Chairman Martin stated that the Board believed that the terms of the Chairman and Vice Chairman of the Board should be related to the President's term of office and that a new President should be able to appoint a Chairman of his own choice and should not be limited in his selection to incumbent Board members.

A change in the law enabling the President to appoint a Chairman of his own choice shortly after his inauguration would provide a practical basis for effective coordination of Federal Reserve monetary policies with the fiscal and financial policies of the executive branch of the Government without affecting the exercise of independent judgment by the Board in the discharge of the responsibilites imposed upon it by Congress. Such an arrangement would in fact afford a means by which the Federal Reserve, through the Chairman of the Board, would be better able to participate, at the highest level of the executive branch, in continuing efforts to promote the sound conduct of the Government's financial affairs.

In order to accomplish the objectives of such a change in the law, any amendment for this purpose should provide for an adjustment in the terms of members of the Board so that the term of one member would expire in each odd year instead of an even year, thereby causing a vacancy to occur in the membership of the Board in the year of a President's inauguration. Any such amendment should also provide for a reasonable time lag, perhaps as much as 6 months, between the time a newly elected President takes office and the expiration of the terms of the incumbent Chairman and Vice Chairman.

II.4. An audit for each fiscal year of the Federal Reserve Board and the Federal Reserve banks and their branches by the Comptroller General of the United States.

It would be unnecessary and unwise to provide for audit of the Federal Reserve Board and Federal Reserve banks by the Comptroller General of the United States. The most recent public statement by a Federal Reserve official of the reasons for this judgment was made by Gov. J. L. Robertson when he testified on September 14, 1967, before the Committee on Banking and Currency of the House of Representatives with respect to H.R. 12754. The pertinent portion of Governor Robertson's testimony is set forth below:

Let me try briefly now to set forth the present procedures for audit and examination of the Board and the Reserve banks, and add a few comments as to why section 2 of H.R. 12754 is unnecessary and unwise.

Manifestly, Federal Reserve operations should be conducted with maximum efficiency and economy. To that end Congress has placed upon the Board of Governors, an arm of the Congress, direct responsibility for general supervision and periodic examination of the Reserve banks. The Federal Reserve Act also provides that each Reserve bank shall have a board of nine directors chosen from its district. They are outstanding in their communities; many have had broad experience in business and professional life, and are therefore able to apply to the Reserve banks the high standards of efficiency prevalent in private enterprise. Thus the Federal Reserve combines advantages of governmental control with advantages of private business management.

Since 1952, the Board has been audited annually by independent public accounting firms, and their audit reports have been submitted to the Banking and Currency Committees of both House of Congress. We have endeavored to select top-flight auditing firms for this work. The firms selected have been Arthur Anderson & Co., Price Waterhouse & Co., Haskins & Sells, and, most recently, Lybrand, Ross Bros. and Montgomery.

The Federal Reserve Act provides that the Board "shall at least once a year, order an examination of each Federal Reserve bank." The Board maintains a staff of examiners who devote themselves exclusively to this work. The Board's instructions to its examiners require, briefly, that the examination shall look to (a) each bank's financial condition through appraisal of its assets and vertification of its assets and liabilities; (b) its proper discharge of all its responsibilities; and (c) its compliance with all applicable provisions of law and regulations. Each year, an outside commercial auditing firm (Haskins & Sells for 1967) is engaged to accompany the Board's examiners on their examination of one of the Reserve banks, to review, observe, and submit recommendations for improving, the examination procedures. Also, each Reserve bank has a resident auditor, responsible directly to the bank's board of directors and not dependent on any of the bank's officers for security of position. Throughout the year, he and his staff make comprehensive audits of all phases of the bank's operations, reporting directly to the board of directors of the bank. Copies of these reports are reviewed by the Board of Governors of the Federal Reserve System.

In sum, then, we have in each Reserve bank an internal audit program conducted the year round by the bank's resident auditor and his staff, who, by a deliberately established plan of organization, are directly responsible to the board of directors and independent of the bank's operating management. In addition, a staff of examiners directly employed by the Board of Governors in Washington examines each bank every year and reports directly to the Board of Governors. We have the statements of certified public accountants of national repute that the examination procedures employed by the Board's staff conform to generally accepted auditing standards. This combination of internal and external scrutiny provides an objective audit coverage of the Reserve banks that is unexcelled in any other organization.

In addition, the System is subject to congressional scrutiny, a responsibility which this committee and its distinguished chairman take very seriously indeed, as you know. But some of the newer members of the committee may not fully appreciate how thoroughly the committee and its staff, including the capable and conscientious investigators who have been on loan to the committee from GAO in recent years, have examined into expenditures by the Reserve banks. Not only

have the reports of examination of the Reserve banks been furnished to these investigators, but when they asked to see the working papers used in the course of the examinations these, too, were furnished, including the contents of our examiners' locked work trunks. Detailed breakdowns of expenditures in each of four categories were requested and furnished, together with descriptive material and justifications for thousands of items selected from these categories by the committee's investigators. They have visited several of the Reserve banks, where, they reported, they "were courteously received and given all reasonable cooperation by bank personnel in accomplishing [their] work." (The quotation is from page 317 of this committee's 1964 hearings on the Federal Reserve System after 50 years.)

The Board of Governors, then, stands ready to provide any information you seek concerning expenditures by the System. We take our responsibilities seriously, too, as the Government agency designated by the Congress to make sure that the Reserve banks are carrying out efficiently the duties assigned to them by law. Direct expenditures for audit and examination of the Reserve banks in 1966 totaled approximately $4 million. What GAO does for the Post Office, we do for the Reserve banks, reporting directly to you. This seems to us a sensible arrangement, since we have the particular expertise related to Reserve bank operations. If another arm of Congress were directed to do the same job, the end result would be duplication and overlapping of responsibilities, with attendant increases in costs and deterioration in operating efficiency and no apparent offsetting benefits.

Let me add a few comments about the wording of section 2. It provides that GAO "shall have access to all books, accounts, financial records, reports, files and all other papers, things, of property belonging to or in use by the entities being audited, including reports of examinations of member banks." This provision raises serious questions about whether the System would be able to maintain relationships such as those presently in effect with foreign central banks, which depend on our ability to assure others that we can maintain confidentiality when they request it. As to one particular aspect of this problem, section 2 is crystal clear: it specifically requires that we make available to GAO the reports of examination of member banks. As I have indicated before, the System stands ready to answer any question about its own expenditures. But we believe that the long-established tradition that reports of examination of commercial banks should be kept confidential is not only essential to maintain effective supervision, but also to protect the privancy of customers of the member banks in their personal and business staffs."

II.5. Funds to operate the Federal Reserve System to be appropriated by the Congress of the United States.

This proposal contemplates that all earnings of the Federal Reserve banks would be transferred to the Treasury of the United States and that the expenses of such banks, as well as the expenses of the Board of Governors, would be paid only from appropriated funds.

Adoption of this proposal would represent a radical alteration of the basic concept of the Federal Reserve System and prevent the System from discharging its statutory functions in the most effective manner, which requires the exercise of independent judgment and freedom from political and partisan pressures or the possibility of such pressures.

Since the inception of the Federal Reserve System, the law has provided that the expenses of the Board of Governors, including the salaries of its members and employees, shall be paid out of semiannual assessments levied upon the 12 regional Federal Reserve banks. The expenses of the Federal Reserve banks are paid from the earnings of the Reserve banks which are derived principally from Government securities acquired pursuant to open market operations designed by law to aid in the maintenance of a sound basic economy and sound credit conditions. Since 1947, under direction of the Board of Governors pursuant to provisions of the Federal Reserve Act, the Reserve banks

have paid the greater part of their earnings to the Treasury of the United States. At present, all of such earnings, after payment of dividends to member banks and current expenses, and the maintenance of the Reserve banks' surplus in an amount equal to their paid-in capital, are transferred to the U.S. Treasury. Under this practice, the Reserve banks since 1947 have paid over to the Treasury more than $14 billion. In 1967 alone, the amount of such payments was nearly $2 billion.

A requirement that the expenses of the Board and the Reserve banks be paid only from funds appropriated by Congress would create unnecessary and hampering rigidities in the performance of the public service functions of the System. More importantly, however, it would inject political pressures and considerations into the formulation of monetary and credit policies.

One of the major purposes of the Banking Act of 1933 was to strengthen the Federal Reserve System by increasing the independence of the Federal Reserve Board. (See Report of Senate Banking and Currency Committee, April 22, 1932, 72d Cong., p. 12.) Among other amendments to the Federal Reserve Act made by the 1933 act in order to accomplish this purpose was a change in section 10 of the Federal Reserve Act to provide specifically that the Board should determine the manner in which its obligations are incurred and its disbursements and expenses paid and to provide specifically that funds of the Board derived from assessments on the Federal Reserve banks "shall not be construed to be Government funds or appropriated moneys." It would be unfortunate if, after so many years, Congress should abandon the basic principle that the expenses of the Board, as well as those of the Reserve banks, should not be subjected to the limitations inherent in the appropriations process.

Any change in the law that would make the Federal Reserve subject to the appropriations process would be logically inconsistent with the following conclusions reached by the Subcommittee on General Credit Control and Debt Management in 1952:

> The independence of the Federal Reserve System is based, not on legal right, but on expediency. Congress, desiring that the claims of restrictive monetary policy should be strongly stated on appropriate occasions, has chosen to endow the System with a considerable degree of independence, both from itself and from the Chief Executive. This independence is in no way related to the unsettled question of whether the Board of Governors is or is not a part of the executive branch of the Government. It is naturally limited by the overriding requirement that all of the economic policies of the Government—monetary policy and fiscal policy among them—be coordinated with each other in such a way as to make a meaningful whole. The independence of the Federal Reserve System is desirable, not as an end in itself, but as a means of contributing to the formulation of the best overall economic policy. In our judgment, the present degree of independence of the System is about the best suited for this purpose under present conditions. (Joint Committee Print of Report of the Subcommittee on General Credit Control and Debt Management of the Joint Committee on the Economic Report, 82d Cong., June 26, 1952, p. 4.)

Question III. Your analysis of monetary developments, since 1964, including policy induced changes and their effects on economic activity, is invited.

Answer. For most of the period since 1964, the United States has been experiencing both the benefits and the problems of a full employment economy. The benefits have included an exceptionally low level of unemployment, maintained even during the short slowdown in

early 1967. The problems have included an unacceptable and unsustainable rate of price inflation, which has offset the bulk of the gains in money incomes, and has resulted in a sharp deterioration in the U.S. international trading position and overall balance of payments. These problems have been exacerbated by the delay in achieving adequate fiscal restraint, putting too large a share of the stabilization burden on monetary policy.

The economy approaches its potential: 1964 mid-1965

During 1964 the Federal Reserve sought to influence the cost and availability of funds and the growth in the Nation's liquidity so as to contribute both to continued orderly expansion in the domestic economy and to further improvement in the U.S. balance of payments. Throughout most of the year, the posture of monetary policy remained one of ease with respect to domestic credit conditions, supporting the stimulative effect of the March cut in Federal income taxes. During this period, the unemployment rate declined to about 5 percent, as economic activity expanded further.

Beginning in the fall of 1964, with the economy strong enough to permit it, the Federal Reserve reduced the degree of ease slightly in order to minimize the outflow of funds attracted by higher short-term interest rates abroad. In mid-August it became clear that the balance-of-payments deficit in the second and third quarters was running much larger than the quite low total achieved in the first quarter. In this situation, the Federal Open Market Committee moved in the direction of slightly firmer money market conditions in order to raise short-term interest rates somewhat, keeping them more in line with short-term rates abroad.

In November, the Bank of England raised its discount rate 2 percentage points, to 7 percent, in response to the speculative attack on sterling. Federal Reserve bank discount rates were raised from 3½ to 4 percent, to counter possible capital outflows that might be prompted by any wideing spread between money rates in this country and the higher rates abroad. In response, short-term domestic market rates moved up somewhat, after having remained relatively stable earlier in the year. So that this action would not unduly restrict the availability of bank credit, for domestic purposes, the Federal Reserve continued to supply reserves to banks through open-market operations and the maximum rates payable on time and savings deposits by banks were raised.

As a result of the sustained growth over the preceding 4 years, the economy began approaching full utilization of labor resources as 1965 developed. While plant utilization was not pushed up to the optimum level, excess capacity did not prevent spending on new plant and equipment from remaining high. With continued expansion in demand, output, and employment, upward pressures on prices began to emerge. Moreover, in the early months of 1965, the deficit in the U.S. balance of payments continued to be large.

The Federal Reserve participated in the administration's credit restraint program, announced in February 1965, to alleviate the balance-of-payments situation. To help reduce outflows of capital to foreigners, the voluntary foreign credit restraint program was set up, under which the Board of Governors issued guidelines to banks and

other financial institutions which were designed to restrain their lending and investing abroad.

In an effort to reduce inflationary pressures that might develop as economic growth was extended, and to reinforce the voluntary foreign credit restraint program, the Federal Reserve began to supply less reserves through open-market operations, relative to demands, so as to encourage more moderate growth in the reserve base, bank credit, and money supply. Member bank borrowings from the Federal Reserve rose in the first half of 1965, and the banking system moved from a position of free reserves (excess reserves greater than borrowings) to one of net borrowed reserves (borrowings greater than excess reserves).

Emergence of inflationary pressures: mid-1965 late 1966

In the latter half of the year, although the balance of payments was showing an improvement, demand pressures were increasing in the domestic economy largely in response to stimulative fiscal developments—including the military buildup in Vietnam, the reduction in Federal excise taxes, and the increase in social security benefit payments. Domestic price increases became more widespread, the unemployment rate moved down toward 4 percent, and plant capacity utilization was high. With confidence that further rapid economic expansion was in prospect, business speanding for inventories and fixed capital rose rapidly, resulting in heavy demands for credit. As a result interest rates, which had shown little change during the first half of the year from the levels of late 1964, also began to increase.

With unused resources moving nearer to critically low levels, and with indications of continuing pressures from the business investment boom and an acceleration in defense spending, the Federal Reserve raised the discount rate by one-half of a percentage point, to 4½ percent, effective December 6. At the same time, to avoid a developing constriction in the flow of funds in credit markets, the Board of Governors raised interest rate ceilings on time deposits under regulation Q by a full percentage point to 5½ percent.

The expansionary forces in the economy, which had gathered momentum after mid-1965, accelerated in early 1966. In a further effort to blunt the inflationary impact of credit-financed spending, the Federal Reserve, in February, further increased the pressure on bank reserves through more restrictive open-market operations. With demand for credit still strong, interest rates rose sharply further through the summer.

These higher market interest rates, together with intensified bank competition for funds, led to a sizable reduction in net inflows of savings to nonbank savings institutions and thence to the mortgage market. As a result, a heavier share of the impact of monetary restraint fell on the home building industry than on other sectors of the economy; industrial and other business concerns were still obtaining a considerable amount of credit, though at rising interest rates, to finance their increasing outlays for fixed capital and inventories.

During the summer the Federal Reserve took a variety of steps to attempt to redress the uneven effects of financial restraint. These measures were designed to help prevent rate competition for savings among financial institutions from adding to the upward thrust of interest rates, to reduce the rapid growth of business loans at banks, and to moderate pressures on the mortgage market.

In July, the regulation Q ceilings on new multiple-maturity time deposits were reduced. In addition, between July and September, reserve requirements on time deposits in excess of $5 million at each member bank were raised twice. An attempt by some banks to avoid ceilings by issuance of promissory notes maturing in less than 2 years was forestalled by bringing them under reserve requirement and interest ceiling regulations. Furthermore, on September 1 a letter was sent to each member bank which, while stating that reserves would be provided to meet seasonal or emergency needs, requested their cooperation in curtailing the business loan expansion. Indeed, the continued rapid expansion in business loans in a period of overall restraint on bank credit expansion was seriously limiting the availability of bank funds to meet other needs and threatened to cause excessive strains in the market for obligations of State and local governments.

Finally, in late September, new temporary authority was enacted by Congress which broadened the basis for interest rate ceilings on time and savings deposits. Promptly thereafter the Federal Reserve and other regulatory authorities acted to limit further, or to reduce, interest rates payable on certain types of deposits and shareholdings at commercial banks, mutual savings banks, and federally insured savings and loan associations.

Economic pause and resumption of expansion: Late 1966–summer 1967

By early fall it became evident that monetary policy, aided by certain fiscal restraints—including the suspension of the investment tax credit and accelerated depreciation privileges—had considerable success in achieving the objectives of curbing excessive aggregate demand and of damping inflationary pressures. Defense spending did continue to rise sharply in the fall, but residential construction activity had already fallen sharply, the rate of increase in consumer expenditures had slowed, there were signs that business plant and equipment outlays would moderate, and business inventory accumulation appeared to be reaching a peak. Expansion in bank credit and money supply slowed considerably.

Federal Reserve open market operations in the early fall were modified so as to reduce some of the pressure on banks, and as fall progressed, the Federal Open Market Committee shifted its policy so as to stimulate moderate renewed expansion of bank credit and easier conditions in financial markets. By the end of 1966, pressures on financial markets had eased significantly and most market rates of interest had declined sharply from their late summer peaks.

In the early months of 1967, with economic activity slackening, the Federal Reserve extended the shift toward greater monetary ease initiated in the fall of 1966. Open market operations were increasingly directed toward easing domestic credit conditions. Furthermore, in March, the Board of Governors authorized a reduction in reserve requirements on savings deposits and on the first $5 million of other time deposits at each member bank, and in the following month the Federal Reserve discount rate was reduced from 4½ percent to 4 percent. Pressure on most financial markets continued to ease and corporations, banks, and nonbank savings institutions were able to improve liquidity positions that had been eroded during the previous year's monetary restraint.

The shift toward ease beginning in the fall of 1966 was set in motion early enough so that an upswing in construction began in early 1967 and was a factor tending to offset the weakening in overall economic

activity. Moreover, credit was readily available to finance consumer outlays on durable goods and to provide a cushion against businesses' tendency to reduce the rate of inventory accumulation.

By early summer the prospects of a more rapid increase in economic activity suggested the desirability of greater emphasis on restraint in the mix of fiscal and monetary policies, preferably through fiscal measures such as the administration's proposed tax increase. The inventory adjustment was relatively short lived, and in the summer the rate of business inventory accumulation began to rise again. Moreover, heavy Government expenditures continued to be a major stimulative force in the economy. And finally, inflationary price pressures were becoming more widespread, as rapid economic expansion resumed, sizable wage settlements were reached in key industries, and industrial prices rose.

Inflationary pressures mount: summer 1967–mid-1968

The highly stimulative Federal budgetary policy continued in the latter half of 1967 and the first half of 1968, leading to upward pressures on the economy. Since by the fall of 1967, no action had yet been taken on the administration's recommendation for a tax increase, the Federal Reserve System saw no choice but to move toward restraint. Indeed, the U.S. balance-of-payments position appeared to be worsening, international confidence in the dollar was ebbing, and domestic price increases were accelerating. At the time of the devaluation of the pound, in mid-November, the Federal Reserve raised the discount rate back to 4½ percent, and open market operations were adjusted in the direction of restraint. Late in December, the Board of Governors also announced a one-half percentage point increase in reserve requirements against demand deposits in excess of $5 million at each member bank effective around mid-January 1968.

During the first half of 1968, additional measures were taken to moderate the sustained domestic and international pressures on the dollar. The Federal Open Market Committee limited further the flow of reserves to banks. In March, in response to large gold outflows stemming from heightened speculation as to the possible devaluation of the dollar, the Federal Reserve again raised the discount rate, from 4½ to 5 percent. In April, the discount rate was again raised—to 5½ percent—and regulation Q ceilings were increased on all but the shorter term CD's as holders of these instruments began to shift their funds into higher yielding market securities.

The series of monetary actions beginning in late 1967, coupled with continued large demands for funds by governments and the private sectors of the economy, contributed to a sustained rise in market interest rates. Along with the rise in rates was a slowing in the expansion of bank credit, and reduced net inflows of funds to nonbank savings institutions. Less funds became available to finance construction, and activity in this sector of the economy began to slow down. There was evidence that some State and local government bond offerings were postponed as a result of interest costs, with spending possibly affected to a marginal degree.

In the latter part of June, Congress enacted a program of fiscal restraint—including a tax increase and governmental expenditure reductions. This long-awaited move changed market expectations here and abroad and interest rates declined from their earlier peaks. Overall pressures in capital and money markets have been reduced since mid-1968, and the ability of banks and thrift institutions to obtain funds for lending appears to have improved in some degree.

REPLY OF HON. HENRY H. FOWLER, SECRETARY OF THE TREASURY

THE SECRETARY OF THE TREASURY,
Washington, September 5, 1968.

Hon. WRIGHT PATMAN,
Chairman, House Banking and Currency Committee, House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: In reply to your letter of July 9 with regard to the hearings to be held on H.R. 11 by the Domestic Finance Subcommittee of the Committee on Banking and Currency, I am enclosing answers to the questions submitted.

Sincerely yours,

HENRY H. FOWLER.

STATEMENT OF HON. HENRY H. FOWLER, SECRETARY OF THE TREASURY

Question 1. Do you believe that a program coordinating fiscal debt management and monetary policies should be set forth at the beginning of each year for the purpose of achieving the goals of the Employment Act, or alternatively should we treat monetary and fiscal policies as independent mutually exclusive stabilization policies?

Answer—Treasury response. The question implies that there are only two alternatives: (*a*) set forth a detailed program of fiscal and monetary measures at the beginning of each year geared to a forecast of the economy, financial markets and balance of payments, or (*b*) to treat monetary and fiscal policies as independent mutually exclusive stabilization policies. In our opinion, choice of either of the extreme alternatives would be unlikely to further achievement of the goals of the Employment Act of 1946 and other important goals, and under some circumstances, might actually impede achievement of the desired goals.

There should be little need to argue at any length the case against treating monetary and fiscal policies as "independent mutually exclusive stablization policies." Economic theory and actual experience with stabilization policy demonstrate conclusively that the attainment of multiple, and frequently conflicting goals requires the coordinated use of policy instruments. We are not so rich in policy instruments that we can afford to let monetary and fiscal policy go their separate ways. Instead, these and other policy instruments must be combined in such overall proportion as to promote a proper matching between policies and objectives. Even then, the attainment of the goals of the Employment Act and other important goals will be a continuing task, requiring the best efforts of the executive, the Congress, and the private community. But, without the coordinated use of policy tools, the chances for success would be drastically reduced.

It is one thing to recognize that major policy tools must be used in a coordinated way and quite another to argue that it would be useful to set forth a very detailed monetary and financial program at the beginning of each year. The budget message of the President, the Economic Report of the President and the Annual Report of the Council of Economic Advisers already go a long way toward specifying an economic and financial program. It may be possible to go somewhat further in spelling out financial assumptions underlying the economic projections in these documents. But we do not believe that it would be either possible or desirable to spell out prospective monetary and debt management steps in a great deal more detail than is now the case.

One reason is the inherent difficulty of the forecasting process. It is hard enough to project the probable movements of major economic series. Our ability to project financial variable tends at present to be even more circumscribed. A requirement to be highly precise might under these conditions simply result in frequent large errors, and would nto necessarily be a real aid in forward planning.

A second reason for questioning the usefulness of attempting to specify the details of monetary policy for a year or so ahead relates to the basic character of the monetary policy tool. One of the chief advantages of monetary policy as a stabilization tool is an ability to make prompt changes of direction in response to a changing pattern of events. Any monetary projection should typically be much provisional than projections in the fiscal area, where discretionary changes in policy are less frequent and less closely attuned to minor swings in economic activity. If there is an attempt to pin down future monetary actions too precisely, policymakers may lose the flexibility they need.

It might be argued that little harm would result from presenting very detailed projections of the economy, financial flows, and the balance of payments along with a proposed package of fiscal, monetary, and other policies, even if the projections turned out to be very wide of the mark. This, however, is not a convincing line of argument. The publication of such official projections would inevitably tend to suggest greater certainty as to the future course of events than could actually be the case and might even tend to reduce the needed "freedom of maneuver" of monetary policy.

For these reasons as well as because of the traditional "independence" of the Federal Reserve within the Government, we believe that the monetary projections that underlie the Economic Report of the President must necessarily remain conditional, cannot be overly precise, and must typically recognize the need for monetary policy to be used flexibly in the light of changing circumstances at home and abroad.

Question 1.2. If you believe a program should be specified, do you believe that the President should be responsible for drawing up this program, or alternatively should such responsibility be dispersed between the Federal Reserve System and agencies responsible to the President? (Please note that informal consulting arrangements can be made as desired whether responsibilty is assigned to the President or divided between the President and the Federal Reserve. The concern here is with the assignment of formal responsibility for drawing up the economic program.)

Answer—Treasury response. The President already has the responsibility for drawing up, at the beginning of each year, a detailed economic program that is incorporated in his budget and Economic Report messages. In this context, he usually does spell out, in a general way, his assumptions regarding the monetary policies that would be consistent with the proposed fiscal and economic program and that he would regard as appropriate. In working out these assumptions, the President usually takes account of the views of various agenices as well as those of the Federal Reserve.

Responsibility for the presentation of such a set of economic recommendations, based on specified assumptions with respect to financial developments and policies, should in our view continue to rest with the President. For the reasons spelled out in our response to the previous question, however, statements regarding assumed or desired monetary policies must necessarily be provisional and leave ample room for the flexible use of such policies. Moreover, given the traditional arrangements under which the Federal Reserve is directly answerable to the Congress, formal responsibility for the determination and execution of monetary policy must remain with the Federal Reserve and, ultimately, the Congress.

Question I.3. Concerning monetary policy guidelines:

A. Should monetary policy be used to try to achieve the goals of the Employment Act via intervention of money supply (defined as desired) as provided in H.R. 11, or alternatively should H.R. 11 be amended to make some other variable or variables the immediate target of monetary policy; for example, interest rates, bank credit, liquidity, high-powered or base-money, total bank reserves, excess reserves and free reserves? Please define the target variable or combination of variables recommended and state the reasons for your choice. (If desired, recommend a target variable or variables not listed here.) It would be most helpful if, in providing the reasons for your choice, you list the actions the Federal Reserve should take to control the target variable (or variables) and also explain the link between your recommended target of monetary policy and the goals of the economy as defined by the Employment Act.

B. Should the guidelines of monetary policy be specified in terms of some index of past, present, or future economic activity, or alternatively in terms of the target variable's value or growth? For example, should the President's 1969 program for achieving the goals of the Employment Act be formulated to require consistency with some set of overall indicators of economic activity, or alternatively so that your target variable attains a certain value or growth regardless of the economic winds? Please indicate the reasons for your preference.

C. For only those persons who recommend that some index of economic activity be used to guide the monetary authorities in controlling the target variable: Should we use a leading (forward looking), lagging (backward looking) or coincident indicator of economic activity? It would be most helpful also if you would identify the index you would like to see used and specify how the target variable should be related to this index.

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D. For only those persons who recommend that the guidelines be put in terms of the target variable's value or growth: Should the same guidelines be used each year into the foreseeable future, or alternatively, should new guidelines be issued at the beginning of each year conditioned on expected private investment, Government spending, taxes, et cetera? Please indicate the reasons for your preference.

E. For only those persons who recommend that the guidelines be put in terms of the target variable's value or growth and who also recommend that the same guidelines be used year after year into the foreseeable future: What band of values or range of growth do you recommend? (By way of clarification, a band of values appears appropriate if your target variable is, say, free reserves, whereas a range of growth is appropriate if it is, say, money supply.)

F. For all those persons recommending that the guidelines be put in terms of the target variable's value or growth (regardless of whether you recommend using the same guidelines year after year or revising them each year in light of expected private investment and fiscal policy): Under what circumstances, if any, should the monetary authorities be permitted during the year to adjust the target variable so that it exceeds or falls short of the band of values or range of growth defined by the guidelines issued at the beginning of the year?

Answer—Treasury response. It is clear that monetary policy should be used in conjunction with other policy tools to try to achieve the goals of the Employment Act and other important objectives. Discussion of monetary "targets" should not, however, be allowed to obscure the fact that the ultimate objective is a prosperous, expanding economy relatively free from inflationary pressures and providing a wide range of employment opportunities. Monetary policy can help contribute to the achievement of these objectives, but it would be patently unrealistic to suppose that policy actions in the financial sphere can always achieve a required effect upon such real variables as production, employment, growth in the capital stock, et cetera.

Furthermore, there is no single most important financial variable, or set of financial variables, to which the monetary authorities can safely direct their exclusive attention. At different times and in different circumstances, the monetary authorities will find it advisable to seek to influence economic and financial activity in different ways. In our opinion, this makes advance specification of a single monetary guideline an undesirable step.

Monetary research in recent years has clarified the nature of the transmission process by which an initial monetary effect on certain financial variables works through to ultimate target variables such as employment, output, prices, and the balance of payments. The Federal Reserve System has been studying these matters very closely in recent years and many of the questions have long been the subject of intensive academic inquiry. The current study which your Committee has undertaken will provide a very useful sampling of the range of opinion and controversy which still surrounds some of the unsettled questions in monetary theory and policy.

Because of the considerable progress that has been made in recent years in defining the methods and objectives of monetary policy, the Federal Reserve should now be able at any particular time to specify what financial variables it is seeking to influence and why. This is being done by the System to an increasing degree subject to necessary constraints on the timing of the release of information.

It is our understanding that the System has made a much greater, and largely successful, effort in recent years to develop quantitative measures of the impact and effect of alternative monetary actions. However, we are reluctant to suggest that the Federal Reserve should be encouraged, or directed, to concentrate upon a single quantitative guideline, or combination of guidelines, as H.R. 11 contemplates. Research study within and without the System points to the complexity of the interrelationships over time among financial and real variables in the U.S. economy. Serious damage could be done to the prospects for a successful stabilization policy if the System were forced to concentrate upon some single monetary "rule" or "guideline" since such guides may rapidly become inappropriate in a dynamic situation.

Over the past decade, and particularly within recent years, there have been a number of important and far-reaching structural changes in the financial system and significant changes in investor behavior. To cite but a single example, there has been an increasing degree of responsiveness on the part of the public to changes in relative yield on alternative financial assets. In conjunction with successive increases in regulation Q ceilings, this has led to a blurring of the sharp distinction sometimes drawn between the money supply on a narrow and a broad definition. A monetary guideline phrased rigidly in terms of *either* definition could have led to an inappropriate monetary reaction at several times in the recent past. This is simply one manifestation of the difficulties encountered in attempting to establish, before the fact, a single standard by which monetary policy would be guided.

In summary, the ultimate target is the productive performance of the economy itself, not the behavior of some financial variable or set of variables. The Federal Reserve can provide, and, we believe, is providing reasonably specific information on the immediate target variables it seeks to influence, and the presumed effects thereby exerted on the economy and the balance of payments. But the Federal Reserve cannot safely limit its attention *in advance* to any single monetary guideline or set of guidelines. Therefore, we oppose the suggestion that there should be an advance legislative, or executive, specification of the immediate, as opposed to ultimate, targets of monetary policy.

Question I.4. Concerning debt management policy: Given the goals of the Employment Act, what can debt management do to help their implementation? (If you believe that debt management has no role to play in this matter, please explain why.)

Answer—Treasury response. The influence of debt management policies on the economic and financial situation is primarily through alterations in the term structure of the public debt in private hands, a process which typically proceeds by small steps at any time. The total amount of public debt in private hands, of course, is determined more by fiscal and monetary policy than by debt management decisions. These debt management decisions can, however, have a significant marginal influence on the ownership distribution of the public debt.

Beyond this, at favorable times, debt management decisions may exert an important catalytic effect on financial markets.

To illustrate the slow process of altering the term structure of the public debt, it may be noted that 10 advance refunding operations over a period of nearly 5 years were required to lengthen the average maturity of the privately held marketable debt from 4 years 6 months in September 1960 to 5 years 9 months in June 1965. From June 1965 to January 1968, a period of approximately 2½ years during which the Treasury was unable to issue long-term securities because of the 4¼-percent limitation on bond coupons, the average maturity of the privately held debt fell to 4 years 4 months, a reduction of 1 year 5 months.

These figures, and consideration of the typical size of Treasury debt management operations in terms of the overall amount of marketable public debt outstanding in private hands—usually 3 to 4 percent—suggest that it is unlikely that alterations in the maturity structure of the debt can ordinarily be brought about rapidly enough to have a major short-run influence on the liquidity of private investors, and, consequently, on their economic decisions. It seems reasonable to believe that alterations in the term structure of the debt usually have only modest effects on interest rate patterns or on the flow of funds. Nevertheless, debt management operations can, if carefully coordinated with other policy instruments, assist in the achievement of economic and financial goals.

It has often been argued that issuing long-term Treasury securities in periods of economic slack absorbs available long-term funds, prevents long-term interest rates from declining as rapidly or as much as they might otherwise decline, and, consequently, interferes with the course of the economic recovery. Conversely, it is argued that debt management should give primary stress to long issues at times of inflation.

Assessments of these arguments among economists tend to vary substantially. As a practical matter, however, the issuance of moderate amounts of long-term Treasury securities in such circumstances is not likely to have significant adverse effects. In such periods, long-term investment funds are often temporarily placed in short-term instruments either to avoid being locked up indefinitely at low levels of long-term interest rates or because there is no demand for such funds. The offering of Treasury long-term securities, thus, may simply tap funds which would not otherwise be in the long-term market. Also, possible effects on long-term interest rates from an additional supply of long-term Treasury securities are likely to be swamped by overall downward pressures on interest rates resulting from monetary policy actions and from the relative excess of supply compared to the demand for funds in all maturity areas of the market. Moreover, in periods of strong economic activity when interest rates are higher, the existing statutory interest rate ceiling is likely to prevent really long-term issues—a situation that has been particularly evident since May 1965. Hence, any rule that would confine Treasury issues of longer term (or, at least, intermediate term) maturities to periods of economic strength might in actuality preclude the Treasury from issuing such securities at all and would thus result in a massive deterioration in the term structure of the debt.

The report of the Commission on Budget Concepts focused attention on the total financing of the Federal budget as against the part financed by Treasury operations. In this broader context the Treasury Department, acting to monitor the timing and pricing of new issues, can contribute to the maintenance of orderly marketing conditions and a degree of continuity and stability in financial markets which otherwise might be missing. The significance of a broader definition of debt management is underlined by the fact that private holdings of marketable Treasury debt declined by almost $3 billion from the end of fiscal year 1964 through fiscal year 1968 despite substantial Federal deficits during these years. In the same period, private holdings of agency issues, including participation certificates and securities of the home loan banks and land banks, increased by over $16 billion. Mention should also be made of the economic and financial significance of the large volume of Federal loan guarantee and insurance activity.

In addition to the large volume of direct agency issues and other Federal credit activities which give rise to a variety of Treasury-backed securities, the number and diversity of these operations—each with its own program and cash-flow problems—require careful planning by the Treasury in attempting to coordinate their market impact.

An illustrative special circumstance occurred in 1966 when extraordinarily heavy private credit demands were pushing against an increasing degree of monetary restraint and a threat of financial crisis appeared to be developing. Debt management operations in the broad sense contributed at that time significantly to the improvement in the financial situation which followed the announcement of the President's anti-inflationary program on September 8. These measures included substantial reductions in Federal credit program activity and the contemplated offerings of participation certificates or agency financing.

There is little question that financial markets can be catalyzed by debt management decisions, either favorably at particular times or unfavorably if offerings are not made with due regard to circumstances, including the preferences of investors and other market factors. To cite a recent example of a favorable influence: in the August 1968 refinancing, debt management operations appear to have facilitated and perhaps accelerated desirable adjustments to new conditions. The pricing of the new security in August indicated the peak in rates had passed and that a lower level of rates had become appropriate. Financing in the intermediate area, moreover, provided an opportunity to take advantage of favorable demand factors without placing undue pressures on flows of funds in either the long-term or short-term market areas.

In recent years, considerable attention has also been paid to structuring the maturity distribution of debt offerings in a manner that would help minimize potentially adverse financial flows. Thus, in the early 1960's emphasis on adding to the supply of short-term securities and the resultant effects on short-term interest rates helped to contain the outflow of short-term capital abroad. More recently, debt management has been especially concerned with avoiding "disintermediation" that could unfavorably affect the net flow of funds to the thrift institutions and, hence, the availability of funds for housing.

Question I.5. Concerning open market operations:

A. H.R. 11 makes no provision whatever for conducting open market operations for so-called defensive or road-clearing purposes; that is, to counteract seasonal and other transient factors affecting money market and credit conditions. Do you see any merit in using open market operations for defensive purposes or should they be used only to facilitate achievement of the President's economic program and the goals of the Employment Act? What risks and costs, if any, must be faced and paid if open market transactions are used to counteract transient influences?

B. Do you believe that monetary policy can be effectively implemented solely by open market operations?

C. For what purposes, if any, should (a) rediscounting, (b) changes in reserve requirements, and (c) regulation Q be used? How might H.R. 11 be amended to implement your recommendations?

In responding to these questions, a single answer appears appropriate.

Answer—Treasury response. In 1950 the House Banking and Currency Committee's Subcommittee on Monetary, Credit, and Fiscal Policies stated in its report:

It appears to us impossible to prescribe by legislation highly specific rules to guide the determination of monetary and debt management policies, for it is impossible to foresee all situations that may arise in the future. The wisest course for Congress to follow in this case is to lay down general objectives, to indicate the general order of importance to be attached to these various objectives, and to leave more specific decisions and actions to the judgment of the monetary and debt management officials * * * (pp. 27 and 28 of the subcommittee report).

We believe that the same considerations regarding the conduct of monetary policies are still relevant at this time. Circumstances may arise in which one or another of the instruments of monetary policy may be most appropriate for dealing with the economic and financial situation. For this reason, we believe the Congress should not want to direct the Federal Reserve System to use particular instruments only in prescribed circumstances, or to seek to reduce the number of policy tools now at the System's disposal.

As regards so-called defensive open market operations, we believe that these are of definite assistance in carrying out the purposes of the Employment Act and, indeed, are essential to the proper conduct of monetary policy. These operations contribute substantially to the smooth functioning of our money markets and financial system which is of key importance to stable economic growth. Moreover, in the absence of such operations, the proper conduct of monetary policy could be severely complicated, since policymakers could find it extremely difficult to distinguish clearly between the effects of their actions that further basic policy objectives and those that affect transitory monetary market factors. Furthermore, a failure to undertake defensive operations could well lead to excessive money market fluctuations and cumulating speculation that could interfere with the achievement of monetary policy goals.

The above observations should, of course, not be taken to imply that there is no room for improvement in monetary policy instruments—including, among other things, the possible development of devices

that would permit smoothing of money market conditions with relatively less reliance on defensive open-market operations. Research into the possibilities for such improvement is being actively carried on by the Federal Reserve System itself as well as by other students of monetary policy. Some of the results of this research—notably the proposals recently made within the Federal Reserve for changes in the discount mechanism—are currently being examined by various interested parties as well as the Federal Reserve Board itself and are scheduled to be subjected to further scrutiny by the Congress. I do not believe that I should comment on such specific proposals until there has been an opportunity for careful further study.

Question 1.5.D. Do you see any merit in requiring the Federal Reserve Board to make detailed quarterly reports to the Congress on past and prospective actions and policies? Are there any risks and costs in this procedure? In what ways, if any, would you modify the reporting provisions? What information do you believe should be included in such reports as you recommend the Federal Reserve submit to the Congress?

Answer—Treasury response. We believe that the System already makes proper disclosure of its past policies. We would, however, see no inherent objection to a requirement that formal reports be made to the Congress on a regular quarterly basis as suggested by the question.

It is much more difficult, on the other hand, to visualize advantages that might be gained if the System should attempt publicly to forecast its future actions and policies. Such forecasts would need to be extremely tentative, since the Federal Reserve System does not control administration and congressional actions on fiscal policy, nor can it be expected to foresee many other autonomous events that may subsequently require policy changes. Even in such a highly tentative form, however, the forecasts could have substantial disadvantages as already noted in the answer to question 1.1 above. They are likely to be regarded as firmer than intended, and could well create anticipatory actions by participants in the private financial markets which could have adverse financial and economic consequences. This, in turn, would make it far more difficult for monetary policy to respond rapidly and flexibly to evolving changes in economic and financial conditions. Impairment of monetary policy flexibility, even inadvertantly, would be a matter of considerable concern, since the responsiveness of Federal Reserve policy to events is a major advantage of the monetary policy tool and an essential ingredient of the proper functioning of economic stabilization policies.

Question 1.5.E. What costs and benefits would accrue if representatives of the Congress, the Treasury, and the CEA were observers at Open Market Committee meetings?

Answer—Treasury response. The Treasury Department believes that its relations with the Federal Reserve System are on a basis which leads to a continuing, meaningful exchange of views on economic and financial developments. For this reason the Department feels that it would not benefit from sitting as an observer at FOMC meetings. The Department would also be reluctant to see any change in the conduct of Open Market Committee meetings which might have the effect of limiting the frank exchange of views among members of the Open Market Committee and could impair the traditional independence

of the System within the Government. It believes that the performance of the Federal Reserve System is best judged by the results of its policy actions, and notably the effects on the economy as such.

Question II. H.R. 11 provides for the following structural changes in the Federal Reserve System:

1. Retiring Federal Reserve bank stock;

2. Reducing the number of members of the Federal Reserve Board to five and their terms of office to no longer than 5 years;

3. Making the term of the Chairman of the Board coterminous with that of the President of the United States;

4. An audit for each fiscal year of the Federal Reserve Board and the Federal Reserve banks and their branches by the Comptroller General of the United States; and

5. Funds to operate the Federal Reserve System to be appropriated by the Congress of the United States.

Please comment freely on these several provisions. In particular it would be most helpful if you would indicate any risks involved in adopting these provisions and discuss whether their adoption would facilitate the grand aim of H.R. 11, which is to provide for coordination by the President of monetary and fiscal policies.

Answer—Treasury response:

General comment.—In approaching the general subject of possible structural changes in the Federal Reserve System, it is appropriate to recall the following passages from the testimony on similar legislative proposals regarding the Federal Reserve that former Secretary Dillon gave to the Subcommittee on Domestic Finance of the House Committee on Banking and Currency in February 1964:

> This committee is dealing with a living institution—an institution that has demostrated its capacity to innovate, to experiment, and to adapt itself to a very wide range of circumstances. But in this process of change, it has never lost certain characteristics—an established tradition of independent judgment; a mixture of regional participation in policymaking with ultimate central control that is unique in our Government; an ability to attract highly qualified officials and staff; and a reputation for operating efficiently and impartially.
>
> The structure that has resulted does not fit easily into the framework of standard tables of organization. Policy responsibility is widely dispersed and coordination depends in part on informal working relationships built up over the years. Vestigial elements of an earlier conception of private participation in central banking policies—elements that are more symbolic than real today—are still visible.
>
> But change without clear purpose can be dangerous too. If there are persuasive reasons for particular proposals—if it can be shown that ownership of Federal Reserve bank stock by member banks has biased Federal Reserve policy decisions, or if budgetary or auditing practices have been loose, to take two examples—by all means, this committee should act. But I doubt the advisability of taking action simply for the sake of achieving symmetry with other Government agencies, particularly if there was danger that such action might impair a long tradition of regional participation and efficient service of which I believe the country can be proud.

These considerations, in my view, are fully applicable to the specific proposals cited under question II. If the United States had to create a brand new central bank today, the specific features that any one of us might favor would not, in all likelihood, coincide precisely with the existing structure. But this structure is one that is based on an evolution of over 50 years, and that is on the whole working remarkably well. Hence, I do not believe that changes should be made unless

it can be shown that they are clearly needed and would result in significant net benefits. In particular, it is highly important that no steps be taken which might diminish public confidence in the efficiency and integrity of our monetary management—a confidence which is itself one of the essential preconditions for the achievement of the goals of the Employment Act of 1946.

Question II.1. Retiring Federal Reserve bank stock.

Answer—Treasury response. In terms of the actual operations of the Federal Reserve System and the formulation and execution of monetary policy, it makes no real difference whether Federal Reserve bank stock is retired or not. The ownership of stock by member banks does not, as such, give these banks any right or ability whatever to control the Federal Reserve banks or determine Federal Reserve policies. Even the right of member banks to participate in the election of Federal Reserve bank directors is not directly tied to the ownership of stock; if the stock were retired, means could undoubtedly be found to retain essentially the same system for electing directors as exists at present; or, conversely, changes in the procedures for electing directors could be made without retiring the stock. In contrast to private firms, moreover, Federal Reserve banks do not require capital stock as a financial underpinning for their operations.

The case for retaining or retiring Federal Reserve stock thus basically hinges on the presumed intangible or psychological advantages or disadvantages of Federal Reserve stock ownership. In opposition to such ownership, it has been argued that it tends to convey an impression to the public—however unjustified this may be—that Federal Reserve banks are in fact dominated by private banks. Those who take this view argue that if the System is to make use of devices that are of a largely symbolic nature, these should primarily stress the public service character of the Federal Reserve. Proponents of retaining stock ownership, on the other hand, feel that this device has positive advantages in terms of giving member banks a greater sense of participation in the System and in eliciting their interest and cooperation.

We do not have a strong view regarding the relative weight that might be given to these opposing considerations. However, given the relatively smooth functioning of the Federal Reserve System under present arrangements, it would appear that changes in the stock ownership device should only be instituted if it can be demonstrated that the arguments in favor of such action are compelling.

Question II.2. Reducing the number of members of the Federal Reserve Board to five and their terms of office to no longer than 5 years.

Answer—Treasury response. While some reduction in the size of the Board's membership and the length of terms might prove useful, specific proposals in this area need to take careful account of the benefits which accrue under the present system as a result of broad membership and the encouragement of careful deliberation removed from political pressures. A reduction in the length of terms from 14 years to as short a period as 5 years might, in particular, carry greater risks of subjecting Board members to pressures of this kind than would be desirable.

Question II.3. Making the term of the Chairman of the Board coterminous with that of the President of the United States.

Answer—Treasury response. Adoption of this proposal would be desirable. It was proposed to the Congress by President Kennedy in 1962, is favored by the Board of Governors itself, and has been explicitly endorsed by Chairman Martin on a number of occasions. Making the term of the Board Chairman (and also of the Vice Chairman) coterminous with that of the President should help assure that an incoming President would have full cooperation in the formulation and execution of financial policy. A high degree of cooperation and understanding has been developed between the Federal Reserve Board and the executive branch through informal working arrangements in recent years. It may be better, however, to make explicit provision for Presidential selection of the Chairman (and Vice Chairman) rather than to assume that a cooperative working arrangement could always be established easily and promptly at the beginning of a presidential term. The Board itself would continue to be chosen under the existing arrangements which have worked well and provided a necessary immunity from political pressures.

Question II.4. An audit for each fiscal year of the Federal Reserve Board and the Federal Reserve banks and their branches by the Comptroller General of the United States.

Answer—Treasury response. While it would be the prerogative of the Congress to order a GAO audit of the Federal Reserve if it so desired, it is not evident that such a step would be either necessary or desirable.

Under the present arrangements, the Federal Reserve banks are audited by a highly competent staff of the Board of Governors, while the Board itself is audited by independent public accounting firms of topflight reputation. These audits, furthermore, are made available to the Banking and Currency Committees of both Houses of Congress, and are thus subject to detailed congressional scrutiny.

Unless it can be demonstrated that there are significant abuses which have arisen under the present auditing system, there is no compelling operational case to institute a GAO audit. We have no indications that such abuses exist or that any occasional problems that might arise would not be adequately corrected under the present auditing procedures. It might also be noted that institution of a GAO audit would involve added budgetary expense and extra training of auditing personnel.

It is sometimes argued that even if the above-cited points are entirely correct, a GAO audit procedure might still be desirable as a symbolic measure, to assure the public that congressional scrutiny of the System's operations is fully adequate. In weighing this argument, however, the Congress will also need to consider potentially adverse "symbolic" effects that could result from institution of the audit. Thus, such a measure might widely be regarded as increasing the possibilities for reducing the independence of the System within the Government, and as possibly leading to undesirable interferences with policies. While it may in theory be possible to prescribe that the audits would have to be conducted strictly on the basis of standards and policy guidelines set forth by the Board of Governors itself, very careful consideration would have to be given to the risk that, in practice, the existence of a GAO audit could at times broaden into a review of monetary policies and tend to impinge on policymaking as such.

Question II.5. Funds to operate the Federal Reserve System to be appropriated by the Congress of the United States.

Answer—Treasury response. It would not be desirable to make the Federal Reserve subject to the regular congressional appropriations process. There is every evidence that the Federal Reserve is managed prudently and efficiently; thus there is no clear need for the proposal. Adoption of the proposal would almost certainly lead to a major reduction in the existing degree of Federal Reserve independence within the Government and in its insulation from day-to-day political pressures. It would also tend to introduce unnecessary operational rigidities that might diminish the System's ability to respond very promptly and flexibly to various domestic and international contingencies.

While the role of the Federal Reserve within the Government is in many ways unique, it should be noted that the Congress has also exempted the other major bank supervisory authorities—that is, the FDIC and the Comptroller of the Currency—from the regular appropriations process.

Question III. Your analysis of monetary developments, since 1964, including policy-induced changes and their effects on economic activity, is invited.

Answer—Treasury response. During roughly the first half of the current expansion, monetary policy was consistently expansionary. From 1961 through 1964, most long-term interest rates were relatively stable and mortgage rates actually declined. There were regular annual increases in the total and nonborrowed reserves of the banking system in the 2½- to 4½-percent range and net borrowed reserves remained positive. Short-term interest rates rose, but this partly reflected the effect of policies designed to keep U.S. money market rates in reasonable alinement with key foreign rates.

From 1961 through 1964, commercial bank credit expanded steadily at about 8 percent a year. Growth in the money supply, narrowly defined, averaged a little above 3 percent annually. Increases in regulation Q ceiling rates and an expanding economy led to large and continuing increases in time deposits. As a result, the money supply plus time deposits grew fairly steadily at roughly 8 percent a year. While there was some modification of monetary policy in the interests of the balance of payments during this period, the general picture is one of relative monetary ease in support of the continuing domestic expansion.

Monetary expansion continued in the first half of 1965, although in the face of relatively heavy credit demand member bank borrowings increased and net borrowed reserves turned negative for the first time in the expansion. Late in the first quarter of 1965, the Federal Reserve moved toward firmer conditions in the money market in an effort "to reinforce the voluntary foreign credit restraint program and avoid the emergence of inflationary pressures." Growth in both total and nonborrowed reserves remained sizable during the first half of 1965 and bank credit growth picked up to about a 10½-percent annual rate. Long-term interest rates remained relatively stable while short-term interest rates moved up to a new plateau following the November 1964 increase in the discount rate and the subsequent policy move toward firmer money market conditions.

From mid-1965 monetary policy began to operate in a different environment. An economy nearing full employment was also faced with the requirements of an expanding defense effort. Interest rates began to rise, initially in response to expectational factors. While there was no overt move toward monetary restraint until December, growth in total and nonborrowed reserves slackened after mid-1965.

In early December 1965 the Federal Reserve increased the discount rate from 4 to 4½ percent and raised the regulation Q ceilings. (As is well known, the administration was essentially in agreement with the direction of the move. It did, however, object to its timing, which came just before the period when budgetary and fiscal descisions were reached.)

After the Federal Reserve action in 1965, the policy focus shifted to fiscal measures and the budget program. Growth in total demand was brought into reasonable correspondence with growth in productive capacity by the second quarter of 1966, and the pace of expansion—as reflected in quarterly increments in gross national product—became more moderate than in late 1965 and early 1966.

During much of 1966 monetary restraint was primarily reflected in sharply rising interest rates and a drastic curtailment of mortgage credit. On the other hand, business loan and bank credit growth were not easily curtailed. In the first 8 months of 1966, bank loans to business grew at nearly a 20-percent annual rate, only a little below the rate in the second half of 1965. In retrospect, it appears that the December 1965 increase in regulation Q may have provided the commercial banking system with more latitude to compete ratewise for funds, primarily through the issuance of CD's, than was ideal during a period of monetary restraint.

Serious financial strains and imbalances developed during the course of 1966. These primarily took the form of selective pressures on productive capacity and a growing imbalance in credit flows. By late summer, interest rates had reached their highest levels in four decades the housing industry was depressed, and steps had to be taken to insure the continued orderly functioning of financial markets. With the announcement of the President's September 8 anti-inflationary program and the benefit of subsequent steps taken by the Congress and the financial regulatory agencies, pressures on financial markets were relieved and a concerted easing of interest rates was set in motion. The financial environment improved steadily throughout the balance of the year, aided by a moderate shift toward monetary ease set in motion by the Federal Reserve during the autumn.

During most of 1967, monetary policy was generally expansionary in terms of growth in such measures as bank credit, money supply, and reserves. Despite the slackening in the pace of economic activity in early 1967, private financial demands were heavy throughout the entire year. As an aftermath of the credit squeeze of 1966, efforts were made throughout the private sector to rebuild liquidity and in some cases to make advance provision for possible future credit needs. Furthermore, there was general belief in the business and financial community that the slowdown in the economy was likely to be temporary in duration and would be followed by a period of more rapid expansion. As a result, interest rates dipped only temporarily in early 1967 when the pace of economic expansion slowed and then rose during the balance of the year.

Monetary policy began a move back toward a more restrictive posture late in 1967 with a one-half point rise in the discount rate to 4½ percent following the devaluation of sterling. As the outlook for fiscal restraint remained uncertain, monetary policy was tightened further in 1968 with the discount rate increased to 5 percent in March and to 5½ percent in April. There was general agreement on the need for the application of restraint and monetary policy was for practical purposes, the only available instrument. Fiscal policy was temporarily immobilized during this period by congressional inaction on the President's fiscal recommendations.

Eventual enactment of the President's tax program at mid-1968 reactivated fiscal policy and greatly increased the degree of fiscal restraint being imposed on the economy. The application of fiscal restraint and the shift in expectations it brought about soon led to a significant easing in interest rates. At mid-August the Federal Reserve Board approved a ¼-percent reduction in the discount rate, primarily as a technical action to bring the discount rate more into line with prevailing money market rates.

REPLY OF THE MEMBERS OF THE COUNCIL OF ECONOMIC ADVISERS

THE CHAIRMAN OF THE COUNCIL OF ECONOMIC ADVISERS,
Washington, D.C., November 22, 1968.

HON. WRIGHT PATMAN,
Chairman, Subcommittee on Domestic Finance,
Committee on Banking and Currency,
Washington, D.C.

DEAR MR. CHAIRMAN: I am enclosing the Council's responses to the list of questions on monetary policy and the structure of the Federal Reserve you sent to us last July. The Council members received independent requests for their views as members of the economics profession. We have confined our efforts, however, to the single joint response enclosed here.

We might indicate that we look forward with interest to your intended hearings on H.R. 11. While we have reservations about some of the proposals in that particular bill, as indicated in our responses, we do think that some of the proposed reforms might be helpful, and we have added one or two suggestions of our own. Moreover, an updated exploration of views on the workings of the monetary policy process should prove useful to all financial economists both in official positions as well as in academic life.

Sincerely,

ARTHUR M. OKUN.

STATEMENT OF THE COUNCIL OF ECONOMIC ADVISERS TO QUESTIONS SUBMITTED BY HOUSE BANKING AND CURRENCY COMMITTEE

Question I.1. Do you believe that a program coordinating fiscal, debt management and monetary policies should be set forth at the beginning of each year for the purpose of achieving the goals of the Employment Act, or alternatively should we treat monetary and fiscal policies as independent mutually exclusive stabilization policies?

CEA response. In order to achieve to the greatest extent possible the several, sometimes partially conflicting goals of economic policy—including high employment, reasonable price stability, vigorous growth, and a satisfactory balance-of-payments position—it is clear that all available policy instruments must be used together in a carefully coordinated manner. No one to our knowledge would seriously argue in favor of total separation of fiscal, debt management, and monetary policies as suggested by the second alternative posed in the question.

Real coordination, however, does not merely involve the formulation of a program once a year, as implied by the first alternative in the question. Indeed, a once-for-all program formulated at the beginning of the year could well be a hindrance to the achievement of meaningful coordination of economic policies. What is required is a working together of all the relevant agencies in a continuously evolving joint effort to achieve the Nation's objectives in the light of constantly changing circumstances.

The Council takes some pride in having helped during the past 8 years to institutionalize a good part of the policy coordination process. Explicit economic programs have, of course, made up an important part of the President's annual messages to the Congress on the state of the Union, the budget, and his Economic Report, the latter supplemented in more detail by CEA's annual report. But these messages have represented only a part of the process. Meetings, involving the Secretary of the Treasury, the Director of the Bureau of the Budget, the Chairman of CEA and, on occasion, the Chairman of the Board of Governors of the Federal Reserve System, have been held from time to time with the President, and informal dialog among these and other agencies—both at an official and staff level—has gone on constantly. The purpose has been continually to advise the President on the Nation's economic progress, and to evaluate and recommend new programs and policy actions as they appear to be needed. This continuous dialog has provided the real basis for effective coordination of policies.

We want to emphasize two points about the coordination process. First, coordination should not be taken to mean that all policy instruments must necessarily be moving in the same direction. On the contrary, movement of one instrument toward, say, restraint may permit another instrument to move toward expansion.

Second, we believe that any particular policy program should, in its general formulation, treat the various instruments of policy in different degrees of detail. In particular, fiscal policy can and should be spelled out rather completely in the program, but unnecessary precision should be avoided in specifying the roles assigned to monetary and debt management policy. This is simply prudent planning, designed to preserve as many policy options as possible so that ammunition is available to respond if actual economic developments should depart from forecasted trends.

Fiscal policy decisions, in our opinion, should be made only at discrete intervals in order to promote a general course for the economy during the period ahead. This reflects a recognition of both the bluntness of fiscal policy—it does not lend itself readily to frequent marginal adjustments—and the practical difficulties of turning it on and off quickly. The extended delays in enacting the 1964 and 1968 tax bills underscore the fact that taxes cannot be speedily adjusted in either direction under existing procedures, and significant changes in expenditure programs are also not easily accomplished. For these reasons, we think it is appropriate to settle as many issues as possible about fiscal policy at the time the annual budget and economic program are formulated. We should be prepared to alter these decisions if major unforeseen circumstances develop. But we would expect—more often than not—to live with those decisions until the following year's regular budget review.

Monetary and debt management policies, on the other hand, are by nature considerably more flexible. General directions can and should be formulated in advance. But we believe they should always be considered as only tentative and provisional, based on the assumption that the planned fiscal policy and other developments will unfold as anticipated. Despite all the progress that has been and continues to be

made in forecasting the behavior of the private economy, projections still are sometimes wide of the mark; moreover, fiscal policy commonly turns out to be different from anticipations at the time of the January budget. When errors are made in forecasting or in projecting future fiscal policy, the inherent flexibility of monetary policy is very useful: It can be used either to probe the new situation, standing ready to pull back if the signs prove to have been misread, or to make a wholesale swing away from earlier conceived directions. An overly detailed specification in the original program that might diminish this flexibility would, in our opinion, be inappropriate. A masterpiece of coordination in an initial program might end up in a nightmare if it precluded a continuing adjustment to events as they actually unfold.

Question I.2. If you believe a program should be specified, do you believe that the President should be responsible for drawing up this program, or alternatively should such responsibility be dispersed between the Federal Reserve System and agencies responsible to the President? (Please note that informal consulting arrangements can be made as desired whether responsibility is assigned to the President or divided between the President and the Federal Reserve. The concern here is with the assignment of formal responsibility for drawing up the economic program.)

CEA response. We believe that ultimate responsibility for achieving the Nation's economic objectives rests jointly with the President and the Congress, as the elected representatives of the people. Together, they eventually must settle on a broad economic program and see that the actions needed to carry it out are taken.

The nature of the system, of course, assigns to the President the tasks of initial formulation of such programs. We believe this is altogether appropriate. The competing views of all must at some point be reconciled into a cohesive program and, in our opinion, responsibility for this reconciliation should rest in the highest elected office.

As noted in our answer to the preceding question, we believe that the annual budget message and the other key Presidential messages formulating economic programs should contain detailed specification of all fiscal policy recommendations. The President's responsibilities for these messages are firmly established in the laws of the land. Of course, the programs are only recommendations, since the Congress ultimately bears the responsibility for enacting the enabling legislation.

Some discussion of the role of monetary policy should also be included in the President's economic program. This discussion, as is true of the rest of the message, should reflect the President's considered view of what is best for the Nation in the current circumstances, with the Federal Reserve and other knowledgeable agencies giving freely of their advice in helping to formulate the program. But the key point, as explained in the preceding answer, is that the role assume for monetary policy should be provisional and couched only in general terms, so that the monetary authorities are not inhibited in responding to events as they actually unfold.

The President can and should continue to make his views known on monetary policy issues as significant questions arise, and in our opinion, the Federal Reserve should give careful consideration to these views in its decisions. Ultimately, however, the Federal Reserve is answerable for its actions to the Congress. We believe that this divi-

sion of responsibilities is workable and indeed has generally worked satisfactorily. We have some suggestions to make in our response to the questions about reorganizing the Federal Reserve which are intended to assure continued coordination of policy between the Federal Reserve and the executive branch of the Government.

Question I.3. Concerning monetary policy guidelines:

A. Should monetary policy be used to try to achieve the goals of the Employment Act via intervention of money supply (defined as desired) as provided in H.R. 11, or alternatively should H.R. 11 be amended to make some other variable or variables the immediate target of monetary policy; for example, interest rates, bank credit, liquidity, high-powered or base-money, total bank reserves, excess reserves and free reserves? Please define the target variable or combination of variables recommended and state the reason for your choice. (If desired, recommend a target variable or variables not listed here.) It would be most helpful if, in providing the reasons for your choice, you list the actions the Federal Reserve should take to control the target variable (or variables) and also explain the link between your recommended target of monetary policy and the goals of the economy as defined by the Employment Act.

B. Should the guidelines of monetary policy be specified in terms of some index of past, present, or future economic activity, or alternatively in terms of the target variable's value or growth? For example, should the President's 1969 program for achieving the goals of the Employment Act be formulated to require consistency with some set of overall indicators of economic activity, or alternatively so that your target variable attains a certain value or growth regardless of the economic winds? Please indicate the reasons for your preference.

C. For only those persons who recommend that some index of economic activity be used to guide the monetary authorities in controlling the target variable: Should we use a leading (forward looking), lagging (backward looking) or coincident indicator of economic activity? It would be most helpful also if you would identify the index you would like to see used and specify how the target variable should be related to this index.

D. For only those persons who recommend that the guidelines be put in terms of the target variable's value or growth: Should the same guidelines be used each year into the foreseeable future, or alternatively, should new guidelines be issued at the beginning of each year conditioned on expected private investment, Government spending, taxes, etc.? Please indicate the reasons for your preference.

E. For only those persons who recommend that the guidelines be put in terms of the target variable's value or growth and who also recommend that the same guidelines be used year after year into the foreseeable future: What band of values or range of growth do you recommend? (By way of clarification, a band of values appears appropriate if your target variable is, say, free reserves, whereas a range of growth is appropriate if it is, say, money supply.)

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F. For all those persons recommending that the guidelines be put in terms of the target variable's value or growth (regardless of whether you recommend using the same guidelines year after year or revising them each year in light of expected private investment and fiscal policy): Under what circumstances, if any, should the monetary authorities be permitted during the year to adjust the target variable so that it exceeds or falls short of the band of values or range of growth defined by the guidelines issued at the beginning of the year?

CEA response. We believe that flexible, discretionary monetary policy has made an important contribution to the achievement of the Nation's economic objectives and that it can continue to make such a contribution in the future. We do not, however, believe that it is possible to select any single one-dimensional guide for the conduct of monetary policy that will be satisfactory in all circumstances. Indeed, questions I.3.A–F seem to suggest a much tighter connection between monetary variables and the Nation's ultimate economic goals than we believe actually exists.

It is our view that in seeking guides for monetary policy the Federal Reserve should look primarily to those major measures of our overall economic performance that economic policy ultimately hopes to influence. These include total output, together with its rate of growth and its relation to productive capacity; employment and unemployment; the behavior of prices and wages; and the Nation's balance-of-payments position.

Since it is well known that monetary policy affects these major targets of economic policy only after some lag, we believe the Federal Reserve must base its policies not on the most recently recorded values of these target variables but on forecasts of their values extending several quarters into the future. Since there is commonly some uncertainty concerning the behavior of Federal expenditures and taxes, forecasts of fiscal policy as well as of the behavior of private demand are required. Such forecasts should be revised frequently as new data relating to the performance of the economy in the recent past become available. The forecasts will, of course, be conditional, based on an assumed monetary policy to be followed by the Federal Reserve, and the System should be prepared to adjust its policy as changes in the outlook seem to require.

All sectors of the economy and components of aggregate demand are not equally affected by monetary and credit conditions. In its conduct of monetary policy, the Federal Reserve should, therefore, consider the probable impacts of its actions on specific sectors. In particular, it seems clear that residential construction is strongly affected by monetary policy, in large part because of peculiarities in the institutional arrangements for financing homebuilding. For that reason, in the conduct of monetary policy it is especially important to consider the probable effects on housing activity. In addition, there may also be, under some conditions, disproportionate effects on debt-financed spending on schools, highways, and other public facilities by State and local governments.

It is our view that the Federal Reserve should operate by influencing directly those variables that will, with a lag, affect the future values of the target variables it is attempting to influence. This means,

in our opinion, that it should focus primarily on interest rates and the availability of credit. For example, it must attempt to judge whether interest rates in the short-term open market are such as to generate the flows of funds through thrift institutions that are needed to support the mortgage commitments and mortgage loans required to achieve appropriate levels of housing activity in the future periods of its forecast.

The Federal Reserve clearly cannot control independently both interest rates and the stock of money, since the two are linked together. On the one hand, it can focus primarily on influencing interest rates in order to obtain the flows of credit to key sectors of the economy that are conducive to an appropriate level of overall economic activity, allowing the money supply to be whatever it has to be to achieve these results. Or, alternatively, it can focus primarily on controlling the money supply, allowing interest rates to take on the values that are consistent with the money supply so determined. If relationships in the financial sector were fixed and unvarying, it would make little difference which approach was taken. But it seems clear that this is not the case. There are frequent innovations in finance, and also evolutionary changes in behavior in the private sector such as the increase that has occurred in the last few years in the sensitivity of investors to relative changes in interest rates on different types of financial assets. Moreover, during any short-run period, there can be marked changes in expectations which significantly affect investors' choices among financial assets. In such a changing financial environment, the level and rate of growth of the money supply required to achieve the desired behavior of interest rates and credit availability may change considerably from one situation to another. Since such empirical and theoretical evidence as is available strongly indicates that it is interest rates and credit availability rather than the money supply per se that affect spending decisions, it seems wiser for the Federal Reserve to concentrate primarily on control of interest rates and credit conditions, letting the money supply adapt itself.

We realize that there are some economists who believe that there is a very close connection between the money supply and GNP and that monetary policy should therefore attempt single-mindedly to control the money supply. (Among those who hold this view there is some dispute about the proper definition of the money supply—some would include only demand deposits and currency while others would also include time deposits.) We do not, however, share this emphasis on the overriding importance of the money supply (however defined). The fact is that there is no simple and apparent relation between the money supply and GNP. Moreover, we see no plausible reason why there should be such a close relationship. It should be understood that the Federal Reserve does not give people money—indeed, it is incapable of changing the public's wealth or net worth (except to the relatively minor extent that it causes changes in the market value of existing debt claims thereby generating capital gains or losses). Federal Reserve operations change the composition of the public's balance sheet by inducing people voluntarily to exchange one asset for another or to increase or decrease both their assets and their liabilities by equal amounts. Thus, these operations affect a wide variety of the public's financial assets and liabilities. Movements—that is, flows—of all of

these assets and liabilities can have repercussions on real economic activity, and thus must be monitored carefully in the conduct of monetary policy. Out of the myriad of items in the public's balance sheet, we can see no logical reason for attaching overriding importance to one particular entry defined as the money supply.

Question I.4. Concerning debt management policy: Given the goals of the Employment Act, what can debt management do to help their implementation? (If you believe that debt management has no role to play in this matter, please explain why.)

CEA response. Debt management policy plays some role in helping us to achieve our economic goals. But we believe its role is somewhat more marginal than the roles played by fiscal and monetary policy. In broad terms, fiscal policy determines among other things, how much debt there is to be financed, and monetary policy determines what portion of the debt is absorbed by the central bank and what portion is absorbed by the public. In comparison with these rather basic issues, we think of debt management—the exact timing, maturity, and other terms of financing—as being of second order importance.

Within its limited sphere of influence, one might distinguish between long- and short-run effects of debt management. In the long run, debt management makes its mark by influencing the term structure of the debt held by the public. The full implications of alternative term structures of debt are not yet well understood. But we believe the term structure of debt has some influence on the structure of interest rates and ultimately on spending-saving decisions by various sectors of the economy. Moreover, a suitably balanced debt structure can help to provide a financial environment in which monetary policy works more effectively.

The long-run nature of the effects of debt management operations on the structure of the debt bears emphasizing. The largest single debt management operation in recent years involved an exchange of less than 6 percent of the total amount of marketable Federal debt outstanding in private hands, and it changed the average maturity of the total marketable debt by less than 5½ months. Most operations have been considerably smaller in size. To produce a major change in the term structure of the debt would require a whole series of fairly sizable operations.

In the short run, debt management operations can at times contribute to the achievement of certain of our objectives by taking advantage of rigidities in financial markets and also by working on market psychology. In the early 1960's, increases in the supply of short-term securities outstanding helped to hold up short-term interest rates, thereby reducing the capital outflows that were adversely affecting the U.S. balance of payments. In the fall of 1966, rigid controls on the size and timing of offerings of Federal agency securities helped to restore confidence in financial markets following the near panic situation that developed during the summer. More recently, offerings have been scheduled in such a way as to minimize direct competition with savings flows to the thrift institutions so that these institutions would not be unduly limited in the funds they have available for making new mortgage loans.

Question I.5.A. H.R. 11 makes no provision whatever for conducting open market operations for so-called defensive or road-clearing purposes, that is to counteract seasonal and other transient factors affecting money market and credit conditions. Do you see any merit in using open market operations for defensive purposes or should they be used only to facilitate achievement of the President's economic program and the goals of the Employment Act? What risks and costs, if any, must be faced and paid if open market transactions are used to counteract transient influences?

CEA response. We believe that so-called defensive open market operations are an appropriate part of Federal Reserve activities and that the System should continue to engage in such operations. Of course, as a practical matter, defensive open market operations are not readily distinguishable from offensive operations. But granted that such a distinction is conceptually possible, we feel that both types of operations are needed to provide a smoothly functioning monetary system that can both easily accommodate the multitude of daily financial transactions that are necessary for our Nation's commerce and business and also transmit efficiently the monetary policy forces aimed at moving the economy closer to our national goals.

The purpose of defensive open market operations is to counter the effects of short-run swings in factors that would otherwise generate either excessive tightness or excessive ease in financial markets. If swings in these other factors were self-canceling, defensive open market operations would not be necessary. But the other factors are not that well behaved. Huge individual financial transactions may get bunched into a particular day or week, the public's demand for currency may suddenly spurt, check collection schedules sometimes are interrupted by weather, and international developments can cause a sudden surge in gold or deposit flows. Left uncountered, these developments would lead to erratic fluctuations in short-term interest rates as demands for funds varied in relation to the available supply. Perhaps this would not be disastrous, but it would introduce unnecessary complications in the conduct of business which can be easily avoided by using the Federal Reserve's open market operations to even out flows of funds in the market.

In general, those who favor the elimination of defensive open market operations believe the Federal Reserve should seek single-mindedly to control some well-defined quantitative index of monetary conditions, such as the stock of money. For reasons indicated in our earlier answers, we consider this an overly simplistic approach to monetary policy. Under the approach we favor, which places much more emphasis on interest rates and credit availability as guides to policy, it is difficult to distinguish sharply between defensive operations and other kinds. Nor is there a need to make such a distinction, since the objective of policy is to move credit conditions smoothly in directions that will contribute to the achievement of our economic goals.

Questions I.5.B and I.5.C.:

B. Do you believe that monetary policy can be effectively and efficiently implemented solely by open market operations?

C. For what purposes, if any, should (a) rediscounting, (b) changes in reserve requirements, and (c) regulation Q be used? How might H.R. 11 be amended to implement your recommendations?

CEA response. Our response considers both of these questions together.

As we have indicated in a previous answer, we believe the objective of monetary policy should be to influence the cost and availability of credit in ways conducive to economic stability. We further believe that the chief means of influencing credit conditions should be through regulation of the supply of reserves available to the commercial banking system for credit creation. Since open market operations are the most flexible and effective tool for expanding or contracting bank reserves, we believe they should—and do—constitute the primary instrument of monetary policy.

The Federal Reserve discount window is best viewed as a safety valve which enables banks—at a price—to escape pressures occurring during periods of tightening credit when these pressures may inadvertently become unduly concentrated on particular banks. By providing relief directly to the banks that are most in difficulty, the discount mechanism permits the global pressures caused by open market operations to be brought about more aggressively than would otherwise be possible and thereby makes monetary policy more effective.

We would like to see the discount rate changed somewhat more frequently and routinely than has customarily been the case in order to keep it in a more consistent relationship to short-term market interest rates. At the same time we recognize that the discount rate is on occasion a useful signal of the Federal Reserve's intentions—especially to the international financial community at times of serious balance-of-payments difficulties—and we would therefore not favor the entire elimination of discretionary changes in the rate.

Changes in reserve requirements are said to have advantages which may at times make them superior to open market operations as a tool for conducting monetary policy. One alleged advantage is that reserve requirement changes provide a definite signal to all observers that policy has changed. Another is that reserve requirement changes affect all member banks immediately in contrast to open market operations whose effects tend to show up first in the money centers and only gradually spread to outlying banks. While the evidence in support of these supposed advantages is somewhat limited, we believe that reserve requirement changes may on occasion be useful as a tool of monetary policy. On the other hand, we feel that frequent changes in reserve requirements would be undesirable; and, indeed, changes have been made quite infrequently in recent years.

The powers entrusted to the Federal Reserve under regulation Q enter the monetary policy process at a somewhat different point from the other instruments discussed above. Regulation Q has no direct effect on bank reserve availability. Rather it may be viewed as the second blade of a pair of scissors, cutting off bank competition for time deposits whenever a squeeze on reserve availability through open market operations or one of the other instruments pushes interest rates up near or beyond the regulation Q ceilings.

In an ideal world, we would not favor the use of administrative ceilings to prevent healthy competition for funds among financial institutions. But the experience of the past several years makes it amply clear that certain of our financial institutions—particularly mutual savings banks and savings and loan associations—encounter serious problems when interest rates rise to too high a level. Experience also demonstrates that pressure on these institutions and on the housing sector which they are so important in fiancing can, under some circumstances, be relieved by skillful adjustment of the regulation Q ceilings. Several of the financial reform measures enacted by the Congress during the past 2 years have helped give these financial institutions a little more flexbility to live in a high interest rate world. But as long as their funds are invested mostly in long-term, rather illiquid assets bearing interest rates characteristic of several years ago, it appears that there will continue to be a need for at least a standby authority to set interest rate ceilings.

Question I.5.D. Do you see any merit in requiring the Federal Reserve Board to make detailed quarterly reports to the Congress on past and prospective actions and policies? Are there any risks and costs in this procedure? In what ways, if any, would you modify the reporting provision? What information do you believe should be included in such reports as you recommend the Federal Reserve submit to the Congress?

CEA response. The Federal Reserve already makes numerous public reports of its actions, the explicit reasons for them, and its view of the general economic background underlying them. The interested observer can also piece together a reasonably good story of his own about what the Fed has been doing by following the weekly and monthly banking statistics. We feel that the combination of these reports and statistics is adequate to meet most legitimate needs.

If the Congress, in its role as overseer of the Fed, should see the need for still more information, however, we see no reason to object. Full and frank reviews of recent actions and the reasons for them can improve understanding and ultimately bring us a step closer to our basic economic goals.

But we would strongly caution against attempts to force the Federal Reserve to spell out in detail what its current policy stance is and what actions it plans to take in the future. Thus, we are completely opposed to that part of the proposal in H.R. 11 requiring details on "prospective actions and policies." Attempts to pin the System down on prospetcive actions can only inhibit its flexibility in dealing with actual situations as they develop. As indicated in our response to question I.1, this flexibility of monetary policy is something that we feel should be preserved to the greatest extent possible.

Question I.5.E. What costs and benefits would accrue if representatives of the Congress, the Treasury, and the CEA were observers at Open Market Committee meetings?

CEA response. We see little benefit from having CEA or other outside observers attend Open Market Committee meetings. Policymakers throughout the administration and the Congress have always reserved the right to deliberate in private, and we feel that the Federal Reserve has that same right. The presence of outside observers might work to decrease the candor and independence with which views are expressed in the FOMC.

The suggestion that a CEA representative should be present at an Open Market Committee meeting seems to imply that we would then be in a better position (*a*) to press our own views and (*b*) to learn what Federal Reserve policy actually is. Actually, however, the spirit of cooperation that has been built up during the past 8 years has given us adequate opportunity to make our views known and to hear the views of others, and it is doubtful whether either we or the Federal Reserve would benefit further in these respects by our attending FOMC meetings.

Question II. Appraisal of the structure of the Federal Reserve.

H.R. 11 provides for the following structural changes in the Federal Reserve System:

1. Retiring Federal Reserve bank stock;

2. Reducing the number of members of the Federal Reserve Board to five and their terms of office to no longer than 5 years;

3. Making the term of the Chairman of the Board coterminous with that of the President of the United States;

4. An audit for each fiscal year of the Federal Reserve Board and the Federal Reserve banks and their branches by the Comptroller General of the United States; and

5. Funds to operate the Federal Reserve System to be appropriated by the Congress of the United States.

Please comment freely on these several provisions. In particular, it would be most helpful if you would indicate any risks involved in adopting these provisions and discuss whether their adoption would facilitate the grand aim of H.R. 11, which is to provide for coordination by the President of monetary and fiscal policies.

CEA response. If one were starting from scratch, one would probably propose a structure for the Federal Reserve System substantially different from the present one. However, in evaluating proposals for reform and reorganization of the System under present conditions, its historical evolution and its effectiveness in performing its functions must be taken into account. We believe that, on the whole, the Federal Reserve has performed effectively in recent years in adapting monetary policy to the changing domestic economy and our balance-of-payments situation. Since an effectively functioning institution is more important than a logical organization chart, we believe there is a need for caution in recommending drastic changes in Federal Reserve organization.

Our detailed comments on the proposals contained in H.R. 11, which follow, reflect this view.

II. 1. *Retiring Federal Reserve stock.*—We believe that it is somewhat anomalous for a public institution such as the Federal Reserve to be "owned" by private stockholders. At the same time, however, we

do not see that this anomaly has caused any difficulty with respect to determination of System policy. Thus, we see no compelling reason for eliminating the stock ownership. The risks involved in retiring the stock seem small, though there is always the possibility that confidence in the Federal Reserve could be weakened if the action were construed to imply a fundamental change in control of the System. On balance, we would favor this reform, although we do not believe the issue is very important.

II. 2. *Reducing Board membership to five and terms of office to no more than 5 years.*—We note that H.R. 11 includes a provision abolishing the Federal Open Market Committee. Although no reference is made to this provision in the questionnaire, it is, in our opinion, the most important change in Federal Reserve structure contained in H.R. 11. Since the proposed abolition of the FOMC has a bearing on the question of Board membership, we consider the two provisions jointly.

Taken by itself—that is, assuming retention of the FOMC—the proposal to reduce the number of Board members to five seems unwise because of its implications for the balance of power between Board members and Reserve bank presidents. Under present arrangements the seven members of the Board can make their common views prevail in the FOMC, since only five of the bank presidents vote in that Committee at any one time. We believe that this balance is appropriate and should be preserved, so that monetary policy, at least in principle, can be determined by presidentially appointed officials. This assurance would be removed if the Board were reduced to five members, unless there were simultaneous change in the structure of the FOMC.

Leaving aside the key question of balance within the FOMC, we see advantages in having a smaller Board. We believe that a Board of five might be somewhat more effective than one of seven.

With respect to length of term, we accept the philosophy in the Federal Reserve Act that Board appointees should have terms long enough to insulate them from political pressures. But we also believe that the present 14-year term is longer than necessary for this purpose and also so long that it limits in an undesirable way the turnover of views and ideas. If the present seven-man Board is to be retained, a term of 7 years would strike a more appropriate balance among the various objectives. On the other hand, if the Board were to be reduced to five members, we believe a term of 10 years would be appropriate, rather than the 5-year maximum term contemplated in H.R. 11.

Turning to the key question of abolition of the FOMC, we encounter conflicting considerations. A proposal to abolish the FOMC and turn all the Federal Reserve's monetary policy powers over to a five-member Board was made in 1961 by the highly regarded Commission on Money and Credit. The Commission's rationale for this recommendation was that monetary policy should be in the hands only of officials who are appointed by the President and confirmed by the Senate. We sympathize very strongly with this objective. Moreover, the present FOMC, consisting of 12 members, is a somewhat cumbersome administrative body, a fact which requires a high degree of diplomatic skill on the part of the Chairman in achieving the consensus of views necessary to conduct an effective and coherent monetary policy. Thus,

there are sound arguments for eliminating the FOMC and concentrating power in the Board. But there are also risks involved in making drastic changes in the organization of an institution that has, on the whole, performed its functions satisfactorily.

In some instances, Reserve bank presidents have made very important contributions to the formulation of monetary policy. Furthermore, the Reserve bank presidents have often played a useful role in the collection and presentation of information concerning economic developments in their regions and in the administration of nationwide banking and credit policies in those regions. If the FOMC were abolished, with the Reserve bank presidents acting only in an advisory capacity with no actual vote in policy formulation, it seems certain that the stature of the office and of the personnel occupying it would be sharply reduced, perhaps with adverse effects on the relations between the Reserve banks and their regional communities. That is, abolition of the FOMC would probably produce a drastic change in the character of the Federal Reserve System, with results that are rather difficult to predict. For this reason, we are hesitant to recommend abolition of the FOMC, even though we can see some advantages in it.

As an alternative to abolition of the FOMC, we believe the Congress should consider making Reserve bank presidents subject to Presidential appointment and Senate confirmation. This would put the Reserve bank presidents in the same category as other officials with major responsibility for national economic policy.

II. 3. *Making the term of the Chairman of the Board coterminous with that of the President of the United States.*—We fully support this proposal. We note that Chairman Martin himself has repeatedly supported such a provision and that on April 17, 1962, President Kennedy submitted to the Congress a message making a similar recommendation. We believe that enactment of this proposal would help provide the basis for increased trust between the President and the principal officer responsible for monetary policy. The Chairman would be better able to participate in the councils of the executive branch and the Nation would be bettter assured of effective coordination of economic policy.

We note that H.R. 11 proposes to give to the Chairman the power to designate a Vice Chairman. We would prefer to leave this power with the President, as the Federal Reserve Act presently provides. We would, however, recommend a proposal making the Vice Chairman's term in that office also coterminous with that of the President, in line with recommended change in the term of the Chairman.

We might also note that the current dating of Board terms is not very compatible with an attempt to make the term of Chairman coterminous with that of the President. Under present law, terms of Board members expire on January 31 of each even year. Thus, a new President taking office on January 20 of an odd year might have to wait as long as a full year for a vacancy to open up on the Board so that he could appoint the man of his choice as a member and Chairman. This problem would be reduced if at least one member's term expired each year, as contemplated both in H.R. 11 and in our recommendation for 7-year terms in our response to the preceding question. If terms continue to expire every other year, however, we would suggest changing the law so that the expiration dates fall in odd rather than even years.

A somewhat related problem that could inhibit the President's choice of a new Chairman arises from the present geographical and occupational limitations on Board membership—especially the restriction that no more than one member may be from any Federal Reserve district. This could prevent the President from securing the best qualified Chairman if his choice should happen to come from a district already represented on the Board. We suggest that the Congress consider an amendment that would eliminate these restrictions entirely, or at least liberalize them.

II.4. *Annual audits of the Board, the Reserve banks, and their branches by the Comptroller General.*—We believe that the auditing procedures presented in effect in the Federal Reserve System are satisfactory from the viewpoint of assuring that the Federal Reserve operates with efficiency and economy and in the public interest. Those procedures involve a complete examination annually of each Reserve bank and branch by the Board's staff of examiners, an examination of one of the Reserve banks each year by a commercial auditing firm, and a continuous audit of each bank by a resident auditor, responsible to the bank's board of directors. These examinations check not only the bank's financial condition, but also its discharge of all responsibilities and its compliance with law and regulations. In addition, the Board itself is audited each year by independent public accounting firms. Reports of these various examinations are available to the appropriate committees of the Congress.

II.5. *Congressional appropriation of funds to operate the Federal Reserve.*—We doubt the need for this provision. As indicated in our previous answer, we believe that the Federal Reserve is operated efficiently and economically. Moreover, virtually all of the System's earnings above operating expenses are already paid over to the Treasury of the United States. In fiscal year 1968 alone, this payment was almost $2.1 billion. A significant reduction in the net expense of the System to the taxpayers presumably could be achieved only by curtailing operations, which we believe would be unwise.

Question III. Your analysis of monetary development, since 1964, including induced changes and their effects on economic activity, is invited.

CEA response. The Council's 1968 annual report has already summarized our views of monetary developments up through the end of 1967. We confine our comments, therefore, to developments thus far this year.

Monetary and financial developments in 1968 fit broadly into two periods. Interest rates climbed sharply in the early months of the year, as monetary policy tightened in defense of the dollar and to curb mounting inflationary pressures at home while enactment of the proposed tax surcharge continued to be delayed. Although there were temporary interruptions in the upward trend, by mid-May most rates had climbed one-half to a full percentage point from their early 1968 lows. High quality corporate borrowers were paying more than 7 percent for funds and 3-month Treasury bills commanded a rate as high as 5.90 percent. During this period, interest rates reached peaks higher than those attained in the widely heralded monetary crunch of 1966.

The breakup in late May of the logjam on the tax increase and its ultimate enactment and imposition brought a marked easing of pressures and fears throughout financial markets. And with fiscal policy finally assuming a more proper role, monetary policy was able to relax

somewhat the restraint imposed earlier, giving a definite signal in this direction with a cut in the Federal Reserve discount rate initiated on August 16. Market interest rates reflected these developments, dipping in early August to levels below their lows set early in the year. This downtrend has been somewhat reversed in more recent months, and in early November the prevailing level of rates was high by historical standards.

The degree of monetary restraint imposed in the first several months of the year was quite severe. At a time when a burgeoning economy was sharply stimulating private demands for credit and when the Federal Government was also a heavy net borrower in contrast to its usual seasonal repayment of debt, increasingly restrictive steps by the monetary authorities effectively slowed the amount of total credit creation, particularly by commercial banks. These steps had actually begun with the increase in the Federal Reserve discount rate from 4 to 4½ percent following the devaluation of sterling in November 1967. This was followed by two further increases in the spring of 1968, bringing the rate to 5½ percent by late April, its highest level since the 1920's. Meanwhile the Federal Reserve had also increased reserve requirements against member banks' deposits, and had steadily tightened its open market policy.

The result was that growth of total bank credit slowed from a 11½ percent rate during 1967 to a 6½ percent rate in the first 6 months of 1968. Credit demands were strong but banks simply could not meet them, as interest rate ceilings established under regulation Q made it increasingly difficult for the banks to attract new deposits to support their lending operations.

The lower level of market interest rates prevailing in more recent months has restored banks' ability to compete effectively for time deposits. And acquistion of these and other funds has supported rapid growth in bank credit since mid-year. Special factors accounted for much of this gain, but it is clear that the easing in monetary policy was filtering through to increased availability of credit.

Flows of funds to and from other financial intermediaries appear also to have improved somewhat recently compared with experience during the spring. Indeed, after reports of increasingly severe shortages of mortgage funds in the late spring, which helped to bring a sharp curtailment in home building activity, the more recent signs suggest that home builders and buyers have not had any undue difficulty obtaining mortgages, although still at high interest rates.

The one financial variable that has been rather at odds with the general picture described above is the narrowly defined money supply. Thus after growing at a relatively moderate rate in the first 3 months of the year, growth of the money supply accelerated very sharply during the April-July period. In large part, this seems to reflect a slow adjustment by the private sector of the economy to an unusually large payout of Government deposits during this period. Rising transactions needs associated with the rapidly growing economy and a heavy volume of securities market transactions may also have been a factor. As we interpret it, this surge in the money supply was not indicative of an early easing in monetary policy. Nor do we believe that return to more normal money growth in subsequent months reflects a tightening in monetary policy compared with its posture during the spring and early summer. Developments this year point up the inherent dangers in focusing exclusively on so narrow a financial variable as the money supply.

STATEMENTS OF RESPONDENTS ON QUESTIONNAIRE CONCERNING H.R. 11

STATEMENT OF E. SHERMAN ADAMS, FIRST NATIONAL CITY BANK

I. MONETARY POLICY GUIDELINES AND OPEN MARKET OPERATIONS

Coordination of fiscal, debt management and monetary policies is obviously desirable, provided it helps to achieve wise policies. It does not follow, however, that a "program" to accomplish coordination should be announced at the beginning of each year. The word "program" suggests a degree of inflexibility that would be highly undesirable in economic policymaking.

This applies particularly to monetary policy. Your questions about monetary policy guidelines seem to imply that monetary policy should be conducted according to some sort of formula. One of the great virtues of monetary policy is that it is flexible and can be adjusted to changing conditions. I do not think that anyone can intelligently set targets for a whole year in advance for any of the variables influenced by monetary policy.

It is useful, nevertheless, to have some framework for thinking about monetary policy. I find it helpful to think in terms of the ways in which monetary policy affects economic activity. Monetary controls are effective and have significance because they affect expenditures made by individuals, by businesses, or by governments. These effects upon spending are mostly indirect and are brought about through the influence of monetary policy on credit conditions. They reflect the reactions of the community to the credit conditions which the monetary authorities are able to influence; namely, (1) interest rates, the cost of credit, (2) the availability of credit, which is reflected chiefly in the lending and investment policies of various suppliers of credit, and (3) changes in the money supply, especially those which reflect changes in bank credit.

All of these three factors need to be taken into account. Under particular circumstances, one or another of them may be of much greater importance than the others. But none of them should ever be ignored.

This is one reason why monetary policy cannot be effectively and efficiently implemented solely by open-market operations. These operations affect primarily the volume of bank credit. The monetary authorities need additional controls to exert the influence they should be able to exert on interest rates and the availability of credit.

It also explains why I would not favor amending the Employment Act to make specific reference to the growth of the money supply. I would fear that such a change might encourage paying too much attention at times to this one factor and not enough attention to interest rates and credit availability.

It would be far more constructive to amend the Employment Act to make specific reference to price stability as a major goal of public economic policy.

You ask about debt management policy. I think that the usefulness of public debt management as a means of shortrun economic management is quite limited. In theory, debt management could be used to combat inflationary or deflationary swings in the economy, but this is seldom true in practice. For instance, during a boom, countercyclical policy would call for the issuance of long-term bonds by the Treasury to curb capital spending. As a practical matter, however, one cannot expect the Treasury to do much long-term financing when interest rates are at historically high levels and when nonbank investors have no desire to add to their holdings of Treasury securities.

II. STRUCTURE OF THE FEDERAL RESERVE

I share the view of the great majority of monetary economists that it is definitely in the public interest to protect the Federal Reserve from greater political pressure. Most of the structural changes proposed by H.R. 11 are designed to undermine the present degree of semi-independence of the Federal Reserve within the framework of government and are therefore undesirable.

One exception is that I think there may be merit in making the term of the Chairman of the Federal Reserve Board coterminous with that of the President of the United States. I have no judgment on the advisability of reducing the number of the members of the Board.

III. RECENT MONETARY POLICY

The major monetary developments of recent years have stemmed largely from the unprecedented expansion of the U.S. economy accompanied by inflationary policies on the part of the Federal Government. Large budgetary deficits, incurred when the economy was operating close to capacity, have been largely responsible for creating inflationary pressures throughout the economy, including the reactivation of the wage-price spiral which the Government has done little to restrain. We are now in the midst of an inflationary boom, the outcome of which cannot be predicted. Similarly, the Government's failure to deal effectively with the U.S. balance-of-payments problem has brought the American dollar into serious jeopardy, and the end of this story has not been written yet either.

The monetary authorities have been acutely aware of these developments and have taken them into account in formulating their policies. On the other hand, it has been apparent that monetary policy could not achieve price stability and balance-of-payments equilibrium singlehanded. As Allan Sproul once observed, we cannot expect monetary policy to offset all the unwise policies in the rest of the economy. Realizing this, the monetary authorities presumably felt that the least bad alternative for them most of the time was to permit monetary expansion to continue at a rather rapid pace, probably at a faster pace than they would really have liked.

In the spring of 1966, the Reserve authorities apparently reached the conclusion that the situation was worsening to such an extent that a restrictive policy was called for. The "credit crunch" that followed

again demonstrated that, if it is used boldly, monetary policy can be a powerful brake on the economy. However, policy became so restrictive that it threatened to create a chaotic situation in the financial markets, and this again demonstrated the fact that, as a practical matter, there are real limitations on the extent to which this brake can be applied in the real world.

However, the main lesson of recent monetary developments relates to the matter of the coordination of monetary policy and other public economic policies. The fiscal policies and other policies of the Federal Government have had an inflationary impact on the economy. Although the monetary authorities have not had the power to correct this situation, they have done their best to exert a constructive influence—which is more than can be said for many officials in Government. Whether they should have done more or less than they did is naturally a question for debate among the Monday morning quarterbacks. But this question is not really too important. What is important is that the monetary authorities have sought consistently to act in the public interest, whereas fiscal and other governmental policies have been unwise because they have reflected the pressures of political expediency. The obvious lesson of this is that if we seek to achieve greater coordination of monetary and fiscal policies, our aim should be to coordinate fiscal policy with monetary policy, not the other way around.

In short, the authors of H.R. 11 are plainly concerned with a problem of great significance to our economic well-being. However, they are approaching it from the wrong end and with the wrong assumptions. The problem lies not with monetary policy but with fiscal policy. The need is not to destroy the semi-independence of monetary policy, but rather to improve the organization and procedures that will help to produce better fiscal policies. If the Congress would turn its attention to this problem, it could make a major contribution to the future growth and stability of the American economy.

STATEMENT OF CARL T. ARLT, UNIVERSITY OF ILLINOIS

Re No. 1.—The idea of a program coordinating fiscal, debt management, and monetary policies is an appealing one. To set forth this program at the beginning of the year would involve a careful specification of the goals to be achieved. This is no easy task in view of the plurality of goal variables with all their inherent conflicts. I am assuming, of course, that the "goals of the Employment Act" would include the more recently acquired objective of achieving a better balance in the international payments position of the United States.

I believe there is merit in a program of coordination in that it would require the Federal Reserve to "take a position" based on its understanding of the monetary mechanism, its reading of the economic indicators, and its evaluation of the influence of nonmonetary policy forces on the goals to be achieved. I should add, however, that if the monetary authorities are to be forced into a more formalized program of coordination, they assume an impossible burden if they must coordinate with the type of fiscal policy experienced within the last few years. Much of the criticism of the Federal Reserve with respect to allegedly inappropriate growth rates of the money supply should be analyzed in the perspective of the Federal Reserve attempts to cope

with the prolonged deliberations associated with efforts to institute fiscal restraint.

Re No. 2.—I believe the President should be assigned the formal responsibility for drawing up the economic program.

Re No. 3A.—Monetary policy should employ *some* intermediate target variable as it works to achieve the goals of the economy. There is need for some quantitative measure to indicate the thrust of monetary policy and one that is predictably linked to measures of spending and income. Unfortunately, what that measure may be is still a matter of dispute among economists. Arguments continue over the relative feasibility of such guides as interest rates, credit volume, some reserve measure, or the money supply. In my own thinking such measures as interest rates or bank net reserve positions (free or net borrowed) are poor indicators of the thrust of monetary policy. Because these reflect both credit demand and supply forces it is difficult to derive from them the contribution of the monetary authorities. In a related vein, it may be said that the monetary authorities have very little control over interest rates and the net reserve positions of commercial banks.

If proposed legislation specifies a target variable, I would urge that it use either the growth rate of the money stock or the growth rate of the monetary base as the more appropriate measures of what the Federal Reserve is doing. But I would also submit, since economists are not in agreement with respect to the "best" guidepost, that legislators proceed cautiously in their specification of financial targets and avoid imposing hard and fast rules on the monetary authorities.

Of the two target variables, money stock changes and monetary base changes, I prefer the monetary base. The supply of the monetary base is substantially under the complete control of the Federal Reserve System. Recent studies have shown that movements in Federal Reserve credit determine most of the movements of the monetary base. Although member bank borrowing from Reserve banks and changes in the gold stock are not under the direct control of the monetary authorities, one may assume that open market operations may be used to offset short-term changes in these and other accounts in order to achieve a desired level of the monetary base.

The demand for the monetary base consists of the demand of commercial banks for excess reserves and required reserves and the demand of the nonbank public for currency. Banks' demand for required reserves is a derived demand reflecting the demands for private demand deposits, Government demand deposits, net interbank deposits, and time deposits.

Changes in the monetary base have an important influence on output, employment, and prices through an adjustment process in which banks and the nonbank public adjust their holdings of real and financial assets so as to bring the amount demanded of the monetary base equal to the amount supplied. In this process, economic activity, prices of real assets, and interest rates are changed.

Empirical studies appear to show a relatively close relationship between changes in the monetary base and changes in the money supply. In the short run, however, changes in the money supply often reflect movements in Government demand deposits or movements between demand and time deposits. For this reason I tend to lean toward the monetary base rather than the money supply as the best available guide to monetary management.

Re No. 3 B and F.—It would be helpful if the Federal Reserve at the beginning of the year specified a *desired* rate of growth of the monetary base. The particular rate of growth selected would reflect the consensus hammered out in the coordinated program drawn up by the President.

To repeat earlier parts of this statement, I would insist that this specified rate of growth of the monetary base be considered as a benchmark and not a binding prescription imposed on the monetary authorities. We are attempting to achieve a plurality of goals with inherent conflicts and we must recognize that during the year the importance attached to particular goals may change. Furthermore we are using a target variable for monetary policy which may or may not be the most appropriate measure or indicator. We do not yet know enough about the strength and predictability of any of the possible financial variables suggested as intermediate guides to policy to impose a *fixed* course of action on the Federal Reserve. Accordingly I would urge that the Federal Reserve be permitted to deviate from the specified rate of growth if such action were accompanied by a detailed report to Congress explaining the rationale underlying its policy decisions.

The distinctive advantage of specifying at the beginning of the year a particluar rate of growth of some financial variable is that the public gets a better understanding of the strategy employed by the monetary authority whenever the target growth rate is changed. In short, my position is that the monetary authority enjoys a wide area of discretion, but tied to that discretion is the responsibility for more detailed communication with the public.

Re No. 4.—We have not reached the point where debt management may be used as an important stabilization tool. The most we can hope for is the development of the neutral approach in which Treasury debt offerings become more "regularized." I would also urge the removal of the 4½-percent interest rate ceiling on Treasury bonds to permit greater flexibility in debt management. It would be my hope that improved and more regular financings by the Treasury could then be achieved without requiring the Federal Reserve policy of "an even keel" during the period of financing.

Re No. 5A.—I believe that money market facilities are adequate enough and the participants sophisticated enough to adjust to many of the money market changes now being cushioned by Federal Reserve "defensive" operations. Furthermore, it appears that Federal Reserve emphasis on money market stabilization or "money market strategy" has often led to unintended changes in such variables as total reserves and the money stock which, I believe, are more closely linked with the goals of spending and employment.

If policy is to be defined quantitively in terms of a longer run target such as the desired rate of growth of the monetary base or money stock, the monetary authorities would, of necessity, reduce the scope of their operations designed to influence shorter run money market variables.

Re No. 5 B and C.—Under most circumstances I would favor placing complete reliance on open-market operations. Reserve requirements I would not change except during war emergencies and then it would be more feasible to take off the limits to reserve requirement increases. The discount window as currently administered is not very

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effective. If current proposals for change, particularly with respect to "automatic drawing rights" and more frequent changes in the discount rate, are implemented, the discount window might prove to be an effective supplement to open-market operations.

Regulation Q interest ceilings should be removed. Far too many distortions in the flows of funds are produced in financial markets where some interest rates are held by law or administrative decree, while others are allowed to fluctuate freely. The experience of 1966 is a case in point.

Re No. 5 D and E.—I see merit in more detailed reporting to Congress by the monetary authorities, particularly with respect to past actions and policies. Prospective actions and policies should be indicated only in general terms and, as explained earlier in this statement, I would not want the monetary authorities locked in by a *prescribed* rate of growth of a target variable.

In keeping with my belief in a more complete disclosure of the rationale underlying Federal Reserve actions and policies, I see merit in the proposal to have selected observers at the Open Market Committee meetings. Some procedures would have to be adopted to prevent indiscriminate revelations of FOMC deliberations and actions.

Re Part II on structure.—In keeping with the idea that the Federal Reserve be less independent of the President's office and more independent of the banking community, I am in full support of proposals No. 3 and No. 1.

As long as the Board must assume its numerous supervisory functions in addition to its monetary policy function, I see no merit in reducing Board membership to five, nor do I see any advantage in limiting terms to 5 years.

I am strongly opposed to propositions 4 and 5. These proposals would contribute nothing to the President's program and at the same time would violate what I regard as a healthy independence of the central bank *within* Government.

Re III comments on recent monetary policy.—In retrospect it appears that the Federal Reserve was too drastic in its restraint from April to October 1966 after having been too expansive in early 1966 despite intentions to restrain. Had the Board's monetary strategy been geared to a target rate of growth of the monetary base or the money supply the economy might have been spared the sharp changes that developed in 1966.

The expansive policy of the monetary authorities in the first half of 1967 was appropriate in view of the marked slowing up in the pace of economic activity. The second half of 1967 is another story. In the face of growing demands and rising spending, monetary policy was too expansive. Although the Federal Reserve was aware of the expansiveness of its monetary management, it avoided restraint because of the constraints of "even keel," the fear of renewed disintermediation, the influence of impending tax legislation, and the concern over the position of the British pound. Underlying these concerns was the fear that interest rates might rise too high if monetary policy were to swing over to restraint.

The developments in 1967 pointed up the difficulties of obtaining needed fiscal restraint as well as demonstrating the problems of achieving stabilization while attempting to realize an intermediate interest

rate objective. The need for coordinated policy was never more apparent.

The substantial rate of growth of the money supply in July, August, and part of September of this year now appears to have been excessive, although at the time the monetary growth probably reflected the generally pessimistic forecasts of a marked slowdown in economic activity. The timing and impact of the fiscal restraint package enacted in June now seem to have been miscalculated in view of the continuing vigor of total spending.

STATEMENT OF JOSEPH ASCHHEIM, GEORGE WASHINGTON UNIVERSITY

I. QUESTIONS ON MONETARY-POLICY GUIDELINES AND OPEN-MARKET OPERATIONS

1. Question No. 1 limits the respondent's choice to that between the two alternatives stated in the question. Yet these two alternatives do not exhaust the full range of possible arrangements for the conduct of fiscal, debt management, and monetary policies. This writer, for one, regards neither of the two alternatives stated in the question as desirable.

Consider the first alternative—that is, that a program coordinating fiscal, debt management, and monetary policies should be set forth at the beginning of each year for the purpose of achieving the goals of the Employment Act. In conformity with the constitutional separation of powers in the United States, the monetary authority is a creature of the legislative branch, whereas the fiscal and debt-management authorities are components of the executive branch. The rationale for such a separation of powers is that the money-creating function and the money-spending function should not be vested in the same branch of Government, so as to remove the temptation of the spending branch to inflate. Such temptation is enhanced when both functions are vested in the same branch of Government.

Now, to have the President, as provided by H.R. 11, include in his program guidelines concerning monetary policy is to contravene the separation of powers indicated above. Guidelines for the conduct of monetary policy should not be charged to the Chief Executive's responsibility when it is not the executive branch that is charged with the money-creating function.

Consider now the second alternative—that is, that we should treat monetary and fiscal policies as independent, mutually exclusive, stabilization policies. This alternative is a strawman. Obviously monetary and fiscal policies are not mutually exclusive, but rather complementary, policies. To interpret the notion of the independence of the central bank as implying the exclusiveness of monetary policy is absurd. Monetary policy must at all times be conducted with reference to the fiscal policy extent, or else economic stabilization will be undermined instead of enhanced.

Thus, the relevant question is not whether there should or should not be coordination of monetary and fiscal policies. The objective of economic stabilization makes coordination indispensable. Instead, the question is: What kind of coordination should there be? Should the

coordination be that which would be brought about through the executive branch setting forth the guidelines for monetary policy as well as conducting fiscal policy, or should there be another kind of coordination? Having already responded in connection with the first alternative that the constitutional separation of powers in the United States calls for another kind of coordination, we now turn to the suggestion of another kind.

A third alternative, one that overcomes the drawbacks of each of the first alternatives, is the following. In conformity with the constitutional separation of powers, guidelines for the conduct of monetary policy should be laid down not annually by the Chief Executive, but more broadly by the legislative branch. In turn, the central bank, in pursuit of the congressionally given guidelines, would informally but constantly be expected to coordinate its monetary policy with the fiscal policy conducted by the executive branch.

The monetary authority being the creature of the Congress it is the responsibility of the Congress to lay down guidelines that will direct the conduct of monetary policy toward economic stabilization. That responsibility has thus far not been fully discharged by the Congress. How the Congress can fulfill this responsibility will be suggested in answer to question *3* below.

2. In line with my answer to question *1* above, I believe that the Employment Act of 1946 should remain intact in its provision for the President's economic program.

3.A. The money supply, the level of interest rates, and the term structure of interest rates should be stated in H.R. 11 as the target variables of monetary policy. Specifically, the Federal Reserve System should be directed to vary the money supply and to influence the level and term structure of interest rates so as to promote the attainment of the goals of the Employment Act. The money supply, defined as currency plus demand deposits, constitutes the stock of generalized purchasing power in the economy. The size of this stock is amenable to central bank control with a high degree of precision. Variations in this stock are a strategic factor in economic fluctuations. In contrast, the level and term structure of interest rates are not amenable to central bank control with a high degree of precision. They are, however, also important in determining the volume of economic activity. Yet there does not exist a unique or stable relationship between the size (or rate of change) of the money supply and the level (or rate of change) of interest rates or term structure of interest rates.

Nevertheless, the level and term structure of interest rates are subject to considerable central bank influence via the weapon of open-market operations amid a large and widely distributed Government debt. Such influence can be exerted in order to contribute to economic stabilization. It involves using open-market operations in two dimensions: (1) net absorption or release of the cash reserve base, thereby varying the money supply; and (2) swapping operations that can leave the money supply unchanged but alter the term structure of Government debt.

3.B. The guidelines should not be specified either in terms of some particular index or in terms of the target variable's value or growth. Instead, the Employment Act of 1946, applicable to the entire U.S. Government, should be amended in its goals to read, "maximum em-

ployment, production, and purchasing power consistent with reasonable price-level stability." In turn, the Federal Reserve Act should be amended to provide congressional guidelines to the Federal Reserve System. To specify these in terms of some index of economic activity or the target variable's value or growth would be to curtail unduly the monetary authority's range of discretion that is necessary over time in pursuit of the goals of the Employment Act, as amended. There does not exist a unique relationship between "maximum employment, production, and purchasing power consistent with reasonable price-level stability" on the one hand, and any one index of economic activity or any one value or growth rate of the target variable on the other hand. Consequently, the Federal Reserve System should be afforded the discretion to vary the money supply and to influence the level and term structure of interest rates as it deems necessary for economic stabilization.

In practice, the FRS has not only sought to contribute to economic stabilization in the sense of enhancing reasonable price-level stability while attempting to counteract cyclical economic fluctuations. The FRS has at the same time been engaged in (*a*) counterseasonal offsetting operations, and (*b*) lending to member banks at a rediscount rate that is intermittently a subsidy rate. Neither of these two additional activities of the FRS is necessary for the economic-stabilization role; indeed, both distract the FRS from focusing on the sufficiently complex task of harmonizing its own economic-stabilization effort with that of the fiscal authority. The private financial sector can be expected to look after its own seasonality and member banks can be expected to rely on the rest of the private economy for obtaining loanable funds without subsidy from the FRS. Accordingly, the congressional guidelines for the FRS to be written into the Federal Reserve Act should specify that the FRS is to conduct monetary policy aiming at economic stabilization without subsidizing commercial banks and without engaging in defensive, that is, counterseasonal, operations. Within those constraints, the FRS would be free to exercise its discretion in varying the money supply and influencing the level and term structure of interest rates consistent with the goals of the Employment Act, as amended.

4. To help the implementation of the goals of the Employment Act, debt management can be conducted in such a way as to avoid interference with the conduct of monetary policy. This noninterference approach to debt management vis-a-vis monetary policy implies that debt management will be geared to the aim of minimizing the interest burden of Government debt, given the conduct of monetary policy by the FRS.

5.A., 5.B., and 5.C. See the answer to *3.B* above.

5.D. Detailed quarterly reports to the Congress are too frequent to be consistent with the exercise of discretion in the conduct of monetary policy. On the other hand, annual reports seem to be too infrequent to be timely. Semiannual reports would, therefore, be most appropriate.

5.E. The costs of having observers at Open Market Committee meeting are at least two. Firstly, such an arrangement detracts from the free and full discussion that Federal Reserve officials might otherwise engage in, but would avoid whenever they individually or collectively, would be apt to lose face by admission of mistakes made. Secondly, it

would be difficult to prevent leakage of Federal Reserve decisions to unauthorized individuals or even the public with various observers present at meetings charged with important profit-and-loss implications as Open Market Committee meetings are.

The benefits of such an arrangement would be to increase advance information about Federal Reserve decisions on the part of officials who are observers. I consider the costs as substantially outweighing the benefits.

II. APPRAISAL OF THE STRUCTURE OF THE FEDERAL RESERVE

I favor structural changes (1) through (4) for reasons that led to their suggestion as implemented in H.R. 11. In contrast, once structural change (4) has been enacted, structural change (5) seems to me to be a redundant complication of the task of monetary policy. Once it is provided that the FRS is audited by the Comptroller General each fiscal year, subjecting the System to the congressional appropriation process, only encumbers the conduct of the System's work without enhancing its honesty or trustworthiness.

III. COMMENTS ON RECENT MONETARY POLICY

The subject of this section, monetary developments since 1964, is too broad and far ranging to be dealt with in the context of the above comments on H.R. 11.

STATEMENT OF GEORGE L. BACH, STANFORD UNIVERSITY

This is in response to your letter of July 9, requesting my comments on numerous aspects of H.R. 11 on which hearings will be held this autumn. I have organized my answers to correspond to the questions sent with your letter.

I–1 and 2. The Government should be concerned continuously with the coordination of fiscal, debt, and monetary policies, looking toward the achievement of the goals of the Employment Act of 1946. The effects of monetary and of fiscal policies cannot, realistically, be considered in isolation. Since in fact monetary and fiscal policies both affect the level of income, employment, and prices, it is important that they be made with full recognition of these joint effects.

I–2. It seems to me appropriate that the President should at the beginning of each year state in his Economic Report broad plans for the achievement of the goals of the Employment Act. In substance, he now does so. It would be appropriate for him to be somewhat more specific about the implications for monetary policy of the major economic proposals he makes at the beginning of each year if he wishes to do so. In that event, as I presume is the practice now, he would presumably want to confer with the officials of the Federal Reserve System, or ask his Council of Economic Advisers to do so, before deciding on his proposals. I see no advantage in trying to assign to the President a sharper responsibility than this. This is true because neither the President nor any other economic analyst can hope to spell out in detail a year in advance what would be the most desirable monetary policy actions—unless one were to substitute a specific legislative "rule" for monetary policy, in which case suggestions from the President might be superfluous.

I–3–A. Monetary policy should be used to help achieve the goals of the Employment Act via control of the money supply and through other channels. The basic objectives of monetary policy are presumably stable economic growth and high-level employment of men and machines without substantial price inflation. Extensive research over the past decade suggests that, if one were required to choose one intermediate variable on which the Federal Reserve should concentrate, the money supply (defined as currency and demand deposits) would be a reasonable selection. On the other hand, the evidence is not clear that this should be made the *sole* immediate target of monetary policy. A roughly stable growth rate in the money stock seems to be highly correlated with a roughly stable growth rate of the real economy, but there are numerous exceptions. Unless we can be sure that by stabilizing the rate of growth of the money stock we would also be making the maximum contribution to stabilizing the growth rate of the economy, it would be unwise to prescribe such a "guideline" or "rule" as the exclusive target of monetary policy. We cannot be sure of this casual relationship on the basis of existing research findings.

Research results *do* seem convincing that the Federal Reserve should pay substantial attention to the growth rate of the money stock, and that there is a general presumption in favor of a relatively stable growth in the money stock (of perhaps 2 to 6 percent per annum). But more evidence is needed to justify placing exclusive reliance on this guide to action. First, we aren't clear as to whether this narrow definition of money is superior to a broader definition, that includes time deposits at commercial banks and possibly at savings and loan institutions. Second, use of the money stock as a sole target suffers from the weakness that this target is not exclusively under the control of the Federal Reserve, though the Fed can exercise rough control over the money stock if it is willing to let interest rates fluctuate widely. As long as any target (such as interest rates or the money stock) is partly under the control of market forces, it is a dangerous and imperfect guide to Federal Reserve policy and to the evaluation of that policy, since we are never sure whether target changes are the result of Federal Reserve action or market forces. To meet this criterion, the best intermediate target would be the "reserve base" (unborrowed reserves plus currency in the hands of the public). This target is fully under the control of the Federal Reserve, and on that score it would be a preferable target to the money stock. Broadly, it would provide the same results, and I believe that the Federal Reserve should pay substantial attention to the growth rate in the reserve base, as to the money stock and to other important variables.

For the same reasons, exclusive reliance on interest rates as an immediate target of monetary policy is extremely dangerous, since interest rates are determined only partly by Federal Reserve action, and partly by market forces.

II–1–D. It seems to me appropriate for the Congress to provide more specific directives for the Federal Reserve. Such a directive might specify growth in the money stock and in the reserve base as important indicators in the formations of monetary policy. I do not, however, believe that Congress should specify either of these, or any other intermediate target, as the exclusive guide to monetary policy. There are too many uncertainties about the linkage between monetary actions

and the real economy to justify exclusive reliance on one target now. As a practical matter, it is clear that the Federal Reserve does now pay substantial attention to these variables, so it does not seem to me urgent that such a statement be added to the Employment Act of 1946 or to special legislation governing the Fed. This is in spite of the fact that I do support a strong presumption that 2-to-6-percent annual growth in the reserve base or the money stock will ordinarily contribute importantly to stable economic growth. The Fed should certainly be free to deviate from such a presumption if special circumstances arise.

I–4. The use of debt management to help implement the Employment Act of 1946 is appropriate, though not a device of very great importance. The evidence to date fails to support the argument that shifts in the composition of the debt arising from conscious government policy play a major role in controlling the economy's growth rate. On the other hand, I see no reason why this policy device should not be used insofar as it can make an effective contribution.

I–5–A. As indicated above, I do not believe that H.R. 11 should be adopted insofar as it directs the FOMC to conduct open operations in accordance with "the programs and policies of the President." It would be difficult, if not impossible, for the President to specify in advance for a whole year what the FOMC should do through open market operations; for him to try to do so would serve no good purpose.

In giving any directive to the Fed, Congress or the President should recognize the importance of short-run money market conditions as one consideration in the implementation of monetary policy.

In my judgment, the Federal Reserve has been unduly concerned many times in the past with short-term money market conditions. Care should be taken that such considerations not be allowed to dominate long-run monetary policy. The recent announcement of changes in the discount procedure marks an important step toward placing more reliance on the market to make its own short-run adjustments. However, seasonal variations, variations in float, short-term government financing requirements, and the like, are important enough to justify careful attention to them on a day-to-day basis. Pending a more complete understanding of how the markets now act and would act under less Federal Reserve intervention, it would be dangerous to remove completely such market conditions from considerations in making monetary policy.

I–5–B and C. Open market operations seem to me the most important channel for the Federal Reserve to influence money markets and the growth of the real economy. However, I see nothing to be gained through removing the Fed's power to change reserve requirements, and I favor more extensive use of rediscounting as a device to permit individual banks to adjust their reserve positions. I think that, as indicated above, the recent Federal Reserve discount proposals are a step in the right direction; I would move even further toward reliance on individual bank discounting.

I do not believe that regulation Q, or comparable ceiling individual rates, are desirable policy. The Fed should rely more heavily on quantitative measures, mainly open market operations. However, the abrupt elimination of direct controls and rate ceilings might be disruptive. Thus, the Federal Reserve and other supervisory agencies should move as rapidly as is feasible to raise such rate ceilings to the point where

they have little impact, thus gradually removing them from active use except under exceptional circumstances.

I–5–D. I see no reason why the Federal Reserve Board should not be asked by Congress to submit regular quarterly reports on the actions it has taken, while recognizing that such reports should not be expected for a matter of some weeks or possibly a couple of months after the end of the quarter. I oppose any requirement that would make the Federal Reserve report its prospective actions to the Congress. Public announcement of such advance plans would make the implementation of stabilizing monetary policy extremely difficult. For the Federal Reserve to tie its hands in this way in advance of unforeseen developments would seem foolhardy under present circumstances. The present reports of the FOMC, received some 3 months after the action is taken, seem generally appropriate to me. They might be more detailed and more clearly relate the actions taken to policy goals, but to try to enforce more detailed quantitative as well as qualitative reporting would be of dubious value, pending the results of further research on the entire subject covered by H.R. 11.

I–5–E. I see no important advantages to be gained from having representatives of the Congress, Treasury, or CEA as observers at open market committee meetings. This reflects my judgments that there are substantial advantages to be had from a Federal Reserve which has substantial "independence" *within* the Government. To make the Federal Reserve completely independent of the executive branch and Congress would be foolish and pointless in a democratic government like ours. But to make the Federal Reserve completely subservient to the President would lose some real advantages that the Nation now gains from having the Federal Reserve as a buffer between the day-to-day swings of public and political processes and the longer range goals of monetary policy. I have presented my views on this matter, including a detailed analysis of the problem, in testimony before this committee ("The Federal Reserve System After Fifty Years," vol. 2, 1964, pp. 1387–1398).

II–1–5. I have presented my views at length on these matters before this committee in the 1964 hearings, "The Federal Reserve System After Fifty Years" indicated above. Briefly:

1. I see little to be gained from retiring Federal Reserve bank stock at this time. If the Federal Reserve were being established now, clearly there should not be such stock owned by the commercial banks. On the other hand, it has now become an accepted part of the system and does no apparent harm. This is not an issue that would justify stirring up a major controversy now.

2. If the structure of the Federal Reserve were to be re-formed, I would favor a reduction in the number of Board members to five, and shortening of the stated term of office. A five-man board with a 10-year term of office would be an appropriate compromise between the desire to keep the Board insulated from short-term political pressures and also sensitive to changing public views reflected by both Congress and the administration.

3. I strongly favor making the term of the chairman of the Federal Reserve Board coterminus with that of the President of the United States. To saddle a President with a Reserve Chairman in whom he does not have confidence is likely to lessen the influence of the Federal

Reserve rather than to increase it. As a practical matter, the benefits from a semi-independent Federal Reserve like ours come mainly in assuring that the points of view of the monetary authorities is strongly stated and duly considered in governmental policy formation and execution. Thus, it is highly important that both the President and the Congress respect and feel comfortable with the Chairman of the Federal Reserve Board, if he is to participate effectively in influencing governmental macroeconomic policy as well as overseeing narrower money market actions of the Federal Reserve itself.

4 and 5. Since I believe that there are substantial benefits from maintaining a semi-independent Federal Reserve along the general lines we now have, I oppose placing the Federal Reserve under annual congressional appropriations or providing for an audit of the Federal Reserve by the Comptroller General of the United States. As a practical matter, to place the Federal Reserve under these two rules would be to put it closely under the control of Congress and to subject it to short-run, almost day-to-day, intervention and control by the Congress. The evidence indicates that the Federal Reserve currently is effectively audited by an outside auditor and that it exercises commendable care in the expenditure of funds. The likely savings to the public from these two steps would be minute; the likely cost would be great through eliminating the degree of independence which the Federal Reserve now has from short-run political pressures. The Congress is free at any time, under the present arrangement, to intervene in Federal Reserve operations and to call the Federal Reserve to account. No more direct control seems to me needed or appropriate.

STATEMENT OF MARTIN BRONFENBRENNER, CARNEGIE-MELLON UNIVERSITY (PRO-TEMPORE) VANDERBILT UNIVERSITY

1. I find it more than usually difficult to reply to your most recent questionnaire to economists, dated July 9 of this year. This difficulty is not only due to the searching character of your questions, but involves my incomplete sympathy with the Employment Act of 1946, which you appear to take as given and propose to strengthen from the monetary side. In my view, this laudably intentioned statute, taken seriously and literally, opens the door to unlimited cost-push inflation by collusive bargaining between business and labor, with price and wage increases chasing each others' tails in spiral fashion. This is because monetary and fiscal agencies would be obligated to "validate" by expansive policies each sucecssive round of wage and price increases, all in the name of maintaining full employment and output, and maximizing the economic growth rate. Whatever the deficiencies of Federal Reserve monetary management in the years since 1946, it has deserved primary credit for preventing any such "Latin America, here we come" type of runaway inflation.

2. My personnel monetary-policy view, spelled out most fully in the *Journal of Law and Economics* (1965) is that the monetary authority should so regulate the money supply that in each period (month or quarter) it grows at a rate equal to:

The estimated growth rate of the full-employment labor force in that period, *plus*

The estimated growth rate of man-hour productivity in that period, *minus*

The estimated growth rate of monetary velocity in that period.

In symbols: $(dM/M) = (dL/L) + (d\pi/\pi) - (dV/V)$. This formula can be derived from the equation of exchange ($MV = PY$) by relating national income (Y) to the labor force (L) and labor productivity (π), ($Y = L\pi$), and by holding the price level (P) constant ($dP = O$). It makes no difference which detailed definition of the money stock (M) one uses, provided only that the definition of the income velocity of circulation (V) is consistent with our definition of M.

3. This rule should be followed as closely as may be by the monetary authorities, with unavoidable errors in one period compensated by adjustments in the subsequent one rather than being permitted to cumulate. The mechanism of following this rule should be primarily open market operations, and secondarily variations of commercial-bank reserve requirements. (In my opinion, the present upper limit on the commercial-bank reserve ratio is too low, and should be either raised substantially or replaced by a limitation on the permitted *rate* of increase per year.) We should also reconsider imposition on commercial banks of variable "secondary reserves" of Federal debt securities, as has been advocated many times.

4. The monetary rule, and its anticipated effects, should serve as guides for policy recommendations by other public agencies, including both the Congress and the members of the Washington administrative "Quadriad" (Treasury Department, Council of Economic Advisers, Bureau of the Budget) more directly concerned with taxation, public expenditure, debt-management, and employment problems.

You will notice that the rule says nothing of the foreign exchanges. My belief is that, like commodity markets, they should be left free, subject only to limitations on daily (or possibly also longer-period) rates of change in either direction.

I should also propose removal of the existing prohibition of interest payments on bank deposits, or of the existing legal maxima on rates paid on time deposits, certificates of deposit, savings and loan shares, and similar credit instruments.

5. The details of Federal Reserve System structure embodied in H.R. 11 seem, if you will pardon my saying so, matters of subsidiary importance. I should, instead, be interested in procedures for identifying and disciplining members of the Board of Governors, or subsidiary staff members, responsible for egregious and continued breaches of the proposed monetary rule.

6. Should experience indicate that this rule poses insurmountable estimation problems or disorderly interest-rate gyrations, or should collusive-bargainers be able to "strike" against it effectively over long periods, we may consider suspensions, modifications, or return to "discretion," but we should not assume the worst in advance. Furthermore, we should realize both the necessity of *threatened* unemployment and excess-capacity to keep cost pushers under control and the initial implausibility of such threats unless *actual* unemployment and excess-capacity are permitted after bargained wages and administered prices rise.

7. My criticism of post-1964 monetary policy is twofold. Most importantly: The Federal Reserve System has permitted the monetary growth rate (dM/M) to fluctuate between wide limits, first letting inflation proceed almost unchecked and then causing near-panic con-

ditions by sudden applications of monetary brakes. (The resulting rises in interest rates and declines of credit availability, called crunches could have been avoided at least cost by slower monetary expansion in the first place.) My less important criticism, at least for the short run: The long-period or average growth rate of the money supply has been somewhat too high, and interest rates somewhat too low for price-level stability.

8. I am aware of wide divergencies between the positions outlined above and the current "conventional wisdom" within my profession. Perhaps two closing statements are in order: (1) I should *not* be read to imply that "only money matters," and (2) I see no dichotomy between monetary and fiscal policy. We need not choose between them, and both can work in harmony. Among those economic authorities with whom I find myself most nearly (although not completely) in agreement are Karl Brunner, of Ohio State and my colleague, Allan Meltzer, of Carnegie-Mellon (both of whom have worked with you and your committee), Milton Friedman, of Chicago, and E. S. Shaw, of Stanford.

Submitted with respect transcending any disagreement.

STATEMENT OF KARL BRUNNER, OHIO STATE UNIVERSITY

Reply to Questionnaire on H.R. 11

I. 1 AND 2

Two conditions are both necessary and sufficient for a meaningful "coordination" of monetary policy, fiscal policy, and debt management policy. The first condition involves an adequate choice of objectives and a sufficiently clear and stable concensus concerning the relative weight assigned to the objectives selected. The second condition pertains to an adequate knowledge of the economic process linking policy actions and objectives. Neither condition has been satisfied by our policymaking institutions. The authorities neglected to acquire an adequate knowledge of monetary processes linking policy and the behavior of bank credit, interest rates, and money supply. This neglect obstructs rational monetary policies and causes serious misinterpretation by the authorities of their own policy. In the absence of any reliable knowledge about the broad properties of monetary processes any requirement to coordinate policies remains quite useless. There is little advantage in coordination executed in the context of serious misinterpretations concerning the structure of monetary processes.

The recent trend in policymakers' choice of objectives poses another problem for meaningful coordination. Policymakers appear inclined to extend and complicate the range of objectives. Moreover, they also appear inclined to modify quite rapidly the relative weight of various objectives or constraints. In such contexts every policy mix actually pursued can be easily justified to be optimally designed and properly coordinated. For every policy mix there exists a set of objectives and a conception of monetary processes which permits a policymaker to claim optimality of existing policies relative to such conceptions and selected objectives and in the absence of a comparatively stable consensus concerning objectives and in the absence of validated conceptions about monetary processes the requirement of coordination is premature and useless.

I. 3.A

If the authorities possessed perfect knowledge about the structure of monetary processes their policies could be directly adjusted in response to the desired state of ultimate goals summarized by the Employment Act. Our imperfect knowledge and the lag in the accrual of information concerning the state of the economy make it advisable to guide monetary policies in response to an intermediate target intercalated between the instruments used for policy actions and the ultimate goals. The money supply (inclusively or exclusively) still appears at the present stage to provide the most reliable shortrun target of monetary policy.

The transmission of monetary impulses to the pace of economic activity is mediated by a relative price process affecting the whole range of assests and liabilities. The impulse reaches the demand for current output via the substitution relations existing between the holding of assets and the purchase of their services, or the substitutions between existing and newly produced assets. In the context of this transmission process monetary policy is not restricted to channels operating essentially via investment expenditures, neither is it dependent on the relative importance of borrowing costs or the sizable occurrence of credit transactions.

The Federal Reserve authorities could execute the target policy in the following manner.

(*a*) First, the authorities determine an acceptable range for the growth rate of the money stock over the next 6 months (see I. 3.B for further remarks on this point).

(*b*) The authorities assess the expected movement of proximate determinants of the money stock (i.e. of currency ratio, time deposit ratio, adjusted reserve ratio, and Treasury deposit ratio) for the next 2 or 3 months.

(*c*) With the assessment of the proximate determinants available, the authorities determine the growth rate of the base for the next 2 or 3 months required for the average growth in the money stock determined in the first step.

(*d*) The assessment of proximate determinants should be reconsidered every month and consequently also the required growth rate of the base.

One last aspect needs emphasis at this stage. The dispute concerning the optimal choice of intermediate targets remains quite unsettled. A good part of the discussion bearing on these and related issues was unfortunately not designed to settle the pending issues. Such discussions could become substantially more constructive if every participant would specify the analytical and evidential results which will dispose him to accept or *reject* any specific traget proposals, including his own. These conditions would reveal more sharply the existence or absence of an adequate analysis in support of a particular proposal.

I. 3. B AND D

Under the present circumstances broad indicators of economic activity closely associated with our ultimate goals offer poor guidance for the continuous adjustment of policy. It was stated above that the growth rate of the money stock is the most useful target at present. It would be inappropriate however, in the context of fixed exchange

rates, to impose a rigid constraint on the required growth rate of the money stock. Monetary growth should be maintained within a band (say 2–6 percent p.a. for the exclusive money stock) without any sharp reversals and counterreversals following in close succession as in the recent past. Adjustment of monetary policy to the conditions of the balance of payments does not require the pronounced short run instability exhibited by past policies. A 6-month target between 2 percent and 6 percent without radical changes between successive 6-month periods should be sufficient to cope with balance-of-payments problems. Frequent or decisive changes in the target should be justified by the Federal Reserve authorities by a detailed analysis submitted to the appropriate congressional committees. The procedure described is loose and flexible enough to permit operation over several years. A gradual adjustment with growing experience will unavoidably occur.

I. 3F

The Federal Reserve authorities should have the power to change the growth rate within the band described above. Similarly, they should be given the right to move on exceptional occasions outside the band. In the latter case and in case the authorities change the target by more than 1 percent between any two adjacent 12-month periods a detailed report and analysis justifying the decision would be required. The reports submitted should be subjected to hearings by appropriate congressional committees. This procedure imposes some restrictions on Federal Reserve policy and also generates pressures to acquire better validated conceptions which are exposed to critical examination.

I. 5.A

The criteria guiding the Federal Reserve's defensive operations dominated on many occasions its policy conception and reinforced the misinterpretations of policy. The constraints on the required growth of the base sketched above would sufficiently attenuate at the moment the concern for defensive operations. Further restrictions appear unnecessary at the moment.

I. 5. B AND C

Neither academic literature nor Government documents have ever established a case for the existence of reserve requirements or the Federal Reserve's power to change the requirement ratios. Similarly, no relevant analysis or evidence has ever been presented on behalf of regulation Q. And the case for discount policy rests essentially on strictly political considerations. From the point of view of a rational monetary policy designed to shape a stable movement in economic activity, open market policy is the only instrument required for the authorities. All the other instruments were dominantly used for political purposes, or purposes of income distribution or allocative purposes. The use of monetary policy instruments for purposes other than monetary stabilization only aggravates the problems of confronting the Federal Reserve authorities.

I. 5. D AND E

The requirement of quarterly reports would contribute to the development of a greater sense of intellectual responsibility on the part of the Federal Reserve authorities. The reports could be an excellent device compelling the authorities to acknowledge their responsibility to execute policy on the basis of whatever systematic knowledge is at their disposal. The reports should require a description of their recent policy including a detailed and specific justification for the interpretations advanced. The reports should also explain the recent movements in the money stock and the role of policy in the observed behavior. Moreover, the reports might usefully include projections of the money stock and bank credit and describe the policy required to realize such projections.

II. 1 TO 5

The first proposal has little bearing on the conditions for a rational monetary policy and the last proposal does not promise suitable pressures for a rational longrun policy.

Proposals 2 and 3 simplify the Federal Reserve's organizational structure and should be welcomed. Proposal 4 might obstruct an allocation of resources by the Federal Reserve System which cannot be justified in terms of monetary policy considerations and the conditions required to prepare and execute a rational policy.

III

Four aspects of oue monetary policy pursued since 1964 should be recognized.

(*a*) The misinterpretation of policy conveyed to the public and the press in the late fall of 1965. The increase in the discount rate was generally interpreted as a move toward a more restrictive policy. Policy became actually more expansionary until May/June 1966.

(*b*) A sharp reversal occurred around May/June 1966. The break in policy was sudden and substantial. This reversal in policy was the single most important factor contributing to the minirecession of 1967.

(*c*) A counterreversal occurred in November/December 1966. This counterreversal was at least as sudden and pronounced as the previous reversal and prevented the retardation beyond the scope of a minirecession. Policy during the year 1967 followed one of the most expansionary courses on record, and contributed to the substantial accelerations in economic activity and the price movements.

(*d*) Monetary policy continued in 1968 to apply substantial thrust to the economy. Until August 1968, monetary policy has not contributed to any significant retardation. But the absence of any further accelerations in current monetary policy generates a state where the consequences of last year's accelerations exert a slightly retarding effect. Even without a sharp deflationary break in monetary policy we should expect a moderate retardation in our economy this winter.

STATEMENT OF MEYER L. BURSTEIN, WARWICK UNIVERSITY AND ASPEN, COLO.

ANSWERS TO "QUESTIONS ON MONETARY POLICY GUIDELINES AND OPEN MARKET OPERATIONS"

I.1. Surely monetary and fiscal policies should not be treated as independent.

2. H.R. 11 concerns the *President's* recommendations. Obviously the President should alone be responsible for his own recommendations. The question verges on larger questions of distribution of monetary powers between the Executive and the Federal Reserve. *Ideally* such powers should, I think, be concentrated in the former. Political realities appear to favor the present arrangements.

3.a. My views on the theoretical aspects of this problem are fully expressed in two books. M. L. Burstein, *Money* (Cambridge, Mass.: Schenkman Publishing Co., Inc.; 1963) and M.L. Burstein, *Economic Theory: Equilibrium & Change* (London: John Wiley & Sons, Ltd.; 1968), esp. ch. 13. I would argue for a minimum of specificity in H.R. 11 and perhaps to that extent am unsympathetic with H.R. 11 itself. Thus the quoted language would be improved, I think, by eliminating the words, "including the money supply as defined by him." Turning to the question itself, I can think of no sensible reason for concern with *money supply* for its own sake. So naturally I would be more interested in policies focusing on such variables as interest rates and credit availability, affected by monetary policies as they are, than in policies focused on "M" purely and simply. The complexity of the underlying analytical and practical problems is such that *no* specific language should appear in the bill: it is enough to state that the President should give views on monetary policy. Elementary considerations of legal draftsmanship as well as those of economic theory support this conclusion.

3.b. In this context past performance is interesting only to the extent that it permits prediction of future events. And, since econometrics is so crude a technique dealing with so difficult a subject, no specificity should exist on connection with these indexes.

3.c. I think that the question is rather futile. See my answer to 3.b.

3.d. Obviously one must be extremely flexible about this sort of thing. Under no circumstances would we wish to give Government functionaries incentives to cook their statistics in order to support one or another rigid theory which they have become identified with.

3.e. No answer.

3.f. I would make no mandatory limitations. I am positively opposed to simplistic "rules" for monetary policies. I surely am opposed to putting authorities into "statistical" straitjackets. My concerns along these lines are heightened by international considerations. The ideology which appears to underlie H.R. 11 included floating exchange rates. But, so long as we do not have floating exchange rates, BOP considerations must loom large in official calculations and will from time to time lead to substantial departures from paths suggested by internal considerations only.

4. Debt management can, I think, play a limited part, a distinctly limited part, in implementing these policy goals. Only massive debt management operations carried on over short intervals could have

much impact. These are empirical judgements. There is sound theoretical authority for debt-management operations to have *some* effects.

5.a. Let me begin by stating my strong opposition to the language stated in 5. I think it important that the deliberations of the Federal Reserve Board not be published and am unhappy about the degree of publication which already has taken place. Such publicity is inconsistent with discretionary policies, and discretionary policies are favored by me. (Cf. my answer to 3.f.) Of course, open market operations inevitably will be used for defensive purposes from time to time: the authorities cannot identify the forces against which they are operating until rather long after the fact. Nor can I categorically oppose open-market operations in this connection. Still I favor Federal Reserve discounts and advances as the preponderant defensive device as did the Mitchell committee: open-market operations are a crude procedure to control forces which tend to operate unevenly, both geographically and otherwise; the "size" of the defensive operations usually is open ended while open-market operations are difficult to fine tune to that extent.

5.b. No. My answer to 5.a goes far to support this answer. Obviously the relationship of FR discount rate to market rates is considerably important: large open-market sales would be less effective if discount rate were permissive for example. Of course, we must distinguish between open-market operations designed simply to accomplish a certain change in the monetary base from others in which the operator is instructed to deal freely at specified bill rates; the latter instance has effects not greatly different from policies geared to bank rate in the traditional British fashion for example.

5.c. I have indicated that I regard rediscounting as a legitimate and significant central-banking device. And reserve-requirement changes can, from time to time, be useful, noting that greater selectivity of impact effects is possible through these. I do not esteem regulation Q in this connection. I would not refer to these matters in H.R. 11.

5.d. I make clear in 5.a that I am opposed to requiring the Federal Reserve to make such reports. The upshot would find the Federal Reserve more conscious of the political implications of their actions than now is the case and would tend to polarize attitudes: as in the United Nations, the political consequences of backing down tend to become amplified under the glare of publicity.

5.e. None. This humiliating suggestion would cause the Board simply to meet in each other's homes in secret.

II.1. No comment.

2. I favor this. An incompetent member now is permitted too long a tenure if indeed competence ever has been critical for reappointment.

3. No, I am opposed. This would put the Federal Reserve into the heart of politics, leading up to a worse system than at present: there would be no real independence of the Federal Reserve but there would be considerable administrative and other confusion.

4. Why?

5. Machievelli said, "either embrace men or annihilate them." Contumacious and petty measures such as this would not destroy the powers of the Federal Reserve but would poison the atmosphere of monetary policymaking.

III. This is too large a matter for treatment in this format.

21–570—68——8

STATEMENT OF PHILLIP CAGAN, COLUMBIA UNIVERSITY

I. ON MONETARY POLICY GUIDELINES AND OPEN-MARKET OPERATIONS

On coordinating monetary and fiscal policy:

1. Do not use fiscal policy for stabilization. It is too slow and cumbersome.

2. A program a year ahead is too far ahead to plan and is, therefore, impracticable. Policy changes need to be flexible. Only set general policy for the year, provisional guides.

3. Concerning monetary policy guidelines:

A. Goal: Currency outside banks, plus demand and time deposits. Target: Monetary base.

B. It is best to keep an even rate of growth to avoid disruptions—with only slight variations.

C. No comment.

D. Guidelines should be reviewed periodically—cannot look a year ahead.

E. The guidelines should be determined by price trends.

F. Flexibility of money supply growth outside the guidelines should be allowed to some extent if recession develops or price trends change.

4. Concerning debt management policy. Avoid rocking the boat. Keep average maturity relatively constant.

5. Concerning open-market operations:

A. I agree with ignoring transient influences in conducting open-market operations, but we must give marketing institutions time to adjust to this change of Fed behavior whereby a money supply growth rule is followed.

B. Monetary policy can be implemented solely by open-market operations.

C. Abolish rediscounting; do not change requirements; abolish regulation Q.

D. There is no need for a report. Avoid wasteful paperwork. If policy were a certain rate of monetary growth, intended rate could be announced.

E. I see no merit in having observers at open-market committee meetings. Acrimony and indecision would result. Avoid dispersing decisionmaking power.

II. No comment.

III. Concerning recent monetary policy, there has been too much fluctuation in the money supply. This has been disruptive to the economy.

STATEMENT OF GREGORY C. CHOW, IBM RESEARCH CENTEl

I. ON MONETARY POLICY GUIDELINES AND OPEN MARKET OPERATIONS

1. I believe that a program coordinating fiscal, debt management, and monetary policies should be set forth at the beginning of each year for the purpose of achieving the goals of the Employment Act.

2. I believe that the President should be responsible for drawing up this program.

3. Concerning monetary policy guidelines:

A. I believe that monetary policy should be used via intervention of money supply (defined as currency plus demand deposits adjusted) alone. Interest rates, like other prices, should not be directly manipulated but left to the determination by market forces. High-power money cannot serve as a target, but only as an instrument, since it affects the level of economic activity only indirectly through its effect, among the effects of other factors, on the quantity of money. The Federal Reserve may be given much discretion in choosing the means of controlling the target variable (the supply of money). It is fully recognized that the level of economic activity is governed by other factors than the supply of money (current, past, and even expected in the future), but controlling this variable can diminish economic instability and promote economic growth.

B. The guidelines of monetary policy should be specified in terms of the target variable's value or growth, rather than some index of past, present, or future economy activity, because we do not yet know precisely enough the dynamic relationships between the target variable and future indexes of economic activity, and because too much manipulation of money supply would by itself create uncertainty in the economic world, thus leading to economic instability.

C. Not relevant for my position.

D. The same guidelines should be used each year into the foreseeable future, again because of the reasons stated in B above.

E. I recommend 3.5 to 4.5 percent per year for the range of growth of money supply (currently plus demand deposits adjusted) for the following reasons.

Empirical studies of the past seven decades, including my own, have shown that the demand for money in constant dollars is proportional to real GNP, given the rate of interest, and decreases by about 0.75 percent for a 1-percent increase in the rate of interest. These findings are also consistent with postwar experience. From 1950 to 1967, real GNP grew at an average annual rate of 3.7 percent, while the rate of interest increased at an average rate of 4.1 percent, thus accounting for about 3.7–(.75) 4.1 or 0.6 percent increase in the demand for money per year. Since the supply of money increased at an average annual rate of 2.6 percent, the excess of supply over demand, at about 2 percent per year, is sufficient to explain the rise in price (at an average annual rate of 1.9 percent by the Consumer Price Index, or 2.2 percent by th GNP deflator) during the same period.

Thus, if the rate of interest were to be kept from rising, the supply of money should be increased at the same rate as real GNP. From the experience of the last 5 years (1962–67), real GNP was capable of growing at an annual rate of 4.7 percent. Therefore, the growth of the stock of money at a rate of 4 percent can be absorbed by the growth of real GNP without causing inflation and rising interest rates—witness the period from 1962 to early 1965, when the stock of money was rising at about 4 percent per year and both the rate of interest and the price level were fairly stable.

A question still remains. Although a 4 percent growth in money supply and in real GNP is consistent with stable price and stable interest rate, can one exclude the possibility of rising price, to be compensated for by rising interest rate? This possibility is unlikely if the rise in the rate of interest in the past has been due to insufficient money supply, or to the expectation effect of inflation resulting from an excess of money supply in certain periods. Both of these causes will be weakened by the introduction of the policy here recommended. Note, however, that insofar as the rate of interest is also affected by other factors, it may experience a rising (or falling) trend independently of the monetary policy here recommended, and should this happen, the demand of money would fall (or rise), thus requiring a smaller (or greater) increase in money supply.

F. From the analysis just presented, I recommend that the range of 3.5–4.5 percent for the rate of growth in money supply be adhered to for at least 5 years. After that, the range may be adjusted for another 5 years only if there should be strong evidence for a serious inflationary or deflationary trend observed during the first 5 years. Under no circumstances should monetary authorities be permitted during the year to adjust the target variable outside the range issued at the beginning of the year.

4. Concerning debt management policy: I believe that debt management has little role to play in this matter. Debt management here presumably means managing the composition of Government debt, not its total which is the result of past Government deficits and surpluses. I share the view of the majority of economists that the *quantity* of a certain form of assets, namely, money, has more influence on economic activities and especially on the price level than does the *composition* of one type of assets, namely, Government debt.

5. Concerning open market operations:

A. I do not recommend using open market operations to counteract seasonal and other transient factors affecting money market and credit conditions.

B. I believe that monetary policy can be effectively and efficiently implemented solely by open market operations.

C. For the purpose of stabilizing the rate of growth of money stock, I do not see that changes in (a) rediscount rate and (b) reserve requirements can accomplish any more than what open market operations can. I am not in favor of regulation Q, or any Government attempt to control the rate of interest in the market.

D. I see no compelling reason for requiring the Federal Reserve Board to make detailed quarterly reports to the Congress on past and prospective actions and policies. As long as the President shall transmit to the Congress by January of each year a program including the growth of the money supply, it is not essential for the Federal Reserve Board to make detailed quarterly reports to the Congress. Such a requirement may facilitate control of the Federal Reserve Board by the Congress, but if the President is to coordinate monetary and fiscal policies under the amended Employment Act of 1946, it is his responsibility to insure proper execution of these policies. The real question is how the President can fulfill his responsibility if the Federal Reserve Board reports directly to the Congress.

E. It is unnecessary to require representatives of the Congress to serve as observers at Open Market Committee meetings because, once given the responsibility and the rule of conduct, the Open Market Committee should be given a free hand to discharge its responsibility. If the committee should consider it beneficial to have observers from the Treasury and the CEA (or from the Congress), it could invite them on its own.

II. APPRAISAL OF THE STRUCTURE OF THE FEDERAL RESERVE

1. I have no strong feeling about the retiring of Federal Reserve bank stock;

2. I am in favor of reducing the number of members of the Federal Reserve Board to five and their terms of office to no longer than 5 years;

3. I am in favor of making the term of the Chairman of the Board coterminous with that of the President of the United States;

4. I am in favor of an audit for each fiscal year of the Federal Reserve Board and the Federal Reserve banks and their branches by the Comptroller General of the United States;

5. As in II.1 above, I have no strong feeling about the appropriation of funds by Congress to operate the Federal Reserve System. The proposal under H.R. 11 seems superior to the existing arrangement, but the latter is not the main defect of the Federal Reserve System today.

III. COMMENTS ON RECENT MONETARY POLICY

I would not wish to attribute changes in economic activity since 1964 to specific monetary policies, because I believe that the assignment of cause and effect cannot properly be made by simply citing the movements up and down of a few economic variables, especially when the history is so short and recent. I would also warn against readily accepting the criticisms of the Federal Reserve which are based on such citing of movements between a few economic variables. For example, whether the slow monetary growth in 1966 was the main cause of the mini-recession early in 1967 can be answered only by a much more elaborate analysis than the presentation of these facts alone.

STATEMENT OF CARL F. CHRIST, THE JOHNS HOPKINS UNIVERSITY

DEAR MR. PATMAN: I am honored by your request for my views concerning H.R. 11. The pressure of other commitments has prevented me from writing a detailed reply to your thoughtful questions.

However, I believe that my testimony before the Joint Economic Committee on May 9, 1968, will give you a good deal of information about my opinions concerning the proper relationship between the Congress and its creature, the Federal Reserve System.

(The testimony follows:)

Mr. CHRIST. I am very glad to be here today, Senator Proxmire, to contribute what I can and also to learn from the committee and my fellow witnesses.

The central questions before us today are whether the Federal Reserve (*a*) *can* and (*b*) *should* cause the stock of money to increase

fairly steadily at a rate of about 3 to 5 percent a year, and (*c*) what circumstances, if any, would justify a higher or a lower rate of growth of the stock of money.

The main objectives of monetary policy are full employment and a stable price level.

At the outset we have to admit that we cannot hold the Federal Reserve responsible for everything that happens in the economy. In the first place, there are other factors on the scene, and the Federal Reserve cannot accurately forecast what they will all do. In the second place, the effects of Federal Reserve policy are not all felt immediately; they are spread out over a period of variable length, but at least several months. These two facts mean that the Federal Reserve often cannot know what is the proper action to take today, in order to offset some disturbance that will happen next week and whose effect will be felt next month or next quarter.

But even granted perfect prediction, we could not hold the Federal Reserve responsible for everything, for there are times when a choice must be made between two conflicting aims, and even the Federal Reserve cannot have both.

For example, suppose—not unrealistically—that the Treasury, acting under instructions from the Congress, undertakes a large increase in spending, and that the Congress does not increase tax rates—when I wrote this, the Congress didn't look as though it was going to increase tax rates and I am very pleased that it now looks as though this may happen.

The obvious result would be a large increase in the budget deficit, if there were an increase in expenditures with no increase in tax rates. The Treasury would have to finance this deficit by offering new U.S. Government securities for sale. What will happen? Consider two possibilities.

First, the Federal Reserve could assist in the financing by buying and holding whatever portion of the new securities is not taken up by private investors. In that case, the stock of money would increase, because part of the money that the Treasury spends would be created when the Federal Reserve buys new Treasury securities.

Or, take the second possibility, the Federal Reserve could decline to assist in the financing; that is, buy none of the new Treasury securities offered. In that case, the Treasury would have to offer better terms to the private market; that is, higher interest rates, in order to induce the private market to buy all the securities offered. Then the stock of money would not increase, but interest rates would increase.

Thus, the Federal Reserve has a choice, when faced with a Treasury deficit; the Federal Reserve can increase the money stock while maintaining interest rates about the same, or hold the money stock fixed while permitting interest rates to go up. Of course, one could imagine a policy somewhere between these two, permitting some increases in both the money stock and in interest rates. But the Federal Reserve cannot stabilize both the money stock and interest rates in this situation when there is a large deficit.

Similarly, when faced with a Treasury surplus, the Federal Reserve has a choice between stabilizing the money stock while interest rates fall, or stabilizing interest rates while the money stock falls, but cannot stabilize both.

It is pretty clear that the Federal Reserve can control the stock of money within narrow limits. I mean they can make the stock of money, come within plus or minus one-half percent of any desired level, 99 weeks out of 100.

By the way, the money stock concept I am using is the Federal Reserve's own: currency and demand deposits.

It is certain that a policy of increasing the money stock at 4 percent a year, or between 3 and 5 percent a year, would not be the best possible Federal Reserve policy, if we knew everything about how the economy operates. But we don't know that, and therefore, we don't know what the best possible policy is.

I would like to argue first that, given our present knowledge, we will probably have better monetary policy if the Federal Reserve sees to it that, during every calendar quarter, the increase of the money stock is at a seasonally adjusted annual rate of between 2 and 6 percent, better I mean than we would have if the Federal Reserve follows policies like those of the past. I would like to argue second that the Federal Reserve ought not to change this rate of change abruptly, from a 2-percent annual rate in one quarter to a 6-percent annual rate in the next quarter, or vice versa. Third, it is more important to stabilize the rate of growth of the money supply than to stabilize interest rates, whenever the Federal Reserve must make a choice.

For the long run, a 4-percent annual growth rate in the stock of money is about right. Real GNP has been growing at 3.9 percent a year since 1948—when one might say the economy had returned to normal after World War II. At roughly constant interest rates, which we have not had within the last 20 years, a roughly constant price level, the demand for money grows roughly in proportion to real GNP. If the money stock grows much faster than 4 percent a year, say 8 percent or more, then aggregate demand is induced to grow much faster than capacity. When demand catches up and overtakes capacity, there is upward pressure on the price level. If the money stock grows much slower than 4 percent a year, say it doesn't grow at all, or even declines, then aggregate demand is induced to fall rapidly behind capacity. When this happens, we have deflation, downward pressure on prices, and unemployment.

During 1941–45, the money stock grew at 22 percent a year; everyone agrees that this was far too fast for stability. During the depressions of 1921 and 1929–33, and all the recessions since 1921—they were in 1924, 1927, 1938, 1949, 1954, 1958, 1961—the money stock actually declined in absolute terms, which in my opinion should not be permitted.

I think that is a very important criticism of Federal Reserve policy in the past, that they have permitted the stock of money to decline during depressions.

The evidence so far is not persuasive in favor of the claim that small variations in the rate of growth of the money supply cause business cycles. But it is clear that an actual decline in the money stock, or a prolonged period of little or no growth, aggravates any recession that is in progress or that might develop. Similarly, a prolonged period of rapid growth in the money stock aggravates any overheating that is in progress or that might develop.

Furthermore, rapid changes in the rate of growth of money stock are themselves a disturbing factor.

That is why I would like to see the Federal Reserve keep the rate of growth of the money stock fairly steady, between 2 and 6 percent a year, and to vary this rate of growth only gradually.

It should be pointed out that if the Congress were to require the Federal Reserve to follow any such rule, the Congress would thereby restrict its own freedom of choice in some situations. Consider again the case in which the Congress provides for a large increase in expenditure with no increase in tax rates, so that a large deficit develops. If the Federal Reserve is prohibited from increasing the money stock at a rate greater than 6 percent a year, say via a congressional rule, then a large share of the deficit would have to be financed by the sale of Treasury securities to the private sector, thus driving interest rates very high, and not completely preventing inflation either—an undesirable situation. Notice that, if the Federal Reserve is required to keep the money stock from growing faster than 6 percent a year, and if the Congress increases expenditures greatly, then the Congress has only the following choices open: to endure high interest rates and some inflation, or to increase tax rates, or some combination of these two.

The basic alternatives among which the Nation must choose may be seen more clearly if looked at from another angle. There are three important ways in which the Treasury's expenditures may be financed: (1) by taxation, (2) by increasing the stock of money, and (3) by increasing the amount of Government debt in private hands (that is, by borrowing from the private sector). By choosing the level of Government expenditure and the level of taxes, the Congress determines the amount of the Government budget deficit, or surplus. Let's suppose there is a deficit. Then, it must be financed by some combination of increasing the stock of money, and increasing the amount of Government debt in private hands. The most important function of the Federal Reserve is to control how this deficit financing is to be divided between increasing the stock of money and increasing the amount of privately held Government debt. This the Federal Reserve does chiefly by deciding what amount of Treasury securities to buy and hold (thus increasing the money stock), and what amount—that is offered by the Treasury—not to buy, thus requiring private holdings of the Government debt to increase.

I have been speaking of a deficit, but if there is a budget surplus the opposite choice is open to the Federal Reserve, decrease either the money stock or the private holdings of Government debt.

Just as the Congress has the authority to fix Government expenditures and taxes, and thus to fix the budget deficit, so the Congress has the authority to decide how much of the deficit should be financed by increasing the money stock, and how much of it should be financed by borrowing from the private sector.

I have suggested that the Federal Reserve ought to make the stock of money grow at a rate between 2 and 6 percent a year. But the foregoing discussion makes it clear that such a policy will not work well unless the Congress keeps the budget deficit or surplus within suitably narrow limits, so that the amounts of Government securities dumped on the private market by a budget deficit are not too large, and

conversely so that the amounts of Government securities taken out of private hands by a budget surplus are not too large.

When I say the budget deficit or surplus should be kept within suitable limits, I mean a range something like a deficit of from $15 to $17 billion on the one hand to a surplus of $10 or $12 billion on the other hand.

In this sense, fiscal policy, which determines the size of the budget deficit, and monetary policy, which determines the stock of money, ought to be in harmony. The congress is the only authority that can make them so.

Treasury and Federal Reserve actions can be substitutes for each other with respect to aggregate demand. For example, the Treasury alone can stimulate aggregate demand by selling new securities to the private sector and using the proceeds to buy goods and services for Government programs. Or the Federal Reserve alone can stimulate aggregate demand by buying securities for the private sector in the open market, thus increasing the stock of money. But the effects of the two methods upon interest rates are different. When the Treasury buys goods financed by borrowing from the private sector, interest rates are bid up; when the Federal Reserve buys securities in the open market, securities prices are bid up and interest rates are pushed down.

The Federal Reserve can counteract the aggregate-demand effect of this Treasury action, or in the interest-rate effect, but not both. Treasury and Federal Reserve action can be substitutes for each other when a certain effect on aggregate demand is desired, or when a certain effect on the general level of interest rates is desired. But when there is a desired level of aggregate demand, and a desired level of interest rates, then cooperation between the Treasury and the Federal Reserve is required.

It is extremely important to realize that the policies required of the Treasury and the Federal Reserve to achieve the domestic objectives of full employment and stable prices will sometimes conflict with the achievement of balance-of-payments equilibrium at a given exchange rate. This conflict has persisted in the United States for several years, programs 3 or 4 years. It may still be with us even if the present buoyant business temper moderates. In the face of such a conflict, we have several choices. Since we have gold and foreign exchange reserves, we can continue in deficit on our balance of payments, but only until the reserves are gone. Our other choices, among which we *may* choose now, but among which we *must* choose when our reserves are gone, are these: reduce Government spending and lending abroad; impose restrictions on private foreign trade and capital movements; impose a recession on the domestic economy to dampen private import demand and possibly increase exports; or seek a new exchange-rate level where equilibrium is possible. The last of these alternatives, in my view, is the best.

It is encouraging to see the development of econometric models of the U.S. economy, in greater sophistication and detail. I believe that they hold promise of teaching us ever more about our economy and how it operates and responds to public policy. In spite of substantial improvements in the past generation, I am sorry to say that I know of no model that I would now trust with the task of formulating stabilization policy for the United States.

In summary, my answers to the questions before us are these: *First*, the Federal Reserve *can* control the stock of money very closely. *Second*, I believe it would be an improvement if the Federal Reserve would increase the money stock each calendar quarter at a seasonally adjusted annual rate of between 2 and 6 percent. *Third*, the Federal Reserve should adjust the rate of growth of the money stock within these limits, making only gradual changes in the rate of growth, and raising or lowering that rate of growth in accordance with its best judgment as to whether economic conditions are—or soon will be—too bouyant or to slack. *Fourth*, this policy will work best if the Congress will keep the budget deficit or surplus from being very large, and from changing very rapidly.

There is the end of my opening statement, Senator Proxmire. I have an appendix of tables at the end of the prepared statement that might be useful——

Chairman PROXMIRE. Without objection it will be printed in the record in full.

Mr. CHRIST. Thank you very much.

(The appendix tables follow:)

APPENDIX TABLES

TABLE 1.—DECLINES IN THE U.S. MONEY STOCK (DEMAND DEPOSITS AND CURRENCY, SEASONALLY ADJUSTED) DURING DEPRESSIONS AND RECESSIONS SINCE 1921

Month during which the money stock reached its peak	Percentage decline on the money stock during recession	Number of months before the money stock regained its previous peak level
March 1920	15.0	53
December 1922	2.0	10
September 1925	3.0	26
October 1929	33.0	79
March 1937	6.0	20
January 1948	2.0	27
July 1953	.2	9
July 1957	1.0	9
July 1959	3.0	27

Source: M. Friedman and A. Schwartz, "A Monetary History of the United States," pp. 709–715, and Federal Reserve Bulletin, June 1964, pp. 682–690.

TABLE 2.—RATE OF CHANGE OF THE U.S. MONEY STOCK (DEMAND DEPOSITS AND CURRENCY, SEASONALLY ADJUSTED) ANNUAL PERCENTAGE GROWTH RATES FOR CALENDAR YEARS AND QUARTERS, 1956–68

Year	Rate for calendar year	Rate for calendar quarter			
		1	2	3	4
1953	[1] 1.1	[1] 1.9	[1] 1.6	[1] 0.3	[1] 0.6
1954	2.7	[1] 1.2	2.2	3.1	4.2
1955	2.2	4.0	2.4	[1] 1.8	[1] .6
1956	[1] 1.3	[1] 1.5	[1] .9	[1] .6	2.1
1957	[1] −.7	[1] .0	[1] .0	[1] −.3	[1] −2.6
1958	3.8	[1] 1.8	5.6	3.2	4.6
1959	[1] .6	4.0	2.5	[1] −.3	[1] −3.9
1960	[1] −.6	[1] −2.8	[1] −2.3	2.9	[1] .0
1961	3.0	2.6	2.8	2.5	4.2
1962	1.4	[1] 1.7	[1] .5	[1] −1.1	4.4
1963	3.8	3.8	4.3	2.9	4.0
1964	4.1	2.9	3.9	[1] 6.2	3.3
1965	4.7	2.5	3.5	5.7	[1] 6.8
1966	2.2	5.8	3.3	[1] −.2	[1] −.2
1967	[1] 6.3	[1] 6.3	[1] 7.2	[1] 6.8	5.1
1968		4.2			

[1] Denotes a rate of change outside the range from 2 percent to 6 percent a year.

Source: Federal Reserve data for monthly averages of daily figures. Each rate is calculated from the difference between the last month of the period (year or quarter) and the last month of the preceding period.

TABLE 3.—AVERAGE ANNUAL GROWTH RATES OF SELECTED INDICATORS FOR THE U.S. ECONOMY OVER THE PERIOD FROM 1948 TO 1967

[In percent]

	Total	Per capita
1. Price level (GNP deflator)	2.1	
2. Population	1.6	
3. GNP in money terms	6.0	4.4
4. GNP in real terms	3.9	2.3
5. U.S. Government debt privately held	.7	−.9
6. Time deposits (commercial banks)	8.7	7.1
7. Money stock (currency plus demand deposits)	2.4	.8
8. Money stock plus time deposits	4.6	3.0
9. U.S. Government debt privately held, in real terms	−1.4	−3.0
10. Time deposits in real terms	6.6	5.0
11. Money stock, in real terms	.3	−1.3
12. Money stock plus time deposits, in real terms	2.5	.9
13. Velocity of money (GNP divided by the money stock)	3.6	
14. Interest rate (Aaa bonds)	3.6	

Source: Federal Reserve Bulletin, and Economic Reports of the President, 1968.

Chairman PROXMIRE. Thank you, Professor Christ.

STATEMENT OF JACOB COHEN, UNIVERSITY OF PITTSBURGH

I. REPLIES TO QUESTIONS ON MONETARY POLICY GUIDELINES AND OPEN MARKET OPERATIONS

1. I am in favor of a coordinated projection of fiscal, debt management, and monetary policies.

2. For purposes of centralized coordination, the President should be responsible for drawing up the program.

3A. Recent discussions of "indicators" and "targets" have the virtues of encouraging research on the linkages between monetary policy and real output. At the same time, however, incomplete knowledge about these linkages means that reliance on simplistic approaches—single indicators or targets—run the risk of failure.

An implicit assumption in such research is that monetary policy must work through general quantitative controls rather than through selective controls. Whether this is based on likely effectiveness or doubts as to the political feasibility of controls are questions not found discussed in current monetary debates. From the standpoint of objective economic analysis it is helpful to distinguish between the "economics" and "politics" of economic policy.

While the linkages going from monetary policy to expenditures have not been satisfactorily worked out, the linkages going "backward" from expenditures to monetary policy are more certain. Expenditures by the various sectors of the economy must be financed out of current income, out of borrowing, out of dissaving (sale of existing physical assets, sale of financial assets, reductions in money holdings). While these sources of funds may not be sufficient conditions for an increase in spending—nonfinancial sectors in the economy initially have to make decisions to spend—yet these decisions are contingent upon sources of funds. The analysis of monetary policy should put more emphasis on the final linkage—the necessary conditions for expenditure.

Income flows are not directly affected by monetary policy. On the other hand, financial sources of funds (borrowing, financial dissaving) are the concern of monetary policy. We suggest that the appropriate

target for monetary policy is the volume and composition of financial (credit) flows. While possibly this can be regarded as a "single" target, it is sufficiently comprehensive to be free of the limitations of other targets currently being advocated.

The contemporary debate on targets centers on the use of the money stock and on interest rates. Interest rates are an unsatisfactory target because the relationship between interest rates and financial flows is not a negative one. For interest rates to be a satisfactory target variable, increases in interest rates should indicate that financial flows are being restrained and decreases that financial flows are being encouraged. A study of the statistical data (quarterly data 1952–67, seasonally adjusted and unadjusted) reveals that the corporate bond rate and other money market rates and net funds raised by private domestic nonfinancial sectors have moved in the same rather than in opposite directions.[1]

If we correlate expenditures on consumer durables, residential construction by the household sector with both household personal savings and interest rates and similarly correlate corporate business expenditures on inventories and plant and equipment with business gross saving and interest rates, the same positive relationships appear between expenditures and interest rates. Underlying these positive correlations is the strong demand for credit in the postwar period. If we conceive of financial markets in terms of supply and demand curves for credit, these correlations suggest that the demand side of the market has shown sharper fluctuations than the supply side. The demand for credit has been the dynamic element responsible for both fluctuations in interest rates and credit flows. Unless higher interest rates originate on the supply side, interest rates will prove to be a misleading target for monetary policy.

Some positive correlation can be found in the seasonally unadjusted data between changes in the money stock (defined as net demand deposits, foreign deposits plus currency outside banks) and net funds raised by private domestic nonfinancial sectors. This relationship is illusory, however because changes in the private sector's holdings of money are a component of net sources of credit which in turn equal funds raised by private sectors. If we subtract changes in the private sector's holdings of money from net funds raised, the relationship becomes significantly negative. If we expand the concept of funds raised to include financial dissaving by the household and corporate business sectors the negative relationship between these flows is further strengthened. In view of these relationships, the money stock, like interest rates, fails to offer a satisfactory proxy for the behavior of financial flows.

Bank credit represents the category of financial flows with the closest linkage to monetary action. As evidenced in the experience of 1966 sharp variations in the rate of growth of member bank reserves together with maintenance or reduction of ceilings under regulation Q can succeed in reducing the rate of increase in bank loans. It is questionable however, whether the efforts of the Federal Reserve can be regarded as an unqualified success in view of the ensuing "liquidity crisis."

[1] I am indebted to Philip Wiest for running the regressions underlying these paragraphs.

More attention should be given to the possibilities of direct control of bank credit. Because borrowers from banks have limited ability to substitute one source of funds for another, control of specific categories of bank credit should be effective in controlling specific categories of expenditures. This empirical relationship between bank loans and expenditures was recognized in the fall of 1966 when the Federal Reserve attempted to control the boom in business capital outlays by controlling business loans. If the Federal Reserve had the power to impose special reserve requirements against bank business loans the expansion in capital outlays could have been controlled earlier in the boom without precipitating instability in finanicial markets, particularly the market for municipals. Consumer credit controls, special reserve requirements against bank loans, secondary reserve requirements against deposit liabilities—these are devices which have a current or potential usefulness.

The regulation of an economy's expenditures by such specific controls has less analytical appeal than the development of "pushbutton" controls or attempts to put the economy on "automatic pilot." Yet there is ample intellectual challenge in evaluating (*a*) the past effectiveness of specific controls in the United States and Western Europe, (*b*) the selective effects of general controls, (*c*) the ability to "fine-tune" selective controls and (*d*) the transitional problems associated with their introduction. Whether we are less economically free when we are subject to such controls as compared with the effects of inflation is a related philosophical issue.

B. While we suggest total financial flows in the economy as the appropriate target, we would be opposed to guidelines which call for a fixed rate of growth in financial flows. The composition of financial flows and their linkages with real spending and financial spending should temper any decision as to the appropriate rate of growth. For example, a distinction would have to be made between a sector's borrowing or financial dissaving which financed real expenditures and borrowing or financial dissaving which represented simply a shift in portfolio composition. In the latter case, the extent of "financial overlay"—the ratio of financial flows to real expenditures would be changing and this would have to be considered. Secondly, a given volume of financial flow may be increasingly directed into certain "bottleneck" areas of spending and thus exert an inflationary effect even though total flows remained relatively constant.

Rather than gearing policy to the volume of financial flows the monetary authorities should attempt to estimate the interplay of real and financial flows in the economy. By projecting a "grid" of real and financial transactions for the major sectors of the economy the monetary authorities would be better able to determine the optimal rate of increase in financial flows.

4. In times of depressed economic activity debt management can minimize the Federal sector's competition for funds by selling of debt to the banking system. If sold to the central bank (the law permitting), variations in reserve requirements could control private bank credit expansion in subsequent inflationary periods. If sold to the commercial banks, supplementary reserve requirements which could be satisfied by commercial banks' holding government securities would prevent commercial banks from shifting from investments in governments into more profitable private loans.

5A. Open-market operations should be used to counteract transient factors (including seasonal factors) which otherwise would cause short-run instability in interest rates. While the economy could possibly tolerate an increase in short-run fluctuations in interest rates, the increased uncertainty as to interest rates could mean higher average interest rates with adverse effects on real investment.

Open market operations conducted with a view to offsetting transient movements in bank reserves may conceivably exert their own unsettling effects on interest rates particularly in the Government securities market. Presumably, however, the instability in interest rate movements would be even greater without such intervention. Possibly the revised use of the discount window as proposed by the Federal Reserve can provide an adjustment mechanism without requiring open-market transactions, thus avoiding interest-rate effects.

B. Rather than depending on the uncertain linkages running from open-market operations to expenditures on the GNP, reliance should also be placed on the control of credit by selective means, such as special reserve requirements against deposit liabilities or certain categories of bank assets, or downpayment and maturity requirements in the case of consumer and mortgage credit.

C.(*a*) Rediscounting should be retained as a safety valve enabling banks to make short-run adjustments in their reserves as the result of seasonal or other transient factors. It is difficult to think of any useful purpose being served by discretionary changes in the discount rate. Recent Federal Reserve proposals to give commercial banks a basic borrowing privilege with the discount rate moving with a "cluster" of money market rates is a step in the right direction.

(*b*) More attention should be given to making variations in reserve requirements a "two-way street." While increases are deemed a blunt-edged instrument, such drastic action may sometimes be necessary. With the likelihood that Federal borrowing will increase substantially in the near future, the direct or indirect sale of debt to the Fed could economize on Treasury interest payments. Increases in reserve requirements under such circumstances would control credit expansion based on the associated increases in bank reserves.

(*c*) A major factor in shifts in funds between commercial banks and savings institutions in recent years has been the upward adjustment of interest rates on time deposits under regulation Q. The pre-1960 situation when time deposit rates were not competitive has much to recommend it. The crunch of 1966 could possibly have been avoided had successive increases in ceiling rates not taken place.

H.R. 11 could be amended on page 10 line 16 after "monetary affairs" to state "including discount policy, reserve requirements, administration of regulation Q and the provision of stand-by powers to impose selective credit controls."

D. The idea of reporting is a good one except that it would be more consistent with the role of other departments or agencies involved in economic policy for the Federal Reserve to report directly to the President.

If reports are made quarterly the requirements should be for rather general reports because of the possible tieing up of the resources of the Federal Reserve in preparing such reports. The problem of timelags in the availability of data would also be an argument for rather general quarterly reports.

More detail could be provided in an annual report. Such reports would have great usefulness if formulated in a flow-of-funds framework which forecast the likely expenditures and sources of finance of the major sectors of the economy. The Federal Reserve has made internal use of the flow-of-funds accounts for projection purposes. Their forecasts have never been published nor a step-by-step explanation given of their derivation. Such projections would make explicit the anticipated financial flows accompanying real spending plans and would offer advance warning as to likely pressure points in the economy. The kinds of financial flows that need restraining could thus be singled out.

E. Since H.R. 11 calls for the abolition of the Federal Open Market Committee, the intent of this question is not clear. If open-market authority is entrusted to the Board, it should be at the discretion of the Board as to what other agencies of Government participated in their deliberations. Informal consultations with other departments or executive agencies or with Congress are of course possible and have been customary in the past.

II. APPRAISAL OF THE STRUCTURE OF THE FEDERAL RESERVE

I would be in favor of all of the structural changes proposed with the exception of 5-year terms for members of the Board. Overlapping 10-year terms would provide better continuity to the Board. Making the term of the Chairman of the Board coterminous with that of the President is an important step toward coordination of monetary and fiscal policies under the President.

III. COMMENTS ON MONETARY POLICY SINCE 1964

The outstanding impression provided by monetary developments since 1964 is that we are in an era of inflationary pressures generated by the competition of rising public expenditures with rising (and possibly induced) private outlays. It is too must to expect that conventional "hands-off" types of general monetary controls can succeed in curbing inflation. These must be supplemented by controls which directly affect the sources of finance of "trouble-making" private expenditures.

STATEMENT OF ROBERT L. CROUCH, UNIVERSITY OF CALIFORNIA AT SANTA BARBARA

I. QUESTIONS ON MONETARY POLICY GUIDELINES AND OPEN MARKET OPERATIONS

The economic authorities have three basic shots in their stabilizing locker; debt management, fiscal, and monetary policy. Of these, the former is distinctly less powerful than the latter two. It is residual to the fiscal policy adopted. Given a certain budget deficit or surplus, new securities have to be issued or old securities have to be retired. The only decision is, which securities? Potentially, this gives the economic authorities some discretion over the *structure* of interest rates. If, in the face of a budget deficit, they increase the issue of short-term securities relative to long-term securities, they will raise short rates

relative to long rates; and vice versa. The impact of changes in the structure of interest rates on aggregate economic activity is quite limited, however. Consequently, the responsible authorities should pursue what might be described as a balanced portfolio approach to the problem. They should supply those securities which, in their judgment, the market is most readily prepared to absorb. Under no circumstances should they subordinate their monetary policy to the exigencies of debt management or fiscal policy. For example, the Federal Reserve should not be pressured into purchasing Government securities in an attempt, which would prove fruitless in the long run anyway, to hold down the interest burden of the Government debt. The implications of the economic authorities' fiscal decision has inevitable repercussions on the level of Government debt. The monetary authorities should not feel circumscribed in their policy by changes in the debt one way or another. In particular, they should not feel obliged to bail out the fiscal authorities from the repercussions of their actions which, in the operationally most relevant case of a budget deficit, is higher interest rates. A given fiscal policy implies a certain debt. That should be financed most "efficiently," that is, at the lowest cost *but without subordinating monetary policy to this task.* This merely entails tailoring the individual securities issued to what the market will absorb most readily.

The two major economic stabilization techniques are, then, monetary and fiscal policy. The institutional context within which the economy operates makes it far easier to employ monetary policy in the appropriate manner for stabilization purposes than fiscal policy. Since 1960 we have had two occasions in which fiscal policy has been consciously employed for stabilization purposes. The tax cut of 1964 aimed at inducing economic expansion and the tax increase and expenditure cuts of 1968 aimed at inhibiting the unrestrained expansion underway at that time. Even casual familiarity with the events at these times indicates how difficult it is to operate fiscal policy in an efficient manner. It is primarily a question of what is called the "action lag." This is the time between the need for action being recognized and the action itself being taken. The wholly appropriate congressional control of taxes and expenditure decisions inevitably means that the time between the need for action being recognized and the appropriate actions themselves being implemented is a lengthy one. Deliberation, debate, and decision on such weighty issues are inevitably time consuming. But during this process it is entirely possible, indeed probable, that economic circumstances change to such an extent that the decision which eventually emerges is inappropriate to the then prevailing economic circumstances. The economic authorities' timing, which is of the essence where stabilization policy is concerned, is then more likely to be off than on. Fiscal timing apart, the quantity of fiscal action is also more likely to be wrong than right. Again, with congressional control of our fiscal decisions, the eventual policy recommendations are inevitably a compromise. There is no guarantee whatsoever that it will be quantitatively appropriate. At best one can expect qualitatively correct decisions. That is to say, decisions which imply an expansionary fiscal policy when economic expansion is called for and vice versa. Given the institutional format in which the fiscal game is played, it is only good fortune when the fiscal decisions are quanti-

tatively appropriate for stabilization purposes. I assume, in an imperfect world, that Congress adequately reflects our social preferences vis-a-vis the public/private division of our economic activity.

Debt management policy is relatively unimportant and fiscal policy is relatively inefficient as an economic stabilization device. What of monetary policy?

Fortunately, it can rise to the occasion. There is no doubt that an appropriate monetary policy is capable of creating an economic environment in which the aspirations enshrined in the Employment Act of 1946 would be fulfilled.

A competitive and predominantly free enterprise economy is quite capable of generating employment for all those capable and willing to work as long as it is not prevented from doing so by the introduction of arbitrary and inappropirate monetary disturbances into the system. The fact is that economic contractions and unrestrained expansion do not just happen. They are caused—and caused by the monetary authorities implementing erroneous polices. In recent years, there have been three easily identifiable such instances. Two unnecessary economic contractions or slowdowns and one unrestrained, unsustainable expansion. In 1960 and again in 1966 the Federal Reserve caused the money supply to contract. The inevitable result was that, soon after, the rate of growth in real gross national product fell almost to zero, employment fell, unemployment rose, and industrial production declined. These events were not the inevitable and unavoidable consequence of a continuously adjusting free economy. They were the direct and avoidable, consequence of the Federal Reserve contracting the money supply. By way of contrast, the latter half of 1967 and in 1968 to date, the Federal Reserve has been pursuing a wildly overexpansionary monetary policy. A rise in prices of at least 4 percent is now inevitable. There is no way this can be avoided. And if the present policies continue to be pursued, prices will continue to rise at this rate. In the last 8 years, then, the ill-conceived policies of the Federal Reserve have subjected the economy to two bouts of unnecessary contraction and one bout of unnecessary overexpansion.

We need to create a monetary environment in which the self-generating growth potential of a competitive, free enterprise economy can bring forth its fruit. Such an environment can easily be created. The Federal Reserve should be bound by law to insure that the supply of money (currency plus demand deposits) should be increased by at least 3 percent per annum and by no more than 5 percent per annum. If a wider definition of money was to be adopted (say currency plus demand *and* time deposits), the maximum might be raised to 6 percent per annum. The imposition of such a rule on the monetary authorities in place of their current unlimited capacity for discretionary action would free us from both deflation and inflation in the future.

I would recommend, then, that monetary policy and fiscal policy be kept distinct and separate. The rule of monetary policy suggested above would be sufficient to guarantee full employment and continued growth without inflation in a free, competitive economy. Fiscal policy should be eschewed as a stabilization device. It should merely reflect the community's own decision on the balance they wish to establish between private and public goods. Fiscal decisions would then affect the mix of income (that is to say, the extent to which the gross national prod-

uct is comprised of private consumption and investment compared to public consumption and investment) and *not* the level of income. A budget deficit, for example, would lead to an increase in the public component of gross national products at the expense of the private component (due to the rise in interest rates which would occur); and vice versa if it was decided to reduce our collective consumption of public goods and a budget surplus was run. Debt management policy should be reduced to the purely technical function of marketing the debt implied by a deficit (or redeeming the debt that a surplus would allow) most cheaply; without, of course, undermining the monetary rule suggested above.

Question 2

The appropriate division of responsibility to institute the economic reform suggested above is quite simple. (1) The monetary rule should be laid down by act of Congress or, at the very least, by a resolution expressing the sense of Congress. (2) Fiscal policy would continue to be, as at present, the outcome of the deliberations of, and debate between, both Houses of Congress and the Executive. (3) Debt management would remain the responsibility of the Treasury in consultation with the Federal Reserve.

Question 3A

As stated in answer to question 1, the immediate target of monetary policy should be the achievement of growth in the supply of money (narrowly defined) at a rate between 3 and 5 percent per annum. This would be sufficient to guarantee full employment, continual economic growth, and stability in the level of overall prices. There is no reason to complicate this goal by diverting the Federal Reserve's attention to other, subsidiary, variables such as bank credit, liquidity, free reserves, interest rates, and so forth. Indeed, a large measure of our past and present troubles have been, and are, directly due to the Federal Reserve's focusing its attention on misleading targets. In particular, it pays entirely too much attention to the level of interest rates. Usually, it is the Federal Reserve's myopic concentration on this variable which imposes unnecessary gyrations on the economy. The contemporary (summer 1968) situation is a case in point. Monetary, or nominal interest rates are at relatively high levels. The Federal Reserve interprets this as indicative of monetary stringency. But, in actual fact it is the *result* of a too easy monetary policy. During this period, the Federal Reserve has been increasing the money supply at between 8 and 10 percent per annum. This makes inflation of the order of 4 or 5 percent per annum inevitable. Consequently, to compensate for this anticipated inflation, lenders are only willing to lend at the present high nominal interest rates. Paradoxically to some, perhaps, nominal interest rates continuing at high levels indicates a too easy monetary policy and not the reverse. Failing to understand this, the Federal Reserve is attempting to lower interest rates by expanding the money supply even more rapidly. This may be effective in the short run but it is self-defeating in the long run since the anticipated price increases that will ensue as inflation takes hold will feed back to the interest rate and lead to higher levels still.

During contractions the Federal Reserve is misled by changes in interest rates, too. In contractions, nominal interest rates fall. The

Federal Reserve is prone to interpret this as indicative of monetary ease in spite of the fact that it is invariably causing the supply of money to decrease at the same time. Consequently, exactly when it should be inducing an increase in the supply of money it is doing exactly the opposite because it erroneously regards falling nominal interest rates as self-evidently expansionary.

The ultimate goals of domestic economic policy are full employment, economic growth, and overall price stability. In a free enterprise, competitive economy, a money supply continuously expanding at between 3 and 5 percent per annum is both necessary and sufficient to achieve these ends. This, then, should certainly be the proximate target of monetary policy. All other targets should be subordinated to this end.

If, as I believe it should, a fixed rule of monetary expansion is imposed on the Federal Reserve, there are certain institutional reforms that should be introduced to ease the Federal Reserve's implementation of this policy. At the moment, it has three instruments of monetary control at its disposal; open-market operations; changes in bank reserve requirement ratios; and changes in its discount rate. In their present form, the latter two are counterproductive.

The existing reserve requirement ratios observed by commercial banks are a patchwork hitsorical compromise. At present, they differ among banks according to their geographic location and whether or not those banks belong to the Federal Reserve System. In addition, the reserves required against time deposits are lower than those required against demand deposits. This means that changes in the money supply occur as a result of shifts in reserves among banks and between the two classes of bank deposit. This means that, irrespective of the Federal Reserve's capacity to determine the total of reserves, the Federal Reserve's control of the supply of money is undetermined. I do not wish to exaggerate the significance of these matters, but it does seem that a more reliable control of the supply of money would be established if (1) uniform reserve requirements were applied to all member banks, (2) the same reserve requirement ratio was applied to both demand and time deposits, and (3) all commercial banks were compelled to become members of the Federal Reserve System. The latter reform might be implemented through a strict judicial interpretation of the "currency clause" in the Constitution.

Having established uniform reserve requirement ratios for all banks against both classes of deposits, the Federal Reserve's existing power to make variations in these reserve requirement ratios should be revoked. There may have been some justification for such a power in the past, but there is no longer. There is no monetary event that changes in reserve requirements ratios can achieve that cannot be done better through open-market operations.

The operation of the discount rate mechanism in its present form also leaves much to be desired. The original purpose of the discounting privilege was to provide for a lender of last resort in the monetary system to whom recourse might be made in times of financial stress. It was designed to perform the function of a safety valve. It has, however, developed into a semipermanent leak since it is usually set below market rates of interest. This means that it is normally profitable for banks to borrow from the Federal Reserve and lend the funds on

the private market. Consequently, there is frequently a state of excess demand at the discount window. The borrowed funds which the Federal Reserve chooses to make available are, therefore, rationed among the competing claimants by nonprice rationing techniques. Such administrative discretion should have no place in the monetary mechanism. The appropriate reform is to make the discount rate a penal rate recourse to which would only be made in minimum amounts for the minimum possible period while the bank in question makes appropriate adjustments in the scale of its operations as rapidly as possible.

While always being maintained above market interest rates, the discount rate should be allowed to vary with them. At the moment, discretionary changes in the discount rate are frequently misleadingly interpreted. The latest example occurred with the reduction in the discount rate in August 1968. This was widely heralded as a move toward monetary ease following, by implication, a period of monetary restraint. In actual fact, the Federal Reserve was allowing the supply of money to increase at an annual rate of about 11 percent per annum at this time. This is the antithesis of a tight money policy. If the Federal Reserve was subjected to the constraint of adherence to a monetary rule and the discount rate was pegged at a constant differential above market rates and allowed to fluctuate with them, the Federal Reserve's control of the money supply would be made more perfect and both its, and the public's, attention diverted from a myopic concentration on interest rate changes.

The reforms suggested above to the reserve requirement and discount rate mechanisms, leaves the burden of the implementation of continuous monetary expansion according to an announced rule solely to open-market operations. They will prove adequate to the task.

Question 3B

My answer to this question will be apparent from the context of the discussion of the previous questions. Briefly, the immediate target variable of monetary policy should be an annual rate of increase in the money supply (narrowly defined) between 3 and 5 percent. This rule should be adhered to regardless of the so-called economic winds. In fact, as I have said earlier, economic winds do not happen they are caused. Adherence to the rule would allow calm and orderly economic change to occur without periodic buffetings being imposed on the economic system by destabilizing blasts of alternating hot and cold air emanating from the Federal Reserve.

Question 3C

Not applicable.

Question 3D

The same rule of monetary growth should be adhered to year after year in all except abnormal circumstances. Abnormal circumstances should be subject to strict interpretation and require congressional action. One has in mind, for example, a declaration of war as a reason for modifying the rule. Small changes in the behavior of the goal variables of domestic economic policy (low unemployment, the rate of economic growth, and stability in the overall level of prices), should not be allowed to induce abrogation of the rule of monetary expansion.

In a competitive, free enterprise economy continuously adjusting to fresh stimuli, such small changes are only to be expected. They must be accepted. The situation will be exacerbated, and not ameliorated, by attempts to fine tune them out. In a dynamic economy one must be prepared for adjustment and change to new circumstances. The crucial thing is to create an environment in which such manifestations of departure from equilibrium work themselves out quickly. Such an environment would be created by the suggested monetary rule.

The rule should certainly not be tampered with in the light of conjectural estimates about anticipated investment, Government spending, taxes, and so forth. In a fully employed, growing economy such changes would only affect the mix of income and not its level. And so they should. They reflect individual decisions or democratically expressed collective decisions and the achievement of them would only be frustrated by discretionary action allegedly designed to offset their effects. The monetary authority should not be empowered to offset the attainment of our individual and collective decisions. On the contrary it should be restrained from so doing. This is what the monetary rule is designed to do.

Question 3E

The Federal Reserve should be mandated by act of Congress or congressional resolution to increase the supply of money, defined as the sum of currency plus demand deposits, at no less than 3 percent per annum and no more than 5 percent per annum.

Question 3F

See answer to question 3D.

Question 4

The short answer to this question is, very little, At best, debt management policy can affect the structure, as opposed to the general level, of interest rates. However, recent research has shown that even their capacity to bring about such changes in the structure is strictly limited. Consequently, the Treasury and Federal Reserve should not concern themselves with this issue. The Treasury, in consultation with the Federal Reserve, should, instead, so tailor their supplies (redemptions) of securities as to minimize the interest cost associated with the national debt. This means ordering their debt issue (or redemption) program to accord with the relative preferences of the market.

Question 5A

The appropriate technique to employ to combat seasonal and transient factors affecting money markets is the so-called sale under repurchase agreement. This provides "money with strings", as the saying goes. In other words, it eases periods of seasonal and transient stringency without diluting the Federal Reserve's *permanent* open market posture, which, if a monetary rule and the other technical reforms mentioned in answer to question 3A are adopted, would be that of a persistent net purchaser of securities on the open market in amounts designed to implement the appropriate continuous growth in the money supply.

Question 5B

Yes. See answer to question 3A.

Question 5C

See answer to question 3A.

Question 5D

If the Federal Reserve was constrained by Congress to the monetary rule that has been suggested, there is little information that the Federal Reserve could report to Congress that Congress would find interesting. No harm, though, would be done by introducing this formal accountability of the Federal Reserve to the Congress. On those abnormal occasions when Congress frees the Federal Reserve to abrogate the rule, Congress doubtless would require a detailed account of the Federal Reserve's activities in the unusual circumstances.

Question 5E

If, as I recommend, a monetary rule is imposed by Congress, the proceedings of the Open Market Committee would be dull and supremely uninteresting. Little benefit would accrue to outside official observers and no harm would be done if they were absent. My own belief is that few would wish to attend such dull proceedings more than once.

II. APPRAISAL OF THE STRUCTURE OF THE FEDERAL RESERVE

The recommendations under this section are designed to reduce the independence of the Federal Reserve and make it subservient to the wishes of elected officials. This is to be commended as long as it does not imply that monetary policy becomes a political football. This could not, of course, occur if the monetary rule that has been suggested was adopted. In such circumstances, it would be wholly appropriate to subordinate the independence of the Federal Reserve and force upon it the simple technical function of providing continuous monetary growth.

III. COMMENTS ON MONETARY POLICY SINCE 1964

This period is almost perfectly designed to illustrate the difficulties into which an independent Federal Reserve empowered to take discretionary monetary action can get the economy into. From June 1964 to April 1965, the money supply increased at 4 percent per annum. This was in conformity with the rule that has been suggested. Practically all the economic indicators were favorable; real income was high and rising, unemployment was low and falling and prices were relatively stable. The Federal Reserve, however, did not leave well enough alone. In April 1965 it began to accelerate the rate at which it was increasing the money supply so that in the ensuing year from that date the money supply increased by 6 percent. The inevitable followed. Prices which had been rising at just over 2 percent per annum, soon began to rise at 3.3 percent per annum. The Federal Reserve's too-easy money policy was generating an unsustainable expansion. It therefore reversed itself. But instead of adjusting carefully back to a more reasonable rate of monetary expansion, it over reacted. Beginning in April 1966, the money supply was actually made to decline slightly. The pre-

dictable outcome followed. After a short lag, a recession set in. Between the last quarter of 1966 and the second quarter of 1967, industrial production fell by 3.6 percent, the rate of increase in real gross national product fell to a meager 1.1 percent and unemployment rose. Inflation was effectively eliminated as evidenced by the reduction in the rate of price increase to just over 2 percent. But reestablishment of this relative stability in overall prices had been bought at the cost of lost jobs and production.

Having overreacted in one direction, the Federal Reserve soon proceeded to overreact in the opposite direction. Instead of increasing its rate of monetary expansion to a level capable of producing a sustainable expansion, it began flooding the economy with money. By April 1968, this had reached unprecedented levels. Since that date the Federal Reserve has allowed the money supply to increase at more than 10 percent. Although it worked up to this orgy of overexpansion gradually, the reemergence of inflationary forces was already apparent in the second half of 1967. Prices were rising then at about 4 percent per annum.

The budget was in chronic deficit at this time and this was identified as the villain of the piece. The cry went up for a tax increase and an expenditure cut. After due debate, a compromise program of fiscal restraint was passed. This seems to have induced in the Federal Reserve a sense of total abrogation of its responsibilities. Persuaded that the fiscal reversal would take the heat off the economy it entered into a period (which is still, unfortunately, in progress at the time of writing) of ludicrous overexpansion. Involving, as it does, an episode of monetary overexpansion of historic proportions, the danger is that when the inevitable inflation ensues and the Federal Reserve realizes that it has unshakeable responsibilities for the economy's continued good health which cannot be shrugged off onto the fiscal authorities, the Federal Reserve will overreact. A monetary contraction together with a tight fiscal policy contains the seeds of serious economic disorder. The immediate policy problem as of August 1968 is, given the more restrained fiscal position, to get the rate of increase in the money supply down to a sustainable level slowly. The Federal Reserve must reverse itself, but it must do it in a sober manner.

STATEMENT OF JOHN M. CULBERTSON, UNIVERSITY OF WISCONSIN

GENERAL STATEMENT

The urgent need to improve the control of stabilization policy in the United States does not, in my view, involve primarily a matter of improving "coordination" of monetary, fiscal, and debt management policy. Improvement of control over stabilization policy seems to require not increased centralization of undefined or "discretionary" policies but a more basic restructuring of the control apparatus to reduce the uncertainty of policy, free policy formation from the biases exhibited in the past, and make the formation of policy systematically responsive to the available economic knowledge. A justification of this diagnosis, evaluation of recent stabilization policy, and an outline of a program to bring stabilization policy under more effective control is developed at length in my recent book, *Macroeconomic Theory and Stabilization Policy* (New York: McGraw-Hill Book Co., 1968).

Rather than now taking the actions defined by H.R. 11, I should prefer giving priority to institution of a systematic program for evaluation of monetary, fiscal, and debt management policies according to performance criteria defined by existing economic theory. Such clarification of the performance of stabilization policy seems a necessary prerequisite to definition of or acceptance of the basic reforms required to bring about a reliably controlled policy system. "Coordination" appears to be a euphemism for increased centralization of power over stabilization policy by increasing the control over monetrary policy by the administration. Considering the manner in which administrations of both parties have used fiscal policy and debt management policy—and the identifiable political biases in policy formation—it seems reasonable to fear that giving the administration control also over monetary policy may result in a performance worse than that of the recent past, and will increase the hazard of a catastrophically bad performance of stabilization policy.

REPLY TO QUESTIONNAIRE ON H.R. 11

I

1–2. An annual promulgation of stabilization policies is likely to promote inflexibility of stabilization policies, make nominal stabilization policies subject to political biases, and be on balance harmful. The conception of the Employment Act of 1946 that the Government should at the beginning of the year determine the prospective gap in total demand and fill it through policy actions is unrealistic, being responsive to the static, stagnationist view of the economy prevailing at the time of its enactment, which has not been supported by subsequent events. What seems required, rather, is to govern policy by defined strategies or decision rules making them continuously responsive to the changing economic situation. Such defined programs for policy would reduce the discretionary element in policy formation and require consideration of political aspects of policy control within a new set of terms of reference. Discretionary formation of stabilization policy either by the administration or by independent agencies such as the Federal Reserve seems to give rise to definable biases and nonoptimal policies.

3. Definition of strategies or decision rules for monetary policy and other branches of stabilization policy should rest upon a rational process of strategy formation on the basis of economic theory. This is not a suitable topic for offhand opinions or judgments.

One class of defective decision rules is those defined in terms of variables that can lead to cumulative errors of policy because of lack of allowance for feedbacks affecting the target variables. This class of case is illustrated by the traditional credit approach to monetary policy followed by the Federal Reserve. To illustrate the hazard of cumulative error, the Federal Reserve judgment as to "proper" interest rates and credit conditions errs in setting them too high, leading to a softening economic situation or recession, leading to reduction in demand for credit and declines in interest rates (and "easing" of credit conditions), leading the Federal Reserve further to reduce the provision of bank reserves and monetary growth, leading to further economic weakness, and so on.

Decision rules defined in terms of the money supply (or in terms of bank reserves if accurate allowance is made for changes in bank demand for reserves and other reserve factors that it is desired to offset) can avoid this hazard of cumulative error from misestimated or ignored feedback, since they relate directly to the politically controlled independent variable in question. Given enough knowledge regarding the economic system, a decision rule stated in terms of credit variables could be defined that is equivalent to any rule stated in terms of the money supply, but existing knowledge does not suffice to permit this to be done with confidence. Thus, under existing conditions of limited knowledge, criteria defined in terms of the money supply are much the less hazardous. They also avoid the evasive or politically biased characterization of nominal policies by the Federal Reserve and the administration based upon shifting, nonquantitative, or obscure credit criteria.

4. The problem of defining alternative debt management strategies and choosing the one that is optimal under existing limited knowledge quite parallels the problems of control of monetary and fiscal policy. Any assertion that "fiscal policy has no role to play in this matter" could only derive from the proposition that the behavior of total demand is invariant with respect to any conceivable conduct of debt management. Existing knowledge does not suffice to support such a proposition.

5. Again, the crucial problem is to achieve agreement on a reasonable decision rule, strategy, or monetary-policy program, presumably one defined in terms of the money supply (or equivalently in terms of bank reserves). So long as such a decision rule is adhered to, temporary smoothing operations by the Federal Reserve probably do little harm. Building some allowance for seasonal changes in demand for money into the decision rule seems appropriate in the present state of knowledge.

The instruments of Federal Reserve monetary policy other than open market operations are probably superfluous and ought to be placed on a standby basis or eliminated. This involves some complications in member-nonmember bank relations, and other matters.

If the Federal Reserve operates under some defined strategy, quarterly reports and presence of outsiders at meetings would be superfluous (although reports to Congress giving an official justification should perhaps be required in the case of any discretionary departure from the standard policy program). On the other hand, lacking a defined policy program or set of performance criteria for monetary policy, it is not clear that frequent reports or presence of outsiders in meetings will result in improved policy actions. It may increase the hazard of a catastrophically bad set of policies—as in the classic case of an administration with an excessive fiscal deficit pressuring the Federal Reserve to provide bank reserves to hold down interest rates.

If we are to attack the subject in terms of a catch phrase, "checks and balances" seems as relevant as "coordination."

II

The crucial problem seems to me to be bringing monetary policy (and public information regarding it) under an effective control system. Adopting any defined program of monetary policy would imply

the reasonableness of some simplification of the Federal Reserve administration. The changes thus indicated, however, would be quite different from the ones that would be called for under an approach involving retention of discretionary monetary policy with the power effectively transferred from the Federal Reserve to the administration. Making the proposed administrative changes at this time, I fear, would only muddy the waters with reference to the really important problem.

III

The recent record is strikingly consistent with the interpretation that variation in the rate of growth rate of the money supply (reflecting, at the margin, Federal Reserve actions regarding the provision of bank reserves) has been a major cause of changes in the rate of growth of total demand. In this period, the record obviously could have been worse than it was, for runaway inflation and recessions were avoided. However, it appears that a preferable performance could have been achieved with a readily definable monetary policy. Perhaps more importantly, the existing control system appears potentially subject to cumulating errors on a dangerous scale, these in recent years being avoided only late in the game and seemingly in a somewhat accidental manner.

Deviations of the growth of total demand from a path that might reasonably have been defined as a target seem attributable in least in part to the below-normal monetary growth of 1959–62, to the excessively rapid monetary growth from the spring to 1965 to the spring of 1966, to the abrupt halting of monetary growth during the rest of 1966, and to the extremely rapid growth rate of the money supply since the beginning of 1967.

This erratic and seemingly somewhat accidental monetary policy cannot be justified as optimal in the light of existing knowledge, nor can the control system from which it derives be characterized otherwise than as hazardous.

STATEMENT OF PAUL DAVIDSON, RUTGERS, THE STATE UNIVERSITY

I. INTRODUCTION

Any objective inquiry into improving the economic effects of the monetary policy of a central bank should begin with (1) a statement of objectives of such policy and (2) a discussion of means that can achieve these goals.

The four most often mentioned practical goals of monetary policy are—

(1) To prevent inflation;
(2) To encourage full employment;
(3) To encourage sustained rapid economic growth;
(4) To counteract balance-of-payment deficits.

In framing these objectives I have deliberately worded objectives No. 1 and No. 4 in negative or obstructive formats, while No. 2 and No. 3 utilize more positive wording. My rationale for this is to emphasize that active pursuit of objectives No. 1 and/or No. 4 by traditional

monetary methods will normally obstruct the achievements of objectives No. 2 and No. 3. Accordingly, it is my view that monetary policy should be oriented solely toward achieving full employment and economic growth. This does not mean, of course, that monetary policy should operate in a vacuum. Nor does it mean that money and monetary policy cannot have some impact on the general price level or the balance of payments.

What I wish to recommend is the coordination of monetary and fiscal policy with an incomes and foreign trade price policy so that the four objectives listed above can be approached simultaneously. Mere coordination of monetary and fiscal policy, while a step in the right direction, will not be the administrative panacea for reaching these objectives under present institutions—even if accurate forecasts of future events could be achieved.

Although discretionary control over the money supply is essential if we are to obtain full employment and sustained economic growth, any attempt to utilize changes in the money supply as the primary tool to restrict general price increases or to cure balance-of-payments deficits will, under our present market-oriented system, insure unemployment while severely hampering growth.

II. FULL EMPLOYMENT AND ECONOMIC GROWTH

Full employment and economic growth with their promise of unprecedented prosperity, could presently provide a higher standard of living for all Americans. Full employment and growth could mean the rapid elimination of poverty in the United States. Full employment and growth could bring about increased social stability as group antagonisms dimish with rising income levels. Full employment and growth could improve our position in the cold war not only by strengthening our defenses, while simultaneously increasing our aid to the uncommitted countries, but it would also demonstrate to the world the vitality of a market economy in providing for the economic and social advancement of its citizens and its friends. With all these obvious advantages that accrue to a fully employed economy, surely full employment and economic growth must be the primary economic goals of our society.

Yet, except for the military escalation in Vietnam operating in tandem with the 1964 tax cut, American economic policymakers, Republicans and Democrats, cabinet members and central bankers alike have, for more than a decade, pursued a course designed to prevent the achievement of full employment. The policymakers, of course, are not malevolent but they have been trapped in a conflict of goals which dilutes our fervor for maximum output.

Several years ago, Secretary of Labor Willard Wirtz posed the problem very graphically when he said: "You sometimes get the feeling, sitting where I do that there is a shell game going on in the discussion of this particular [unemployment] problem, and that the shells are marked 'inflation,' 'unbalanced budget,' and 'unfavorable trade balance' * * * every suggestion which is made to advance the purpose of full employment is met by one or another of these arguments, and very often by all three."

Why do we participate in such a game, the outcome of which cheats us out of full employment and rapid growth? The game goes on and on because the winners (and the game is rigged so that we know who the winners will be) outvote the losers at the polls. But majority rule ought not to be tyranny. Majority rule is neither right nor proper here because we have failed to guarantee an inalienable right to the minority—the right to a job and a respectable level of income. Up to now we have failed to create an economic environment in which democratic rule yields the optimum result within a monetary, *market*-oriented economy. Such an economic environment can be created, however, with an appropriate battery of monetary, fiscal, and income policies. Until such coordinated policies are developed, this shell game will continue and as the late President Kennedy lamented, we will continue to content "ourselves with pious statements about the wastes of our human resoures."

Ever since the 1930's, economists have realized the recessions can be avoided and full employment can be achieved by fiscal policies such as tax cuts or increased governmental spending and/or expansion in the money supply. Moreover, if the economy begins from a position of less than full employment, policies that stimulate increased economic activity simultaneously reduce unemployment, and stimulate investment and growth; for one of the most important messages of the "Keynesian" revolution in economics was the complementarity of consumption and investment in recession. Thus we learned that it is possible to have more butter, more plant and equipment, and more guns, too, if only we had the courage to pursue certain fiscal and monetary policies.

Although there continues to be a debate among economists as to whether, as the Chicago school succinctly asserts, "money matters," that is, a questioning of the relative efficacy of expansionary fiscal compared to monetary policies, most economists now agree that expansion of *market* aggregate demand is a requirement for continuous full employment and economic growth in peacetime. What has been often overlooked in this professional controversy over whether "money matters," is that an increase in market demand means not merely an increase in wants but also an increase in the ability to pay for goods and services. An increase in the ability to pay, in a modern market-oriented, monetary economy, must involve an increase in the supply of money *before* the increased demand can be made operational in the marketplace. This fundamental notion that an easy-money policy is a *pre*requisite to expansion and growth is, as I have tried to demonstrate in a number of articles (1), (2), (3), an essential concept necessary to the understanding of the mechanism underlying the traditional Keynesian policy prescriptions for economic expansion.

As John Maynard Keynes wrote more than 30 years ago:

> The banks hold the key in the transition from a lower to higher scale of activity * * *. The investment market can become congested through a shortage of cash. It can never become congested through a shortage of savings. This is the most fundamental of my conclusions in this field (6, pp. 668–669).

Or again:

> A heavy demand for investment can exhaust the market and be held up by the lack of financial facilities on reasonable terms. It is, to an important extent, the "financial" facilities which regulate the *pace* of new investments * * * too

great a press of uncompleted investment decisions is quite capable of exhausting the available finance, if the banking system is unwilling to increase the supply of money * * *. The control of finance is, indeed, a potent, though sometimes dangerous, method for regulating the rate of investment (though much more potent when used as a curb than as a stimulus) (5, p. 248).

Easy-money policies are a necessary but not a sufficient condition for stimulating economic growth. If the desire for new investment goods is weak because of poor profit opportunities, then easily obtainable finance will not, by itself, do the trick. If, on the other hand, the desire for investment is strong among businessmen, the banking system and the monetary authority can play an essential role in providing funds on terms which the investors deem attractive. It is at the level of financing investment projects that the money supply plays an essential role in stimulating economic growth in a monetized market economy, once the investment desire is present in the economy.

Fiscal policy, on the other hand, may develop latent investment demand either by increasing profit opportunities by augmenting consumer or Government demands in the marketplace or by increasing after-tax profits on existing market demands by use of subsidies, tax credits, or profit-tax cuts. Nevertheless, unless investors can obtain funds, they cannot place orders for additional investment goods no matter what level of profits are expected to be earned on these potential investments. Since in modern, money economies with a developed banking system, the money market may not "clear"; that is, there may be an unsatisfied fringe of borrowers (particularly when business is active), aggregate demand may be deficient merely because there is a shortage of money. Accordingly, *fiscal policy may be a necessary; but it is not by itself a sufficient condition for full employment and economic growth.* In a monetary economy, it is finance (i.e., increases in the money supply) which provides the energy fuel that permits the investment tail to wag the gross national product dog.

It is obvious, therefore, that the necessary and sufficient conditions for full employment require the coordination of fiscal and monetary policy. To the extent that H.R. 11 has as one of its major objectives "to improve the coordination of monetary, fiscal, and economic policy," it must be warmly supported.

Nevertheless, coordination of monetary and fiscal policy is not the panacea for our economic problems. In the absence of a coordinated "incomes policy" to prevent inflation and a foreign trade policy to correct balance-of-payments deficits, a coordinated fiscal and monetary policy may be required to deal with these latter issues—a task which they are not equipped to efficiently handle.

Accordingly, before providing my conclusions on H.R. 11's detailed recommendations for coordination, I should like to discuss the inflation and balance-of-payments questions.

III. INFLATION

The 1964 tax cut was the first major measure taken by Congress for the expressed purpose of expanding aggregate market demand in order to move toward full employment. This action plus the subsequent military expenditure expansion as hostilities in Vietnam increased brought the United States close to full employment and rapid economic growth

for the first time in more than a decade. But with this achievement came the usual corollary of a free market economy—rising prices.

No one is against full employment *per se*. Moreover, if one begins in a recessionary period, full employment and rapid economic growth are complementary objectives which simultaneously can be achieved by a judicious mix of proper monetary and fiscal policy. It is the increasing inflationary effects as unemployment declines which constitutes a basic conflict and which induces policymakers to adopt measures designed to restrain aggregate demand, and hence hopefully restrict price increases by creating slackness in labor and product markets.

This fear of inflation is not new; however, the fear of massive unemployment which was generated in the great depression, as well as the hot and cold wars which followed, overrode the objections to inflation and made possible the expansionist policies in the forties and early fifties. But almost a third of a century has passed since the great depression and for many citizens these terrible years are as remote as the ravages of the Civil War. Continuing inflation in the forties and early fifties increased our fear of rising prices, while the continuing prosperity has dulled, for most white urban workers at least, the fear of unemployment. At the present time, inflation and not unemployment appears to be the most likely source of economic dislocation, although it is my firm belief, that much of the riots of the urban ghetto community and the problems of the rural poor reflect the continuing unemployment and underemployment problems in those sectors of the economy. A truly fully employed economy would not only raise the level of real income for the entire community, but it would open up job opportunities for members of many minority groups, so that, in general, the average level of real income of these minorities would rise more rapidly than the national average.

Under present institutional arrangements, however, the rate of inflation that would accompany sustained full employment would severly damage (1) the real income of those citizens on relatively fixed money incomes, the so-called rentier groups—the retired, the disabled unemployed, widows, orphans, mothers with abandoned children, and even some white collar workers, certain government employees such as policemen, teachers, etc., and (2) the real wealth of middle- and upper-income groups who held their wealth in the form of savings accounts, bonds, and other fixed sum obligations. Moreover, even organized labor would find inflation galling in that it would mean that collectively gained money-wage advances turned out not to be as sizable an increase in economic welfare as they would have been with stable prices. Management, on the other hand, might find the increased truculence of labor (both organized and unorganized) under sustained full employment exceedingly difficult to deal with. The inflationary pressures would also create problems in export markets and encourage foreigners to compete domestically.

The resulting political winds, which were correctly foreseen 25 years ago by Kalecki, have produced a "political trade cycle," where, as the level of unemployment declines and prices rise, rentier and other interests combine to pressure government to return to the orthodox policy of cutting down budget deficits and restrictive monetary policies. Thus it is not surprising that first the Federal Reserve Board,

and later the administration began to advocate restrictive policies *before* full employment had been reached, much less sustained. These restrictive policies, whether coordinated or not, ultimately place the major burden of fighting inflation often on those citizens least capable of bearing it—a group which may be called the LIFO workers—the *last* hired *in* prosperity, the *first out* in recession. This group includes young people just entering the labor force, unskilled workers primarily located in ghetto areas, and even older workers nearing retirement ages (unless protected by seniority rules). Equity, it seems to me, requires that we redistribute this burden more broadly.

Of course, it is not irrational for the rentier and other groups to bring political pressure to stop inflation since they can suffer absolute (or at least relative) economic losses as prices rise. Though they may favor full employment and economic growth in the abstract they are forced by their economic self-interest to push for the only anti-inflationary policies available—restrictive monetary and/or fiscal policies. As a consequence, no matter under whom or how well monetary and fiscal policies are coordinated, we will be unable, *for political reasons*, to achieve full employment and sustained economic growth until a viable economic policy designed to sever the existing connection between rapidly rising prices and low levels of unemployment is introduced *and* coordinated with monetary and fiscal policies.

In order to understand what general type of policy is required, it is essential to explicitly define some basic economic concepts and principles. Although economists have ofttimes demonstrated excessive taxonomic dexterity in categorizing "causes" of inflation, we can avoid many semantic problems by taking recourses to a few simple economic concepts.

It is neither rising prices of *nonreproducible goods* such as rare paintings or sculptures, nor the prices of securities listed on the New York Stock Exchange, nor even the prices of reproducible non-consumer goods like aircraft carriers, which are the main focus of public concern in discussions of inflation. Inflation becomes a major cause of public interest *only* when it is the market prices of *reproducible goods* that bulk significantly large in consumers' budgets that are continuously increasing. Keeping this pragmatic view of the public concern about inflation in mind, the problem can be readily analyzed by concentrating on what economists call the "flow-supply price of goods," where the latter is defined as that price "which is sufficient and just sufficient to make it worthwhile for people to set themselves to produce the aggregate amount" [8, p. 373] of output. Our emphasis on supply prices should not be interpreted as supporting the myopic view that demand factors cannot affect price; nevertheless if the supply price for any given quantity of reproducible goods does *not* alter, then no matter how far the market price may be momentarily displaced from that supply price, the price of future output will subsequently return.[1]

[1] If only nonreproducible goods such as works of arts by dead artists were rising, no major public policy problem would arise. This latter case would be an example of a pure demand-price inflation and could readily be analyzed primarily by concentrating on changes in demand factors.

Supply prices can increase for three main reasons: (1) diminishing returns, (2) increasing profit margins, and (3) increasing money wages (relative to productivity increments).[2]

For more than a century, economists have taught that every expansion of output and employment will normally involve increasing costs and increasing supply prices because of the law of diminishing returns. Diminishing returns, it is held, is inevitable—even if all labor and capital inputs in the production process were equally efficient—because of the scarcity of some input such as raw materials or managerial talent. Actually, however, economic expansion will lead to increasing costs (and prices) not only because of the classical law of diminishing returns but also because labor and capital inputs are really not equally efficient. Expansion of output in our economy often involves the hiring of less-skilled workers, and the utilization of older, less-efficient standby equipment and therefore adds to diminishing returns. Thus, as long as unemployment is declining, diminishing returns inflation will be an inevitable and unavoidable consequence of further expansion.

The severity of diminishing returns inflation will vary with the level of unemployment. When the rate of unemployment is high (say about 5 percent), idle capacity will exist in most firms, so that diminishing returns are likely to be relatively unimportant. As full employment is approached, however, an increasing number of firms will experience increasing costs, and diminishing returns inflation will become more important. Although in the short-run diminishing returns inflation is an inevitable consequence of every expansion in employment, in the long run, improvements in technology, Government-sponsored training and educational programs, and increases in capital equipment per worker can offset this price rise.

The second type of inflation will occur when businessmen (particularly in our more concentrated industries) come to believe that the market demand for their product has changed sufficiently so that it is possible for them to increase the markup of prices relative to costs. If managers in many industries increase their profit margins, we will experience a profits inflation as the supply or offer prices rise.

Third, every increase in money-wage rates, which is not offset by productivity increases will increase costs, and if profit margins are maintained, increase supply prices. Consequently, we can expect that increases in money-wages induce price increases. This phenomenon is often referred to as wage-price inflation. Since as unemployment levels decline it is easier for workers to obtain (collectively and individually) more liberal wage increases, we may expect wage inflation to become more pronounced as employment rises; although wage inflation can occur even without expansion, if labor is able to secure increases which exceed productivity increments.

Historically, rises in the price level has been due to some combination of these three inflationary forces. Thus, changes in the price level are ultimately related to changes in money wage rates, changes in profit margins, and diminishing returns.

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[2] If imports are an important component of the output of most reproducible goods, then rising import prices can affect the flow supply price. For the United States, I do not believe this is a significant problem and hence I have omitted it from the discussion.

Every significant expansion in economic activity will induce some price increases because of diminishing returns. With rising prices, workers will, at a minimum, seek cost-of-living wage increases. Moreover, as pools of unemployment dry up, workers will be more impenitent in their total wage demands. Managers will be more willing to grant wage increases in a rising market, for they are more certain that they will be able to pass the higher labor costs on in higher prices. Also, management will find that as they hire more workers to meet the rising demands for their products, the cost of searching out and training the remaining unemployed will increase; consequently, they will often attempt to bid away workers from other employers rather than to recruit from the remaining unemployed. In addition, if management believes that the growth in demand is sufficiently strong they will increase profit margins and increase the inflationary tendency. Finally, legislators may find that the legal minimum wage becomes substandard as inflation occurs, and therefore, in a humanitarian spirit, they may raise the legal minimum. All these factors feed back on each other to create mounting wage-price pressures for as long as the economic expansion is permitted to continue.

Since the rate of diminishing returns, the rate of increase in money-wage rates, and changes in profit margins are normally closely related to decreasing unemployment levels, our present anti-inflationary policies are oriented to maintain a sufficiently high unemployment rate to control the impact of changes in these factors on price levels. Any monetary and/or fiscal policy aimed at preventing *all* price increases before full employment is reached, can be successful only if they perpetuate sufficient unemployment. All expansions in economic activity, whether they are initiated by increasing Government's demands for goods and services or by an increase in demand by the private sector tend to bring about some price increases.

It should be obvious, however, that any increase in aggregate demand would induce changes in the supply price of reproducible goods, if there is no change in the money wage rate (relative to productivity) or gross profit margins, *only to the extent that diminishing returns are present.* Moreover, this diminishing returns associated price rise would be a once-and-for-all rise associated with increasing real costs of expansion due to lower productivity. Installation of new equipment and training programs would help offset any price rise due to this aspect.

If, on the other hand, there is an increase in money wages in excess of productivity, *whether demand is unchanged or not*, the resulting supply price will be higher except if gross profit margins decreased proportionately. Similarly, increases in gross profit margins can induce price increases. Consequently, in the real world of changing levels of aggregate demand (usually at less than full employment) an *incomes policy* which controls both the money wage and profit margins will provide more stability in the purchasing power of money than a policy which permits "free" collective bargaining and unrestricted pricing practices.

Although some economists have attacked such a policy as undesirable because it would not permit markets to optimally allocate resources, I believe that such a criticism is for all practical purposes, irrelevant. First of all, these critics implicitly assume that present

resource markets are efficient allocators. There is, however, evidence that indicates that existing labor markets are not very good allocators under existing free collective bargaining arrangements [9, ch. 5]. More importantly, resource allocation merely requires changes in relative prices and not in the general price level. Different variants of income policy have been suggested which would permit these relative price changes while restricting a general price increase [7] [9, ch. 6].

Secondly, any possible loss in social welfare due to possible resource misallocation, in our economy, will be small relative to the welfare loss resulting from our continuing failure to maintain full employment and growth. As long as there are several million unemployed who are willing and able to work, I think that an economy that continuously utilizes these resources is less wasteful than a system which requires millions to be perpetually "on the dole" (a system which ultimately must foster social antagonisms) in order to maintain reasonable price stability via monetary and fiscal policies alone.

In sum, *there is no monetary or fiscal policy which can provide sufficient conditions to insure price stability, without wrecking any chance of sustaining full employment and economic growth.* Hence there is an urgent need to develop a viable incomes policy.

An incomes policy obviously requires that the public interest be taken into account at the wage bargaining table and when management is making its pricing decisions. This policy must be considered a necessary supplement to monetary and fiscal policies which would *guarantee* continuous full employment. In return for this guarantee of full employment and optimum production levels, labor would be required to restrict its wage demands to, at most, rises in productivity, while business must hold profit margains constant.

The administrative details of implementing such a policy could take a variety of forms. The British, for example, have established restrictions on wage, salaries, and dividend increases. A National Board for Prices and Incomes was established which can require notifications of increases in prices and pay and can legally delay implementation of these increases if the Board finds them unjustifiable and if voluntary compliance to holding the price-pay levels cannot be obtained. In a larger economy, such as ours, we may prefer a somewhat different arrangement that that adopted by the British. In any event, collective bargaining or pricing decisions which do not take the public interest into account should no longer be tolerated.

If, in fact, we could go even further and keep both money wages and gross margins constant, then with technological progress, price levels would decline. This would allow all consumers, including renters, to share in the gains of technology. This ideal variant of an income policy (which is less likely to be politically acceptable) would provide the greatest degree of fairness; for as long as some groups in society have their income fixed in money terms, then equity should require that all remuneration be somewhat fixed in money terms.

The desirability of instituting a full employment policy in coordination with an incomes policy is clear. The problem is to find a political leader who will advocate these policies which will be, at least initially, unpopular. (Many people might find themselves liking the results of such a policy, once they got over the shock of it.) Who will come forth

to demand a simultaneous full employment and an incomes policy? Is there anyone in our society who will provide the political impetus that will convince most of us to pay this required tariff to sustain full employment?

Obviously no one has yet appeared on the political scene. No one will speak against the status quo and for the LIFO workers (who are usually the young, the uneducated, the migrants, and the members of minority groups, who are often disenfranchised by race, age, education, and residential requirements). Many "liberal" groups are not ready to admit that unions ought to be restrained in the public interest, while "conservatives" do not desire to see managerial pricing decisions limited by the public interest.

IV. BALANCE-OF-PAYMENTS DEFICITS

I have held the payments problem for last for two reasons: (1) The magnitude of the payments problem for the United States is small in comparison to the previously discussed subjects; and (2) it is my personal belief that the United States should not allow foreigners to control its domestic economic policies; accordingly, methods for dealing with payments deficit should have a relatively lower priority.

The traditional monetary policy approach for eliminating a payments deficit is tight money—a policy specifically aimed at (1) stanching net short-term capital outflows, and simultaneously (2) inducing slack demand at home, thus encouraging industries with exportable products to search for new markets abroad, while domestic demand for imports decline. If such a policy is successful, although our balance-of-payments position will improve, the recessionary effects makes it socially undesirable.

An increase in exports relative to imports is the obvious cure for a payments deficit. This can be accomplished without creating unemployment (or even devaluation) via an alteration in the domestic price level relative to the foreign price level. A prominent English economist, Sir Roy Harrod, has recently shown that an incomes policy could not only be used to control the price level at home, but it could be used simultaneously to alter the export price level relative to import prices in order to improve the balance of payments[4]. Hence, it would appear that an incomes policy could be designed to concomitantly prevent inflation and eliminate payments deficits, thus freeing monetary and fiscal policy to concentrate on achieving full employment and growth. Moreover, the utilization of an incomes policy, which allows export prices to alter slowly relative to import prices, would tend to eliminate the need to alter exchange rates and thus reduce the possible capital gains incentive for speculation against so-called "key currencies."

V. CONCLUSIONS AND RECOMMENDATIONS

Having developed my position at length, I believe I can now succinctly present my major conclusions and recommendations to the committee.

(1) A coordinated monetary, fiscal, and incomes policy should be a major objective of economic policymakers. Since fiscal policy and incomes policy are, by their very nature, likely to reside in the execu-

tive branch of the Government, it seems practical to give responsibility for coordinating monetary policy with these other policies to the administration.

To disperse power over these various policies would be almost to guarantee that economic policies would, at times, be at cross purposes. It is obvious that the brake on an automobile is a check on the accelerator, but no one seriously suggests that one passenger in the auto should work the accelerator and another the brake pedal. By analogy, we cannot afford separate passengers to independently operate monetary, fiscal, and other economic policies.

Nevertheless, it is of limited value to only coordinate control of the brake and accelerator pedals, while the steering wheel of money wages and profit margins are left to be driven by an "invisible hand." As long as unbridled wage and price decisions are permitted, disastrous crashes can be avoided only by utilizing the brake pedal almost continuously and/or constraining the accelerator pedal to permit very slow forward movements.

(2) The major instrument of monetary policy should be the money supply and its prime target should be to provide sufficient finance to bring the unemployment rate down, say to 3 percent or less.

As long as money markets do not automatically "clear," the expected rate of return (adjusted for risk) on new investment projects can be significantly greater than the rate of interest. Consequently, a reduction in the rate of interest may not stimulate additional investment purchases as credit rationing limits the number of entrepreneurs who can obtain finance in order to make operational their demand for capital goods. Furthermore, when there is an unsatisfied fringe of borrowers there is no way of knowing whether those investments projects which are being financed are more productive than those projects which cannot obtain funds. Consequently, control over interest rates rather than over the supply of money may result in misallocating resources in the investment goods industries. The monetary authority must, therefore, exercise its role via primarily the money supply and not rely on interest rate changes alone to do the job.

(3) Although monetary, fiscal, and incomes policies should be coordinated, it must be recognized that the first two should be oriented primarily to achieving full employment and growth and should not be concerned with price level problems *per se*. An incomes policy, on the other hand, should have primary responsibility for controlling our domestic price level and its relationship to import prices.

(4) If rapid economic growth is to be sustained, the money supply must increase in anticipation of the output growth. In an uncertain world, where expectations are volatile and often unpredictable, the relationship between the required increase in the money supply and the increase in the economy's wealth is much too complex to be handled by any simple rule. Money clearly matters in the process of economic growth in a monetary economy, but a simple rule can be no substitute for wise management of the money supply.

Accordingly, the money managers cannot fix their gaze to any one statistical index—although they should always keep global statistics such as the unemployment rate and the rate of growth of gross national product in view. Nevertheless, disaggregative statistics on unemployment rates for particular groups and regional gross product

growth must also be utilized in suggesting a desirable coordinated fiscal, monetary and incomes policy. Price indexes, for reasons I have already elaborated on, should be of secondary importance for the money managers.

(5) Although it would be possible to achieve monetary policy solely via open market operations (as long as the public owned a significant amount of Government bonds), I see little reason for restricting the Fed solely to this tool. If the objectives are clearly recognized, then the Fed ought to be given as much flexibility as possible in choosing the method of achieving these objectives, since no two particular cases will be identical in all respects.

(6) Reducing the number of members of the Federal Reserve Board should not necessarily be an objective. What is desired is better educated members who understand the interrelationships of monetary, fiscal, and incomes policies, not fewer members. I do not believe it is essential that members need know the intricacies and mechanics of the banking system any more than members of the Council of Economic Advisers need know the labyrinthine relationships among governmental bureaus.

(7) If monetary policy is coordinated with the other economic policies of the administration then I see no merit in having the Fed making separate reports—separate from *The Economic Report of the President*—to Congress. If monetary policy is left uncoordinated, then a requirement for separate quarterly reports by the Fed not only has little merit, but such a requirement might be detrimental if it opened the Federal Reserve Board to more political pressure to pursue, what I have labeled above, "political trade cycle" policies.

(8) Coordination would necessarily involve representatives of the Treasury and CEA at open market committee meetings, and, I would hope these representatives would be participants and not merely interested onlookers.

(9) As far as appraisal of the structure of the Federal Reserve is concerned, I believe that it follows from my strong advocacy of coordination that (*a*) the Chairman of the Board's term be coterminous with the President of the United States, and (*b*) since the Federal Reserve is an instrument of the public and not of the member banks, there is no necessity to maintain the fiction of private ownership. Accordingly, the Federal Reserve bank stock should be retired.

(10) Since a central bank by its very nature as the monetary authority does not need a cushion of "undistributed profits," I see no reason why the Federal Reserve should not pay all its earnings over to the Treasury, while funds to operate the System would be appropriated by normal legislative means. Certainly, if the Chairman of the Federal Reserve had to submit a budget request to the President—as does the Secretary of the Treasury and the Chairman of the CEA—coordination of policy would be facilitated.

(11) The term of members of the Federal Reserve Board depends, in part, on what individuals are likely to be appointed as members. If members are to be selected primarily from the banking community and are expected to return to this sector after a single term, then I believe the longer term the better, for a long term frees the members from having their own future economic self-interest affect their decisions. If, on the other hand, one anticipates selecting them from the academic

field—such as is now done for CEA members—then a term similar to Cabinet members seems desirable if coordination is going to be efficiently accomplished. In any case the choice of 5 years rather than, say, 4 years, as H.R. 11 provides, strikes me as strangely incongruous with political realities.

(12) It follows from my analysis in section III above, that the Federal Reserve's policies of the last 3 years have been socially undesirable. The continued rise in the consumer price level during the past few years is indicative of the failure of monetary policy to contain the inflationary pressures, while the continued high unemployment rate in the ghettos must, at least in part, be associated with these policies. Ultimately, policymakers must recognize that labor and management in our system share responsibility with the monetary and fiscal authorities for the maintenance of price level stability, full employment, and economic growth. An incomes policy is an essential consort to a sound monetary policy. Until this notion is accepted, modern market-oriented systems such as ours will continue to follow erratic paths of economic growth.

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STATEMENT OF WILLIAM G. DEWALD, OHIO STATE UNIVERSITY

REPLY TO QUESTIONNAIRE ON H.R. 11

I.

1. Yes. An economic policy program would be useful. Monetary and fiscal policies are not independent in their effects, at least not in the short run. Thus, planning and coordination are essential to avoid policy actions that have the wrong overall effects in magnitude or even direction. It should be noted that coordination offers no assurance that appropriate policy actions would be taken.

2. The President should be responsible for the national economic policy program. He has the broadest responsibility, though the ultimate power for national policy is shared with Congress. Agencies reporting to the President carry out the administration's spending and taxing policies. The Treasury and the Federal Reserve share authority for monetary and debt management policies. All responsible authorities should be consulted in shaping the Nation's policy program, but the President should coordinate it. Independent authorities such as the

Federal Reserve should be encouraged to exercise a right of public dissent and even independent action as an expression of Congress check on the President's power. But Congress should require an explanation of Federal Reserve actions, where possible, before they are taken.

3. It is a difficult problem to find proper guidelines and measures of the stance of monetary policy. H.R. 11 specifies the money supply as the appropriate guide. The money supply is not only affected by policy actions, but also affects basic objectives. Interest rates are an alternative guide. A problem is that changes in the money supply or interest rates are brought about not only by policy actions, but by nonpolicy factors. Whether an increase in the money supply or a decrease in interest rates is a reflection of an expansionary policy depends on the nature of the economy and what action, if any, was taken. The proper indicator of the expected effect of policy on goals would be a dated sum of predicted effects of each policy instrument. Predicted effects may be arrived at by simple extrapolation or by complex statistical techniques—but whatever the approach, it should be subjected to critical evaluation.

Which particular target policymakers use is less important than explicit accounting for the effects of actions on the indicator and on ultimate goals. Interest rates, free reserves, and other largely equivalent measures of money market pressures are misleading indicators where policymakers ignore nonpolicy effects on them and where there is a shift in the relationship between such variables and goals. An example is the decrease in interest rates induced by a decline in the demand for credit to finance spending at the advent of recession. Contractive policy actions have often been taken that prevented interest rates from falling as far or fast as they would otherwise because policymakers have misinterpreted the source of easing in interest rates and other measures of money market pressures.

Comparable criticisms can be made of the money supply and related magnitudes as indicators of policy. For example, a financial crisis would have the effect of increasing the demand for money and raising interest rates. This in itself would tend to induce an increase in the supply of deposits and money even if there were no policy actions. In fact, the quantity of money might increase despite contractionary policy actions, but less than would have been the case if there had been no policy actions. There are serious shortcomings of any intermediate variable as an indicator of the stance of policy where the structure of the economy is not explicitly taken into account. In fact, it is necessary to do this just to define meaningful quantities.

I am inclined to measure the overall stance of the major instruments of monetary policy by what can be called maximum money—the amount of Government-issued money [1] divided by the average required reserve ratio for commercial banks. Such a magnitude is almost altogether subject to control by the monetary authorities. It is a constraint which importantly limits the expansion of bank deposits and bank credit. Maximum money can be given the interpretation of a policy-controlled constraint that affects the supply function of money and is largely independent of demand factors. Admittedly, maximum money or any alternative indicator of policy is at best an approxima-

[1] A close relative of Milton Friedman's high "powered money" and Karl Brunner and Allan Meltzer's "monetary base."

tion to an ideal—the effect of each policy instrument on economic welfare. Policymakers have often not only misjudged the magnitude but also the direction of the effect of their actions. Increasing maximum money would unambiguously be expansionary; reducing it, contractionary. Hence, directional errors, at least in terms of immediate effects, would be avoided by reference to maximum money as a monetary policy guide. If there were no other monetary policy actions and the amount of maximum money were increased, then the policy stance in terms of its ultimate effects would unambiguously be expansionary even if noncontrolled factors should induce a contraction in the actual quantity of money or increase in market rates of interest. If, as I believe, there are significant effects of monetary policy actions in the short run, then the appropriate policy would be to increase maximum money at less than its long period average growth rate during periods of expected inflation and at more than average during periods of expected deflation and unemployment. However, if lags in effects are long and variable, then the proper policy would be to increase maximum money steadily, unless economic performance deviated a great deal from objectives. Such a prescription for policy is made without regard to other policies than open-market operations and required reserve ratios. If there were other actions their effects would also have to be appraised. It is reasonable that no other actions should be taken or perhaps all in the same direction, at least until it is possible to predict the magnitude of their effects with considerable accuracy.

4. Monetary policy involves changes in government demand obligations. Debt management includes policies that affect the supply of all government debt. It is reasonable to expect that large changes in the relative amounts of short- to long-term government debt would have important effects on the economy, more important indeed than small changes in government demand obligations. There are economists who would deny this proposition because in their view only government demand obligations are capable of affecting the economy. At the other extreme are others who argue that it doesn't make any difference whether government debt is issued in the form of long-term bonds or demand obligations. In my view over sufficient time the economy will adjust to whatever supplies of various maturities of government debt are outstanding by the substitution of private securities. But debt management does have shortrun stabilization potential. Proper utilization of debt management is to lengthen the average maturity of the government debt including reduction in demand debt during periods of excessive spending. In the opposite circumstances it is appropriate to shorten the average maturity of government debt and to increase demand debt in order to stimulate spending. The historical record has often shown perverse debt management policies from this point of view. During the 1930's there was substantial maturity lengthening in government debt. Government support policy during the inflation of the Second World War and its aftermath had the effect of shortening the maturity of debt, making debts of all maturities essentially short-term claims on the government. In the period since the Federal Reserve-Treasury Accord in 1951, the average debt maturity has tended to lengthen during periods of economic contraction and to shorten during periods of expansion.

The demand for government securities of long term naturally rises during periods of contraction as investors find weakening alternatives to government debt. It is precisely at such times that the Treasury should press short-term securities and government demand debt on the market to force investors to turn to issues of private securities.

5. (*a*) It is reasonable that the Federal Reserve conduct open market operations to prevent shocks to the financial system that are introduced by the government itself—for example the effect of Treasury tax collections and spending. But seasonal variability in interest rates and money market conditions in general may also reflect seasonal cost factors in the economy that should be permitted to direct resources toward that period of time when they may be employed most efficiently. This is generally recognized with respect to cyclical variation. But it is not at all clear that open market operations to prevent seasonal variability in interest rates contribute to economic welfare. The burden of proof should be on the Federal Reserve to demonstrate how deseasonalizing open market operations serve a useful purpose.

(*b*) Monetary policy could be effectively implemented solely by open market operations without causing windfall gains and losses to banks as is a necessary result when there are changes in reserve requirements.

(*c*) Changes in other instruments of monetary policy should be introduced wherever there is a strong case that they can add to the efficiency of the financial system. Changes in reserve requirements are appropriate to affect bank profits and the competitive position of commercial banks relative to competing financial institutions. Changes for other purposes should be eschewed.

The availability of discounting from the Federal Reserve is not necessarily as essential to an efficiently operating system. Nevertheless, this central banking service is typically available not only in the United States but elsewhere. It may provide a low cost way by which the financial system can adjust to shocks. But adjustments will occur whether discounting privilege is available or not. The unanswered question is whether the adjustment by discounting would be cheaper than alternatives. Given that there is a discounting arrangement, changes in the discount rate can have an effect on the economy, though probably a small one. It is reasonable that the discount rate should more or less parallel changes in market conditions. The rate might be automatically changed by fixing it at a certain interest differential above short term government securities rates or possibly the Federal funds rate.

(*d*) I think it is very appropriate that the Federal Reserve should report to the Congress quarterly about prospective actions and policies and their likely effects. There are risks in this procedure—risks to the Federal Reserve that its limited ability to predict and to explain why it does what it does will become a matter of public record. As indicated above, I would modify the provisions of H.R. 11 to require the Federal Reserve to explain the likely effects of proposed regulations. Reports should include information pertinent to the explanation of the effects of the actions of the monetary authority. The Federal Reserve should indicate clearly the nature of the regulation, what the purpose is of the change in the regulation, what will be the likely effects on banks and on others. This year the Federal Reserve is to introduce major changes in the definition of legal reserves and reserve requirements.

In some ways these changes establish an arrangement comparable to that that exists in Canada—an arrangement in some ways designed to maximize the destabilizing influence of the Bank of Canada on the financial system.[2] There is no public record of what the Federal Reserve thinks it will accomplish by the new regulations. It has requested major banks to supply opinions of likely effects on their operations. But what of the public interest? Congress created the Federal Reserve. But it didn't create another legislative authority to introduce major structural changes in banking.

Major changes in the structure of banking deserve a careful hearing before Congress before they are introduced. Accordingly I would suggest that the H.R. 11 be amended to require reports from the Federal Reserve on prospective changes in banking regulations and their likely effects.

(*e*) Should the meetings of the Open Market Committee be opened to representatives of Congress, Treasury, and the Council of Economic Advisors? I do not think so. The Federal Reserve is an agency of Government charged with particular responsibilities. It is perfectly reasonable for Congress to demand that the Federal Reserve explain precisely why it does what it does and what it proposes to do, but I can see no particular value in having outside observers at Open Market Committee meetings. Presumably committees permit individuals to take strong positions in argument and to get educated. Presence of outside observers might kill an aspect of the deliberative process. I think it appropriate that the minutes of the Open Market Committee be made public but that it deliberate in privacy.

II. APPRAISAL OF THE STRUCTURE OF THE FEDERAL RESERVE

1. A certificate of membership is a satisfactory substitute for capital stock in the Federal Reserve banks. It is appropriate to eliminate Federal Reserve bank stock to demonstrate the public nature of the Federal Reserve. I would support this provision.

2. Reducing the number of members of the Federal Reserve Board to five from seven would not have any particular cost. The quality of people selected for the Board would be about the same. The committee would still be large enough that it need not be dominated by a chairman. Hence, why have seven people when five could do the job? Cutting terms of office to no longer than 5 years might lead to an undesirable turnover of the Board but probably not. The opportunity to reappoint Board members would allow for development of very able central bankers *if they could be recognized.* That is the key problem, not the number of members of the Board. I would support this proposal.

3. Making the term of the Chairman of the Board of Governors coterminous with the President's term is a reasonable proposal and I support it. It would permit coordination of overall economic policy.

4. The proposal for outside audits of Federal Reserve is also reasonable. Congress does not appropriate funds to operate the Federal Reserve under the present arrangements. But Congress has the ultimate responsibility for Federal Reserve operations and should have budgetary control.

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[2] H. G. Johnson and J. W. Winder, "Lags in the Effects of Monetary Policy in Canada," Royal Commission on Banking and Finance. November 1962, p. 141.

5. I support the proposal that Congress appropriate funds for Federal Reserve operations. This would put some teeth in congressional controls on the Federal Reserve and reduce the independence of the Federal Reserve to introduce changes in policy and regulations without congressional sanction.

III. RECENT MONETARY POLICY

Monetary policy has been unduly expansionary in the last year and a half. If the economy slows in the future and monetary policy actions follow the pattern of earlier downturns, the stance of policy can be expected to become unduly contractionary. Monetary policy is inherently a highly flexible instrument of government stabilization policies, but it has often been and continues to be misdirected by overlooking its own actions and to be myopic by not looking far enough at the effects of its actions.

Recent changes in the structure of reserve requirements and borrowing from the Federal Reserve are massive in their likely effects on the economy. Congress should demand an explanation, albeit after the new regulations have been imposed, and require that no future changes be made without legislative approval.

STATEMENT OF JAMES S. EARLEY, UNIVERSITY OF CALIFORNIA, RIVERSIDE, CALIF.

My statement follows the series of questions that accompanied the request for a statement of views.

I. MONETARY POLICY GUIDELINES AND OPEN MARKET OPERATIONS

1. I emphatically believe that monetary and fiscal policies should not be independent or mutually exclusive stabilization policies. Coordination is vital, and in my judgment not sufficiently provided at present. My views as to how this could best be secured are set forth later.

A coordinated program set forth at the beginning of each year, as proposed in the bill, might be useful, but there would need to be flexibility to take care of uncertain and unanticipated developments. My later remarks will clarify this position also.

2. I believe that the President should be responsible for formulating and coordinating programs in the monetary and fiscal fields, with consultative arrangements with the Federal Reserve System.

3. Monetary policy guidelines:

A. I emphatically believe that the goals of the Employment Act should not be sought via primary dependence on the regulation of the money supply. In my judgment the money supply, however defined, is a false and dangerous guideline. I agree with Governor Mitchell and the staff of the Federal Reserve Board, and with most other experts in this field, that no one variable is sufficient guidance and that excessive concentration on any single variable will be seriously misleading.

Although knowledge and techniques of monetary and credit management need to be improved, I feel that the various criteria used by the staff of the Board of Governors are intelligent ones

in the light of our present knowledge. If, however, a specific group of variables were to be given more attention, I believe they should be data on the flow of funds in the various credit markets, together with the fundamental data of employment conditions and price behavior.

B. I feel that the fundamental objective of monetary policy should be cast in terms of the maintenance of high employment and reasonable price stability. If one could assume that the various policies of Government—monetary, fiscal, and others—were appropriately coordinated, then I would favor specifying some maximum level of unemployment or general level of utilization of economic resources as a "target variable." Again, however, I think that following any single "target variable" or growth rate thereof, regardless of the economic winds, would be a mistake.

C. If indexes of economic activity were to be used to guide coordinated monetary and fiscal policy, I would favor using leading indicators rather than coincident or lagging ones. Although I distrust formulas, I feel that the agencies doing economic forecasting and charged with responsibility for formulating policy should pay very close attention to the "leading indicators" that have beenidentified by the National Bureau of Economic Research.

4. Debt management policy: I believe that debt management can have a supportive although not a large role in reaching the goals of the Employment Act. It is usually appropriate to issue short-term Government securities when stimulus to financial markets is desired, and some benefit may come from concentrating borrowing in the longer maturities in times of economic overheating. But there are disadvantages in pushing either of these policies too far, and I believe that the main dependence should be on monetary and fiscal policy rather than debt management.

5. I approve of the requirement in H.R. 11 that the Federal Reserve System should conduct open market transactions in accordance with the programs and policies of the President pursuant to the Employment Act, but I disapprove of the requirement that the Federal Reserve Board must submit quarterly reports to the Congress, "stating, in comprehensive detail, its past and prospective actions and policies * * *." I do feel that the Board should be more responsive than heretofore to the goals of the Employment Act and the President's economic program, and periodic reports might be useful but I do not feel the Board can reasonably be asked to be this specific, prompt, and anticipatory in its reports. Monetary and credit regulation requires a certain degree of uncertainty with respect to future actions in an uncertain and changing world, and detailed reports on prospective actions would be harmful, in my judgment.

A. I believe that the Federal Reserve System should continue to have freedom to use open-market operations for "defensive" and "road clearing" purposes. Such operations normally facilitate rather than interfere with the achievement of the fundamental goals of the Employment Act.

B. I emphatically do not believe that monetary policy can be effectively and efficiently implemented solely by open-market operations. For many reasons the rediscounting power is important to sound credit management under our banking system. I agree with the recently is-

sued proposals for recasting the rediscount mechanism, as set forth by a system committee of the Board of Governors. This program would actually increase the role of rediscounting and of the rediscount rate in our monetary regulation. I believe this would be wise.

C. (*a*) *Rediscounting.*—My views on this are set forth above.

(*b*) *Changes in reserve requirements.*—These may be useful in some circumstances, although I believe that rediscounting and open market operations are normally the more effective set of instruments.

(*c*) *Regulation Q.*—Under present conditions the Reserve Board's power over maximum deposit interest rates is desirable. The flow of funds between banks and other depositary institutions is an important determinant of the influence that money and credit exert on economic activity. If properly used, the regulation of the deposit rates being paid by financial institutions may help achieve monetary objectives. The present system by which this regulation is divided among the Federal Reserve Board, the FDIC and the Federal Home Loan Bank Board is, however, an awkward and potentially dangerous one, and I think firmer coordination should be secured in this matter. In the absence of effective coordination, it might be better to let deposit interest rates respond more freely to market forces, so long as there is effective control of other monetary and credit conditions.

D. My views on Federal Reserve Board reports to Congress have been stated above. I see some advantage in periodic reports so long as they do not require great detail or specify precise future actions.

E. I would favor representatives of Congress, the Treasury and the CEA being observers in Federal Reserve Open Market Committee meetings. In fact, as explained later, I feel the Open Market Committee itself should be reconstituted.

II. STRUCTURE OF THE FEDERAL RESERVE SYSTEM

If, as is stated, "the grand aim of H.R. 11 * * * is to provide for coordination by the President of monetary and fiscal policies," I feel that some but not all of the listed structural changes in the Federal Reserve System are advisable:

1. I have no objection to the Federal Reserve banks being changed from bank-owned to Government-owned institutions, as provided in the bill, but I do not see that this change is vital to reach the stated objective of H.R. 11.

2. I do not favor reducing the number of members of the Federal Reserve Board. There is a great deal of work to be done by the Board, and the present number of members is not excessive. In view of the desirability of experience and continuity, I also question whether reducing the term of office to 5 years is advisable. On the other hand, the present term of 14 years is probably unduly long. Perhaps 7 years would be a good compromise. This would permit appointment of a new member at least every year.

3. I favor making the term of the Chairman of the Board coterminous with that of the President. This does not imply that there should be a new Chairman each time there is a new President, but it would help make clear the ultimate responsibility of the President for the functioning of the Federal Reserve System.

4. I see no important purpose that would be served by an annual audit of the Board and the Federal Reserve banks by the Comptroller General of the United States. I believe that the internal auditing procedures of the System are adequate and on the whole preferable.

5. I would not favor making the expenditures of the Federal Reserve System subject to congressional appropriation. I think congressional appropriation would make transitory political pressures greater than they should be. Monetary policy and central bank operations are extremely complex, and must be carried out professionally. Although the ultimate responsibility of the Federal Reserve to Congress and the Nation should be made clear, the System should not be subjected to great political heat. If the responsibility and authority of the administration over Federal Reserve policies were made clear this, along with congressional power to amend the Federal Reserve Act, would be sufficient political influence, in my judgment.

III. COMMENTS ON RECENT MONETARY POLICY

Much of the criticism of the Federal Reserve System made by economists has been of its purported failure to take sufficiently vigorous action to combat the periods of underemployment and sluggish growth during the later 1950's and the very early years of the 1960's. More recently there has been criticism that the System has not vigorously combatted the "creeping inflation" of 1965–68. It is in connection with these criticisms that some economists have criticized the System for not paying sufficient attention to changes in the quantity of money.

I share some of the criticism of the System with respect to the earlier periods of underemployment. Partly because of international difficulties, but also, I believe, because of a real bias of the Board membership of that time toward "avoiding inflation at all costs", the System did not in my view carry on a sufficiently vigorous expansionary monetary policy during several of the postwar recessions. The fact that during some (but not all) of those periods the stock of money, narrowly defined, actually shrank slightly was not, however, the main cause of the trouble. Other more sensible criteria would lead to the same conclusion.

Within the last 2 or 3 years the System has been criticized for letting the money stock expand too rapidly during several intervals, including parts of 1967 and 1968. More significant of the failure to curb undue expansion, however, was the fact that bank business loans expanded even more rapidly than the money stock in most of these periods. The tendency toward rising prices and other signs of economic overheating were other more reliable warnings of the difficulties besetting the System than the behavior of the money stock.

But we should not make the Federal Reserve, much less the money stock, a whipping boy. Within the last year, for example, the System has again been criticized because prices have risen seriously while the money stock also expanded considerably. Those who argue that the Federal Reserve should have taken a more contractionary policy than it did, are saying in effect that interest rates should have been permitted to go even higher, and credit become even tighter, than they have been in recent months. The critics also overlook the fact that the main in-

flationary causes of inflation in 1967–68 have been large Government expenditures and deficits. Federal Reserve authorities, along with others, called repeatedly for greater fiscal restraint. It is a real question whether the System, unsupported by fiscal policy, should have been expected to go much further than it did.

The main lesson of late 1965 and of 1967–68 is that improved coordination of monetary and fiscal policy is needed. It would be a tragedy if the attention of the administration, Congress, the Federal Reserve officials, and the general public was diverted from this lesson by the simple-minded notion that some mechanistic control over the quantity of money would be a remedy for this basic need.

Other provisions of the bill

I agree with the objective of permitting all FDIC-insured banks to be members of the Federal Reserve System. In fact, I would favor making this membership compulsory.

Other comments

1. I believe that the Open Market Committee of the System should be reconstituted to include the Secretary of the Treasury and the Chairman of the Council of Economic Advisers or their designates. I also would recommend that the number of presidents of the Federal Reserve banks on the committee should be reduced to three. I see no objection and some advantage, however, in having the presidents of all 12 Reserve banks or their designates be present at FOMC meetings.

2. I think that serious consideration should be given to setting up a new body having coordinating responsibilities and power in the monetary, credit and fiscal fields. Suitable membership for such a body might be the Secretary of the Treasury, the Chairman of the Council of Economic Advisers, the Chairman of the Federal Reserve Board, and possibly the chairman of the congressional Joint Committee on the Economic Report.

STATEMENT OF OTTO ECKSTEIN, HARVARD UNIVERSITY

1. Fiscal and monetary policies, including debt management, must be considered simultaneously and planned in consistent fashion. The two policies can defeat each other if they pursue opposite objectives, and excessive reliance on one instrument or the other can produce instability in financial markets.

2. The preparation of the monetary component of the fiscal-monetary policy plan for each year must reflect the actual distribution of responsibility. So long as the statutes give considerable discretionary independence to the Federal Reserve System, that agency must prepare the program. It probably would be useful to have a mutual review of the drafts of the respective reports, although final responsibility must rest with the agencies that issue the reports.

3.A. The challenge posed to the traditional approach to monetary policy by the Chicago school of monetary theory has resulted in a useful dialog which comes at an opportune time. Over the last 20 years, economics has moved in the direction of more precise quantitative analysis. The financial aspects of the economic system have also become increasingly subject to quantification, although this development is more recent. As a result, the times are almost ripe for a quantitative

approach to monetary policy. Fiscal policy today rests on analyses of the major macroeconomic magnitudes, such as the gross national product, the unemployment rate, the price level, and the balance-of-payments deficit. Increasingly, econometric models are used to work out first approximations of the impact of alternative policies on the performance of the economic system. Monetary policy is on the verge of a similar development.

I do not believe that the scientific tasks are complete, however. There is no one target variable by which monetary policy can be measured. On the one hand, there are sufficient technical "bugs" in each of the measures that have been advanced to preclude their use. For example, the "money supply", whether broadly or narrowly defined, is subject in the short run, to large swings caused by irrelevant factors, such as changes in Treasury deposits, tax collection dates, etc. Some of these factors are partially corrected through the seasonal adjustment procedures; but such correction cannot be perfect because these technical elements do not follow a rigid seasonal pattern. For example, the rate of increase of the money supply has been subject to data revision a year or two after the event because certain seasonal factors were overlooked in the initial estimates. To wholly tie the management of monetary conditions of the American economy to such slender statistical reeds strikes me as farfetched. On the other hand, a thorough study would probably show that the optimal measure of monetary policy is not one single number, but a pattern of numbers reflecting the several dimensions such as money supply, the state of liquidity of the various components of the financial system, the total lending capacity of the banking system, and the level and structure of interest rates. The impact of the economy on the financial variables must also be identified. Just as the impact of fiscal policy could not be identified properly until we had estimates of the full employment surplus or deficit of the budget, we cannot measure monetary policy without correction for underemployment or overutilization.

3.B. I do not believe that we are ready to define precise guidelines for monetary policy in terms of any index of economic activity or of the monetary target variables. If the range of a guideline is set very, very broadly, and if the guideline is not mandatory but simply demanding of explanation if violated, then its use could be adopted more readily.

In my judgment, if guidelines are adopted, they must be related to the performance of the economy, not to any index of money or credit statistics. It seems to me inevitable that monetary policy must be based on forecasts of the economy, particularly forecasts of the likely performance of the economy in relation to the major objectives of the society. Of course, rational policy does not rely more on forecasts than necessary, uses as brief a forecast as possible, and preserves as much flexibility as possible to respond to changes in actual conditions. But to tie policy to monetary targets puts the problem on the wrong track.

3.C. I believe that the National Bureau of Economic Research classification of leading, lagging, or coincident indicators has been superseded by later econometric work. In its day it was a useful approach to business cycle analysis. Today any reasonable econometric model, and there are several, incorporates these notions into particular

equations, uses the leading indicator evidence systematically and in rational, quantitative fashion. Econometric models, leaving to judgment those matters which inevitably must remain so (such as the outlook on defense spending, the likelihood of tax changes, etc.) are the best approach to forecasting and to the planning of policy. To be sure, the models must be used with sophistication; changes in economic structure, the presence of errors, and limitations of the data must be recognized, and heavy weight must be given to the actual evidence of coincident developments.

The monetary target variables must be defined in terms that can be related to the economic model. If the money supply for, example, is used as the target variable, then the econometric model must use the money supply as a key variable reflecting monetary influences. Indeed, the suitability of a target variable must in part be determined by its ability to make itself felt in econometric models. Vague, general, long-run associations are not sufficient to choose a particular target variable over others because the empirical associations are consistent with many alternative economic relationships.

4. Debt management is part of the monetary policy of government. Because interest cost is a genuine cost of government—despite its quaint classification as a transfer payment in the national income accounts—our Government cannot be insensitive to interest cost. Thus, it would not be appropriate to make the stabilization objective the sole objective of debt management. On the other hand, the Treasury does have a special obligation to modulate its actions so that they are broadly consistent with general economic policy; its responsibility is considerably greater than that of even the largest private borrowers.

5A. The management of seasonal credit flows was certainly a primary goal of monetary policy at the time that the Federal Reserve System was established. We have no subsequent experience with a monetary system that does not contain a central bank managing money to offset seasonal swings. We do not know how successfully the credit system would adapt to the removal of this form of management. No doubt, alternative private arrangements would develop. We would not have an annual money panic at the time of the seasonal surge in bank loans to finance Christmas retail business. But I am not familiar with any attempt to spell out what these private institutions would be like. Nor have I seen any studies measuring the social cost of public seasonal credit management. Until there is evidence that there are major social costs and that the private alternatives have been thought through, I see no reason to engage in this economic experiment of considerable risk.

5. B, C, D, and E: I have not studied these questions sufficiently to reach my own conclusions.

II. I have no firm views on the proper structure of the Federal Reserve System. It does seem to me that the term of numbers of the Federal Reserve Board is too long, and that the term of the Chairman should be coterminous with that of the President of the United States. I also have questions about the composition of the Federal Open Market Committee and of the role of regional bank presidents. The regional bank presidents are not selected mainly for their periodic responsibilities for national economic policy. It is not clear to me why the Federal Reserve Board itself is not also the Open Market Committee; no doubt there are historical or practical reasons. The argument of

regional presentation does not seem to me to carry as much weight today as in an earlier economy.

I do not wish to submit a detailed review of monetary policy since 1964. On the whole, policy has promoted the general economic objectives of full employment, price stability, balance-of-payments equilibrium, and economic growth. One can quarrel with details of timing and the extent of some immense credit for managing a flexible monetary policy during a costly war financed mainly by borrowing.

STATEMENT OF DAVID I. FAND, WAYNE STATE UNIVERSITY

I. QUESTIONS ON MONETARY POLICY GUIDELINES AND OPEN MARKET OPERATIONS

1. Do you believe that a program coordinating fiscal, debt management, and monetary policies should be set forth at the beginning of each year for the purpose of achieving the goals of the Employment Act, or, alternatively, should we treat monetary and fiscal policies as independent mutually exclusive stabilization policies?

2. If you believe a program should be specified, do you believe that the President should be responsible for drawing up this program, or, alternatively, should such responsibility be dispersed between the Federal Reserve System and agencies responsible to the President? (Please note that informal consulting arrangements can be made as desired whether responsibility is assigned to the President or divided between the President and the Federal Reserve. The concern here is with the assignment of formal responsibility for drawing up the economic program.)

Answer I.1.2. In my opinion, coordinating of fiscal debt management and monetary policies at the beginning of each year would be desirable. It seems to me that too much emphasis has been placed recently on the stabilization potential of shortrun changes in fiscal policy. It is far from clear that the evidence does in fact support the stabilization properties that are attributed to fiscal policy actions. I would also suggest that monetary policy should be used to stabilize aggregate demand, and not to bring about abrupt and substantial changes in policy, as in 1966.

I.3. Concerning monetary policy guidelines:

A. Should monetary policy be used to try to achieve the goals of the Employment Act via intervention of money supply (defined as desired) as provided in H.R. 11, or, alternatively, should H.R. 11 be amended to make some other variable or variables the immediate target of monetary policy; for example, interest rates, bank credit, liquidity, high-powered or base money, total bank reserves, excess reserves, and free reserves? Please define the target variable or combination of variables recommended and state the reasons for your choice. (If desired, recommend a target variable or variables not listed here.) It would be most helpful if, in providing the reasons for your choice, you list the actions the Federal Reserve should take to control the target variable (or variables) and also explain the link between your recommended target of monetary policy and the goals of the economy as defined by the Employment Act.

B. Should the guidelines of monetary policy be specified in terms of some index of past, present, or future economic activity, or, alternatively, in terms of the target variable's value or growth? For example, should the President's 1969 program for achieving the goals of the Employment Act be formulated to require consistency with some set of overall indicators of economic activity, or, alternatively, so that your target variable attains a certain value or growth regardless of the economic winds? Please indicate the reasons for your preference.

C. For only those persons who recommend that some index of economic activity be used to guide the monetary authorities in controlling the target variable: Should we use a leading (forward looking), lagging (backward looking), or coincident indicator of economic activity? It would be most helpful, also, if you would identify the index you would like to see used and specify how the target variable should be related to this index.

D. For only those persons who recommend that the guidelines be put in terms of the target variable's value of growth: Should the same guidelines be used each year into the foreseeable future, or alternatively, should new guidelines be issued at the beginning of each year conditioned on expected private investment, Government spending, taxes, and so forth? Please indicate the reasons for your preference.

E. For only those persons who recommend that the guidelines be put in terms of the target variable's value or growth and who also recommend that the same guidelines be used year after year into the foreseeable future: What band of values or range of growth do you recommend? (By way of clarification, a band of values appears appropriate if your target variable is, say, free reserves, whereas a range of growth is appropriate if it is, say, money supply.)

F. For all those persons recommending that the guidelines be put in terms of the target variable's value or growth (regardless of whether you recommend using the same guidelines year after year or revising them each year in light of expected private investment and fiscal policy): Under what circumstances, if any, should the monetary authorities be permitted during the year to adjust the target variable so that it exceeds or falls short of the band of values or range of growth defined by the guidelines issued at the beginning of the year?

Answer I.3. A–F. It is very hard to legislate guidelines that could be followed by the monetary authorities in all circumstances. In general, if a rule or guideline is developed it should be in terms of the money stock or of changes in the money stock, as these are among the most important variables that the Reserve authorities can directly influence. It is also desirable to develop a stabilization program that does not require too many short-run changes, as such changes may, at times, become an independent source of instability

The recent suggestion of the Joint Economic Committee that the Federal Reserve should try to keep variations in the money growth rate in a 2- to 6-percent range each year has much to recommend it. As we develop more experience with this approach it may be possible to develop a better guide.

I.4. Concerning debt management policy: Given the goals of the Employment Act, what can debt management do to help their implementation? (If you believe that debt management has no role to play in this matter, please explain why.)

Answer. I.4. In my opinion the stabilization potential of debt management has been overrated. Debt management properly defined involves essentially a swapping operation, and its overall effects on aggregate demand are a mixture of several effects. There is therefore some question as to whether countercyclical debt management is worth the cost. I would not, however, go to the other extreme and argue that debt management should be primarily concerned with minimizing the interest outlay on the debt. Probably the most sensible policy would be to try to get a stable debt structure, which would indirectly contribute to the stabilizing role of monetary policy.

I.5. Concerning open market operations: H.R. 11 requires that the FOMC conduct open market transactions "in accordance with the programs and policies of the President pursuant to the Employment Act of 1946." And in this connection, H.R. 11 provides that "The Federal Reserve Board shall submit a quarterly report to the Congress, stating in comprehensive detail, its past and prospective actions and policies under this section and otherwise with respect to monetary affairs, and indicating specifically how such actions and policies facilitate the economic program of the President."

A. H.R. 11 makes no provision whatever for conducting open market operations for so-called "defensive" or "road-clearing" purposes, that is to counteract seasonal and other transient factors affecting money market and credit conditions. Do you see any merit in using open market operations for defensive purposes or should they be used only to facilitate achievement of the President's economic program and the goals of the Employment Act? What risks and costs, if any, must be faced and paid if open market transactions are used to counteract transient influences?

Answer I.5.A. The case for using open market operations for defensive purposes is not entirely clear to me. It is true that seasonal and other factors could prove to be disruptive in the financial markets. But defensive measures may also interfere with market processes and make it difficult to recognize more basic forces. At the present time we may be oversupplied with techniques and weapons for such defensive operations, and it may be desirable to examine these issues to determine whether some of these operations can be dispensed with.

I.5.B. Do you believe that monetary policy can be effectively and efficiently implemented solely by open market operations?

C. For what purposes, if any, should (a) rediscounting, (b) changes in reserve requirements, and (c) regulation Q be used? How might H.R. 11 be amended to implement your recommendations?

Answer I.5. B. and C. Monetary policy could be effectively implemented solely by open market operations. It is not, however, clear that this would necessarily be the most efficient way to operate the central bank. The other measure mentioned in (*c*) may, therefore, at times provide some extra flexibility for the authorities. But here again it appears that we may have too many weapons. Why do we need both a discount window, and a provision for borrowing at the penalty rate.

I.5.D. Do you see any merit in requiring the Federal Reserve Board to make detailed quarterly reports to the Congress on past and prospective actions and policies? Are there any risks and costs in this procedure? In what ways, if any, would you modify the reporting provision? What information do you believe should be included in such reports as you recommend the Federal Reserve submit to the Congress?

Answer I.5.D. I think it might be useful for the Federal Reserve Board to report to Congress on their policy actions. I am not clear on whether one could expect them to disclose prospective actions and policies unless we have a definite rule, and we eliminate all discretion.

I.5.E. What costs and benefits would accrue if representatives of the Congress, the Treasury, and the SEA were observers at Open Market Committee meetings?

Answer I.5.E. The benefits of having more officials at Open Market Committee meetings is that it reduces the likelihood of a serious error. At the same time, it also makes it more difficult to arrive at a decision. On balance, a smaller group may be more desirable.

II. APPRAISAL OF THE STRUCTURE OF THE FEDERAL RESERVE

H.R. 11 provides for the following structural changes in the Federal Reserve System:

1. Retiring Federal Reserve bank stock;

2. Reducing the number of members of the Federal Reserve Board to five and their terms of office to no longer than 5 years;

3. Making the term of the Chairman of the Board coterminous with that of the President of the United States;

4. An audit for each fiscal year of the Federal Reserve Board and the Federal Reserve banks and their branches by the Comptroller General of the United States; and

5. Funds to operate the Federal Reserve System to be appropriated by the Congress of the United States.

Please comment freely on these several provisions. In particular, it would be most helpful if you would indicate any risks involved in adopting these provisions and discuss whether their adoption would facilitate the grand aim of H.R. 11, which is to provide for coordination by the President of monetary and fiscal policies.

Answer II.1–5. I think that these provisions emphasize the fact that the central bank is not a private institution but a Government agency. They are, in my opinion, desirable measures.

III. COMMENTS ON RECENT MONETARY POLICY

Your analysis of monetary developments, since 1964, including policy induced changes and their effects on economic activity, is invited.

Comments III. The implementation of monetary policy since 1965 has been defective, even though Federal Reserve authorities diagnosed the situation correctly and took extraordinary measures to correct the overall posture, when they discovered their errors. The authorities misinterpreted interest rate movements in early 1966, and therefore could not clearly assess the impact of their actions. They apparently failed to distinguish between movements in *nominal* and *real* rates, and between nominal balances and real balances, and like many others

were oversold on the stabilization potential of short-run fiscal changes. Their efforts to restrain later on in 1966 was therefore both abrupt and severe, and generated a small crisis in the money markets—the so-called credit crunch. Subsequent to the crunch they again overreacted to prevent the so-called minirecession of early 1967. In retrospect, it is evident that the Reserve officials overestimated the impact of an increase in the (nominal) discount rate, and underestimated the fact of extraordinary changes in the growth rate of the money stock.

The failure to recognize the diverging paths of nominal and real interest rates when prices are rising (or falling) has caused errors in policy in the past. Hopefully, this lesson of the 1965–68 period will not be forgotten soon.

STATEMENT OF WILLIAM FELLNER, YALE UNIVERSITY

(1) When declaring that the attainment of "maximum employment, production and purchasing power" is an essential objective of American economic policy, the Employment Act of 1946 uses terminology that obviously requires interpretation.

For example, our recent unemployment rates—official estimates of persons who at the time of successive recent surveys were looking for a job but by then had not found one—are in the neighborhood of 3½ percent with seasonal adjustment (3 percent without such adjustment). For some time now the duration of unemployment has been 4 weeks or less for well over one-half of the unemployed. But the duration has been 15 weeks or more for a small proportion of the unemployed (during the year 1967 this proportion was about 15 percent); and the incidence of unemployment has been different on different sections of the population (distinctly lower on married men than on other members of the labor force; distinctly lower on whites than on Negroes, etc.).

Many types of labor are in short supply. For some time consumer prices have now been rising at a yearly rate of about 4 percent. New wages settlements are said to involve 6 to 7 percent increases.

The language of the Employment Act is not particularly helpful in providing guidance in such a situation. Perhaps there is by now reasonably general agreement among policymakers that of late we should have played safer against inflation even at the expense of the *current* unemployment rate in the foregoing sense. But this conviction can hardly be derived from a literal interpretation of the language of the Employment Act which formulates "maximum employment" as the goal of employment policy.

(2) On what to me seems the only reasonable interpretation of an ambiguous text, the Employment Act tells us that policymakers should aim for approximating full employment as closely as they can without sacrificing other essential objectives. The proper balancing of objectives must be left to the authorized policymakers of each period. It is inconceivable that an act should specify all relevant objectives, and should attach weights to these.

The Employment Act performs the function of serving as a reminder that major policies bear importantly on the employment level, and that sacrifices at the expense of the level of employment are justifiable only if very important other objectives are at stake. The act,

as it now stands, serves as an effective reminder of this to the Federal Reserve as well as to other policy agencies.

(3) In the *long run* the conflict between employment objectives and other significant policy objectives is much smaller than over periods of shorter duration. This is because raising the employment level by inflationary means involves reliance on "money illusion," that is, reliance on the inclination of individuals and of representatives of private groups to be satisfied with the attainment of money-income targets even if it turns out that given money-income targets correspond to smaller real incomes than had been assumed. Money illusion is rarely *complete*: it shows in failure *fully* to adjust the money-income targets to changes in the price level. Temporarily, policies based on money illusion can appear to be more or less successful, though at the expense of the stability of the price level. But money illusion fades away gradually, and the possibility of achieving gains in the employment level by inflationary methods gradually disappears. An inflationary policy of forced high employment must sooner or later be stopped. The measures by which this can be done inevitably reduces employment for a while below the level at which it could have been kept without inflation.

Whether one does or does not regard the achievement of high employment and the avoidance of inflation as conflicting objectives depends therefore to a considerable extent on whether one takes a short or a long view of the matter. For reasons not all of which need to be described in derogatory terms different people assign different weights to short- versus long-run considerations. However, the public is realizing now that long-run considerations have recently received much too little weight.

(4) The practices of the recent past have been far from ideal. Any fruitful analysis of past deficiencies suggests guidelines for the future. In this sense we shuold indeed be looking for guidelines. On the other hand, I do not believe that the shortcomings of Federal Reserve policy could be remedied by subjecting the System to some specific formula. The reason why this does not seem promising to me is that in matters of such complexity no act or amendment could be sufficiently specific (sufficiently unambiguous) to prevent the adoption of unfortunate policies based on ill-advised interpretations of the text. A text so rigid as to leave no room for "interpretation" would be unacceptable because the details of the situations in which future decisions will have to be made are unpredictable. At the end of these comments I will formulate a proposition that could, I think, serve as a somewhat flexible guideline to monetary policy (see point 6 below).

(5) In several phases of the recent past the Federal Reserve has shown more concern with putting a brake on inflation than have other groups of policymakers. The policies of the Federal Reserve have not been very *successful*, but this is a different question on which I will comment presently. I feel opposed to further integrating the Federal Reserve System with the Government in the conventional sense because I feel that the Federal Reserve, as it is now constituted, *could* more readily afford to take a long view of policy matters (and to accept temporary unpopularity) than can many other policy agencies. I think Federal Reserve appointments should become *less* rather than

more "political." I will add that I see no advantage in exchanging the stock of the Federal Reserve banks for certificates of membership.

(6) While the Federal Reserve has shown concern with inflation-dangers, it has in recent years not been effective in fighting these dangers, not even as effective as it could have been given the fiscal policies of the past 3 years. The Federal Reserve has rightly been criticized for letting the economy become oversupplied with liquid assets—particularly with money in the broader sense of currency plus demand deposits plus time deposits—though the past 3 years do not constitute a period of *uninterrupted* oversupply.

It follows from what I said earlier that I do not favor attempts to formulate rigid rules for the rate at which the money supply (in the relevant broader sense) should be expanded in order to avoid the dangers of deflation without creating those of inflation. But it does seem obvious to me that a policy purporting to be one of anti-inflationary restraints miscarries if it leads to an increase of the money supply at a rate far in excess of the increase in output, and does so under circumstances in which there exists no reason to assume that at the given price level the public has a correspondingly increased demand for money balances. And yet this is what was typically happening in recent years.

I therefore consider it important that in the future Federal Reserve policy should be much more mindful of the money supply (in the broader sense) than it has been so far. It should be mindful of the adverse consequences of an excessive *or* of an insufficient rate of increase of the money supply; and while the terms "excessive" and "insufficient" must be interpreted in view of somewhat crude estimates of the public's money demand at prospective levels of output, of prices, *and* of other economic variables, this fact does not by any means render the foregoing statement empty (because estimates can be quite unreasonable, especially if they are merely implied). The Federal Reserve should in the future be able and willing to justify changes in the money supply in terms of reasonable assumptions concerning the effect of the money supply on acceptable objectives. Congressional committees could exert a favorable influence on the Federal Reserve in this regard, though I believe that our past policies would have been worse, rather than better, if the Federal Reserve had been made part of the executive branch of the Government.

A policy that oversupplies the economy with money in order to prevent interest rates from rising to "undesirable levels" is doomed to become self-defeating even by its own standards, because the inflation which it causes makes high *money* rates of interest correspond to low *real* rates of interest. Hence, such a policy is apt to lead to very high money rates. This, too, follows from a proposition formulated earlier in these comments: policies that work only as long as the public is significantly influenced by money illusion will sooner or later backfire.

STATEMENT OF LEO FISHMAN, WEST VIRGINIA UNIVERSITY

The Case for Nationalizing the Federal Reserve System

The stated purpose of H.R. 11 is to make the Federal Reserve System responsive to the best interests of the people of the United States and to improve the coordination of monetary, fiscal, and economic policy. With this purpose I fully concur. To this end H.R. 11 provides for

explicitly assigning power over basic national monetary policy to the President of the United States. Passage of H.R. 11 would thus explicitly invalidate the assumption of autonomy of the Federal Reserve authorities with respect to basic national monetary policy.

In recent years many well-informed citizens as well as members of Congress, other public officials, and professional economists have come to recognize that the two most important sets of tools that can be used in implementing public economic policy in the United States are the tools of fiscal policy and the tools of monetary policy.

Somewhat less well known is the fact that each of these sets of tools has its own advantages and disadvantages. At times the desired ends may best be achieved by placing primary or even sole reliance on monetary policy. In other situations it may be best to rely solely or largely on fiscal policy. If fiscal policy and monetary policy are used at cross purposes, each cannot fail to counteract, at least to some extent, the effect of the other. Moreover, even if they are both ostensibly directed toward the same general ends, neither monetary policy nor fiscal policy can be used in optimum fashion unless they are adequately coordinated with each other.

An essential feature of the Employment Act of 1946 is that it assigns to the President, as Chief Executive officer of the Federal Government, the primary responsibility for coordinating all "plans, functions, and resources" of the Federal Government for the purpose of promoting "maximum employment, production, and purchasing power." Statements made at various times during the debates preceding passage of the act indicate clearly that this feature of the act was not the result of careless drafting or lack of forethought.

Perusal of the debates in Congress preceding passage of the Employment Act of 1946 should be sufficient to resolve any lingering doubts on this matter. It was the deliberate intent of Congress to strengthen the role of the President with respect to the determination and implementation of national economic policy. When the legislation had been revised for the last time and the Senate was about to vote on it, Senator James H. Murray pointed out that the bill made it clear that "the basic responsibility for developing the employment program within the executive branch is that of the President * * *. The effect of this act," he continued, "is to underscore the responsibility of the President as the elected representative of the entire country, and as head of the executive branch of the Government."

It is impossible for the President to discharge the responsibilities assigned to him in the Employment Act of 1946 unless he exercises the power to coordinate national monetary policy with national fiscal policy. In fact, during the debates in Congress preceding passage of the Employment Act of 1946 it was observed that monetary policy would be used by the President to promote the purposes of the legislation. On the other hand, no reference was made in these debates to the powers of the Federal Reserve authorities, nor was any mention made of their right to exercise their powers independently of the President.

In recent years, however, the Board of Governors of the Federal Reserve System has claimed (and on several occasions has exercised) complete autonomy with respect to monetary policy. On more than one occasion William McChesney Martin, Chairman of the Board of

Governors of the Federal Reserve System, has stated before congressional committees that monetary policy to achieve broad national goals is determined by the Federal Reserve System. On at least two occasions monetary policies were adopted by the Federal Reserve authorities despite objections expressed by the President and his advisers.

In April 1956, during Dwight D. Eisenhower's administration, the Board of Governors raised the discount rate although the Chairman of the Council of Economic Advisers and members of the Cabinet had held that such action would not be consistent with other Government policies designed to achieve the goals of the Employment Act of 1946. Similarly, in December 1965, the Board of Governors raised the discount rate, although President Johnson had recently indicated that he considered such a change ill advised and ill timed.

Chairman Martin does not often concede that monetary policy is also determined independently of the Congress, but this is actually the case. As Senator George W. Malone remarked to Chairman Martin in 1957 when Martin appeared before the Senate Committee on Finance, "Congress has not one iota of authority, except the authority to change the [Federal Reserve] act * * *." Senator Malone also observed, "Congress has nothing to do with [the administration of monetary policy] * * *. We can talk to you, but we cannot do anything through it. Your judgment cannot be questioned for anything done under that act, unless we amend it."

There is evidence that some dissatisfaction has existed in Congress over the assumption of independence by the Federal Reserve authorities and also over the moneary policies they have followed. In its annual reports, the Joint Economic Committee has repeatedly expressed disapproval of both the basic nature of monetary policy and the failure of the Federal Reserve authorities to coordinate monetary policy with the economic policy of the administration.

In the 1966 report, for example, the Joint Economic Committee declared that it was "seriously concerned about the conduct of monetary policy in this country." The committee also stated, "While the rest of the executive branch was coordinating activities and plans preparatory to submitting them to Congress in January, the Federal Reserve went its own way."

As long as the Board of Governors continues to assert and to exercise complete autonomy in matters pertaining to national economic policy, *it is possible* for U.S. monetary policy and U.S. fiscal policy to be oriented toward different and incompatible sets of goals. *It is impossible* for the President to coordinate all "plans, functions, and resources" of the Federal Government for the purpose of promoting "maximum employment, production, and purchasing power."

Proponents of complete autonomy of the Board of Governors of the Federal Reserve System in matters pertaining to monetary policy have claimed that their point of view is soundly based on tradition and historical precedent, on judicial decisions, and on legislation enacted by Congress. In other statements on this issue published within the past few years I have demonstrated that these claims are not valid. (See, for example, my article, "The White House and the Fed," which appeared in the July/August 1966 issue of *Challenge*.) I have accordingly argued that if the President is to discharge the responsibilities assigned to him in the Employment Act of 1946, he must exercise the power to

coordinate national monetary policy with national fiscal policy; that the basis for such exercise of power by the President already exists; and that the passage of new legislation is not necessary.

Nevertheless, the issue has not yet been resolved. Moreover, inasmuch as the structure of the Federal Reserve System and its relation to the Federal Government are unique, there is some question of what steps the President might take to bring about such a change and to enforce his power to coordinate monetary and fiscal policies if he were challenged by the Federal Reserve authorities. Accordingly, there would be a definite advantage in the passage of legislation, such as H.R. 11, dealing explicitly with these matters.

Three provisions of H.R. 11 are designed specifically to correct the present situation. One of these requires the President to include monetary policy guidelines in his annual economic report. Another stipulates that open market operations and other tools of monetary policy "shall be conducted in accordance with the programs and policies of the President pursuant to the Employment Act of 1946 and other provisions of law." The third calls upon the Federal Reserve Board (which would replace the present Board of Governors of the Federal Reserve System) to submit a quarterly report to the Congress stating its past and prospective monetary policy actions and indicating "specifically how such actions and policies facilitate the economic program of the President." These provisions of H.R. 11 should have the desired effect. Their language is clear and explicit, particularly when considered within the context of the statutes they amend, and the other supporting provisions of H.R. 11.

To strengthen the coordinate relationship of monetary and fiscal policy under the direction of the President, H.R. 11 provides for substantial changes in the structure and financing of the Federal Reserve System. In effect the Federal Reserve System, which at present is owned by the member banks, would be nationalized. Stock in the Federal Reserve banks now held by the member banks would be retired; all interest, discounts, assessments, and fees received by Federal Reserve banks would be paid to the United States Treasury; operations of the Federal Reserve banks and the Federal Reserve Board (which would also replace the Federal Open Market Committee) would be financed with funds appropriated by Congress.

It is likely that these features of H.R. 11 will provoke considerable controversy for reasons not directly related to the main purpose of the bill. It may, therefore, be useful to consider some of the direct effects of these provisions and to anticipate some of the arguments that may be offered against them.

Nationalization of any type of economic activity in the United States is typically resisted and feared. There is a strong preference for private ownership and control. An attempt to extent public ownership—and especially national ownership—to any type of economic activity is generally opposed not only on its own merits, but also because it is viewed as an opening wedge for other similar encroachments on free competitive enterprise.

In this case, however, such fears are without foundation. The Federal Reserve System, as noted above, is unique with respect to both the organization and its existing relation to the Federal Government. The Federal Reserve banks are certainly not free, competitive enter-

prises. The Federal Reserve System was organized and has for several decades been functioning not for profit, but to influence credit conditions, to meet the needs of commerce and industry, and for various other purposes related to the satisfactory functioning of the monetary and economic system of the country.

Although each of the 12 Federal Reserve banks is owned by the member banks in its district, the relationship is purely formal and involves virtually no power with respect to determination of important policy decisions or control of the level or disposition of earnings. The important controls and influences, to the extent that they are not specified in Federal legislation, emanate largely from the Board of Governors and the Federal Open Market Committee. Nationalization of the Federal Reserve System thus cannot legitimately be regarded as an encroachment on free competitive enterprise.

From a purely financial point of view, nationalization of the Federal Reserve System in and of itself should have relatively little effect. Since the stock in the Federal Reserve banks presently owned by the member banks would be redeemed at par, the member banks would experience no direct gains or losses. And since the member banks cannot presently receive more than a 6-percent return on the par value of the stock they hold in their Federal Reserve bank, they can probably earn at least as great a return by loaning or investing the funds they receive when the stock is retired.

H.R. 11 provides that future earnings of Federal Reserve banks will be paid directly to the United States Treasury. Relatively large revenues are derived from the operation of the Federal Reserve banks, mainly in the form of interest payments on U.S. Government securities. But under existing arrangements the Treasury already receives over 90 percent of the net earnings (before payments to the U.S. Treasury) of the Federal Reserve banks, since dividends payable to member banks are limited to 6 percent as indicated above. Clearly the magnitude of the possible increase in Treasury receipts is not sufficient in and of itself to justify nationalization of the Federal Reserve System, nor is this the reason why proponents of H.R. 11 favor nationalization.

One possibility that cannot be completely disregarded is that some State member banks might discontinue membership in the Federal Reserve System if the Federal Reserve System were nationalized. Any such defections, however, would be based largely on psychological considerations, rather than on any substantive change in the operations of the member banks or in their functional relationship with the Federal Reserve bank of their district.

If it should appear that large-scale defections might occur, incentives of one kind or another might be offered to State banks to maintain their membership. With minor adjustments, the recently proposed plan to make Federal Reserve bank credit more readily available to commercial banks might serve this purpose. It should also be noted, however, that if open-market operations are used as the principal tool of monetary policy, the effectiveness of monetary policy is not limited by the number of member banks or by the volume of member banks' assets.

Other organizational changes provided for in H.R. 11 also appear to be consistent with the main purpose of the bill. Abolition of the Federal Open Market Committee, for example, would virtually eliminate the influence of Federal Reserve bank presidents on national monetary policy. This is as it should be. These presidents are appointed by the board of directors of their respective Federal Reserve banks, which are owned by the member banks in their district. There is no reason why they should play an important role in the determination of national economic policy, nor is there any true statutory basis for their exercise of such a role. When the 1935 amendment to the Federal Reserve Act was passed, Congress did not anticipate that open-market operations would be used to achieve broad national economic goals. Indeed at that time Congress specifically refused to grant to the Federal Reserve System any mandate to increase its powers in such a way as to influence the general level of economic activity. The Federal Reserve System is authorized by the Federal Reserve Act to use the tools of monetary policy to cope with seasonal and other transient factors affecting money market and credit conditions.

The fiscal autonomy of the Federal Reserve System has enabled it to assert its independence of the Congress. This independence would be terminated by H.R. 11 by virtue of the requirement that the Federal Reserve System operate and administer its affairs with funds appropriated by the Congress. Regular appearances of its officials before congressional committees authorized to inquire into the financial and fiscal affairs of the Federal Reserve System will assure full disclosure and publicity to the details of the operations of the Federal Reserve System. This process will also help to make the Federal Reserve System more responsive to the will of democratically elected officials of the Federal Government.

My support of H.R. 11 is not based on any sharp dissatisfaction with the manner in which monetary policy has continuously been administered under the present structure of the Federal Reserve System. Monetary policy has become a principal method for achieving the goals of the Employment Act of 1946. The postwar prosperity, the small number and minor character of the postwar recessions, and the record long economic expansion that began in February 1961 have in no small measure been made possibly by sound and judicious use of monetary policy.

But the time has come for a change. Views and policies of a political nature are frequently espoused by the monetary authorities of the Federal Reserve System. They have become prominent public figures. Increasingly these officials find themselves in the center of political controversy as they expound and defend their monetary policies and the goals they hope to achieve. Monetary experts and technicians must play a supporting role in the determination of monetary policy. But the essential political decisions involved in monetary policy determination should be the responsibility of officials who are elected by the people or who are responsible to elected officials. H.R. 11 will serve to accomplish this change.

STATEMENT OF WILLIAM J. FRAZER, JR., UNIVERSITY OF FLORIDA [1]

A bill (H.R. 11) before the House Committee on Banking and Currency seeks to amend both the Employment Act and the Federal Reserve Act with the view to making monetary policy more responsive to the need to achieve the goals of the Employment Act. One proposed amendment would bring monetary policy and debt management explicitly into the Employment Act for the first time. It would require the President, in presenting his economic program to the Congress, to make recommendations on fiscal and debt management policies and guidelines concerning monetary policy, including the growth of the money supply. Other amendments provide for changes in the structure of the Federal Reserve, mainly with respect to its policymaking functions. An objective is to improve the coordination of monetary, fiscal, and economic policy generally.

The legislation comes after years of study, both of the present structure of the Federal Reserve as a policymaking organization and of guidelines or rules for the conduct of monetary policy. It gives rise to a number of questions about the coordination of policies, the appropriate target(s) for policy, the relationship between the target(s) and business activity, the form in which target values should be stated, the role of "defensive" and "dynamic" operations, the necessary tools, and so on. Section I below deals with the specific questions that have been raised by the Domestic Finance Subcommittee, pursuant to holding hearings on the legislation; and section II is an appraisal of the structure of the Federal Reserve in the light of the legislation, related suggestions, and the background of study preceding it.

Strands of two familiar controversies about the making of decisions with respect to Federal Reserve policy run throughout the present paper; notably, the one over whether decisionmaking should be centralized within a single agency or governmental body or whether the Federal Reserve should be relatively independent within the framework of government; and the one over whether the Federal Reserve should follow a strict rule or exercise discretion in effecting changes in monetary policy. The most common argument in defense of the independence of the Federal Reserve in the framework of government is the quasi-judiciary one, as defined later. Others are introduced, however, relating to compensating errors and a proposed educational function for the Federal Reserve Board. The latter arguments in support of some form of independence are said to be economic, as distinct from pragmatic ones. In view of the provision in the legislation for quarterly reporting by the Board, and related guideline and rule suggestions, the arguments for some form of independence on the part of the Federal Reserve are not necessarily in conflict with provisions for changing the structure of the Federal Reserve. Nevertheless, with the view to achieving one of the objectives of the legislation—namely, making monetary policy more responsive—a case is made for tying

[1] A number of individuals read and commented on the initial draft of the present paper; namely, Profs. Frederick O. Goddard, George B. Hurff, Charles A. Matthews, James G. Richardson, and Miss Lahoma Riederer, of the University of Florida, and Prof. William P. Yohe, of Duke University. All are absolved from any responsibility for the commissions in, and the omissions from, the paper.

Federal Reserve policy more directly to the need to refine measures of and to attain national economic goals, all via newly defined reporting procedures and a modified form of rules proposal. In particular, the Federal Reserve should attain within limits, as suggested by the Joint Economic Committee, a rate of change in the money stock (variously defined), and should, in addition, achieve an average growth rate in the money stock over longer periods of time, since the limits are set to begin with to allow for errors and some defensive and countercyclical maneuvering. Provisions for deviations from the guidelines are suggested. Deviations should be permitted when empirically verifiable explanations, as outlined later, can be given in the various reports for doing so.

In addition to the strands of controversy, there are throughout the present paper critical appraisals of a banking view as distinct from a modified monetarist's view. The banking view is said to be characterized by a preoccupation with banking mechanics, an emphasis on ties to the money and credit markets, and an emphasis on the prospect of influencing the achievement of national economic goals directly through changes in the tone of the money and credit markets and degrees of credit ease or tightness. The "monetarist's" label has been used to apply to those who emphasize mainly the relationship between rates of change in the money stock and the national economic goals. Even so, the present modified monetarist's view may be said to be characterized by an emphasis on interrelationships between changes in the structure of interest rates, changes in rates of change in the stocks of bank credit and money, and national economic goals.

With reference to the strands of controversy and the banking and monetarist's views, the Federal Reserve may be said to have traditionally been alined in defense of independence within the framework of government, in defense of the exercise of discretion in policy matters, and with the banking view. Its position in all three of these instances may be said to have related to a form of mysticism, indeed, a mystique as described later, not, of course, with respect to every policymaker or every bank in the System but with respect to the policymakers as a group and the System as a whole. One's position on monetary rules and the Federal Reserve's exercise of discretion is closely related to a view of economic knowledge (or lack of it). Also, the original structure of the Federal Reserve System as a policymaking organization, and the structural changes effected by the Banking Acts of 1933 and 1935, are said to have been related to problems and economic knowledge of the times, all in relation to prevailing views about the centralization of power. In view of these immediately foregoing interrelationships, section III below relates a review of aspects of recent monetary policy to the banking view ascribed to the Federal Reserve, and section IV is an overall view of notions about rules and economic knowledge in relation to the Federal Reserve as a policymaking organization.

Some of whatever may be original in this paper centers about the way in which various elements from earlier controversies are combined, along with analytical notions, in an appraisal of the structure of the Federal Reserve as a policymaking organization. In summary, arguments and analysis disclose and support the need for, and the desirability of, the following: making monetary policy a more serv-

iceable instrument of overall economic policy; a form of guidelines, as suggested by H.R. 11, by the Joint Economic Committee and as presently modified; structural changes in the Federal Reserve, partially as provided by the present legislation; and reporting procedures, also as partially provided by H.R. 11. The original Federal Reserve Act may be said to have given proper allowance for the banking view, given the economic knowledge and the characteristics of the economy of its time, including a relatively close link between commercial bank loans to business firms and expenditures by such firms. With the passage of time, however, at least two things have happened to render the structure of the Federal Reserve as a policymaking organization and the banking view inappropriate: (1) the simple tie between bank lending and expenditures has been broken; and (2) the emphasis in attaining national economic goals has shifted to the more abstract plane of the interrelationships between interest rates and rates of change in stocks of credit and money and in the flow of income. Now to make monetary policy more responsive, changes in the structure of the Federal Reserve are called for. The need for these changes is indicated by the decline in the relevance of the banking view and in the related role of judgment about the satisfaction of credit needs. The proposal for a single policymaking board is supported, subject to the introduction of certain policy guidelines to allow for the altered nature of the policymaking function, and subject to the retention of elements of the System's original regional (or Federal) character. The guidelines and the latter provision are defended on economic grounds.

I. MONETARY POLICY GUIDELINES AND OPEN MARKET OPERATIONS

Under the Employment Act of 1946 the President is responsible for transmitting to the Congress each year an economic report setting forth a program for achieving national economic goals. The reports have dealt with about the same topics over the years, with varying degrees of emphasis on the public and private sectors, the need for legislation to deal with the President's program, and on the respective goals—for example, economic stability without inflation, economic growth, full employment—and later poverty. The reports, too, at least as early as 1954, have recognized the importance of the Federal Reserve's control over credit in maintaining economic stability. The discussions on this subject were usually in general terms of credit ease or tightness, sometimes with emphasis on special aspects of the economy such as housing. One characteristic of the Act and another of the reports (including the President's report or letter of transmittal and his Council's supporting report), however, are presently of special interest, notably: (1) the act has been viewed as giving expression to interest on the part of the Government in the aspects of economic life outside the sphere of credit and monetary policies; and (2) as the years have passed, more elaborate statistical information has been included in the reports, and the standards of achievement have been continuously on the rise.

The original framers of the act—with the leadership of Congressman Wright Patman in the House and others in the Senate—were doubtlessly wise in proposing high standards of performance and

omitting requirements in the form of fixed quantitative targets. Now, even so, the rising standards of performance and our enhanced ability to cope with economic problems seem to require some form of more specific statements, quantitative in character, particularly about credit, monetary and interrelated policies. As provided in H.R. 11, the President's Economic Report is now to include recommendations on debt management and monetary policy guidelines, and there are additional questions about the Federal Reserve's traditional independence within the framework of government as well as about their reporting on credit and monetary policy. Recent hearings and a report by the Joint Economic Committee also deal with standards for guiding monetary actions [27; and 28].[2] This section, consequently, deals with some of the questions raised by H.R. 11 and related materials.

I.1.—Do you believe that a program of coordinating fiscal, debt management and monetary policies should be set forth at the beginning of each year for the purpose of achieving the goals of the Employment Act, or alternatively should we treat monetary and fiscal policies as independent mutually exclusive stabilization policies?

The recommendations for a fiscal policy must allow for monetary policy,[3] and vice versa. For example, shaping the revenues and expenditures of the Government so as to affect the flow of income and the levels of employment and prices affects the amount of bank credit and money needed to achieve maximum employment, production, and purchasing power. Such a fiscal policy would also affect interest rates. A tax credit for capital expenditures by businesses, such as initially adopted in the United States in 1962, would in particular affect interest rates. The tax credit seeks to alter the rate of return (or the flow of returns) on additional capital expenditures with the view to inducing a larger flow of expenditures and in so doing it affects the rate of interest [14, pp. 9–11], defined either as some abstract rate or as a market rate.

The rate of return on additional plant and equipment and the rate of interest are closely related. In fact, changes in the rate of return on capital expenditures possibly have more direct effects on the rate of interest than changes in bank credit [17, pp. 212–213].[4] This prospect is, in addition, related to the view that the volume of bank loans to manufacturing firms is more largely determined by conditions on the demand side of the market for bank loans than by conditions on the supply side [15, pp. 77–78].

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[2] Numbers in brackets refer to references listed at the end of this paper. Sometimes page numbers are given in addition. References to the various sections and subsections of the paper appear in parentheses: e.g., (sec. I) or (sec. *I.3.A*).

[3] The term "monetary policy" is used to mean a variety of things. Sometimes it is used synonymously with the term "Federal Reserve policy," particularly with respect to credit conditions (as indicated by, say, a rate of interest), the money stock and bank credit (that is the stock of bank loans and investments). At other times—particularly since "the revival of belief in the potency of monetary policy" in the 1950's, and 1960's [20, pp. 2–3]—"monetary policy" means policy with respect to the rate of growth in the money stock (defined as currency plus adjusted demand deposits, or as some broader measure, for example including time deposits). The present question uses the term monetary policy in the first of the preceding senses, but a sharp distinction in meanings becomes important in dealing with some of the questions as in the present instance.

[4] This point is related to the possible view that banks, bankers, and the banker-dominated Federal Reserve (36, pp. 35–36) have unusual influence on the level of interest rates (28, p. 22) as distinct, say, from the fiscal and tax policies of Congress. There was no doubt a time historically when the availability of credit and interest rates on funds for business expenditures were primarily and arbitrarily set by bankers, but the Congress today shares a greater part of the responsibility for high or low interest rates, the inflationary element in interest rates (19 and 23), and for prices than at a former time. There are the tax policies, as well as a host of others, including those with respect to a sustainable level of unemployment (20, pp. 7–11), and some "natural" level of structural unemployment (i.e., unemployment due to the mismatching of job skills and job vacancies). Programs concerning job retraining and minimum wages are involved.

Despite the interrelationships between Federal Reserve and fiscal policies, coordination of the policies should be sought on an informal basis at least, and by having the Federal Reserve report explanations for its policies to the Joint Economic Committee, as has been suggested as a constraint on discretionary policy [28, p. 17]. There is a case for the independence of the Federal Reserve as a policymaking organization as it may be revitalized (sec. II). The Federal Reserve's function, as redefined in H.R. 11 and this paper, could be viewed as special and distinct, without there being excessive conflict in the uses of the diverse Federal Reserve and fiscal policy instruments and in the economic objectives of the Federal Reserve and the agencies of the executive branch of the Government.

I.2.—If you believe a program should be specified, do you believe that the President should be responsible for drawing up this program, or alternatively, should such responsibility be dispersed between the Federal Reserve System and agencies responsible to the President?

The responsibility for drawing up programs concerning economic policies should be a function of the respective agencies. The Council of Economic Advisers should be responsible for coordinating programs of agencies in the executive branch, for presenting a general economic forecast, and for expressing its views on rates of change in bank credit and the money stock. The Federal Reserve should be responsible at least for increasing the money stock during any quarter at an annual rate, say, of not less than 2 percent or more than 6 percent (27, p. 230, and 28, pp. 16–17), subject to other qualifications given later (secs. *I.3.* and *I.3.D to F*).

As is presently the case, the Federal Reserve System should be accountable to the Congress (and the Joint Economic Committee in particular) for the achievement of national economic goals. The executive branch of the Government, too, subscribes to national economic goals, but due to its essentially political character its relation to the Congress will be more tenuous than that of the Federal Reserve, even a revitalized Federal Reserve.

The Congress is responsible for specifying the national economic goals to which all agencies of the Government subscribe. Any major departure from the goals as defined by past interpretations, such as a long-term goal of faster economic growth (that is, a higher rate of change in gross national product per capita in constant dollars) should be approved by the Joint Economic Committee, and possibly by congressional statute.

As further emphasized subsequently (Sec. *I.3.B*), once a specific target value such as the rate of change in the money stock is set, values for other variables are determined, given fiscal (or fiscal and tax) policy and the structural characteristics of the economy. These structural aspects have influence either by remaining unchanged or being changed. They would include the degree of the inadequacy of job skills for jobs, minimum wages, factors affecting the degree of competition in product and labor markets (18, pp. 337–351), Government subsidies on housing, interest rate ceilings on FHA-insured and VA-guaranteed mortgages (18, pp. 404–412), the extent of support for mortgages in secondary mortgage markets, and so on. All of these aspects of the economy are virtually beyond the purview of the Fed-

eral Reserve, although the effects of its policies will depend on them. These must be considered. Nevertheless, monetary and credit policies generally viewed can be frustrated directly in proportion to the Federal Reserve's efforts to give weight to the special effects resulting from the structural characteristics of the economy.[5]

I.3.A.—Should monetary policy be used to try to achieve goals of the Employment Act via intervention of money supply (defined as desired) as provided in H.R. 11, or alternatively, should H.R. 11 be amended to make some other variable or variables the immediate target of monetary policy?

As Mitchell has emphasized (27, p. 120), "in our dynamic economy, no single variable—whether it be the money stock, money plus time deposits, bank credit, total credit, free reserves, interest rates, or what have you—always serves adequately as an exclusive guide for monetary policy and its effects on the economy." Even so, when the Board of Governors and the Federal Open Market Committee are left free to select one variable and then another and to express policy in any of a wide variety of measures, and when a policy in the System is arrived at through a consensus of opinions about policy (first, of Federal Reserve economists making recommendations and, then, by the policy-determining authorities), all as distinct from the reasons for the policy, then ignorance is compounded by ignorance. The result of arriving at a policy by consensus about the policy rather than the underlying reasons is a policy that cannot be explained by a proper use of language. The written language comes to be used to conceal meaning and thwart communication, while giving the appearance of dealing with fundamental truths.[6]

The joint committee is apparently correct in the view (28, p. 12) that "the Federal Reserve does not appear to have developed a set of priorities for its own guidance." [7] Moreover, they have not sought to develop the explanations underlying their policies in any empirically verifiable form; and the Federal Reserve's effort on a large scale proj-

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[5] Common illustrations of the effect of the Federal Reserve's policy (viewed in terms of interest rates) involves instances in which some temporarily invariable ceiling exists on the interest rate payable. Governor Mitchell, for example, cites as one of the best examples of the effect of policy the postponement of a revenue bond issue of the Chesapeake Bay Bridge (27, p. 131). He said, "if the level of interest rates was raised, it (the project) could not be financed." Well, this is a perversion of the focus of monetary policy in the presumed context of a relatively free enterprise economy, and it is not an illustration of the effects of policy as it might apply, say, to manufacturing corporations (e.g., 15). The justification for interest rates as a general credit control device would seem to require more than examples from the welfare and Government-oriented sectors of the economy. The tendency to invoke such examples in defense of discretionary monetary policy is itself an example of two things: (1) the extreme to which the defense of discretionary policy may be carried; and (2) the need for some stabilizing constraint on such policy.

[6] This is why Representative Reuss has trouble with the language in which monetary policy is discussed (27, pp. 229–233). This, too, is why the Joint Economic Committee reports on the minutes of the Federal Open Market Committee as follows (28, p. 12):

> The minutes made available are couched in the most general, nonquantitative monetary and stabilization terms. They have tried to indicate a considerable reliance on institution and mystique in shaping actions rather than giving Congress, or observers of monetary affairs, a full opportunity to follow the developing and sometimes conflicting concepts or reasons which have influenced decisions.

[7] The improvement of decision rules or even their possibility is not discussed in the Federal Reserve System's writings. Ironically, Christian comments to me that his findings (7) suggest "that a tacit, inarticulable, or unconscious set of decision rules were followed by the monetary authorities over the study period." Possibly the absence of references to rules in System research and the recurring possibility of the presence of an unconscious set come about because even the discussion of rules suggests an increasing obsolescence of the tools of the trade of the discretionary authorities. The interests of officials can be advanced with subtlety and power. In some instances these become competitive with some and complimentary with other types of research.

ect, the Fed-MIT model, is just further evidence of a Federal Reserve "mystique" [8] noted in a committee report (28, p. 12).

A good bit of discussion has centered about defining the proper indicator of Federal Reserve policy (14, pp. 16–25; and 26, pp. 91–102). At the one extreme there has been the view that the true indicator cannot be influenced by any factor outside of the control of the Federal Reserve. This narrows the responsibility for control to Federal Reserve policy actions—that is, open market transactions and changes in discount rates and reserve requirements. At a different level, there has been a tendency to emphasize, as Dewald and Gibson do (11), that regularity exists in noncontrolled factors affecting member bank reserves and that their behavior can be adequately predicted so as to give the Federal Reserve control over member bank reserves. Going a step further, there appears to be sufficient agreement that the Federal Reserve can (as distinct from *should*) control the money stock.[9]

At still another level of Federal Reserve responsibility there has been a tendency to emphasize (1) credit flows or interest rates (27, p. 168), (2) the change in the relationship between prevailing and prospective rates (14, pp. 35–39), and (3) even changes in the structure of rates (15, pp. 73–74). Gaines suggests (27, p. 168) that interest rates are subject to the direct influence of the Federal Reserve in an operational sense; "while changes in the money supply are influenced by Federal Reserve policy, the influence tends to be at a second remove rather than at a direct point of entry of the central bank into the economic process." In the case involving the change in the relationship between present and future rates the Federal Reserve is even made responsible for the level of the income velocity of money. Changes in business conditions, as indicated by changes in the velocity are said to be brought to the level of Federal Reserve operations (14). This is highly abstract. A potentially useful concept is simply set forth without elucidation.

Now changes in rates of change in bank credit, member bank deposit liabilities or the credit proxy (27, p. 132), and in the money stock, and changes in interest rates and the term structure of rates are all interrelated. The present point, however, is this: as one moves from

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[8] Characteristic of the mystique is the apparent assumption that knowledge about the effects of policy exists and that it is embodied in judgment about the need for a particular policy. Those invoking the mystique as a substitute for knowledge have often seemed to present as their best defense, (1) an acquaintance wih a frustrating array of facts and details and (2) the promise of future research to confirm the validity of their view. The traditional tendency to invoke increasingly complicated detail as a disguise for knowledge has apparently contributed to the Federal Reserve's support of the "Fed-MIT," "special purpose," "large-scale," "econometric" model (10; and 14, p. 6). The model has been often cited as progress in the right direction (27, pp. 190, 200–201; and 28, p. 15).

The research support apparently resulted from a misconception of either monetary policy or the special purpose model in its exploratory stages. Principal difficulties with the model, apart from statistical ones commonly mentioned, concern (1) the emphasis on linkages as "causal" sequences and (2) the prospect of varying a controlled variable so as to achieve a specific target value in another so-called "dependent" variable.

[9] The pro-rules economists of course accept this (27, pp. 77–118) and Guy E. Noyes of Morgan Guaranty expresses a possibly widely held view as follows (27, pp. 181–182):

It is not a question of whether banks adjust their demand deposit liabilities promptly to changes in reserve availability, but only how they do it. In short, it is theoretically irrefutable that the Federal Reserve can, within a matter of weeks, force the banking system, and the economy, to accept any moderate change in the money stock it chooses.

It is not quite correct to say the Fed can make the money supply whatever it chooses, because large changes in short periods would create some institutional problems—but no one is talking about large abrupt changes anyway. So this qualification has no practical significance.

Tilford C. Gaines says (27, p. 200), "I think that if the state of knowledge is not yet sufficient for them to provide a more sophisticated framework, that money stock would be an acceptable first approximation."

changes in the rate of change in the money stock to changes in the structure of interest rates, one is at the same time ascribing an increasing amount of responsibility to the Federal Reserve. The phenomena they work with become increasingly complicated. At the highest level of responsibility, we are holding the Federal Reserve responsible for offsetting shocks to the economy from outside factors, for dealing with shifts in expectations, and so on.

As a first approximation to minimizing chaos, however, the course as suggested by the Joint Economic Committee is clear (28, p. 11): The policymaking officials of the Federal Reserve System (or a reconstituted group as suggested in H.R. 11) should maintain on a quarter-by-quarter comparison, an appropriate normal range of increase in the money stock seasonally adjusted, say, of from 2 to 6 percent per annum,[10] subject to some qualifications as noted now and later (sec. *I.3.D to F*). The present qualifications are as follows: (1) the policymaking officials should also be responsible for providing empirically verifiable explanations for changes in the money stock extending above the upper bound and below the lower bound;[11] and (2) the Federal Reserve officials should be encouraged to pursue sophisticated policies as they develop the capacity and understanding for carrying out such policies. As mentioned elsewhere (15, pp. 68–69):

> If there is knowledge underlying deviations from simple rules such as given growth rates in bank credit and the money stock, then presumably it can be put in empirically verifiable form and verified, given large research staffs and the modern computer. If such knowledge of policy and its effects cannot be demonstrated, then there would seem to be little room left for judgment. In such a case, adherence to a "neutral position" or simple rule would seem to be the best course.

I.3.B.—Should the guidelines of monetary policy be specified in terms of some index of past, present or future economic activity, or alternatively in terms of the target variable's value or growth?

The terms "economic activity" and "business conditions" may be used interchangeably. The former suggests activity such as hours of work, the number of people working, and so on. Economic activity may be constant and coincide with given levels of employment, unemployment (and, therefore, with a constant percentage of unemployment), prices, and rates of interest, as well as with constant rates of increase in output, income, and the money stock (and, therefore, with a con-

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[10] As the Joint Economic Committee has indicated (28, p. 17) "there is no intention to make the 2- to 6-percent range a permanent and unchanging one." They note a variety of factors that may affect the range. Selden mentions the desirability of change in any monetary rule (27, p. 98).

[11] An empirically verifiable explanation would be one containing statements about economic relationships between variables. They should be of a form that could be refuted or affirmed by certain tests. The statements and accompanying discussion should be of sufficient substance to permit testing in several ways: (1) by reference to empirical data and results from statistical analyses of such data; (2) by testing against known alternative explanations to determine the best one; and (3) by testing for logical consistency within the explanation as well as for consistency with other explanations on other occasions. Such complicated testing is important in social studies as distinct from laboratory sciences for several reasons: (1) because of the inability to control certain variables while others are operating; (2) because of the wide variety of interrelationships between economic variables; and (3) because of the shortcomings of certain statistical methods when applied to noncontrolled experiments (i.e., experiments in which other things are not controlled when the effects of a given variable are being considered).

The Joint Economic Committee, or other potentially appropriate committees of the Congress probably should not contend directly with the foregoing sort of explanation. Nevertheless, there could be a shorter explanatory statement for the committee and a more formal underlying statement. The availability of the latter to monetary economists and other interested citizens would contribute to the soundness of the explanation. The so-called explanations to the Congress would not of course change radically, just by voting a statutory requirement; there would still be a good bit of "Federal-Reserve-ese" for some time. A statutory requirement, nevertheless, would stimulate movement in the right direction.

stant ratio of income to money). Thus "economic activity," interest rates, and the velocity ratio may all decline when output and income are increasing, only at slower rates. This is the way some economists use the term "economic activity." [12] Although one must recognize the difficulty in identifying turning points in business conditions as a practical matter, commonly used ones are those of the National Bureau of Economic Research.[13]

In view of the foregoing, guidelines for Federal Reserve policy can be specified in terms of levels for interest rates, prices, the ratio of income to money, and business conditions, on the one hand, and rates of change for the money stock, income, and so on, on the other. Specifying targets in terms of these levels and rates of change is not inconsistent. The two sets of changes are not alternatives as the above question implies. For example, programs for achieving the goals under the Employment Act may be formulated to call for given rates of change in income, and given levels for employment (and unemployment as a percentage of the labor force) and economic activity.

The levels and rates of change as set forth, however, are not independent (17, pp. 304–319). Once a specific target value is set for one of the variables, values for the others are implied, given fiscal policy and the structural characteristics of the economy. Changing the interrelationships between the variables would for the most part require structural changes in the economy. These would involve, for example, changing the level of structural unemployment (i.e., unemployment due to a mismatching of employee qualifications and job requirements) through educational programs, or changing housing demand through Government subsidies and interest-rate ceilings on FHA-insured and VA-guaranteed mortgages. These latter changes are of course outside of the purview of the Federal Reserve.

I.3.C.—Should we use a leading (forward-looking), lagging (backward-looking) or coincidental indicator of economic activity?

Forecasters get relatively good scores if they can recognize turning points in business conditions once or shortly after they occur, as Fels emphasizes in reporting on the problem of forecasting and recognizing business cycle peaks and troughs (13, pp. 3–48). He also notes (13, pp. 47–48) weak evidence "that users of the NBER indicators approach actually have done better than their fellows." One may, consequently, view the matter of forecasting separately from that of selecting a desirable indicator of economic activity. Even so, indicators selected for the purpose at hand should have their turning points coincide roughly with turning points in business conditions as reported by the NBER. These indicators also should relate fairly directly to the national economic goals for employment and incomes, on the one hand, and to Federal Reserve influence in the operational sense, on the other.

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[12] There has been controversy over what we mean by "levels of business" in the context of analyses of the relationship between the rate of growth of the money supply and the level of economic activity (e.g., 14, note 29, p. 14). More recently and in a similar context, statements in Joint Economic Committee hearings by Wallich (27, p. 17 and 20) and Davis (27, p. 310) attribute incorrect meaning to Milton Friedman's use of the terms "business activity," "economic activity," and "levels of business." Therefore, I have sought to be explicit about the use of the term "economic activity."

[13] The National Bureau's dates for peaks and troughs are so widely accepted that Fels uses them in scoring the accuracy of forecasters (13). In other words, he has the forecasters attempting to forecast or identify what the National Bureau will subsequently date as a cyclical peak or trough. To change a Keynesian metaphor slightly, the matter is analogous to forecasting the winner of a beauty contest: you must select not necessarily the prettiest, but the one you think will be selected by the judges to be the prettiest. (On the dating of turning points specifically, see ref. 13, note 2, pp. 3–4.)

The suggested indicators are as follows: the ratio of income to the money stock (i.e., the velocity of money ratio (14, pp. 1–41)); the interest rate on some long-term debt instrument (e.g., Moody's Aaa corporate bond rate or that on long-term governments); and the spread between the yields (as rates) on long- and short-term bonds (15, pp. 66–101). These measures possess in high degree the attributes listed above, especially after some smoothing and allowance for "noise," and allowance for the role of judgment and imperfections in the NBER's technique. Moreover, the velocity-interest rate association is one of the strongest that exists in economics (17). The relationship holds for the economy generally as well as for the key business and consumer sectors. So we have closely related variables as well as variables that relate to economic activity generally, and Federal Reserve operations and national economic goals in particular. Abstracting from the seasonal and defensive type operations of the Federal Reserve (37, p. 8), the velocity-interest rate association is sufficiently strong to imply an income target once targets for the money supply and a long-term rate of interest are given.

In relating the target money stock variable or the target interest rate variable to the velocity ratio, one should not think in terms of lags in causal effects or in terms of invariant distributed lag patterns, as have become so common in the monetary research of the 1960's (e.g., 27, p. 222; and 14, pp. 25–39). Friedman, for example, has measured the average lag time between peak rates of change in the money stock and the peaks in business conditions, on the one hand, and that between trough rates of change in the money stock and troughs in business conditions, on the other. But these are averages and they likely vary with the duration of the cycle. Furthermore, in reviewing results from analyses of so-called distributed lags in the relationships between time series, one is confronted with a constant lagtime and a fixed distributed lag pattern, whereas neither the lag time nor the pattern is invariant over time.[14]

Now the foregoing points about the inadequacies of notions about lagged "effects" and constant distributed lagged patterns may be illustrated in two different ways. Recall, to begin with, two very different periods in monetary history: (1) the classical pushing on a string, 1937–38 period (8, pp. 26–32; and 34); and the intensive capital boom ending in 1966 (15, pp. 72–93). In the one period, the economy was in deep depression by post-World War II standards, excess reserves of banks were substantial, and some negative yields were reported on Treasury bills (8, pp. 29–30). In the boom ending in 1966, the reverse conditions prevailed. We would not, I suggest, expect a given increment in reserves or a given rate of increase to have the same effect on the money supply in these two instances or for the two effects to be distributed in the same patterns. Indeed, the Board of Governors thought that the link between reserves and the money supply was very weak at the time of the 1937–38 recession.

[14] To be sure, recent research reveals just such instability in so-called lag coefficients. In testing for the stability of regression coefficients, for example, Christian concludes as follows (7, p. 477): "both the irregularity of response to inflation and the instability of the coefficient of the lagged dependent variable further suggest that the distributed lag formulation of the linear model is unreliable. It has also been demonstrated that the single-period regression equation is substantially less efficient than the moving regression in obtaining information about the behavior of the monetary authority."

The Federal Reserve has much more control under moderately stable or high-employment conditions than under the extreme conditions of 1937 and 1938, or so it would seem. The lagged patterns are not fixed. There is a premium on maintaining economic stability, both because of welfare considerations and because of the greater control we have over the economy.

Additional evidence of the inadequacies of notions about causal sequences and lagged effects in the relationship between aggregate time series is provided by an examination of characteristics of the corporate manufacturing sector (16). In one traditional instance, it has been common to view roughly parallel movements in bank loans and business inventories and to conclude that the funds from the loans were being used to purchase the inventories. As further research has revealed, however, firms differ in their financial structures and holdings of inventories vary disproportionately with their reliance on bank loans, all as they increase in asset size. Over time some firms are buying inventories to a greater extent than others and some are borrowing funds from banks, all in such a way that roughly parallel changes occur in the time series. Other examples of the inadequacies of analyses that treat relationships between aggregate time series as "casual" and of a "fixed" distributed lag type could be cited (e.g., 15, pp. 66–104).

However, my summary answer to the question of how the target variable(s) should be related to the index of business conditions (namely, the velocity ratio) is to beware of notions of "causal" and fixed distributed lags. Instead, rely on the concepts of cyclical and secular changes, such that varying patterns between the series unfold over time. We should conceive of entire cyclical and secular phases and of the possibility of achieving sustainable rates of growth in stock and flow variables, with the view to eliminating economic instability. This is in lieu of thinking about a controlled variable that you change by a specific amount to obtain, after a fixed time, a certain pattern of effects, other things being equal in the sense that they remain unchanged. The other things are not unchanging in our going economy, even though the statistical method in wide use (i.e., the classical, least squares, regression method) has built into its computational mechanism the assumption that they are.[15]

There are, finally, cyclical and secular patterns in the aggregate time series, and some of the respective series must reflect some responses to the same factors, as well as aspects of the financial structure of firms and other structural aspects of the economy. This is particularly true if, as suggested above, the aggregate series are not causally related in a strong and direct way. The apparent support for the view that some time series share in common responses to the same changes in the setting is one reason why expectations in monetary analysis deserve some emphasis (e.g., 14 and 15). It is also a basis for agreement with those who wish to reduce the wide swings in the rate of change in the money stock as a means of stabilizing the economy, until we understand better the factors affecting expectations.[16]

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[15] These last sentences may be compared with footnotes 7 and 10 above.

[16] References to expectations in the May 1968 hearings of the Joint Economic Committee are instructive:

Mr. MITCHELL. Some of the monetary lags are short. The effect on expectations is immediate * * *.

Mr. MITCHELL. Well, this gets to be kind of troublesome. A lot of the meaning, the influence of monetary action is on expectations.

Chairman PROXMIRE. Here is what I think is the kind of thing he (Professor Christ) is getting at. He is pointing out that you did have this very hard to understand and explain

I.3. D to F.—Should the same guidelines be used each year into the foreseeable future, or alternatively, should new guidelines be issued at the beginning of each year conditioned on expected private investment, Government spending, taxes, etc.? Under what circumstances may the guidelines be changed?

The rate of change in the money stock has been mentioned as the guideline for Federal Reserve operations. Also, an appropriate normal range of increase of from 2- to 6-percent per annum, after seasonal adjustment, has been mentioned (sec. *I.3.A.*). This range should be sufficient (1) to allow for Federal Reserve's inability to achieve a target value within the range during any quarter and (2) to permit some countercyclical maneuvering, preferably with minimum rates occurring in expansion phases of business activity and maximum rates falling in recession phases. I would, however, further recommend an average rate of change per annum for the longer period, since there should be no question of the Federal Reserve's ability to achieve it. The 2- to 6-percent range would seem to imply a secular growth rate of about 4-percent per annum, depending on whether the Federal Reserve sought above or below average values most frequently.

The 4-percent average rate is on the high side, assuming a narrowly defined money stock (i.e., currency plus demand deposits adjusted) and judging from secular changes in the post-World War II period. The Federal Reserve and possibly the Council of Economic Advisers, therefore, may wish to suggest a lower stock and an accompanying revision of the limits with the spread in percentage points remaining unchanged. The principal justification for changing the secular rate would be a revision of the outlook for the long run. Certainly, this should be relatively stable, since it should be relatively free of the effects of transitory influences. But revisions may be permitted in the average growth rate at intervals, again with well-founded explanations for doing so. These revisions could correspond to the average length of post-World War II business cycles. As stated earlier (sec. *I.3.A.*), the Federal Reserve would still be free to vary the rate of change in the money stock beyond the maximum rate or below the minimum rate provided that an empirically verifiable reason can be given for doing so.

An infrequent change in the average growth rate for the money stock is preferred for a combination of reasons, namely: one objective is to try to stabilize unwarranted changes in policy, and a distinction between transitory and more pervasive influences should be possible. If the guidelines can be changed frequently (i.e., the average rate and the 2- to 6-percent range) without well-founded explanations for doing so, then the guidelines as such are of no use at all.

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situation that occurred last year (i.e., 1967), in which the money supply was increasing rapidly and the price of money (i.e., the rate of interest) was going up at the same time. Interest rates were high, although the money supply was increasing.

It is hard to understand. He argued, and the other economists seemed to agree, that one reason is because the Fed was expected to continue in the future to increase money supply at a rapid rate. This was inflationary, and because under these circumstances the economic reactions to the expectation of inflation is to follow policies that tend to drive up the interest rates, people are less likely to lend money if they expect it is going to have a much lesser value in the future. They are going to ask for higher rates before they do lend it.

They argued, therefore, that if the Federal Reserve were committed to a policy of not increasing the money supply at a more rapid rate than 6 percent per year, that would not have that kind of expectations, and interest rates would be inclined to be lower. (See 27, pp. 131, 133, and 140, respectively.)

I.4. Given the goals of the Employment Act, what can debt management do to help their implementation?

In the management of the Federal debt, the Treasury exerts several possible influences. These in turn have the possibility of helping in the implementation of the goals of the Employment Act. The first set of possible influences concerns changes in the composition of the debt, both with respect to the Treasury's savings bond program and with respect to the time-to-maturity distribution of the marketable portion of the debt. The savings bond program (including advertising and promotional aspects) has the possibility of influencing saving by the public out of current income. This could imply some direct effect on expenditures and therefore on the average of prices for current output, the rate of increase in gross national product and the level of employment. Most of the potential influence of the savings bond program is likely on changes in the composition of individual savings and secondarily on increases in the rate of change in saving out of current income. The effect on current income is unlikely to be noticeable except during periods of national emergency when appeals may be made to patriotism.

Changes in the time-to-maturity composition of the marketable debt (i.e., in proportions of the marketable debt according to short-, intermediate-, and long-term debt instruments) have the possibility of exerting two effects: (1) contributing to the potential effectiveness of monetary policy (defined with respect to interest rates), and (2) "twisting" of the term structure of interest rates or the yield curve (i.e., varying the spread between the yields on long- and short-dated Government securities, and at the same time varying the slope of the line resulting from the fitting to a scatter of points consisting of yields and corresponding dates for the maturity of different issues of Government securities). In the first instance, increasing the proportion of the debt in the long maturity sector affects the liquidity of some financial institutions at the time of rising interest rates. As is well known, a given rise in interest rates across all maturities is accompanied by a greater price decline on long-term issues; and over the cycle of yields on "default free" securities, the yields on short-term securities vary more than those on long-term issues. The holders of long maturities in effect get frozen in or locked in to some extent during the transition from lower to higher rates.[17] Thus, the larger the proportions of long-term issues the greater the potential for locking in the securities and reducing liquidity. A difficulty encountered in relying on this effect is that the commercial banks, significant holders of governments, have a

[17] Evidence of a lock-in effect at commercial banks has been reported as a result of analyses of cross-section data for the 1965–66 period (29). The effect depends on reluctance to realize losses on marketable securities. Kane finds, in particular, that banks' unwillingness to take such losses varies inversely with their capital position. Underlying the reluctance is the notion "that selling securities below their book value impairs reported bank capital and the opinion that it is unwise for a bank to allow its reported capital to be impaired." As reported by Kane, "this concern for the preservation of the accounting value of bank capital has traditionally been rooted in: (1) bankers' fear of misinterpretation and criticism by stockholders, depositors, examiners, and colleagues in the banking fraternity; (2) bankers' desire to minimize interference from regulatory restrictions tied to the size of the capital account (such as) maximum loans to one borrower maximum mortgage holdings, etc."

The "availability" doctrine—as the doctrine surrounding the lock-in effect of credit policy was called—was revived in the 1950's. Its principal defender at that time was Robert V. Roosa, who for many years was associated with the Federal Reserve Bank of New York and later with the U.S. Treasury. It was an attempt to explain the effectiveness of credit policy in a world in which the central bank is unable or unwilling to bring about substantial interest rate changes and in which rising interest rates were thought to have little influence on capital expenditures anyway (18, pp. 631–634).

preference for business loans when credit-worthy business firms seek them, as during extended periods of rising interest rates (15, pp. 77–78, 91–93).[18] The lock-in effect is more than offset, probably by the very forces giving rise to the higher interest rates to begin with. Even so, the longer the average maturity of the marketable debt the better, at least with respect to stabilization during an expansion phase of business conditions.

In the second instance—that of twisting of the yield structure—the twist is supposed to come about as a result of a change in the relative supply conditions affecting the respective maturities of securities. The change in maturity composition of the Federal debt, however, may be minor in relation to developments in the private sector. Meiselman suggests that it is minor (32). Another reason for not expecting effects from altered supply conditions is that expectations about future rates of interest play a prominent role in determining the structure of interest rates. The expectations effects can potentially overwhelm the supply effects from the changes in debt composition. The empirical evidence in support of the expectations theories is abundant, as reported in Meiselman's review of current research (32) and elsewhere (31).

Kane and Malkiel report on a survey of expectations to determine the potential for twisting the yield curve (30, pp. 343–355). They find some dispersion of investor expectations at banks, nonfinancial corportions, and life insurance companies. They conclude from their April 1965 survey findings and from a review of hypotheses that there is some potential for twisting the yield curve by altering the relative supplies of different maturities (as in the Federal Reserve's "operation twist" or "nudge" of the early 1960's), all in partial contrast with Meiselman's conclusions from surveying current research (32).

Next, changes in the structure of rates have some effects, regardless of whether Federal debt management or twisting operations by the Federal Reserve have any. These effects have been dramatically described for savings and loan associations (e.g., 32). They result in part, however, because of the peculiar attributes of those institutions. They essentially borrow on short-term loans and specialize in the purchase of a single type of long-term security; namely, mortgages. Thus, given the fact that the spread between long- and short-term rates on "default free" securities varies fairly directly with the cycle of interest rates on "default free" securities, the savings and loan associations can find themselves in a weakened condition during an extended phase of rising interest rates. The cost of the funds they borrow rises, the returns on the mortgages purchased at low rates remain unchanged, and new, higher yielding mortgages constitute a small proportion of portfolios. Further, tight credit (i.e., rising interest rates) has a strong effect on home construction and the supply side for the high-yielding mortgages for a combination of two reasons: (1) household income is a constraint on the household's ability to make payments; and (2) both monthly and down payments increase and prohibit some from financing. Ceilings on FHA-insured and VA-guaranteed mortgages also play a role at times (18, pp. 404–412).

[18] Two arguments are usually advanced to oppose arguments for the lock-in effect. These are (1) that banks cannot refuse to decline loans to depositors without incurring their disfavor; and (2) as emphasized by Kane (29), "provisions of the Federal tax law treat bank losses on security sales on very favorable terms."

The effects of credit policy on home construction (and, therefore, national income) should not be exhibited as a good example of either the potential effects of debt management or of credit policy. In fact, we should not wish to destabilize the housing industry to stabilize the economy, and we may in fact wish to isolate the housing industry from changes in credit conditions entirely.

A conclusion to be drawn about the term structure from studies over the last decade by independent analysts is as follows (32): "The only dependable way to change the relationship between short- and long-term interest rates is to change the level of rates." But I go even further, as far as the stablization aspects of rate changes are concerned. Absolute levels of rates per se are not the proper measure to focus on in conducting a credit policy. Speculative analysis (14, 15) has led to the conclusion that the major interest rate relationship to focus on in the case of the important business sector of the economy and in the conduct of a stabilization policy is as follows: that between present rates of interest (or rates of return of additional capital expenditures by business firms) and the probability of a future rise in rates of interest (or rates of return on additional capital). I will not labor the analysis nor the support for it [19] in this compendium. The concluding points for section *I.4.* are these: (1) Federal debt management is unlikely to have much influence on the term structure of interest rates after initial market adjustments and the elimination of money market "noise;" and (2) changes in the level of interest rates per se are not the proper focus for a policy seeking to stabilize business conditions.

I.5.A.—Do you see any merit in using open-market operations for defensive purposes or should they be used only to facilitate achievement of the President's economic program and the goals of the Employment Act? What risks and costs, if any, must be faced and paid if open-market transactions are used to counteract transient influences?

Open-market operations should be used to achieve a given rate of growth in the money stock within limits (secs. *I.3.A.* and *I.3.D* to *F*). As proposed, these limits currently allow for seasonal variations in the money stock and some countercyclical maneuvering by the Federal Reserve. The rates of change in the money stock, moreover, may be exetnded beyond the limits, when satisfactory explanations for doing so are given. All of the policies directed at achieving stabilization or secular changes, however, should be directed toward achieving the goals of the Employment Act, with due allowance for the President's economic program. The President's economic program is likely to be too vulnerable to partisan political considerations. Federal Reserve operations should not be tied to it directly. For example, the temptation for

[19] In brief, focusing on the difference between long- and short-term rates, say, on governments, cyclical changes in business, and financial activities of manufacturing corporations may be explained in terms of probabilities of future increases in interest rates. The maximum yield spread over a cycle in interest rates (and business conditions) reflects the strongest subjective probability of a future rise in the rate of interest over that cycle. The maximum spread is said to reflect the most likely possibility of acquiring liquidity on favorable terms. The acquired liquidity is then used as a source of funds for effecting an increasing flow of expenditures as the expansion phase develops. Recession follows a minimum-yield spread and the least likely prospects for a future rise in rates. Developments in this phase of activity are not exactly the converse of those in the expansion phase. Whether the expansion phase is an extended or brief one affects entire sets of developments. The object of policy, in such a context, is to stabilize swings in expectations about the "normal" or "average" rate of interest, viewed as a subjective probability. Empirical support is offered for this analysis (15, pp. 66–101)

a President to pursue, or effect the timing, on occasion, of an inflationary policy as a means of giving a temporary spurt to the economy is too great, even though such a policy may be subsequently and overall costly in terms of economic resources and unwarranted changes in the distribution of income among the participants in the economy.

The rules or money stock proposal does not preclude the Federal Reserve from using other targets—for example, "changes in the level and structure of interest rates." It simply requires, as modified (sec. *I.3. D* to *F*), that the Board understands the interrelationships between the various targets and set forth meaningful explanations, especially for varying the rates of change in money stock beyond set limits.

There are seasonal patterns in the money stock. These probably arise from "defensive," "seasonal," or "road clearing" activities of the Federal Reserve. Such activities would include the occasional underwriting of new issues of Government securities. Quite likely the seasonal and defensive operations also eliminate some of the potential seasonal and random changes in interest rates. Without further study and experimentation, these defensive operations of the Federal Reserve should not be eliminated. To be sure, as evidenced in part from published materials, the Federal Reserve's (and particularly the New York bank's) understanding of defensive operations is quite superior to the System's understanding of the interrelationships between interest rates, the term structure of rates, the money stock, and national economic goals. This asymmetry in understanding is due to two interrelated factors: (1) The dominant "banking view" of the Federal Reserve (33, p. 96; 34, pp. 35–41; and sec. II below); and (2) the more difficult nature of the task of fulfilling the "dynamic" responsibilities attributed to the Federal Reserve since the Banking Acts of 1933 and 1935 and the Employment Act of 1946.

A problem that has existed with the Federal Reserve since the legislation of the early 1930's and the early post-World War II period, as we are beginning to understand, is as follows: The Federal Reserve focus, as characterized by the banker orientation of the 1913 act and the immediately succeeding decades, has never been broadened to accommodate the changes in responsibilities. This is true despite the fact that an earlier and fairly strong and direct tie between bank lending to business and business expenditures is irrevocably broken. The large firms with significant impact on national economic goals can and do organize and plan their activities so as to avoid strong dependence on banks (16).

As an organization the Federal Reserve is banker oriented. Its organization, indeed, encourages a preoccupation with the mechanisms of banking, at times, at the expense of the consideration of the achievement of national economic goals. There is temptation to focus on these mechanics in the sense that one can demonstrate so much sound erudition with respect to them. They are quite appealing to the worldly philosopher. The current challenge to dealing imaginatively and soundly with relationships between the various intermediate targets and national economic goals is demanding—disproportionately so in the environment of the Federal Reserve as presently organized.

I.5.B and C.—Do you believe that monetary policy can be effectively and efficiently implemented solely by open market operations? For what purposes, if any, should (a) rediscounting, (b) changes in reserve requirements, and (c) regulation Q be used?

The "dynamic" operations of the Federal Reserve—that is, those directed toward the achievement of national economic goals—can be conducted solely by open market operations. Even so, some extra efficiency might result in a fairly taut and stable economy from the use of announcement effects in offsetting temporary shocks to the economy (14, pp. 33–35). In this respect, continued control over discount rates and possibly over legal reserve requirements (as ratios) may be useful. Other means centering about reporting provisions could substitute (sec. *I.5.D*). The role of announcement effects in stabilizing the domestic economy, however, needs to be better understood than at present. In addition, their role would probably be altered by the adoption of H.R. 11. Announcements about discount rate changes are useful, at times, under the present organization of international financial transactions.

In the early years of the Federal Reserve, the discount rate and its related mechanism were viewed as being related primarily to the conduct of "defensive" operations. These were regarded as the main operations of the System in its early years and de jure until the Banking Act of 1933. No doubt, the discount mechanism is still important, however modified (12), especially in the conduct of defensive operations and in performing the System's function as "a lender of last resort." On the other hand, with market and communication facilities of the post-World War II type, commercial banks can acquire extra reserves for overnight or for longer periods (18, pp. 37–39 and 286–298). The Federal funds market, trading in securities, and correspondent banking arrangements, all facilitate the movement of extra reserves between banks, and open market operations may supply reserves to the commercial banks as a group. Defensive operations could be efficiently carried out without the use of Federal Reserve discount window as a means of extending credit, after a period of transition to some new arrangement, including improvements in secondary markets for bank assets and liabilities.

Federal Reserve authority to vary reserve requirements was introduced in the Banking Act of 1935. In the thinking of the period, the added credit control was viewed in two ways: (1) as a means of tightening the link between the level of bank reserves and changes in money and credit; (2) as a means of shifting some control from the regional banks, including the New York bank in particular, to the Board. Thus, in the light of current knowledge about the link between the level of bank reserves, bank credit, and the money stock (11; 27; 34), and in view of the provisions in H.R. 11 to centralize policymaking functions at the Board level anyway, there is no strong justification for varying the reserve requirements as far as credit and monetary policy are concerned. Variations in differentials in the requirements for broad classes of banks and deposit liabilities affect the relative profitability of both the classes of banks and the classes of deposits. One possibility is to emphasize their use as a regulatory device as distinct from a general credit and monetary control.[20]

Regulation Q, the authority under which the Federal Reserve regulates interest-rate ceilings on savings- and time-deposit type liabilities

[20] Using changes in the differences between reserve requirements for different classes of deposits or for different classes of banks does not mean, of course, there are no effects on, say, the flow of credit and the money stock. These effects simply can be neutralized (offset) in part or entirely or they can be permitted to operate, with open market operations remaining the principal credit control device for purposes of carrying out credit and monetary policies.

of commercial banks, should not be used as another general credit control device, as it apparently came to be used in the 1965–66 period. Regulation Q should be eliminated, or changes in interest-rate ceilings under the regulation should be confined to the regulation of interest-rate competition.[21] One possibility is to make the rate ceilings floating ceilings (that is, tie the ceilings to direct variations in some average of rates on the securities or the savings-type instruments of institutions for which the regulation of competition is sought).[22] There are too many ways to regulate credit simply and directly, such as through open market operations, without resorting to the gymnastics performed under regulation Q in the 1965–66 period.

The regulation of deposit interest rates was originally introduced in the Banking Act of 1933 (25, ch. 2). The objective then and in the years prior to the 1965–66 period was the regulation of competition between selected financial institutions for savings. From 1936 to 1957 the rate ceilings under the regulation were invariable (and usually above the rates actually paid over most of the period). After 1957 some adjustments were required as interest rates continued in their secular post-World War II rise. For example, in late 1964 the maximum rate payable on time deposits of less than 90 days was raised from 1 to 4½ percent and, following the introduction of negotiable certificates of deposit (CD's) in February 1961, commercial banks were able to compete at times for the noncash liquid balances of business firms, such as those held in the form of short-dated Treasury issues and commercial paper. Other rate ceilings and other classes of savings affected more directly savings and loan associations and savers' shares in them. As market rates moved upward in 1965, however, the rate ceiling of 4½ percent adversely affected the competitive position of the commercial bank's short-dated CD's. The ceiling on this class of bank liabilities was raised along with the ceiling on time deposits generally to 5½ percent, and the growth of the CD holdings by business firms continued to increase. Commercial bank competition for funds continued to increase in 1966, as did market rates of interest generally. This time, as other market rates increased, the ceiling on CD's was not raised further. Apparently, it was viewed appropriate to allow some attrition in the CD's with the view to moderating the expansion of commercial banks' business loans (2, p. 278). In September Congress granted the Federal Reserve the temporary authority (later renewed and extended until September 1968) to set ceilings on different bases,[23] including size, and a ceiling of 5 percent was set on CD's under $100,000.

What started as a regulation of competition for savings was broadened in 1966 into a credit regulation. In our Federal Reserve vernacular, regulation Q became a credit control device. Continuing the above example, it works as follows: An increase in the yield on CD's in rela-

[21] Haywood and Linke conclude from their study (25) that excessive interest-rate competition "was not and is not a sufficient problem to warrant continuous regulation of deposit interest rates." They recommend steps for the elimination of the regulation of interest rates on savings and time accounts.

[22] Haywood and Linke indicate that early versions of the Banking Act of 1933 would have established interest-rate regulation such that the ceiling rates varied with market rates (25, ch. 3).

[23] The emergency, interest-rate ceiling legislation of September 1966 is broader based than suggested in the text. The request for emergency legislation was supported by references to conditions in the housing market (25, ch. 4; and 27, p. 188), specifically the hope to get more funds to the savings and loan associations. (Note the discussion under sec. I.4.)

tion to Treasury bills induces, say, large manufacturing corporations to exchange some Treasury bills for cash (i.e., demand deposits) and cash for new CD's. A net effect is a decrease in banks' demand deposit liabilities and an increase in time deposit liabilities. A further net effect, consequently, is a reduction in required reserves, and extra reserves to support further credit expansion, in view of a smaller reserve requirement for time deposits. A decline in the relative yield on CD's has the reverse effect.

I.5.D.—Do you see any merit in requiring the Federal Reserve Board to make detailed quarterly reports to the Congress on past and prospective actions and policies? Are there any risks and costs in this procedure? In what ways, if any, would you modify the reporting provision? What information do you believe should be included in such reports as you recommend the Federal Reserve submit to the Congress?

The Federal Reserve should make quarterly and annual reports to the Congress, possibly through the Joint Economic Committee. There could be, indeed, two sets of reports: (1) an annual report on the essentially banking, supervisory, and administrative aspects of the Federal Reserve, and (2) a quarterly report on those aspects of operations concerning defensive operations and mainly national economic goals. The first set of reports could be directed primarily at the Senate and House Banking and Currency Committees, and the second set at the Joint Economic Committee or all three committees. The first set of reports would mainly concern bank regulation, the performance of banks (banking services and so on), the banking structure (monopoly and competition in banking), and the budgetary and control aspects of the Federal Reserve System. The second set of reports would be the set concerning mainly economic stabilization, the goals of the Employment Act, and monetary and credit policies. This distinction between the reports would facilitate the long-sought separation of purely administrative functions from the essential policy functions (e.g., 1, p. 346; and 9, pp. 87–88). Such a separation would go a long way toward improving communication with respect to Federal Reserve policy (sec. *I.3.A*).

The major merits in having the Board make a report on future and past aspects of money and credit policies and their relationship to national economic goals are threefold: (1) the reporting would relieve some of the present efforts devoted to trying to second guess the Federal Reserve; (2) the reporting would contribute to narrowing the range of speculation about the Federal Reserve's plans and actions; and (3) the possible need to explain policies, actions, and inactions, would in itself go a long way toward assuring the pursuit of sound policy. In the first two instances, efforts to second guess the Federal Reserve engross a large part of the talents and resources of some very able people, not only in financial institutions but in large nonfinancial ones as well. However, even quarterly reporting and the publication of forecasts would not wholly eliminate speculation about Board plans and actions. There would still be speculation about the revisions in the policy and in the forecasts. In the third instance, the reporting and explanation requirements would provide for "an educational feedback" to the Federal Reserve. As a staff report, Subcommittee on Domestic Finance, concluded (38, p. 83): "Such a feedback is required

to assure that mistakes lead to critical reevaluations of operating objectives and methods. Without it, past errors are almost sure to be repeated in future years."

The reporting provisions of H.R. 11 should be modified to minimize the reporting on the details of policy and to emphasize the explanations for the policies, particularly those concerning national economic goals. The need to set forth explanations in empirically verifiable form and to present supporting evidence was mentioned earlier (sec. *I.3.A*). The report should include balance-of-payments information, and information on the domestic economy such as the level of prices, employment (and unemployment as a percent of the labor force), and the level and structure of interest rates, on the one hand, and rates of change in bank credit (including loans and investments), bank reserves, the money stock, deposit and negotiable-type liabilites of banks, and gross national product, on the other.

In minimizing detail in its policy report, however, the Board should be required to do the following: (1) focus primarily on the interrelationships between the money stock and national economic goals as noted earlier (sec. *I.3.A*); (2) present only a general statement of defensive operations; (3) review the relationship between its credit and monetary policies and the economic program of the President (sec. *I.5.B*): and (4) comment on structural features of the economy, especially those affecting the attainment of goals (secs. *I.2.* and *I.3.B*).

In particular, the provision in H.R. 11 about "stating in comprehensive detail" should be left open ended—that is, changed to emphasize "verifiable explanations" and the necessary supporting material. The Board should be left free to present what is called for to support its explanations, particularly for the need to vary rates of change in the money stock beyond stated bounds (secs. *I.3.A* and *I.3.D* to *F*). An annual forecast should be expected every quarter, with attention being given annually in the report to forecasting secular trends.

Reporting on prospective changes should take the form of a forecast, both with respect to policy measures and national economic goals. The policy measures in the forecast should at least include the money stock. Under an open-ended arrangement, the Board may also wish to include such interrelated measures as the level and structure of interest rates (as indicated by the spread between rates on long- and short-term Governments) and the income velocity of money (sec. *I.3.C*).

The national economic goals would at least be given absolute values in the forecasts.[24] These may be accompanied by rates of change in stock and flow variables (e.g., the money stock and income), as distinct from interest rate, employment, and price-level variables. From the policy point of view, the forecasts should center about crucial policy variables and target values for national economic goals and the most immediately related measures. Conceivably there could be target values for national economic goals that would differ from the forecasts. For example, there may be price-level and employment targets toward which policy actions and inactions would be directed, but there may be structural forces at work such as those giving rise to cost-push inflation, all such that forecast price and employment values would differ from their target values.

[24] The need to give quantitative content to the goals has long been assumed and in some instances recognized (1, pp. 285–305).

A danger in emphasizing detailed reports as distinct from verifiable explanations in the reporting provision of H.R. 11 is that the request can be met too easily. Congressmen and others might be confronted with computer output from a model with n number of equations and possibly an n number of variables, n being any number, probably a large one.

The adoption of the reporting procedure as outlined for H.R. 11, as well as other related changes of H.R. 11, would result in some personnel changes, extending to a number of economists. Even so, the benefits outweigh the cost and risk of putting H.R. 11, with suggested changes, into effect.

I.5.E.—What costs and benefits would accrue if representatives of the Congress, the Treasury, and the CEA were observers at Open Market Committee meetings?

Under H.R. 11 Open Market Committee meetings would be Board meetings. But assuming the Federal Reserve structure as a policymaking organization and its attributes in the mid-to-late 1960's, there would not likely be any advantage in having additional representatives present. On the one hand, the meetings, at 3- or 4-week intervals, have been too frequent for purposes of reconsidering policies, particularly those dealing with national economic goals, and, on the other, there have been insufficiently frequent meetings for developing a majority support for an explanation of policy changes. The committee meetings have served mainly as a forum for reviewing economic conditions and arriving at a consensus about policy changes, however vaguely stated, and for issuing instructions in a general form to the manager of the open market account. The attendance at meetings has been large, since those attending possibly include seven members of the Board, selected staff, 12 reserve bank presidents, advisers to the respective president, and advisers to the FOMC as a whole. They are essentially politcal meetings where consensus is sought on policy changes rather than the underlying reasons. The attendance is too large for a working session on fundamentals.

The improvements in policy discussions under H.R. 11, with suggested modifications, would follow from three sources: (1) having the policymaking officials at one location for frequent working sessions; (2) having the officials report the targets for policy actions and their relationships to the achievement of national economic goals; and (3) having the policymaking officials responsible for explanations of changes in monetary policy. Reporting provisions with emphasis on empirically verifiable explanations (sec. *I.3.A*) should serve to lessen the possibility that meetings of the Board would not degenerate into essentially political meetings, as outlined in the previous paragraph.

II. APPRAISAL OF THE STRUCTURE OF THE FEDERAL RESERVE

H.R. 11 is a bill intended, among other things, to "improve the coordination of monetary, fiscal, and economic policy." It contains certain provisions to achieve this end. An additional objective—notably, to provide for coordination by the President—is implied. The two provisions bearing most directly on this objective of coordination by the President are those (1) making the term of the Chairman of the Board coterminous with that of the President, and (2) shortening

the terms of office from the present 14 to 5 years. Combined with the transfer of current FOMC functions to the newly reconstituted Federal Reserve Board, these provisions presumably give the President some additional influence over monetary policy via appointments and thereby reduces the independence of the Board. Improving coordination of policies to achieve national economic goals, however, need not necessarily imply greater control by the President. Nor, for that matter, need reductions to five members and 5 year terms be viewed as giving the President too much direct control, given the minor changes suggested in H.R. 11 in this paper. The issue of the Board's independence from some presidential and other influences may be related to an educational function for board members and to the importance of focusing on the goals of the Employment Act.

The common argument against independence is that "only the President can choose the monetary-fiscal policy mix appropriate to the given situation with some hope of seeing it implemented" (1, p. 282). The centralized authority can, in setting forth the mix, minimize small mistakes in arithmetic and logic, and otherwise avoid cross-purposes and duplication of efforts. Several common arguments in support of independence are (1) the quasi-judiciary one (i.e., the need for removal or protection from immediate pressures, often arriving from temporarily popular causes (35, pp. 59–62; 38, pp. 16, 23–24, 31–32; 9, pp. 85–86)), (2) the compensating-errors one (i.e., the need of an independent agency to compensate for the errors of other policy-makers (14, p. 25)), and, (3) as some would add, the fewer-but-bigger-errors argument (i.e., the argument that centralized authority makes bigger mistakes because, for example, its opinions are taken too seriously and it seeks power and entrenchment). These arguments take various forms. Earlier (sec. *I.5.A*), the temptation to the President to pursue short-run objectives, at the overall expense of the loss of idle resources was mentioned. In addition, Arthur Burns comments thusly (4, pp. 78–79): "Centralization of economic authority in the office of the President has its intellectual appeal, but let us not overlook the protection against the risk of concentrated error that the economy now derives from the dispersal of power in our governmental scheme." Wallich views this type of argument as a pragmatic rather than a logical or economic one [39].[25]

Below, as elsewhere in this paper, the latter argument is transformed into an economic one and due regard is given to the public's right to ultimately control. The economic argument proceeds from the simple

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[25] Wallich comments on coordination versus independence as follows (39, p. 30):
"It is popular to say that the President should have power over monetary policy in order to coordinate the two instruments. That implies, however, something that is not at all true, namely, that the President has power over fiscal policy. He does not have such power. He proposes, Congress disposes. It is not clear where the focus of fiscal policy is; but so long as the President does not have power over short-term fiscal policy, I can see no logical reason to concentrate monetary power in his hands."
His argument is simply a pragmatic one:
"But the argument really is not a logical or an economic one. It is a pragmatic one. The people who like a softer monetary policy are for coordination; the people who prefer a harder monetary policy favor Federal Reserve independence. Why is this? When there has been a conflict between the Federal Reserve and the administration, which has been a rare event, really, the pattern has always been very clear: the Federal Reserve is for the harder, and the administration is for the softer policy. Hence, the pragmatic answer is that to choose coordination means to choose a softer policy; to choose independence is to choose a harder policy. I have a strong suspicion that if the recent trend in appointments to the Federal Reserve Board should continue, and if some day the Federal Reserve should be more liberal than the rest of the Government, some of my friends will discover the virtues of Federal Reserve independence and I shall be arguing for coordination."

fact that the current state of economic knowledge itself does not justify or support attempts to alter every possible wiggle in the economic indicators through control over credit and monetary variables (sec. IV). What is suggested is that the latter sort of policy may be pursued when empirically verifiable explanations are offered. The added potential influence of the public originates from two possible sources: (1) primarily their elected Representatives in Congress in combination with new reporting procedures (sec. *I.5.D*); and (2) the possible addition of budgetary controls of the Congress under H.R. 11. The objective is appropriate control over the unaccountable use of independence, rather than its annihilation.

The objective in appraising the adequacy of the structure of the Federal Reserve as a policymaking organization need not turn on the need for coordination through the President, so much as the need to more consistently pursue the goals of the Employment Act.

The number of policymaking officials.—The most far reaching of the proposals to alter the Federal Reserve is that reducing the number of Board or, viewed differently, voting FOMC members. One's assessment of the most desirable number of Board members and the most appropriate structure for policymaking purposes may depend on one's view of the appropriate functions to be performed by the Board. As emphasis has shifted—first, from the essentially practical exercise of judgment about the adequacy of bank credit to suit the needs of commerce, industry, and agriculture to the impracticality of such judgments, and, then, to notions about explanations of relationships between policy measures and national economic goals—views about the functions of the Board might be expected to have changed. Preliminary questions arise: Is the Board simply a group of overseers for the Congress, with research directors and advisers the true policymaking if not voting figures? Is the Board's function as a policymaking group essentially similar to that of the Council of Economic Advisers, with the obvious differences that the former specializes in monetary and credit control and has the power to implement policies?

Much has been said about the need to enhance the prestige or status of the members of the Board. The Commission on Money and Credit emphasizes it in recommending a reduction in the number of Board members [9, p. 87]. However, a better way to enhance prestige might be to warrant it. Some have suggested that the prestige of the Council of Economic Advisers was enhanced by the type of issues and educational functions it engaged in during the early and mid-1960's. A favorite topic of J. A. Livingston, a columnist, about the time of the April 1967 appointment to the Board was that the Employment Act of 1946 had created the Council of Economic Advisers. He said:

> As the nation's Supreme Court of economics, the Council outranks the Board as the Supreme Court of credit.

On another occasion he said:

> The influence of the Federal Reserve Board in American economic affairs has been declining since 1946. It has been layered in the Government hierarchy by the Council of Economic Advisers * * *.

In assessing the functions of the Council of Economic Advisers, Walter Heller (Chairman, 1961–64) writes of economic education of,

by, and for Presidents [24, pp. 26–57]. He views the economic advisers' educational activity on behalf of the President, as:

> Simply a case of doing on a small scale—though with greater detail, depth, and diligence—what the President does on a grand scale, namely, *communication*, making the Government's economic policy and actions intelligible to the citizen, a process essential to democracy; and *broadening consensus*, carrying the economic gospel not only to the uninformed but to the skeptic and the heathen.

Heller points out that through public discussion, Council members broadened the depth of public dialog on economic problems and concepts, tested new ideas, and prepared the public for the President's subsequent advocation and support of his economic programs. The Council apparently sought at times to create an environment in which certain issues could be discussed by political figures, without risking the political consequences of treading new ground and attempting to broaden public understanding, often of undramatic low-stake issues.

Now, five Governors may be too many, if one takes the view that its members are primarily a group of executive overseers, supervisors of the various activities in the Board's plant on Constitution Avenue. On the other hand, seven or 11 members may seem appropriate if one takes such views as the following:

(1) That, as Senator Proxmire [27, p. 1] and others [5, pp. 322–368] emphasize, the Congress has given the responsibility for determining matters involving money under the Constitution, and that Congress has chosen to delegate the exercise of this authority to the Federal Reserve authorities under a trusteeship arrangement with the Federal Reserve as the servant, creature, and agent of Congress,

(2) That the Board's functions in its own area are similar to those of the Council, with the important exception that the Board has the authority to implement policies, and

(3) That some geographical representation of the policy level in monetary matters is desirable, all as envisioned by the Federal (regional) character of the System in the original Federal Reserve Act, congressional responsibility for money matters under the Constitution, and a proposed educational function for the Board.

Some Board members have functioned frequently as discussants of timely economic issues, sometimes including issues before the Congress and sometimes including appeals to relatively parochial groups. The Board's independent position within the framework of Government places it in a position to aid in educating the public about monetary problems through pronouncements, speechmaking, and public appearances. In the 1960's, several areas stood out in which more public education would have helped in achieving national economic goals. These involved, mainly, areas in which conflicts resulted in special governmental objectives, and the use of money and credit tools as means of achieving the more immediate national economic goals, as well as such ultimate objectives as maintaining a relatively free enterprise economy and a reasonably "efficient system of world commerce, finance, and production." The areas in question included (1) the U.S. balance of international payments, (2) home construction, and (3) structural unemployment.

Traditionally and for the foreseeable future, monetary policy measures and economic policies are fraught with controversy. This supports

the need for some geographical representation. Moreover, there are styles in economics—an eastern view and a western view, a predominant Harvard view and then a Chicago view. There is "occupational myopia," "tunnel vision," and so on. There are, as well, individual and regional preferences for certain public policies and the means of achieving them. To add compensating sources of stability two features have been emphasized: (1) the geographical one, and (2) an empirical one, the notion of presenting empirically verifiable explanations for policy changes (sec. *I.3.A*). There is, as Heller points out [24, pp. 7–8], a greater consensus among economists today than in the 1930's. Taking a long view there has been a decline in "the warfare of rival ideologies." There has also been some refinement of standards with respect to empirical relevance. Emphasis on the need for potential support from empirical evidence may be viewed as the essential ingredient for developing an understanding of the interrelationships between policy measures and national economic goals.

H.R. 11 relieves the Federal Reserve's regional bank presidents from policymaking functions. This is not undesirable, in view of the following: (1) emphasis on a separation of policymaking and administrative functions, (2) the recognition of the role of regional bank presidents as chief executive officers of operating banks, and (3) the recognition of geographical regions in Board appointments. The Federal Reserve System, including its regional banks, has developed a complex and useful information system for identifying changes in business conditions [2, pp. 282–288]. Of key importance in this network is the maintenance on the part of the regional banks of contacts with business economists, personnel and purchasing departments, and decisionmakers in business and economic communities. To be sure [2, p. 287], "from such contacts they [the regional banks] often can distill a sense of changing attitudes or intentions before the consequences are reflected in economic statistics." This kind of informational system probably in part explains why the Federal Reserve has a relatively good record of identifying turning points in business conditions [13; and 14, pp. 25–28]. This system need not be lost by implementing the provisions of H.R. 11.

Varying the weight to the various aspects of the foregoing discussion of the functions and the appropriate number of Board members, a board of from three or less to 11 members may be called for. A three-member board may follow from placing the weight primarily on the executive function. Shifting the weight to the educational and geographical aspects of membership would increase the number of members. The Chairman, in any case, is the chief executive officer. Among other executive functions, he votes to break the ties in the voting on policy matters. In coordinating the Board, moreover, the Chairman may give recognition to various functions and interests of members, as well as to the need to implement and defend specific credit and monetary policies. Special functions to be emphasized may include the essential banking functions (sec. *I.5.D*), as well as the credit and monetary policy functions with interrelated degrees of emphasis on fiscal policy, structural-type economic problems (secs. *I.2* and *I.3.B*), the sectors of the domestic economy and international financial matters.

To achieve the objectives of H.R. 11, given the above criteria, a relatively large board with emphasis on adherence to a form of rule is

preferable as noted earlier (secs. *I.3.A and I.3.D to F*). Even so, shorter terms than the present 14 year ones are desirable to permit the possibility of more frequent additions of freshness to the Board's deliberations. The term of appointments should depend in part on the number of members—for example, 5-year terms for a five-member board, although 10-year terms may be preferable for such a board to avoid a given President's appointing all members within a span of one term plus 1 year. In particular, the timing of appointments should be "staggered" as in the past to prevent a packing of the Board over a short period by any single President.

Other provisions.—Other provisions of H.R. 11 call for (1) the retirement of Federal Reserve bank stock, (2) an audit of the Board and the regional banks and their branches, and (3) the removal of the Federal Reserve System's exemption from congressional appropriations procedures, all as have been discussed on other occasions over the years [5, pp. 353–391]. The first of these has indeed been widely discussed [9, p. 91]. The retirement of the stock would eliminate the symbol of the early view of the Federal Reserve as a joint private and public enterprise. It would also help remove the stigma of a private, banker-dominated organization controlling the money supply.

The last two provisions have often been related to the question of the Federal Reserve's independence. An audit by the general accounting office seems appropriate [38, pp. 85–90; 5, pp. 353–368]. The need for removing the Federal Reserve's exemption from appropriational procedures is less clear. The flexibility enjoyed by the Federal Reserve under present procedures has some advantages. Its reputation for integrity and honesty among bankers and the business community is good, in part perhaps because of the role of certain individuals in the System, in part because of the association of the Chairman with the regained freedom of the Federal Reserve in credit and monetary matters following the Treasury-Federal Reserve accord of 1951, and in part perhaps because of appointments to the boards of directors of the regional banks. The simple possibility of being subjected to the congressional budgetary process probably in itself assures a good deal of prudence and care in the scrutiny of expenditures. On the other hand, there does appear to be a need for a reporting by the Board and by the regional banks on some common and systematic basis, particularly for expenditures on research and information gathering operations, public relations, educational programs, and the cost of producing various services. There is the possibility that funds are not distributed with sufficient regard for the size of the regional operations, the geographical regions themselves, and the need for a broader and more economical distribution of resources about the country.

III. MONETARY POLICY, 1964–66

Much may be said about various aspects and effects of Federal Reserve policy since 1964, with emphasis (1) on home construction (secs. *I.4. and I.5. B and C*), (2) on the regulation of deposit interest rates (sec. *I.5. B and C*), (3) on the wide variability in the rate of change in bank credit (4, pp. 23, 71, 81, 111–112, 119, 122), and (4) on the less directly controlled sector comprising manufacturing corporations (15 and 16). This section focuses on the latter for several reasons: (1) ex-

penditures by manufacturing corporations are important in determining gross national product; (2) the Employment Act's emphasis on achieving goals in a relatively free market economy would seem to require a justification for Federal Reserve policy with special regard to the less directly controlled areas of the economy; and (3) references to capital expenditures by business firms and bank loans to business were prominent in discussions of Federal Reserve policy in 1966. The 1964–66 period as a whole is focused upon (1) because it was the second of the major post-World War II booms in capital expenditures since the initial postwar adjustment, and (2) because weaknesses in the Federal Reserve's approach to economic stabilization and deficiencies in its use of controls may be illustrated with reference to the period.

Weaknesses in the Federal Reserve's approach to economic stabilization.—The weaknesses in question are actually twofold: (1) there is insufficient recognition of the Board or FOMC as public educational bodies, and (2) under the present organization the policymakers as a group become preoccupied with the banking mechanism as such and apparently harbor preconceptions, harking back to an earlier banking period, about the role of bank loans to businesses, as illustrated later. In the first instance, in varying the rates of change in bank credit and the money stock in order to achieve certain goals, residual or side effects follow because of structural features of the domestic economy (secs. *I.2* and *I.3.B*). The Federal Reserve has no control over this class of effects, in the sense that congressional actions to change the structure are outside of its special field of authority. Its function or responsibility then becomes a matter of reporting to the Congress and educating the public about the need for legislative action. But this is insufficiently recognized.

In the period since 1964, stabilization policy may have been pursued as if it were to operate on expenditures and achieve employment goals, all independently of persistent U.S. deficits in the balance of payments, possible structural unemployment (i.e., unemployment due to an inadequate alinement of job skills with job vacancies), and effects on home construction. However, such a policy as outlined was not consciously pursued, judging from a review of the policy-oriented literature of the period. Quite possibly some amount of inflation may have been accepted as a means of temporarily reducing the percentage of employment, even at the possible cost of a loss of overall efficiency and employment of resources in the long run, and even though such a policy would have contributed to continued payments deficits, higher interest rates, and problems in the home construction industry. This touches on the so-called trade offs—that is, you trade-off a little of one undesirable development for another. If trade-offs are being made, then the Congress and the public should be informed and educated.

H.R. 11 provides for better reporting (Sec. *I.5.D*). Moreover, the policymaking officials of the Federal Reserve have tended to speak to some extent on the so-called structural problems in question. But this educational function needs to be more formally recognized in any restructuring of the Federal Reserve as a policymaking organization. The current provision in H.R. 11 for five governors offers little as-

surance that the respective districts of the country will adequately participate.

Deficiencies in the Federal Reserve's use of controls.—Illustrated below are (1) inadequacies of the Federal Reserve's view of its control over bank loans to business and over business expenditures, and (2) deficiencies in the Federal Reserve's use of controls. In general the main criticism is this: the Federal Reserve's preoccupation with the apparent security inherent in information gathering and with the appealing details of the banking mechanism and simple linkages predominates over the need for a broader conception of the developing situation. There are detailed criticisms, too.

There are several principal elements in the ensuing illustrations. First, abstracting from money-market "noise" and defensive aspects of Federal Reserve operations (secs. *I.5.A* and *I.5.D*), increases in the rates of increase in bank credit (and therefore banks' deposit liabilities) contribute to a faster rise in business conditions and interest rates once an expansion phase of business conditions is unfolding [14]. Rates of change per annum in bank credit of 8.1, 8.5, and 13.8 percent occurred in 1963, 1964, and 1965, respectively; changes of 3.8, 4.3, and 4.9 percent occurred in the narrowly defined money stock during the respective years, reflecting in part drains into time deposits; and interest rates continued to rise. There was the $11 billion tax cut in 1964, and later increases in defense and other expenditures. The analytical conclusion is that by accelerating the rise in bank credit (and related bank liabilities), the Federal Reserve contributed to the ensuing boom and the accompanying increase in interest rates.

As the market yield on 3-month Treasury bills increased from 3.64 to 4.08 percent during the year ended in November 1965, it become necessary to raise the discount rate from 4 to 4½ percent in December of 1965, in part just to maintain the discount rate's relative position in the structure of rates. This was later described by one Board member as a public announcement of a shift to credit restraint [2, p. 277]. On the one hand, credit and the related monetary policies contribute to an expansion in business conditions and the accompanying increases in market rates of interest and, on the other, the Federal Reserve takes credit for a shift to credit restraint when an increase in the discount rate is necessitated by expanding business conditions and rising market rates of interest to begin with. This is peculiar.

The several additional ingredients of the present illustration are as follows: (1) The noncash liquidity of manufacturing corporations may be indicated by their noncash liquid assets net of bank loans as a liability, both in relation to asset size; noncash liquid assets (say, governments, although the category may include negotiable CD's as well) may be liquidated in exchange for a reduction in bank loans, and an increase in bank loans may serve as a substitute for the liquidation of governments as a source of funds; and changes in governments and bank loans, together and in combination with changes in cash, form the principal means of adjusting liquidity, although these adjustments need not relate exclusively, or even primarily to the need for temporary funds [16, ch. 2]. (2) Corporate liquidity is related inversely with

business conditions and directly with the planning of capital expenditures [15, pp. 66–101]. (3) As firms increase in asset size (or by average firm size in the case of industry groups) their noncash forms of liquidity increase; in other words, as firms increase in asset size, noncash liquid assets (i.e., marketable assets such as governments, commercial paper, and negotiable CD's) increase significantly more and bank loans significantly less in relation to asset size [16, chs. 3 and 4]. (4) Commercial banks have a strong preference for extending "commercial" or business loans to credit-worthy businesses (as indicated, e.g., by their liquidity) when there is a strong demand for such loans [15, pp. 77–78].

Now the first three of the immediately preceding ingredients are related to the planning of the financing of capital expenditures by the mature industrial corporation. As described by Galbraith [22], the mature corporation is related to the need to plan as a result of advanced technology, and by, among other things, the needs of the decisionmaking groups for some independence from outside disturbances. A major means of achieving this is the planning of financing. According to Galbraith, "no form of market uncertainty is so serious as that involving the terms and conditions on which capital is raised." He says [22, p. 39], "apart from the normal disadvantages of uncertain price, there is danger that under certain circumstances no supply will be forthcoming at an acceptable price."

Large firms plan financing to a greater extent than smaller ones and there is some evidence that these plans take account of expected patterns of cyclical development [15]. Liquidity is built up in advance of the bulk of capital expenditures, and worked down as the boom in expenditures progresses. The reduction takes two forms and the one may be traded off for the other. They include (1) a reduction in the marketable-type liquid assets in relation to size and (2) an increase in bank loans. One of the differential effects of not planning expenditures to a relatively high degree is shown in figure 1. Accepting liquidity as a constraint, the series in the figure for the 1955 to 1957 and the 1964 to 1966 capital booms suggest that liquidity contributes to differential patterns of capital outlays, with the thousand largest manufacturing corporations increasing their proportion of the total to over 80 percent. The reason the 1955 to 1957 and 1964 to 1966 patterns do not coincide with the 1958–60 expansion in business conditions is that the expansion must be sustained for some time before the reductions in liquidity become a strong constraining factor on either overall capital expenditures or different sets of expenditures.

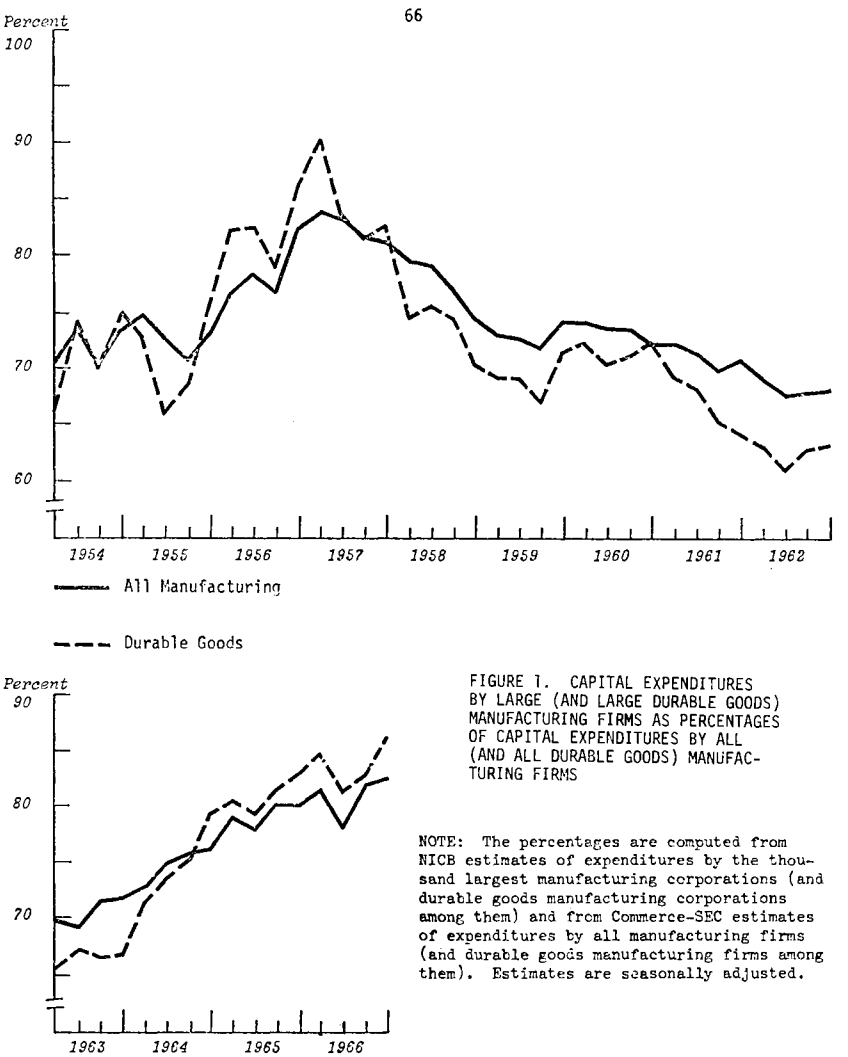

FIGURE 1. CAPITAL EXPENDITURES BY LARGE (AND LARGE DURABLE GOODS) MANUFACTURING FIRMS AS PERCENTAGES OF CAPITAL EXPENDITURES BY ALL (AND ALL DURABLE GOODS) MANUFACTURING FIRMS

NOTE: The percentages are computed from NICB estimates of expenditures by the thousand largest manufacturing corporations (and durable goods manufacturing corporations among them) and from Commerce-SEC estimates of expenditures by all manufacturing firms (and durable goods manufacturing firms among them). Estimates are seasonally adjusted.

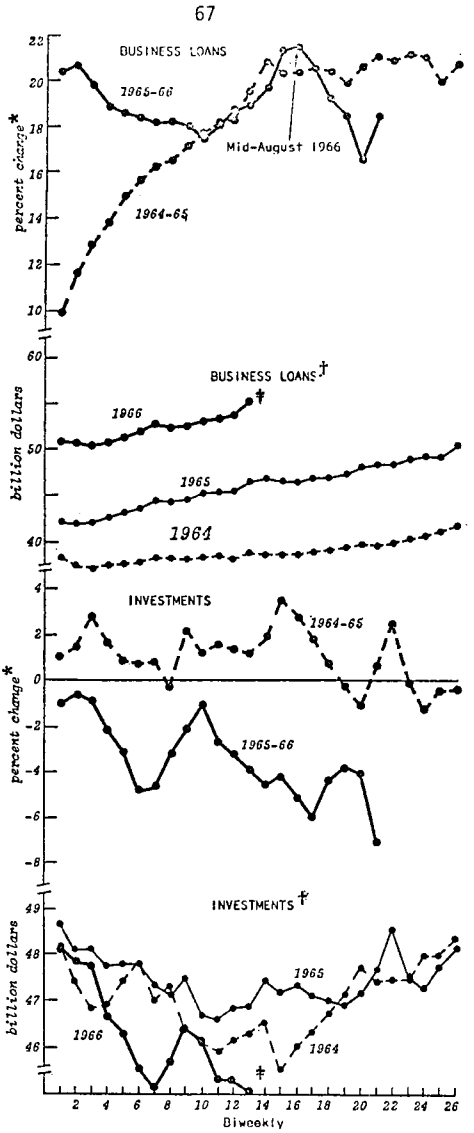

FIGURE 2. BANK LOANS (TO BUSINESS) AND INVESTMENTS BY WEEKLY REPORTING MEMBER BANKS, 1964-1966

*Changes (in percentages) are changes from the comparable year-ago date.

†Data are biweekly averages for weekly figures.

‡Revision in the series. Percent changes, however, are adjusted to allow for the revision.

Source of data: Board of Governors of the Federal Reserve System.

The final ingredient—commercial banks' preferences for business loans—of this overall illustration is reflected in figure 2. Year-to-year changes (as percentages) in bank loans were increasing in the 1964–66 period until about August of 1966. Year-to-year changes (as percentages) in bank investments were declining, and indeed the 1965–66 changes were negative.

Given the foregoing ingredients of this overall illustration, these patterns—both of the changes in capital expenditures and of changes in bank loans—are expected. They are expected when a boom proceeds temporarily at a level that cannot be sustained as a matter of secular change. In order to control and manipulate the changes, as distinct from trifling with them, the entire process must be kept in view. Federal Reserve actions under regulation Q in 1966, and their September 1 letter in particular are symptoms of a poorly conceived, poorly articulated, and poorly managed set of developments.

Special administrative technique.—As noted earlier (sec. I.5.B. and C), as business conditions continued to expand in September 1966, the ceiling interest rates on CD's under $100,000 was reduced to 5 percent and that on CD's of $100,000 and over was left at 5½ percent while market rates of interest continued to exert additional credit restraint via a runoff in CD's. Twice during the summer reserve requirements on member bank time deposits of over $5 million were raised by 1 percentage point. But these were belated actions coming late in a boom that had been encouraged by earlier credit and money supply changes. Coming as they did, with banks facing strong demand for business loans, they could only force further the liquidation of municipal securities by banks.

Having thus contributed to the liquidation of municipals, the prospect of further increases in rates of interest, and unsettled financial market conditions, the Federal Reserve intervened in an attempt to exercise control over bank loans via special administrative technique [2, pp. 280–281, 288–290]. Questions are raised then both about the use of the technique itself and its likely differential impact on business firms of different size.

The technique for effecting control over bank lending was set forth in a special letter from the Federal Reserve banks to all their member banks in a letter. In August 1967 it was described in First National City Bank's *Monthly Economic Letter* as "the FRB's now famous September 1 letter to member banks."

The technique was adopted and the letter sent with a view to encouraging moderation in the expansion of business loans and in the liquidation of investments. In the letter it was stated that the latter objective "will be kept in mind by the Federal Reserve banks in their extensions of credit to member banks through the discount window." Continuing, the letter said that "banks adjusting their position through loan curtailment may at times need a longer period of discount accommodation than would be required for the disposition of securities." The view was expressed that "a slower rate of business loan expansion is in the interest of the entire banking system and the economy as a whole."

The September 1 letter and the technique outlined in it appear as another example of the Federal Reserve's preoccupation with the details of the banking mechanism. In the long-run the administrative control's only likely effect would be for larger firms, with their strong propensity to plan, to reduce even further their reliance on bank loans as a potential source of funds. In the immediate situation of September 1966, the major possible effect of the letter was likely discriminatory with respect to intermediate to small firms. Although large firms were increasing their use of bank loans in 1966, the intermediate to small firms were in relation to their size, still more dependent on the loans. Thus, because of small firms' dependence and their more limited access to other means of effecting cash adjustments, possible effects of the attempt to control bank loans via administrative technique were discriminatory.

IV. RULES ("GUIDELINES"), ECONOMIC KNOWLEDGE AND THE FEDERAL RESERVE: A HISTORICAL PERSPECTIVE

The history of rules to eliminate administrative discretion in the management of money is a long one. In some respects it may be seen as being broadly based in doctrine opposing the centralization of power generally. The original Federal Reserve Act and the notions surrounding it provide one such example. The System was to operate automatically according to certain rules and related notions with the view to expanding bank credit (and presumably money) to satisfy the needs of trade (and presumably income), and the monetary policy function of the System, such as it was, was decentralized. The rules and the automatic functioning of the System centered about the "real bills" doctrine, the gold-flows mechanism, and a simple quantity theory of money. The only credit control instrument at the disposal of the System in the early years was the discount rate, or more generally the discount mechanism, and changes in the rate were initiated at the regional bank level, as they are today, only the Board must approve. The System was to perform as a "lender of last resort" and provide additional liquidity to commercial paper originating at the commercial banks as they extended credit. This was done by the discounting of commercial paper ("real bills") or by advancing credit in a properly secured form. The paper was real in the sense that the credit originated in the extension of loans for the purchase of goods in shipment and inventories.

On a temporary basis, as in the case of a seasonal defense against crisis, the Federal Reserve could serve as lender to the commercial banks and therefore satisfy a temporary need for credit and possibly avert the sort of recurring financial crisis of the pre-Federal Reserve (i.e., pre-1913) era. Moreover, a properly functioning gold-standard mechanism could serve as an overall regulator, both of the Federal Reserve System and the growth of bank credit (and, therefore, the money supply). As trade, credit, and the money supply expanded excessively, the price level would rise in relation to price levels abroad and set in motion an outflow of gold. The latter would serve to constrain the growth of bank reserves and the money supply (and thus the level of prices, via the simple quantity theory of money). A decline in the domestic price level in relation to foreign price levels had the

reverse effects. All the Federal Reserve had to do was to adhere to the rules. There was little room for discretion. All was to work automatically. Economic stability was to be achieved, since it was thought to be the result of the malfunctioning of the financial system to begin with. In the 1930's and later, economists came increasingly to emphasize the interrelationships between money and the financial and real good sectors in analyzing cyclical and other changes in output, employment, and prices.

Paradoxical as it may seem, however, the growth of monetary analysis in the 1930's was accompanied by a widespread emphasis on the ineffectiveness of monetary policy under alleged liquidity trap conditions, such as may have prevailed in the 1930's. The renewal of widespread belief in the effectiveness of monetary policy depended largely on post-World War II research and the large amount of empirical work since the advent of the modern computer. A large portion of this depended on certain reactionary souls, mainly at the University of Chicago, who maintained a rather militant faith in the efficacy of money, even when it was placed by some in a secondary position in relation to fiscal policy [19].

As time passed in the 1920's, the Federal Reserve System, the domestic economy, and the gold-flows mechanism did not work exactly as envisioned. The Federal Reserve Act had permitted the regional banks to buy some securities in the open market as a means of obtaining earnings for operating expenses, and soon this opened the door to the prospect of exercising control over bank reserves via open market operations. The opportunity for the exercise of discretion by bank officials—particularly at the Federal Reserve Bank of New York, under the leadership of Benjamin Strong—was broadened. The range for discretionary administration was further broadened and formally recognized in the Banking Acts of 1933 and 1935, following the catastrophic economic collapse of the early 1930's. Power in the Federal Reserve shifted to the Board in Washington; general credit controls came to include open market operations and changes in reserve requirements, all as emphasized in money and banking texts today.

Thus, observing the enhanced discretionary powers and the Federal Reserve's traditional emphasis on reserves and bank credit, observing an apparent loose link in the 1930's between bank reserves and the money stock, and embracing a quantity theory of money with emphasis on the level of prices—doing all of these things—Irving Fisher put forth his 100-percent reserve scheme in 1935.[26] Henry Simons, also, advanced proposals for monetary reform in the 1930's. In addition, he vacillated between favoring a rule for the money stock or an instruction to the authorities to keep the price level stable [21]. And, finally, operating partly in the Fisher-Simon tradition and partly in the empirical tradition of the National Bureau of Economic Research,

[26] Under the 100-percent reserve scheme, the Federal Reserve—or a special currency commission—would take over all of the assets of the commercial banks and the banks would in turn be required to hold 100 percent reserves against demand deposits. In this way fractional reserve banking would be eliminated and open market purchases would increase the money supply directly without any subsequent multiplicative effects resulting from increments in reserves and fractional reserve requirements. The banks, of course, would be compensated; they would charge their customers for service, or as later suggested by Milton Friedman, receive interest on their reserves. Also, the 100-percent plan, as noted by Bronfenbrenner (3), might require other changes in financial institutions, e.g., investment trusts "to supply funds to the traditional small-business customers of commercial banks." All of this, of course, was outside the mainstream of economic analysis in the 1930's.

observing the economic consequences of the exercise of discretion by Federal Reserve authorities, and studying wide variations in the rate of change in the money stock—doing all of these things—Milton Friedman and his followers of the post-World War II were—and currently are—strong advocates of the need for some monetary rule. Their advocacy and research in support of the need for some monetary rule, moreover, came to have widespread impact on economic thinking in the 1960's. Indeed, congressional hearings before the Senate-House Economic Committee in May 1968, dealt essentially with a rules proposal and the possible need for constraint on Federal Reserve variations in the rate of change in the money stock [27]. Later, William Proximire, chairman of the Economic Committee, spoke of the need for the Federal Reserve "to adopt a constant and moderate monetary policy." He noted that the committee recommends reports by the Federal Reserve if during any quarter the increase in the money stock is less than an annual rate of 2 percent or more than 6 percent. Surveying the record Proxmire said, "the Federal Reserve has a record of deepening almost every recession or depression we have suffered in the last 30 years by reducing the money supply." Continuing he said, "it has often excessively increased the money supply to fan the flames of inflation when the economy has been booming."

Bronfenbrenner's review of monetary rules.—Bronfenbrenner ranges widely over the rules-versus-discretion literature (3). In so doing, he refers to an irrelevant state reached by comparisons of economic performance under a fixed rule proposal, on the one hand, and discretionary policy, on the other. A main point he makes is that "even if, in ordinary times, a given rule performs no better than ordinary authorities, one may advocate it for the same reason he buys life insurance 'loaded' in the company's favor." Bronfenbrenner also advances a proposal similar to Friedman's but, at the same time, includes a package of guideposts for adjusting the money supply target.

The proposal is that the money stock grows at the same rate as income, including a labor force and an average productivity component. To compensate for adjustments in the money stock that may be called for because of special developments, Bronfenbrenner introduces changes in velocity. Thus, before acting on the change in the rate of change in the money stock, the authorities can make corrections "for the effects of changing taste and financial innovations on the velocity of the monetary circulation." This, of course, broadens the policy discussion to include the whole host of analyses of the velocity-interest rates association [17].

Bronfenbrenner apparently thought that the introduction of guidelines for compensating changes in the money stock will make the rule proposal more acceptable, more relevant to the world we live in. In contrast, all of the invited participants in the May 1968 hearings on rules versus authority were opposed to the idea of guidelines for compensating changes, including in particular the guidelines suggested by Representative Reuss [27, pp. 229–231]. Moreover, as Selden noted, such secular changes as the post-World War II rise in the income velocity of money could readily be compensated for in the framework of advocates of rules proposals. He said, for example: "a simple procedure would be an annual review of the guidelines to determine whether they need revision." Continuing, he said, "the guidelines could

be adjusted gradually to take care of longrun changes in the demand for money."

Hearings.—The May 1968 hearings before the Joint Economic Committee were on the question of whether the Federal Reserve should confine changes in the growth rate for the money stock within limits such as 3 to 6 percent per year. Much of the discussion centered about suggestions by Representative Henry S. Reuss that were made available prior to the hearings.

Reuss stated in the form of a rule simple limits for the rate of change in the money stock per annum. These the membership of the Joint Economic Committee generally subscribed to,[27] but Reuss went further and also stated specific qualifications to the rule as a basis for generating some discussion. Responses to the Reuss proposal and related discussion and interest on the part of the Joint Economic Committee have apparently brought out the following: the inability of the Federal Reserve to state any specific and consistent criteria for monetary and credit policy; a fairly widespread agreement among participants in monetary policy discussions over the desirability of having Congress set upper and lower limits to the growth rate per annum for the money stock, subject to the need to give explanations to the Joint Economic Committee for growth rates extending outside of the limits for any given quarter; and the undesirability of listing specific exceptions to the limits on the rate of growth of the money stock.

Knowledge and the mystique.—A portion of the discussion of rules and discretion centers about knowledge or lack of it. Most participants to the discussion agree that monetary and banking mechanics and phenomena are complicated, but then part over the question of knowledge. Traditionally the rules proponents have said that we do not have sufficient knowledge of the effects and lags in effects of policy to successfully use it as the Federal Reserve has sought to use it. They conclude that in the absence of such knowledge some simple rule, such as stability in the growth rate for the money stock, is best. When we have the knowledge, then we make the departure. The proponents of discretion, on the other hand, have seemed to assume that the knowledge exists or, at least, that judgment about the need for a given policy was superior to any simple rule. Even so, we simply note that central banking matters have often relied on a mystique.

Those invoking the mystique as a substitute for knowledge have often seemed to present as their best defense, (1) an acquaintance with a frustrating array of facts and details, and (2) the attitude that study and research would confirm the validity of their new. This additional research is always in a promising future, despite all that has historically been completed. An example of the first characteristic is Mitchell's statement that "excessive concentration of our attention on any single variable, or even on any single group of related variables, would likely result in a potentially serious misreading of the course and intensity of monetary policy." An example of the second characteristic is the promise of the Fed-MIT, special-purpose, policy model.

The challenge to the mystique has come from an outpouring of results from statistical analyses as well as from other research and

[27] For an outline of the background of the committee's rules proposal, see Report of the Joint Economic Committee (28, pp. 16–18).

writing, all from a variety of sources. Interestingly—at least with respect to the characteristic defenses of discretionary monetary policy—discussion in the forum of the Joint Economic Committee has led to the position that the rule can be abandoned when an explanation can be given for doing so. Likely traditional defenses will suffice as explanations for some time. Even so, a course of developments with respect to the rules-discretion controversy seems to be indicated, notably: justify deviations from the simple rule with empirically verifiable explanations.

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STATEMENT OF MILTON FRIEDMAN, UNIVERSITY OF CHICAGO

Unfortunately I cannot reply in full to your interesting question to economists because other commitments make it impossible for me to take the time that would be required. As a poor substitute, may I simply record my own views briefly on the appropriate guidelines for monetary policy. In my opinion, two points are critical—one with respect to the quantity of money, the other with respect to interest rates.

1. In the present state of our knowledge, I believe that the best—or least bad—guideline for monetary policy is steady growth of the quantity of money at a rate that on the average will mean stable prices of final products. The precise growth rate required for this purpose depends on the specific definition of money adopted. For a definition corresponding to currency plus all commercial bank deposits adjusted—demand and time—the appropriate rate is around 5 percent per year. For a definition limited to currency plus adjusted demand deposits only, the appropriate rate is a trifle lower. In my opinion, it would be desirable for Congress to instruct the Federal Reserve to adopt this

policy. That would assure that the Federal Reserve System would provide a steady and stable background for private and public economic policy, instead of being itself a source of instability as it so often has been in the past and as it is currently being at this very moment.

If Congress does not legislate this rule for the Federal Reserve System, the next best alternative is the one suggested by the Joint Economic Committee in its recent report; namely, that the Federal Reserve at least be required to report to Congress when it permits or forces the money supply to grow at rates outside a range such as the 2 to 6 percent per year specified by the Joint Economic Committee.

2. On interest rates, the desirable policy is to permit interest rates to be determined completely by free markets. The present prohibition on the payment of interest on demand deposits should be removed. The present authority given to the Federal Reserve System and to other governmental financial agencies to set the ceilings on the rates of interest that commercial banks and other financial institutions can pay on time deposits should be eliminated. Discounting should either be abolished or the discount rate should be linked to market rates and set higher than market rates so that it will be a penalty rate. The present limitations on the interest rates that the Government may set on its debt obligations should be removed. A free competitive market in loanable funds is no less desirable than a free and competitive market in other goods and services.

The problems of the organization of the Federal Reserve System are extremely important so long as the two guidelines just outlined are not in effect. If these guidelines were put into effect, the problem of organization would become of little importance because the present power of the Federal Reserve System to introduce instability into the economy would be eliminated.

As a matter of principle, I am opposed to independence for the Federal Reserve System. Monetary policy should be administered by a governmental agency in the regular administrative hierarchy ultimately responsible to Congress. I have discussed this issue at length in a paper entitled "Should There Be an Independent Monetary Authority?" (in Leland B. Yeager, ed., *In Search of a Monetary Constitution*, Harvard University Press, 1962, pp. 219–243) of which I am enclosing a reprint.

A full discussion of my views on monetary policy is presented in my book entitled *A Program for Monetary Stability*. Experience since this book was written has given me no reason to alter the major recommendations it contains.

More recently, I have discussed the general problem of monetary policy in my presidential address to the American Economic Association in December 1967 which was published in the March issue of the *American Economic Review* under the title of "The Role of Monetary Policy." I have discussed current monetary policy in a number of columns in *Newsweek*. I am enclosing reprints of these items.

In closing, may I express my appreciation and the appreciation of other academic students of monetary problems for the important role which you have played in keeping these significant issues in the forefront of public discussion, for assembling relevant evidence, and stimulating the Federal Reserve System to examine its own policies and procedures critically from time to time, as well as explaining them

to the public at large. My best wishes to you in the continuation of your good work.

(The supplementary materials follow:)

[From Leland B. Yeager (ed.), *In Search of a Monetary Constitution,* Cambridge, Mass.: Harvard University Press, 1962]

Should There Be an Independent Monetary Authority?

(By Milton Friedman)

The text for this paper, to paraphrase the famous remark attributed to Poincaré, is, "Money is too important to be left to the central bankers." The problem that suggests this text is the one of what kind of arrangements to set up in a free society for the control of monetary policy. The believer in a free society—a "liberal" in the original meaning of the word, but unfortunately not in the meaning that is now current in this country—is fundamentally fearful of concentrated power. His objective is to preserve the maximum degree of freedom for each individual separately that is compatible with one man's freedom not interfering with other men's freedom. He believes that this objective requires power to be dispersed, that it be prevented from accumulating in any one person or group of people.

The need for dispersal of power raises an especially difficult problem in the field of money. There is widespread agreement that government must have some responsibility for monetary matters. There is also widespread recognition that control over money can be a potent tool for controlling and shaping the economy. Its potency is dramatized in Lenin's famous dictum that the most effective way to destroy a society is to destroy its money. It is exemplified in more pedestrian fashion by the extent to which control over money has always been a potent means of exacting taxes from the populace at large, very often without the explicit agreement of the legislature. This has been true from early times, when monarchs clipped coins and adopted similar expedients, to the present, with our more subtle and sophisticated modern techniques for turning the printing press or simply altering book entries.

The problem is to establish institutional arrangements that will enable government to exercise responsibility for money, yet will at the same time limit the power thereby given to government and prevent the power from being used in ways that will tend to weaken rather than strengthen a free society. Three kinds of solutions have developed or have been suggested. One is an automatic commodity standard, a monetary standard which in principle requires no governmental control. A second is the control of monetary policies by an "independent" central bank. A third is the control of monetary policies by rules that are legislated in advance by the legislature, are binding upon the monetary authority, and greatly limit its initiative. This paper discusses these three alternatives with rather more attention to the solution through a central bank.

A COMMODITY STANDARD

Historically, the device that has evolved most frequently in many different places and over the course of centuries is a commodity standard; that is, the use as money of some physical commodity such as gold, silver, brass, or tin, or cigarettes, cognac, or various other commodities. If money consisted wholly of a physical commodity of this type, in principle there would be no need for control by the government at all. The amount of money in society would depend on the cost of producing the monetary commodity rather than on other things. Changes in the amount of money would depend on changes in the technical conditions of producing the monetary commodity and on changes in the demand for money.

This is an ideal that animates many believers in an automatic gold standard. In point of fact, however, as the system developed it deviated very far from this simple pattern, which required no governmental intervention. Historically, a commodity standard—such as a gold standard or a silver standard—was accompanied by the development of alternative forms of money as well, of fiduciary money of one kind or another, ostensibly convertible into the montary commodity on fixed terms. There was a very good reason for this development. The fundamental defect of a commodity standard, from the point of view of the society as a whole, is that it requires the use of real resources to add to the stock of money. People must work hard to dig something out of the ground in one place—to dig gold out

of the ground in South Africa—in order to rebury it in Fort Knox, or some similar place. The necessity of using real resources for the operation of a commodity standard establishes a strong incentive for people to find ways to achieve the same result without employing these resources. If people will accept as money pieces of paper on which is printed "I promise to pay so much of the standard commodity," these pieces of paper can perform the same functions as the physical pieces of gold or silver, and they require very much less in resources to produce. This point, which I have discussed at somewhat greater length elsewhere [1] seems to me the fundamental difficulty of a commodity standard.

If an automatic commodity standard were feasible, it would provide an excellent solution to the liberal dilemma of how to get a stable monetary framework without the danger of irresponsible exercise of monetary powers. A full commodity standard, for example, an honest-to-goodness gold standard in which 100 percent of the money consisted literally of gold, widely supported by a public imbued with the mythology of a gold standard and the belief that it is immoral and improper for government to interfere with its operation, would provide an effective control against governmental tinkering with the currency and against irresponsible monetary action. Under such a standard, any monetary powers of government would be very minor in scope.

But such an automatic system has historically never proved feasible. It has always tended to develop in the direction of a mixed system containing fiduciary elements such as banknotes, bank deposits, or government notes in addition to the monetary commodity. And once fiduciary elements have been introduced, it has proved difficult to avoid government control over them, even when they were initially issued by private individuals. The reason is basically the difficulty of preventing counterfeiting or its economic equivalent. Fiducary money consists of a contract to pay standard money. It so happens that there tends to be a long interval between the making of such a contract and its realization, which enhances the difficulty of enforcing the contract to pay the standard money and hence also the temptation to issue fraudulent contracts. In addition, once fiduciary elements have been introduced, the temptation for government itself to issue fiduciary money is almost irresistible. As a result of these forces, commodity standards have tended in practice to become mixed standards involving extensive intervention by the state, which leaves the problem of how intervention is to be controlled.

Despite the great amount of talk by many people in favor of the gold standard, almost no one today literally desires to see an honest-to-goodness full gold standard in operation. People who say they want a gold standard are almost invariably talking about the present kind of standard, or the kind of standard that was maintained in the 1930's, in which there is a small amount of gold in existence, held by the central monetary, authority as "backing"—to use that very misleading term—for fiduciary money, and with the same authority, a central bank or other government bureau, managing the gold standard. Even during the so-called "great days" of the gold standard of the 19th century, when the Bank of England was supposedly running the gold standard skillfully, the monetary system was far from a fully automatic gold standard. It was even then a highly managed standard. And certainly the situation is now more extreme. Country after country has adopted the view that government has responsibility for internal stability. This development, plus the invention by Schacht of the widespread direct control of foreign exchange transactions, has meant that few if any countries are willing today to let the gold standard operate even as quasi-automatically as it did in the 19th century.

Most countries in the world currently behave asymmetrically with respect to the gold standard. They are willing to allow gold to flow in and even to inflate somewhat in response, but almost none is willing either to let gold flow out to any large extent or to adjust to the outflow by allowing or forcing internal prices to decline. Instead, they are very likely to take measures such as exchange controls, import restrictions, and the like.

My conclusion is that an automatic commodity standard is neither a feasible nor a desirable solution to the problem of establishing monetary arrangements for a free society. It is not desirable because it would involve a large cost in the form of resources used to produce the monetary commodity. It is not feasible because the mythology and beliefs required to make it effective do not exist.

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[1] *A Program for Monetary Stability* (New York: Fordham University Press, 1959), pp. 4–8.

AN INDEPENDENT CENTRAL BANK

A second device that has evolved and for which there is considerable support is a so-called independent monetary authority—a central bank—to control monetary policy and to keep it from being the football of political manipulation. The widespread belief in an independent central bank clearly rests on the acceptance—in some cases the highly reluctant acceptance—of the view I have just been expressing about a commodity standard, namely, that a fully automatic commodity standard is not a feasible way to achieve the objective of a monetary structure that is both stable and free from irresponsible governmental tinkering.

The device of an independent central bank embodies the very appealing idea that it is essential to prevent monetary policy from being a day-to-day plaything at the mercy of every whim of the current political authorities. The device is rationalized by assimilating it to a species of constitutionalism. The argument that is implicit in the views of proponents of an independent central bank—so far as I know, these views have never been fully spelled out—is that control over money is an essential function of a government comparable to the exercise of legislative or judicial or administrative powers. In all of these, it is important to distinguish between the basic structure and day-to-day operation within that structure. In our form of government, this distinction is made between the constitutional rules which set down a series of basic prescriptions and proscriptions for the legislative, judicial, and executive authorities and the detailed operation of the several authorities under these general rules. Similarly, the argument implicit in the defense of an independent central bank is that the monetary structure needs a kind of a monetary constitution, which takes the form of rules establishing and limiting the central bank as to the powers that it is given, its reserve requirements, and so on. Beyond this, the argument goes, it is desirable to let the central bank have authority largely coordinate with that of the legislature, the executive, and the judiciary to carry out the general constitutional mandate on a day-to-day basis.

In recent times, the threat of extension of government control into widening areas of economic activity has often come through proposals involving monetary expansion. Central bankers have generally been "sound money men," at least verbally, which is to say, they have tended to attach great importance to stability of the exchange rate, maintenance of convertibility of the nation's currency into other currencies and into gold, and prevention of inflation. They have therefore tended to oppose many of the proposals for extending the scope of government. This coincidence of their views in these respects with those of people like myself, who regard narrowly limited government as a requisite for a free society, is the source of much of the sympathy on the part of this group, whom I shall call "new liberals," for the notion of an independent central bank. As a practical matter, the central bankers seem more likely to impose restrictions on irresponsible monetary power than the legislative authority itself.

A first step in discussing this notion critically is to examine the meaning of the "independence" of a central bank. There is a trivial meaning that cannot be the source of dispute about the desirability of independence. In any kind of a bureaucracy, it is desirable to delegate particular functions to particular agencies. The Bureau of Internal Revenue can be described as an independent bureau within the Treasury Department. Outside the regular government departments, there are separate administrative organizations, such as the Bureau of the Budget. This kind of independence of monetary policy would exist if, within the central administrative hierarchy, there were a separate organization charged with monetary policy which was subordinate to the chief executive or officer, though it might be more or less independent in routine decisions. For our purposes, this seems to me a trivial meaning of independence, and not the meaning fundamentally involved in the argument for or against an independent central bank. This is simply a question of expediency and of the best way to organize an administrative hierarchy.

A more basic meaning is the one suggested above—that a central bank should be an independent branch of government coordinate with the legislative, executive, and judicial branches, and with its actions subject to interpretation by the judiciary. Perhaps the most extreme form of this kind of independence in practice, and the form that comes closest to the ideal type envisaged by proponents of an independent central bank, has been achieved in those historical instances where an organization that was initially entirely private and not formally part of the government at all has served as a central bank. The leading example, of course, is the Bank of England, which developed out of a strictly private bank

and was not owned by or formally a part of the Government until after World War II. If such a private organization strictly outside the regular political channels could not function as a central monetary authority, this form of independence would call for the establishment of a central bank through a constitutional provision which would be subject to change only by constitutional amendment. The bank would accordingly not be subject to direct control by the legislature. This is the meaning I shall assign to independence in discussing further whether an independent central bank is a desirable resolution of the problem of achieving responsible control over monetary policy.

It seems to me highly dubious that the United States, or for that matter any other country, has in practice ever had an independent central bank in this fullest sense of the term. Even when central banks have supposedly been fully independent, they have exercised their independence only so long as there has been no real conflict between them and the rest of the government. Whenever there has been a serious conflict, as in time of war, between the interests of the fiscal authorities in raising funds and of the monetary authorities in maintaining convertibility into specie, the bank has almost invariably given way, rather than the fiscal authority. To judge by experience, even those central banks that have been nominally independent in the fullest sense of the term have in fact been closely linked to the executive authority.

But of course this does not dispose of the matter. The ideal is seldom fully realized. Suppose we could have an independent central bank in the sense of a coordinate constitutionally established, separate organization. Would it be desirable to do so? I think not, for both political and economic reasons.

The political objections are perhaps more obvious than the economic ones. Is it really tolerable in a democracy to have so much power concentrated in a body free from any kind of direct, effective political control? What I have called the new liberal often characterizes his position as involving belief in the rule of law rather than of men. It is hard to reconcile such a view with the approval of an independent central bank in any meaningful way. True, it is impossible to dispense fully with the rule of men. No law can be specified so precisely as to avoid problems of interpretation or to cover explicitly every possible case. But the kind of limited discretion left by even the best of laws in the hands of those administering them is a far cry indeed from the kind of far-reaching powers that the laws establishing central banks generally place in the hands of a small number of men.

I was myself most fully persuaded that it would be politically intolerable to have an independent central bank by the memoirs of Emile Moreau, the Governor of the Bank of France during the period from about 1926 to 1928, the period when France established a new parity for the franc and returned to gold. Moreau was appointed Governor of the Bank of France in 1926, not long before Poincaré became Premier after violent fluctuations in the exchange value of the franc and serious accompanying internal disturbances and governmental financial difficulties. Moreau's memoirs were edited and brought out in book form some years ago by Jacques Rueff, who was the leading figure in the recent French monetary reform.[2]

The book is fascinating on many counts. The particular respect that is most relevant for our present purpose is the picture that Moreau paints of Montagu Norman, Governor of the Bank of England, on the one hand, and of Hjalmar Schacht, at that time Governor of the Bank of Germany, on the other; they were unquestionably two of the three outstanding central bankers of the modern era, Benjamin Strong of the United States being the third. Moreau describes the views that these two European central bankers had of their functions and their roles, and implies their attitude toward other groups. The impression left with me—though it is by no means clear that Moreau drew the same conclusions from what he wrote, and it is certain that he would have expressed himself more temperately—is that Norman and Schacht were contemptuous both of the masses—of "vulgar" democracy—and of the classes—of the, to them, equally vulgar plutocracy. They viewed themselves as exercising control in the interests of both groups but free from the pressures of either. In Norman's view, if the major central bankers of the world would only co-operate with one another—and he had in mind not only himself and Schacht but also Moreau and Benjamin Strong—they could jointly wield enough power to control the basic economic destinies of the Western World in accordance with rational ends and objectives rather than

[2] Emile, Moreau, *Souvenirs d'un gouverneur de la Banque de France* (Paris: Génin, [1954]).

with the irrational processes of either parliamentary democracy or laissez-faire capitalism. Though of course stated in obviously benevolent terms of doing the "right thing" and avoiding distrust and uncertainty, the implicit doctrine is clearly thoroughly dictatorial and totalitarian.

It is not hard to see how Schacht could later be one of the major creators of the kind of far-reaching economic planning and control that developed in Germany. Schacht's creation of extensive direct control of foreign exchange transactions is one of the few really new economic inventions of modern times. In the older literature, when people spoke of a currency as being inconvertible, they meant that it was not convertible into gold or silver or some other money at a fixed rate. To the best of my knowledge, it is only after 1934 that inconvertibility came to mean what we currently take it to mean: that it is illegal for one man to convert paper money of one country into paper money of another country at any terms he can arrange with another person.[3]

I turn now to the economic or technical aspects of an independent central bank. Clearly there are political objections to giving the group in charge of a central bank so much power independent of direct political controls, but it has been argued, there are economic or technical grounds why it is nevertheless essential to do so. In judging this statement, much depends on the amount of leeway that the general rule governing the central bank gives to it. I have been describing an independent central bank as if it could or would be given a good deal of separate power, as clearly is currently the case. Of course, the whole notion of independence could be rendered merely a matter of words if in fact the constitutional provision setting up the bank established the limits of its authority very narrowly and controlled very closely the polices that it could follow.

In the 19th century, when wide support for independent central banks developed, the governing objective of the central bank was the maintenance of exchange stability. Central banks tended to develop in countries that professed to have commodity currencies, which is to say had a fixed price for the commodity serving as the monetary standard in terms of the nominal money of the country. For two countries on the same standard, this meant a fixed rate of exchange between the corresponding national currencies. In consequence, the maintenance of such fixed rates had to be the proximate aim of the central bank if it was to achieve its major aim of keeping its currency convertible into standard money. The Bank of England, for example, was narrowly limited in what it could do by the necessity of keeping England on gold.

In the same way, in the United States when the Federal Reserve System was established in 1913, it never entered into the minds of the people who were establishing it that the System would really have much effective control internally in ordinary times. The Reserve System was established when the gold standard ruled supreme, and when it was taken for granted that the major factor determining the policy of the System, and hence the behavior of the stock of money in this country, would be the necessity of maintaining external equilibrium with the currencies of other countries. So long as the maintenance of a fixed exchange rate between one country's currency and the currencies of other countries was the overriding objective of policy, the amount of leeway available to the central bank was narrowly limited. It had some leeway with respect to minor movements of a short-term character, but it ultimately had to respond to the balance of payments.

The situation has changed drastically in this respect in the course of the past few decades. In the United States, which is of most immediate concern to us, the Reserve System had hardly started operations before the fundamental con-

[3] Another feature of Moreau's book that is most fascinating but rather off the main track of the present discussion is the story it tells of the changing relations between the French and British central banks. At the beginning, with France in desperate straits seeking to stabilize its currency, Norman was contemptuous of France and regarded it as very much of a junior partner. Through the accident that the French currency was revalued at a level that stimulated gold imports, France started to accumulate gold reserves and sterling reserves and gradually came into the position where at any time Moreau could have forced the British off gold by withdrawing the funds he had on deposit at the Bank of England. The result was that Norman changed from being a proud boss and very much the senior partner to being almost a suppliant at the mercy of Moreau. Aside from the human drama, it emphasizes how important it is whether the rate of exchange is fixed 5 percent too low or 5 percent too high. Britain went back on gold in 1925 at a price of gold in terms of the pound that was probably something like 5 or 10 percent too low, and France went back *de facto* at the end of 1926 and *de jure* in mid-1928 at a price of gold in terms of francs that was 5 or 10 percent too high. This difference meant the difference between the French being at the mercy of the British and the British being at the mercy of the French.

ditions taken for granted when it was established had changed radically. During World War I, most of the countries of the world went off gold. The United States technically remained on gold, but the gold standard on which it remained was very different from the one that had prevailed earlier. After the end of World War I, although other countries of the world gradually reestablished something they called the gold standard, the gold standard never again played the role which it had before. Prior to World War I, the United States was effectively a minor factor in the total world economy, and the necessity of maintaining external stability dominated our behavior. After the war, we had become a major factor to which other countries had to adjust. We held a very large fraction of the world's gold. Many countries never went back on gold, and those that did went back in a much diluted form. So never again has there been anything like the close domination of day-to-day policy by the gold standard that prevailed prior to 1914. Under these circumstances, "independence" of the central bank has become something meaningful, and not merely a technicality.

One defect of an independent central bank in such a situation is that it almost inevitably involves dispersal of responsibility. If we examine the monetary system in terms not of nominal institutional organization but of the economic functions performed, we find that the central bank is hardly ever the only authority in the Government that has essential monetary powers. Before the Federal Reserve System was established, the Treasury exercised essential montary powers. It operated like a central bank, and at times a very effective central bank. More recently, from 1933 to 1941, the Federal Reserve System was almost entirely passive. Such monetary actions as were taken predominantly by the Treasury. The Treasury engaged in open-market operations in its debt-management operations of buying and selling securities. It created and destroyed money in its gold and silver purchases and sales. The Exchange Stabilization Fund was established and gave the Treasury yet another device for engaging in open-market operations. When the Treasury sterlized and desterilized gold, it was engaging in monetary actions. In practice, therefore, even if something called an independent central bank is established and given exclusive power over a limited range of monetary matters, in particular over the printing of pieces of pape or the making of book entries called money (Federal Reserve notes and Federal Reserve deposits), there remain other governmental authorities, particularly the fiscal authority collecting taxes and dispersing funds and managing the debt, which also have a good deal of monetary power.

If one wanted to have the substance and not merely the form of an independent monetary authority, it would be necessary to concentrate all debt-management powers as well as all powers to create and destroy governmentally issued money in the central bank. As a matter of technical efficiency, this might well be desirable. Our present division of responsibility for debt management between the Federal Reserve and the Treasury is very inefficient. It would be much more efficient if the Federal Reserve did all of the borrowing and all of the managing of the debt, and the Treasury, when it had a deficit, financed it by getting money from the Federal Reserve System, and when it had a surplus, handed the excess over to the Federal Reserve System. But while such an arrangement might be tolerable if the Federal Reserve System were part of the same administrative hierarchy as the Treasury, it is almost inconceivable that it would be if the central bank were thoroughly independent. Certainly no government to date has been willing to put that much power in the hands of a central bank even when the bank has been only partly independent. But so long as these powers are separated, there is dispersal of responsibility, with each group separately regarding the other group as responsible for what is happening and with no one willing to accept responsibility.

In the past few years, I have read through the annual reports of the Federal Reserve System from 1913 to date, seriatim. One of the few amusing dividends from that ordeal was seeing the cyclical pattern that shows up in the potency that the authorities attribute to monetary policy. In years when things are going well, the reports emphasize that monetary policy is an exceedingly potent weapon and that the favorable course of events is largely a result of the skillful handling of this delicate instrument by the monetary authority. In years of depression, on the other hand, the reports emphasize that monetary policy is but one of many tools of economic policy, that its power is highly limited, and that it was only the skillful handling of such limited powers as were available that averted disaster. This is an example of the effect of the dispersal of responsibility among different authorities, with the likely result that no one assumes or is assigned the final responsibility.

Another defect of the conduct of monetary policy through an independent central bank that has a good deal of leeway and power is the extent to which the policy is thereby made highly dependent on personalities. In studying the history of American monetary policy, I have been struck by the extraordinary importance of accidents of personality.

At the end of World War I, the Governor of the Federal Reserve System was W. P. G. Harding. Governor Harding was, I am sure, a thoroughly reputable and competent citizen, but he had a very limited understanding of monetary affairs, and even less backbone. Almost every student of the period is agreed that the great mistake of the Reserve System in postwar monetary policy was to permit the money stock to expand very rapidly in 1919 and then to step very hard on the brakes in 1920. This policy was almost surely responsible for both the sharp postwar rise in prices and the sharp subsequent decline. It is amusing to read Harding's answer in his memoirs to criticism that was later made of the policies followed. He does not question that alternative policies might well have been preferable for the economy as a whole, but emphasizes the Treasury's desire to float securities at a reasonable rate of interest, and calls attention to a then-existing law under which the Treasury could replace the head of the Reserve System. Essentially he was saying the same thing that I heard another member of the Reserve Roard say shortly after World War II when the bond-supported program was in question. In response to the view expressed by some of my colleagues and myself that the bond-support program should be dropped, he largely agreed but said, "Do you want us to lose our jobs?"

The importance of personality is strikingly revealed by the contract between Harding's behavior and that of Emile Moreau in France under much more difficult circumstances. Moreau formally had no independence whatsoever from the central government. He was named by the Premier, and could be discharged at any time by the Premier. But when he was asked by the Premier to provide the Treasury with funds in a manner that he considered inappropriate and undesirable, he flatly refused to do so. Of course, what happened was that Moreau was not discharged, that he did not do what the Premier had asked him to, and that stabilization was rather more successful. I cite this contrast neither to praise Moreau nor to blame Harding, but simply to illustrate my main point; namely, the extent to which a system of this kind is really a system of rule by men and not by law and is extraordinarily dependent on the particular personalities involved.

Another occasion in U.S. history which strikingly illustrates this point is our experience from 1929 to 1933. Without doubt, the most serious mistake in the history of the Reserve System was its mismanagement of monetary matters during those years. And this mismanagement, like that after World War I, can very largely attributed to accidents of personality. Benjamin Strong, Governor of the Federal Reserve Bank of New York from its inception, was the dominant figure in the Reserve System until his death at a rather early age in 1928. His death was followed by a shift of power in the System from New York to Washington. The people in Washington at the time happened to be fairly mediocre. Moreover, they had always played a secondary role, were not in intimate touch with the financial world, and had no background of long experience in meeting day-to-day emergencies. Further, the chairmanship changed hands just prior to the shift of power and again in mid-1931. Consequently, in the emergencies that came in 1929, 1930, and 1931, particularly in the fall of 1930, when the Bank of United States failed in New York as part of a dramatic series of bank failures, the Federal Reserve System acted timorously and passively. There is little doubt that Strong would have acted very differently. If he had still been Governor, the result would almost surely have been to nip the wave of bank failures in the bud and to prevent the drastic monetary deflation that followed.

A similar situation prevails today. The actions of the Reserve System depend on whether there are a few persons in the System who exert intellectual leadership, and on who these people are; its actions depend not only on the people who are nominally the heads of the System but also on such matters as the fate of particular economic advisers.

So far, I have listed two main technical defects of an independent central bank from an economic point of view: first, dispersal of responsibility, which promotes shirking responsibility in times of uncertainty and difficulty, and second, an extraordinary dependence on personalities, which fosters instability arising from accidental shifts in the particular people and the character of the people who are in charge of the system.

A third technical defect is that an independent central bank will almost inevitably give undue emphasis to the point of view of bankers. It is exceedingly important to distinguish two quite different problems that tend to be confused: the problem of credit policy and the problem of monetary policy. In our kind of monetary or banking system, money tends to be created as an incident in the extension of credit, yet conceptually the creation of money and the extension of credit are quite distinct. A monetary system could be utterly unrelated to any credit instruments whatsoever; for example, this would be true of a completely automatic commodity standard, using only the monetary commodity itself or warehouse receipts for the commodity as money. Historically, the connection between money and credit has varied widely from time to time and from place to place. It is therefore essential to distinguish policy issues connected with interest rates and conditions on the credit market from policy issues connected with changes in the aggregate stock of money, while recognizing, of course, that measures taken to affect the one set of variables may also affect the other, and that monetary measures may have credit effects as well as monetary effects proper.

It so happens that central-bank action is but one of many forces affecting the credit market. As we and other countries have seen time and again, a central bank may be able to determine the rate of interest on a narrow range of securities, such as the rate of interest on a particular category of Government bonds, though even that only within limits and only at the expense of completely giving up control over the total stock of money. A central bank has never been able to determine, at all closely, rates of interest in any broader or more fundamental sense. Postwar experience in country after country that has embarked on a cheap-money policy has strikingly demonstrated that the forces which determine rates of interest broadly conceived—rates of return on equities, on real property, on corporate securities—are far too strong and widespread for the central bank to dominate. It must sooner or later yield to them, and generally rather soon.

The central bank is in a very different position in determining the quantity of money. Under systems such as that in the United States today, the central bank can make the amount of money anything it wishes. It may, of course, choose to accept some other objective and give up its power over the money supply in order to try to keep "the" or "a" rate of interest fixed, to keep "free reserves" at a particular level, or to achieve some other objective. But if it wishes, it can exercise complete control over the stock of money.

This difference between the position of the central bank in the credit markets and in determining the money supply tends to be obfuscated by the close connection between the central bank and the banking community. In the United States, for example, the Reserve banks technically are owned by their member banks. One result is that the general views of the banking community exercise a strong influence on the central bank and, since the banking community is concerned primarily with the credit market, central banks are led to put altogether too much emphasis on the credit effects of their policies and too little emphasis on the monetary effects of their policies.

In recent times, this emphasis has been attributed to the effects of the Keynesian Revolution and its treatment of changes in the stock of money as operating primarily through the liquidity preference function on the interest rate. But this is only a particular form of a more general and ancient tendency. The real-bills doctrine, which dates back a century and more, exemplifies the same kind of confusion between the credit and the monetary effects of monetary policy. The banking and currency controversy in Britain in the early 19th century is a related example. The central bank emphasized its concern with conditions in the credit market. It denied that the quantity of money it was creating was in any way an important consideration in determining price levels or the like, or that it had any discretion about how much money to create. Much the same arguments are heard today.

The three defects I have outlined constitute a strong technical argument against an independent central bank. Combined with the political argument, the case against a fully independent central bank is strong indeed.

LEGISLATED RULES

If this conclusion is valid, if we cannot achieve our objectives by giving wide discretion to independent experts, how else can we establish a monetary system that is stable, free from irresponsible governmental tinkering, and incapable of being used as a source of power to threaten economic and political freedom? A

third possibility is to try to achieve a government of law instead of men literally by legislating rules for the conduct of monetary policy. The enactment of such rules would enable the public to exercise control over monetary policy through its political authorities, while at the same time preventing monetary policy from being subject to the day-to-day whim of political authorities.

The argument for legislating rules for monetary policy has much in common with a topic that seems at first altogether different; namely, the Bill of Rights to the Constitution. Whenever anyone suggests the desirability of a legislative rule for control over money, the stereotyped answer is that it makes little sense to tie the monetary authority's hands in this way because the authority, if it wants to, can always do of its own volition what the rule would require it to do, and, in addition, has other alternatives; hence "surely," it is said, it can do better than the rule. An alternative version of the same argument applies to the legislature. If the legislature is willing to adopt the rule, it is said, surely it will also be willing to legislate the "right" policy in each specific case. How then, it is said, does the adoption of the rule provide any protection against irresponsible political action?

The same argument could apply with only minor verbal changes to the first amendment to the Constitution and, equally, to the entire Bill of Rights. Is it not absurd, one might say, to have a general proscription of interference with free speech? Why not take up each case separately and treat it on its own merits? Is this not the counterpart to the usual argument in monetary policy that it is undesirable to tie the hands of the monetary authority in advance; that it should be left free to treat each case on its merits as it comes up? Why is not the argument equally valid for speech? One man wants to stand up on a street corner and advocate birth control; another, communism; a third, vegetarianism; and so on, ad infinitum. Why not enact a law affirming or denying each the right to spread his particular views? Or, alternatively, why not give the power to decide the issue to an administrative agency? It is immediately clear that if we were to take up each case separately, a majority would almost surely vote to deny free speech in most cases and perhaps even in every case. A vote on whether Mr. X should spread birth control propaganda would almost surely yield a majority saying "no"; and so would one on communism. The vegetarian might perhaps get by, although even that is by no means a foregone conclusion.

But now suppose all these cases were grouped together in one bundle, and the populace at large was asked to vote for them as a whole: to vote whether free speech should be denied in all cases or permitted in all alike. It is perfectly conceivable, if not highly probable, that an overwhelming majority would vote for free speech; that, acting on the bundle as a whole, the people would vote exactly the opposite to the way they would have voted on each case separately. Why? One reason is that each person feels much more strongly about being deprived of his right to free speech when he is in a minority than he feels about depriving somebody else of the right to free speech when he is in the majority. In consequence, when he votes on the bundle as a whole, he gives much more weight to the infrequent denial of free speech to himself when he is in the minority than to the frequent denial of free speech to others. Another reason, and one that is more directly relevant to monetary policy, is that if the bundle is viewed as a whole, it becomes clear that the policy followed has cumulative effects that tend neither to be recognized nor taken into account when each case is voted on separately. When a vote is taken on whether Mr. Jones may speak on the corner, it is not clearly affected by favorable effects of an announced general policy of free speech, and an affirmative vote will not produce these effects. In voting on the specific case, it is only peripherally relevant that a society in which people are not free to speak on the corner without special legislation is a society in which the development of new ideas, experimentation, change, and the like are all hampered in a great variety of ways. That these ways are obvious to all is due to our good fortune of having lived in a society that did adopt the self-denying ordinance of not considering each case of speech separately.

Exactly the same considerations apply in the monetary area. If each case is considered on its merits, the wrong decision is likely to be made in a large fraction of cases because the decisionmakers are examining only a limited area and are not taking into account the cumulative consequences of the policy as a whole. On the other hand, if a general rule is adopted for a group of cases as a bundle, the existence of that rule has favorable effects on people's attitudes and beliefs and expectations that would not follow even from the discretionary adoption of precisely the same policy on a series of separate occasions.

Of course, the general rule need not be explicitly written down or legislated. Unwritten constitutional limitations supported unthinkingly by the bulk of the people may be as effective in determining decisions in individual cases as a written constitution. The analogy in monetary affairs is the mythology of gold, referred to earlier as a necessary ingredient of a gold standard if it is to serve as an effective bulwark against discretionary authority.

If a rule is to be legislated, what rule should it be? The rule that has most frequently been suggested by people of a generally "new liberal" persuasion is a price-level rule; namely, a legislative direction to the monetary authorities that they maintain a stable price level. I think this is the wrong kind of rule. It is the wrong kind of rule because the objectives it specifies are ones that the monetary authorities do not have the clear and direct power to achieve by their own actions. It consequently raises the earlier problem of dispersing responsibilities and leaving the authorities too much leeway. There is unquestionably a close connection between monetary actions and the price level. But the connection is not so close, so invariable, or so direct that the objective of achieving a stable price level is an appropriate guide to the day-to-day activities of the authorities.

The issue of what rule to adopt is one that I have considered at some length elsewhere.[4] Accordingly, I will limit myself here to stating my conclusion. In the present state of our knowledge, it seems to me desirable to state the rule in terms of the behavior of the stock of money. My choice at the moment would be a legislated rule instructing the monetary authority to achieve a specified rate of growth in the stock of money. For this purpose, I would define the stock of money as including currency ouside commercial banks plus all deposits of commercial banks. I would specify that the Reserve System should see to it that the total stock of money so defined rises month by month, and indeed, so far as possible, day by day, at an annual rate of x percent, where x is some number between 3 and 5. The precise definition of money adopted and the precise rate of growth chosen make far less difference than the definite choice of a particular definition and a particular rate of growth.

I should like to emphasize that I do not regard this proposal as a be-all and end-all of monetary management, as a rule which is somehow to be written in tablets of gold and enshrined for all future time. It seems to me to be the rule that offers the greatest promise of achieving a reasonable degree of monetary stability in the light of our present knowledge. I would hope that as we operated with it, as we learned more about monetary matters, we might be able to devise still better rules which would achieve still better results. However, the main point of this paper is not so much to discuss the content of these or alternative rules as to suggest that the device of legislating a rule about the stock of money can effectively achieve what an independent central bank is designed to achieve but cannot. Such a rule seems to me the only feasible device currently available for converting monetary policy into a pillar of a free society rather than a threat to its foundation.

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The Role of Monetary Policy*

(By Milton Friedman**)

There is wide agreement about the major goals of economic policy: high employment, stable prices, and rapid growth. There is less agreement that these goals are mutually compatible or, among those who regard them as incompatible about the terms at which they can and should be substituted for one another. There is least agreement about the role that various instruments of policy can and should play in achieving the several goals.

My topic for tonight is the role of one such instrument—monetary policy. What can it contribute? And how should it be conducted to contribute the most? Opinion on these questions has fluctuated widely. In the first flush of enthusiasm about the newly created Federal Reserve System, many observers attributed the rela-

[4] *A Program for Monetary Stability*, pp. 77–99.

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tive stability of the 1920's to the System's capacity for fine tuning—to apply an apt modern term. It came to be widely believed that a new era had arrived in which business cycles had been rendered obsolete by advances in monetary technology. This opinion was shared by economist and layman alike, though, of course, there were some dissonant voices. The great contraction destroyed this naive attitude. Opinion swung to the other extreme. Monetary policy was a string. You could pull on it to stop inflation but you could not push on it to halt recession. You could lead a horse to water but you could not make him drink. Such theory by aphorism was soon replaced by Keynes' rigorous and sophisticated analysis.

Keynes offered simultaneously an explanation for the presumed impotence of monetary policy to stem the depression, a nonmonetary interpretation of the depression, and an alternative to monetary policy for meeting the depression and his offering was avidly accepted. If liquidity preference is absolute or nearly so—as Keynes believed likely in times of heavy unemployment—interest rates cannot be lowered by monetary measures. If investment and consumption are little affected by interest rates—as Hansen and many of Keynes' other American disciples came to believe—lower interest rates, even if they could be achieved, would do little good. Monetary policy is twice damned. The contraction, set in train, on this view, by a collapse of investment or by a shortage of investment opportunities or by stubborn thriftiness, could not, it was argued, have been stopped by monetary measures. But there was available an alternative—fiscal policy. Government spending could make up for insufficient private investment. Tax reductions could undermine stubborn thriftiness.

The wide acceptance of these views in the economics profession meant that for some two decades monetary policy was believed by all but a few reactionary souls to have been rendered obsolete by new economic knowledge. Money did not matter. Its only role was the minor one of keeping interest rates low, in order to hold down interest payments in the Government budget, contribute to the "euthanasia of the rentier," and maybe, stimulate investment a bit to assist Government spending in maintaining a high level of aggregate demand.

These views produced a widespread adoption of cheap money policies after the war. And they received a rude shock when these policies failed in country after country, when central bank after central bank was forced to give up the pretense that it could indefinitely keep the rate of interest at a low level. In this country, the public denouement came with the Federal Reserve-Treasury Accord in 1951, although the policy of pegging Government bond prices was not formally abandoned until 1953. Inflation, stimulated by cheap money policies, not the widely heralded postwar depression, turned out to be the order of the day. The result was the beginning of a revival of belief in the potency of monetary policy.

This revival was strongly fostered among economists by the theoretical developments initiated by Haberler but named for Pigou that pointed out a channel—namely, changes in wealth—whereby changes in the real quantity of money can affect aggregate demand even if they do not alter interest rates. These theoretical developments did not undermine Keynes' argument against the potency of orthodox monetary measures when liquidity preference is absolute since under such circumstances the usual monetary operations involve simply substituting money for other assets without changing total wealth. But they did show how changes in the quantity of money produced in other ways could affect total spending even under such circumstances. And, more fundamentally, they did undermine Keynes' key theoretical proposition, namely, that even in a world of flexible prices, a position of equilibrium at full employment might not exist. Henceforth, unemployment had again to be explained by rigidities or imperfections, not as the natural outcome of a fully operative market process.

The revival of belief in the potency of monetary policy was fostered also by a reevaluation of the role money played from 1929 to 1933. Keynes and most other economists of the time believed that the great contraction in the United States occurred despite aggressive expansionary policies by the monetary authorities—that they did their best but their best was not good enough.[1] Recent studies have demonstrated that the facts are precisely the reverse: the U.S. monetary authorities followed highly deflationary policies. The quantity of money in the United States fell by one-third in the course of the contraction. And it fell not because there were no willing borrowers—not because the horse would not drink. It fell because the Federal Reserve System forced or permitted a sharp reduction

[1] In [2], I have argued that Henry Simons shared this view with Keynes, and that it accounts for the policy changes that he recommended.

in the monetary base, because it failed to exercise the responsibilities assigned to it in the Federal Reserve Act to provide liquidity to the banking system. The great contraction is tragic testimony to the power of monetary policy—not, as Keynes and so many of his contemporaries believed, evidence of its impotence.

In the United States the revival of belief in the potency of monetary policy was strengthened also by increasing disillusionment with fiscal policy, not so much with its potential to affect aggregate demand as with the practical and political feasibility of so using it. Expenditures turned out to respond sluggishly and with long lags to attempt to adjust them to the course of economic activity, so emphasis shifted to taxes. But here political factors entered with a vengeance to prevent prompt adjustment to presumed need, as has been so graphically illustrated in the months since I wrote the first draft of this talk. "Fine tuning" is a marvelously evocative phrase in this electronic age, but it has little resemblance to what is possible in practice—not, I might add, an unmixed evil.

It is hard to realize how radical has been the change in professional opinion on the role of money. Hardly an economist today accepts views that were the common coin some two decades ago. Let me cite a few examples.

In a talk published in 1945, E. A. Goldenweiser, then Director of the Research Division of the Federal Reserve Board, described the primary objective of monetary policy as being to "maintain the value of Government bonds. * * * This country" he wrote, "will have to adjust to a 2½-percent interest rate as the return on safe, long-time money, because the time has come when returns on pioneering capital can no longer be unlimited as they were in the past" [4, p. 117].

In a book on *Financing American Prosperity*, edited by Paul Homan and Fritz Machlup and published in 1945, Alvin Hansen devotes nine pages of text to the "savings-investment problem" without finding any need to use the words "interest rate" or any close facsimile thereto [5, pp. 218–27]. In his contribution to this volume, Fritz Machlup wrote, "Questions regarding the rate of interest, in particular regarding its variation or its stability, may not be among the most vital problems of the postwar economy, but they are certainly among the perplexing ones" [5, p. 466]. In his contribution, John H. Williams—not only professor at Harvard but also a longtime adviser to the New York Federal Reserve Bank—wrote, "I can see no prospect of revival of a general monetary control in the postwar period" [5, p. 383].

Another of the volumes dealing with postwar policy that appeared at this time, *Planning and Paying for Full Employment*, was edited by Abba P. Lerner and Frank D. Graham [6] and had contributors of all shades of professional opinion—from Henry Simons and Frank Graham to Abba Lerner and Hans Neisser. Yet Albert Halasi, in his excellent summary of the papers, was able to say, "Our contributors do not discuss the question of money supply. * * * The contributors make no special mention of credit policy to remedy actual depressions. * * * Inflation * * * might be fought more effectively by raising interest rates. * * * But * * * other anti-inflationary measures * * * are preferable" [6, pp. 23–24]. *A Survey of Contemporary Economics*, edited by Howard Ellis and published in 1948, was an "official" attempt to codify the state of economic thought of the time. In his contribution, Arthur Smithies wrote, "In the field of compensatory action, I believe fiscal policy must shoulder most of the load. Its chief rival, monetary policy, seems to be disqualified on institutional grounds. This country appears to be committed to something like the present low level of interest rates on a long-term basis" [1, p. 208].

These quotations suggest the flavor of professional thought some two decades ago. If you wish to go further in this humbling inquiry, I recommend that you compare the sections on money—when you can find them—in the principles texts of the early postwar years with the lengthy sections in the current crop even, or especially, when the early and recent principles are different editions of the same work.

The pendulum has swung far since then, if not all the way to the position of the late 1920s, at least much closer to that position that to the position of 1945. There are of course many differences between then and now, less in the potency attributed to monetary policy than in the roles assigned to it and the criteria by which the profession believes monetary policy should be guided. Then, the chief roles assigned monetary policy were to promote price stability and to preserve the gold standard; the chief criteria of monetary policy were the state of the money market, the extent of speculation and the movement of gold. Today, primacy is assigned to the promotion of full employment, with the prevention of inflation a continuing but definitely secondary objective. And there is major

disagreement about criteria of policy, varying from emphasis on money market conditions, interest rates, and the quantity of money to the belief that the state of employment itself should be the proximate criterion of policy.

I stress nonetheless the similarity between the views that prevailed in the late 'twenties and those that prevail today because I fear that, now as then, the pendulum may well have swung too far, that now as then, we are in danger of assigning to monetary policy a larger role than it can perform, in danger of asking it to accomplish tasks that it cannot achieve, and, as a result, in danger of preventing it from making the contribution that it is capable of making.

Unaccustomed as I am to denigrating the importance of money, I therefore shall, as my first task, stress what monetary policy cannot do. I shall then try to outline what it can do and how it can best make its contribution, in the present state of our knowledge—or ignorance.

I. WHAT MONETARY POLICY CANNOT DO

From the infinite world of negation, I have selected two limitations of monetary policy to discuss: (1) It cannot peg interest rates for more than very limited periods, and (2) It cannot peg the rate of unemployment for more than very limited periods. I select these because the contrary has been or is widely believed, because they correspond to the two main unattainable tasks that are at all likely to be assigned to monetary policy, and because essentially the same theoretical analysis covers both.

Pegging of interest rates

History has already persuaded many of you about the first limitation. As noted earlier, the failure of cheap money policies was a major source of the reaction against simple-minded Keynesianism. In the United States, this reaction involved widespread recognition that the wartime and postwar pegging of bond prices was a mistake, that the abandonment of this policy was a desirable and inevitable step, and that it had none of the disturbing and disastrous consequences that were so freely predicted at the time.

The limitation derives from a much misunderstood feature of the relation between money and interest rates. Let the Fed set out to keep interest rates down. How will it try to do so? By buying securities. This raises their prices and lowers their yields. In the process, it also increases the quantity of reserves available to banks, hence the amount of bank credit, and, ultimately the total quantity of money. That is why central bankers in particular, and the financial community more broadly, generally believe that an increase in the quantity of money tends to lower interest rates. Academic economists accept the same conclusion, but for different reasons. They see, in their mind's eye, a negatively sloping liquidity preference schedule. How can people be induced to hold a larger quantity of money? Only by bidding down interest rates.

Both are right, up to a point. The *initial* impact of increasing the quantity of money at a faster rate than it has been increasing is to make interest rates lower for a time than they would otherwise have been. But this is only the beginning of the process not the end. The more rapid rate of monetary growth will stimulate spending, both through the impact on investment of lower market interest rates and through the impact on other spending and thereby relative prices of higher cash balances than are desired. But one man's spending is another man's income. Rising income will raise the liquidity preference schedule and the demand for loans; it may also raise prices, which would reduce the real quantity of money. These three effects will reverse the initial downward pressure on interest rates fairly promptly, say, in something less than a year. Together they will tend, after a somewhat longer interval, say, a year or two, to return interest rates to the level they would otherwise have had. Indeed, given the tendency for the economy to overreact, they are highly likely to raise interest rates temporarily beyond that level, setting in motion a cyclical adjustment process.

A fourth effect, when and if it becomes operative, will go even further, and definitely mean that a higher rate of monetary expansion will correspond to a higher, not lower, level of interest rates than would otherwise have prevailed. Let the higher rate of monetary growth produce rising prices, and let the public come to expect that prices will continue to rise. Borrowers will then be willing to pay and lenders will then demand higher interest rates—as Irving Fisher pointed out decades ago. This price expectation effect is slow to develop and also slow to disappear. Fisher estimated that it took several decades for a full adjustment and more recent work is consistent with his estimates.

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These subsequent effects explain why every attempt to keep interest rates at a low level has forced the monetary authority to engage in successively larger and larger open market purchases. They explain why, historically, high and rising nominal interest rates have been associated with rapid growth in the quantity of money, as in Brazil or Chile or in the United States in recent years, and why low and falling interest rates have been associated with slow growth in the quantity of money, as in Switzerland now or in the United States from 1929 to 1933. As an empirical matter, low-interest rates are a sign that monetary policy *has been* tight—in the sense that the quantity of money has grown slowly; high-interest rates are a sign that monetary policy *has been* easy—in the sense that the quantity of money has grown rapidly. The broadest facts of experience run in precisely the opposite direction from that which the financial community and academic economists have all generally taken for granted.

Paradoxically, the monetary authority could assure low nominal rates of interest—but to do so it would have to start out in what seems like the opposite direction, by engaging in a deflationary monetary policy. Similarly, it could assure high nominal interest rates by engaging in an inflationary policy and accepting a temporary movement in interest rates in the opposite direction.

These considerations not only explain why monetary policy cannot peg interest rates; they also explain why interest rates are such a misleading indicator of whether monetary policy is "tight" or "easy." For that, it is far better to look at the rate of change of the quantity of money.[2]

Employment as a criterion of policy

The second limitation I wish to discuss goes more against the grain of current thinking. Monetary growth, it is widely held, will tend to stimulate employment; monetary contraction, to retard employment. Why, then, cannot the monetary authority adopt a target for employment or unemployment—say, 3 percent unemployment; be tight when unemployment is less than the target; be easy when unemployment is higher than the target; and in this way peg unemployment at, say, 3 percent? The reason it cannot is precisely the same as for interest rates—the difference between the immediate and the delayed consequences of such a policy.

Thanks to Wicksell, we are all acquainted with the concept of a "natural" rate of interest and the possibility of a discrepancy between the "natural" and the "market" rate. The preceding analysis of interest rates can be translated fairly directly into Wicksellian terms. The monetary authority can make the market rate less than the natural rate only by inflation. It can make the market rate higher than the natural rate only by deflation. We have added only one wrinkle to Wicksell—the Irving Fisher distinction between the nominal and the real rate of interest. Let the monetary authority keep the nominal market rate for a time below the natural rate by inflation. That in turn will raise the nominal natural rate itself, once anticipations of inflation become widespread, thus requiring still more rapid inflation to hold down the market rate. Similarly, because of the Fisher effect, it will require not merely deflation but more and more rapid deflation to hold the market rate above the initial "natural" rate.

This analysis has its close counterpart in the employment market. At any moment of time, there is some level of unemployment which has the property that it is consistent with equilibrium in the structure of *real* wage rates. At that level of unemployment, real wage rates are tending on the average to rise at a "normal" secular rate, i.e., at a rate that can be indefinitely maintained so long as capital formation, technological improvements, etc., remain on their longrun trends. A lower level of unemployment is an indication that there is an excess demand for labor that will produce upward pressure on real wage rates. A higher level of unemployment is an indication that there is an excess supply of labor that will produce downward pressure on real wage rates. The "natural rate of unemployment," in other words, is the level that would be ground out by the Walrasian system of general equilibrium equations, provided there is imbedded in them the actual structural characteristics of the labor and commodity markets, including market imperfections, stochastic variability in demands and sup-

[2] This is partly an empirical not theoretical judgment. In principle, "tightness" or "ease" depends on the rate of change of the quantity of money supplied compared to the rate of change of the quantity demanded excluding effects on demand from monetary policy itself. However, empirically demand is highly stable, if we exclude the effect of monetary policy, so it is generally sufficient to look at supply alone.

plies, the cost of gathering information about job vacancies and labor availabilities, the costs of mobility, and so on.[3]

You will recognize the close similarity between this statement and the celebrated Phillips Curve. The similarity is not coincidental. Phillips' analysis of the relation between unemployment and wage change is deservedly celebrated as an important and original contribution. But, unfortunately, it contains a basic defect—the failure to distinguish between *nominal* wages and *real* wages—just as Wicksell's analysis failed to distinguish between *nominal* interest rates and *real* interest rates. Implicitly, Phillips wrote his article for a world in which everyone anticipated that nominal prices would be stable and in which that anticipation remained unshaken and immutable whatever happened to actual prices and wages. Suppose, by contrast, that everyone anticipates that prices will rise at a rate of more than 75 percent a year—as, for example, Brazilians did a few years ago. Then wages must rise at that rate simply to keep real wages unchanged. An excess supply of labor will be reflected in a less rapid rise in nominal wages than in anticipated prices,[4] not in an absolute decline in wages. When Brazil embarked on a policy to bring down the rate of price rise, and succeeded in bringing the prise rise down to about 45 percent a year, there was a sharp initial rise in unemployment because under the influence of earlier anticipations, wages kept rising at a pace that was higher than the new rate of price rise, though lower than earlier. This is the result experienced, and to be expected, of all attempts to reduce the rate of inflation below that widely anticipated.[5]

To avoid misunderstanding, let me emphasize that by using the term "natural" rate of unemployment, I do not mean to suggest that it is immutable and unchangeable. On the contrary, many of the market characteristics that determine its level are man-made and policy-made. In the United States, for example, legal minimum wage rates, the Walsh-Healy and Davis-Bacin Acts, and the strength of labor unions all make the natural rate of unemployment higher than it would otherwise be. Improvements in employment exchanges, in availability of information about job vacancies and labor supply, and so on, would tend to lower the natural rate of unemployment. I use the term "natural" for the same reason Wicksell did—to try to separate the real forces from monetary forces.

Let us assume that the monetary authority tries to peg the "market" rate of unemployment at a level below the "natural" rate. For definiteness, suppose that it takes 3 percent as the target rate and that the "natural" rate is higher than 3 percent. Suppose also that we start out at a time when prices have been stable and when unemployment is higher than 3 percent. Accordingly, the authority increases the rate of monetary growth. This will be expansionary. By making nominal cash balances higher than people desire, it will tend initially to lower interest rates and in this and other ways to stimulate spending. Income and spending will start to rise.

To begin with, much or most of the rise in income will take the form of an increase in output and employment rather than in prices. People have been expecting prices to be stable, and prices and wages have been set for some time in the future on that basis. It takes time for people to adjust to a new state of demand. Producers will tend to react to the initial expansion in aggregate demand by increasing output, employees by working longer hours, and the unemployed, by taking jobs now offered at former nominal wages. This much is pretty standard doctrine.

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[3] It is perhaps worth noting that this "natural" rate need not correspond to equality between the number unemployed and the number of job vacancies. For any given structure of the labor market, there will be some equilibrium relation between these two magnitudes, but there is no reason why it should be one of equality.

[4] Strictly speaking, the rise in nominal wages will be less rapid than the rise in anticipated nominal wages to make allowance for any secular changes in real wages.

[5] Stated in terms of the rate of change of nominal wages, the Phillips Curve can be expected to be reasonably stable and well defined for any period for which the *average* rate of change of prices, and hence the anticipated rate, has been relatively stable. For such periods, nominal wages and "real" wages move together. Curves computed for different periods or different countries for each of which this condition has been satisfied will differ in level, the level of the curve depending on what the average rate of price change was. The higher the average rate of price change, the higher will tend to be the level of the curve. For periods or countries for which the rate of change of price varies considerably, the Phillips Curve will not be well defined. My impression is that these statements accord reasonably well with the experience of the economists who have explored empirical Phillips Curve.

Restate Phillips' analysis in terms of the rate of change of real wages—and even more precisely, anticipated real wages—and it all falls into place. That is why students of empirical Phillips Curves have found that it helps to include the rate of change of the price level as an independent variable.

But it describes only the initial effects. Because selling prices of products typically respond to an unanticipated rise in nominal demand faster than prices of factors of production, real wages received have gone down—though real wages anticipated by employees went up, since employees implicitly evaluated the wages offered at the earlier price level. Indeed, the simultaneous fall ex post in real wages to employers and rise ex ante in real wages to employees is what enabled employment to increase. But the decline ex post in real wages will soon come to affect anticipations. Employees will start to reckon on rising prices of the things they buy and to demand higher nominal wages for the future. "Market" unemployment is below the "natural" level. There is an excess demand for labor so real wages will tend to rise toward their initial level.

Even though the higher rate of monetary growth continues, the rise in real wages will reverse the decline in unemployment, and then lead to a rise, which will tend to return unemployment to its former level. In order to keep unemployment at its target level of 3 percent, the monetary authority would have to raise monetary growth still more. As in the interest rate case, the "market" rate can be kept below the "natural" rate only by inflation. And, as in the interest rate case, too, only by accelerating inflation. Conversely, let the monetary authority choose a target rate of unemployment that is above the natural rate, and they will be led to produce a deflation, and an accelerating deflation at that.

What if the monetry authority chose the "natural" rate—either of interest or unemployment—as its target? One problem is that it cannot know what the "natural" rate is. Unfortunately, we have as yet devised no method to estimate accurately and readily the natural rate of either interest or unemployment. And the "natural" rate will itself change from time to time. But the basic problem is that even if the monetary authority knew the "natural" rate, and attempted to peg the market rate at that level, it would not be led to a determinate policy. The "market" rate will vary from the natural rate for all sorts of reasons other than monetary policy. If the monetary authority responds to these variations, it will set in train longer term effects that will make any monetary growth path it follows ultimately consistent with the rule of policy. The actual course of monetary growth will be analogous to a random walk, buffeted this way and that by the forces that produce temporary departures of the market rate from the natural rate.

To state this conclusion differently, there is always a temporary trade-off between inflation and unemployment; there is no permanent trade-off. The temporary trade-off comes not from inflation per se, but from unaniticipated inflation, which generally means, from a rising rate of inflation. The widespread belief that there is a permanent trade-off is a sophisticated version of the confusion between "high" and "rising" that we all recognize in simpler forms. A rising rate of inflation may reduce unemployment, a high rate will not.

But how long, you will say, is "temporary"? For interest rates, we have some systematic evidence on how long each of the several effects takes to work itself out. For unemployment, we do not. I can at most venture a personal judgment, based on some examination of the historical evidence, that the initial effects of a higher and unanticipated rate of inflation last for something like 2 to 5 years; that this initial effect then begins to be reversed; and that a full adjustment to the new rate of inflation takes about as long for employment as for interest rates, say, a couple of decades. For both interest rates and employment, let me add a qualification. These estimates are for changes in the rate of inflation of the order of magnitude that has been experienced in the United States. For much more sizable changes, such as those experienced in South American countries, the whole adjustment process is greatly speeded up.

To state the general conclusion still differently, the monetary authority controls nominal quantities—directly, the quantity of its own liabilities. In principle, it can use this control to peg a nominal quantity—an exchange rate, the price level, the nominal level of national income, the quantity of money by one or another definition—or to peg the rate of change in a nominal quantity—the rate of inflation or deflation, the rate of growth or decline in nominal national income, the rate of growth of the quantity of money. It cannot use its control over nominal quantities to peg a real quantity—the real rate of interest, the rate of unemployment, the level of real national income, the real quantity of money, the rate of growth of real national income, or the rate of growth of the real quantity of money.

II. WHAT MONETARY POLICY CAN DO

Monetary policy cannot peg these real magnitudes at predetermined levels. But monetary policy can and does have important effects on these real magnitudes. The one is in no way inconsistent with the other.

My own studies of monetary history have made me extremely sympathetic to the oft-quoted, much-reviled, and as widely misunderstood, comment by John Stuart Mill. "There cannot * * *" he wrote, "be intrinsically a more insignificant thing, in the economy of society, than money; except in the character of a contrivance for sparing time and labor. It is a machine for doing quickly and commodiously, what would be done, though less quickly and commodiously, without it: and like many other kinds of machinery, it only exerts a distinct and independent influence of its own when it gets out of order" (7, p. 488).

True, money is only a machine, but it is an extraordinarily efficient machine. Without it, we could not have begun to attain the astounding growth in output and level of living we have experienced in the past two centuries—any more than we could have done so without those other marvelous machines that dot our countryside and enable us, for the most part, simply to do more efficiently what could be done without them at much greater cost in labor.

But money has one feature that these other machines do not share. Because it is so pervasive, when it gets out of order, it throws a monkey wrench into the operation of all the other machines. The great contraction is the most dramatic example but not the only one. Every other major contraction in this country has been either produced by monetary disorder or greatly exacerbated by monetary disorder. Every major inflation has been produced by monetary expansion—mostly to meet the overriding demands of war which have forced the creation of money to supplement explicit taxation.

The first and most important lesson that history teaches about what monetary policy can do—and it is a lesson of the most profound importance—is that monetary policy can prevent money itself from being a major source of economic disturbance. This sounds like a negative proposition: avoid major mistakes. In part it is. The great contraction might not have occurred at all, and if it had, it would have been far less severe, if the monetary authority had avoided mistakes, or if the monetary arrangements had been those of an earlier time when there was no central authority with the power to make the kinds of mistakes that the Federal Reserve System made. The past few years, to come closer to home, would have been steadier and more productive of economic well-being if the Federal Reserve had avoided drastic and erratic changes of direction, first expanding the money supply at an unduly rapid pace, then, in early 1966, stepping on the brake too hard, then, at the end of 1966, reversing itself and resuming expansion until at least November 1967 at a more rapid pace than can long be maintained without appreciable inflation.

Even if the proposition that monetary policy can prevent money itself from being a major source of economic disturbance were a wholly negative proposition, it would be none the less important for that. As it happens, however, it is not a wholly negative proposition. The monetary machine has gotten out of order even when there has been no central authority with anything like the power now possessed by the Fed. In the United States, the 1907 episode and earlier banking panics are examples of how the monetary machine can get out of order largely on its own. There is therefore a positive and important task for the monetary authority—to suggest improvements in the machine that will reduce the chances that it will get out of order, and to use its own powers so as to keep the machine in good working order.

A second thing monetary policy can do is provide a stable background for the economy—keep the machine well oiled, to continue Mill's analogy. Accomplishing the first task will contribute to this objective, but there is more to it than that. Our economic system will work best when producers and consumers, employers and employees, can proceed with full confidence that the average level of prices will behave in a known way in the future—preferably that it will be highly stable. Under any conceivable institutional arrangements, and certainly under those that now prevail in the United States, there is only a limited amount of flexibility in prices and wages. We need to conserve this flexibility to achieve changes in relative prices and wages that are required to adjust to dynamic changes in tastes and technology. We should not dissipate it simply to achieve changes in the absolute level of prices that serve no economic function.

In an earlier era, the gold standard was relied on to provide confidence in future monetary stability. In its heyday it served that function reasonably well. It clearly

no longer does, since there is scarce a country in the world that is prepared to let the gold standard reign unchecked—and there are persuasive reasons why countries should not do so. The monetary authority could operate as a surrogate for the gold standard, if it pegged exchange rates and did so exclusively by altering the quantity of money in response to balance-of-payment flows without "sterilizing" surpluses or deficits and without resorting to open or concealed exchange control or to changes in tariffs and quotas. But again, though many central bankers talk this way, few are in fact willing to follow this course—and again there are persuasive reasons why they should not do so. Such a policy would submit each country to the vagaries not of an impersonal and automatic gold standard but of the policies—deliberate or accidental—of other monetary authorities.

In today's world, if monetary policy is to provide a stable background for the economy it must do so by deliberately employing its powers to that end, I shall come later to how it can do so.

Finally, monetary policy can contribute to offsetting major disturbances in the economic system arising from other sources. If there is an independent secular exhilaration—as the postwar expansion was described by the proponents of secular stagnation—monetary policy can in principle help to hold it in check by a slower rate of monetary growth than would otherwise be desirable. If, as now, an explosive Federal budget threatens unprecedented deficits, monetary policy can hold any inflationary dangers in check by a slower rate of monetary growth than would otherwise be desirable. This will temporarily mean higher interest rates than would otherwise prevail—to enable the Government to borrow the sums needed to finance the deficit—but by preventing the speeding up of inflation, it may well mean both lower prices and lower nominal interest rates for the long pull. If the end of a substantial war offers the country an opportunity to shift resources from wartime to peacetime production, monetary policy can ease the transition by a higher rate of monetary growth than would otherwise be desirable—though experience is not very encouraging that it can do so without going too far.

I have put this point last, and stated it in qualified terms—as referring to major disturbances—because I believe that the potentially of monetary policy in offsetting other forces making for instability is far more limited than is commonly believed. We simply do not know enough to be able to recognize minor disturbances when they occur or to be able to predict either what their effects will be with any precision or what monetary policy is required to offset their effects. We do not know enough to be able to achieve stated objectives by delicate, or even fairly coarse, changes in the mix of monetary and fiscal policy. In this area particularly the best is likely to be the enemy of the good. Experience suggests that the path of wisdom is to use monetary policy explicitly to offset other disturbances only when they offer a "clear and present danger."

III. HOW SHOULD MONETARY POLICY BE CONDUCTED?

How should monetary policy be conducted to make the contribution to our goals that it is capable of making? This is clearly not the occasion for presenting a detailed "Program for Monetary Stability"—to use the title of a book in which I tried to do so (3). I shall restrict myself here to two major requirements for monetary policy that follow fairly directly from the preceding discussion.

The first requirement is that the monetary authority should guide itself by magnitudes that it can control, not by ones that it cannot control. If, as the authority has often done, it takes interest rates or the current unemployment percentage as the immediate criterion of policy, it will be like a space vehicle that has taken a fix on the wrong star. No matter how sensitive and sophisticated its guiding apparatus, the space vehicle will go astray. And so will the monetary authority. Of the various alternative magnitudes that it can control, the most appealing guides for policy are exchange rates, the price level as defined by some index, and the quantity of a monetary total—currency plus adjusted demand deposits, or this total plus commercial bank time deposits, or a still broader total.

For the United States in particular, exchange rates are an undesirable guide. It might be worth requiring the bulk of the economy to adjust to the tiny percentage consisting of foreign trade if that would guarantee freedom from monetary irresponsibility—as it might under a real gold standard. But it is hardly worth doing so simply to adapt to the average of whatever policies monetary authorities in the rest of the world adopt. Far better to let the market, through floating exchange rates, adjust to world conditions the 5 percent or so of our resources

devoted to international trade while reserving monetary policy to promote the effective use of the 95 percent.

Of the three guides listed, the price level is clearly the most important in its own right. Other things the same, it would be much the best of the alternatives—as so many distinguished economists have urged in the past. But other things are not the same. The link between the policy actions of the monetary authority and the price level, while unquestionably present, is more indirect than the link between the policy actions of the authority and any of the several monetary totals. Moreover, monetary action takes a longer time to affect the price level than to affect the monetary totals and both the time lag and the magnitude of effect vary with circumstances. As a result, we cannot predict at all accurately just what effect a particular monetary action will have on the price level and, equally important, just when it will have that effect. Attempting to control directly the price level is therefore likely to make monetary policy itself a source of economic disturbance because of false stops and starts. Perhaps, as our understanding of monetary phenomena advances, the situation will change. But at the present stage of our understanding, the long way around seems the surer way to our objective. Accordingly, I believe that a monetary total is the best currently available immediate guide or criterion for monetary policy—and I believe that it matters much less which particular total is chosen than that one be chosen.

A second requirement for monetary policy is that the monetary authority avoid sharp swings in policy. In the past, monetary authorities have on occasion moved in the wrong direction—as in the episode of the great contraction that I have stressed. More frequently, they have moved in the right direction, albeit often too late, but have erred by moving too far. Too late and too much has been the general practice. For example, in early 1966, it was the right policy for the Federal Reserve to move in a less expansionary direction—though it should have done so at least a year earlier. But when it moved, it went too far, producing the sharpest change in the rate of monetary growth of the post-war era. Again, having gone too far, it was the right policy for the Fed to reverse course at the end of 1966. But again it went too far, not only restoring but exceeding the earlier excessive rate of monetary growth. And this episode is no exception. Time and again this has been the course followed—as in 1919 and 1920, in 1937 and 1938, in 1953 and 1954, in 1959 and 1960.

The reason for the propensity to overreact seems clear: the failure of monetary authorities to allow for the delay between their actions and the subsequent effects on the economy. They tend to determine their actions by today's conditions—but their actions will affect the economy only 6 or 9 or 12 or 15 months later. Hence they feel impelled to step on the brake, or the accelerator, as the case may be, too hard.

My own prescription is still that the monetary authority go all the way in avoiding such swings by adopting publicly the policy of achieving a steady rate of growth in a specified monetary total. The precise rate of growth, like the precise monetary total, is less important than the adoption of some stated and known rate. I myself have argued for a rate that would on the average achieve rough stability in the level of prices of final products, which I have estimated would call for something like a 3 to 5 percent per year rate of growth in currency plus all commercial bank deposits or a slightly lower rate of growth in currency plus demand deposits only.[6] But it would be better to have a fixed rate that would on the average produce moderate inflation or moderate deflation, provided it was steady, than to suffer the wide and erratic perturbations we have experienced.

Short of the adoption of such a publicly stated policy of a steady rate of monetary growth, it would constitute a major improvement if the monetary authority followed the self-denying ordinance of avoiding wide swings. It is a matter of record that periods of relative stability in the rate of monetary growth have also been periods of relative stability in economic activity, both in the United States and other countries. Periods of wide swings in the rate of monetary growth have also been periods of wide swings in economic activity.

By setting itself a steady course and keeping to it, the monetary authority could make a major contribution to promoting economic stability. By making that course one of steady but moderate growth in the quantity of money, it would make a major contribution to avoidance of either inflation or deflation of prices.

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[6] In an as yet unpublished article on "The Optimum Quantity of Money," I conclude that a still lower rate of growth, something like 2 percent for the broader definition, might be better yet in order to eliminate or reduce the difference between private and total costs of adding to real balances.

Other forces would still affect the economy, require change and adjustment, and disturb the even tenor of our ways. But steady monetary growth would provide a monetary climate favorable to the effective operation of those basic forces of enterprise, ingenuity, invention, hard work, and thrift that are the true springs of economic growth. That is the most that we can ask from monetary policy at our present stage of knowledge. But that much—and it is a great deal—is clearly within our reach.

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Milton Friedman on Current Monetary Policy

I have been watching with increasing apprehension, concern and incredulity the behavior of the quantity of money over the past 8 months. The Federal Reserve System clearly does not intend to produce a serious recession in 1967. Yet continuation of their present policy will make such an outcome all but inevitable.

The accompanying chart shows the reason for concern. It plots two monetary magnitudes: M_1, the total usually designated "the money supply" by the Fed; and M_2, a broader total that includes also time deposits at commercial banks. The striking feature of the chart is the sharp reversal in both totals in April 1966. Before then, both totals were growing rapidly. Since April, M_1 has actually declined—something it has rarely done except before and during severe recessions—and M_2 has grown at a sharply reduced rate. Since September, both totals have been declining.

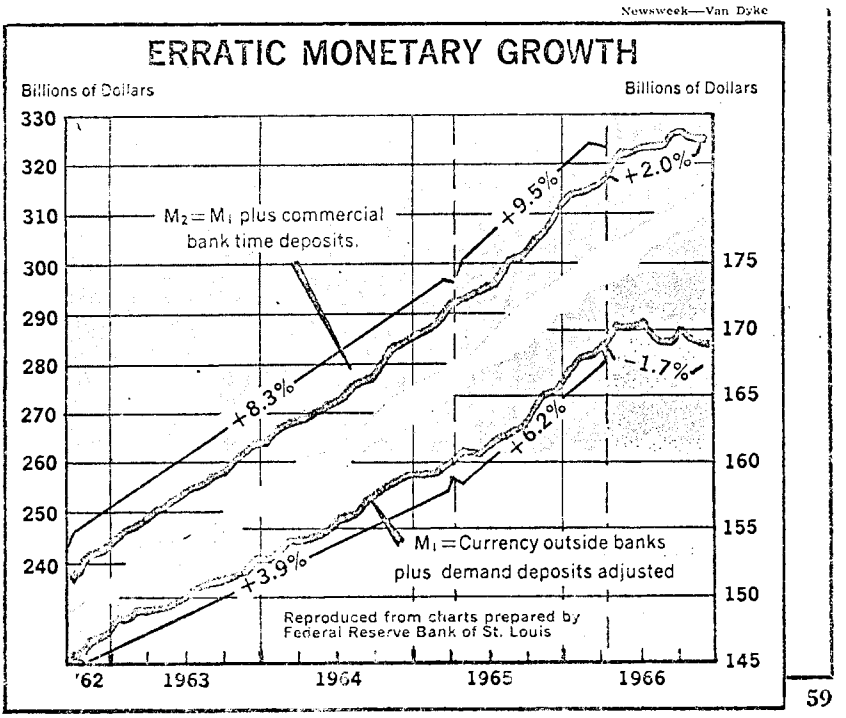
This is the sharpest turnaround since the end of the war. Slower monetary growth was badly needed in order to stem inflation—but a good thing was carried too far.

Do changes in the quantity of money matter? There is massive historical evidence that they do. Every economic recession but one in the United States in the past century has been preceded by a decline in the rate of growth of the quantity of money. And the sharper the decline, the more serious the subsequent recession—though this tendency is far from uniform.

Changes in monetary growth affect the economy only slowly—it may be 6 or 12 or 18 months or even more before their effects are manifest. That is a major reason why the connection is easily overlooked.

Recent experience conforms to the historical record. Acceleration of monetary growth in 1962 was followed by economic expansion. The monetary growth rate was too high—but it took until 1965 for its cumulative effects to produce rising prices. The price rise started the Fed talking about the need for tighter money, but it acted in the opposite direction; monetary growth accelerated still more, intensifying inflationary pressure and producing the rapid price rises of recent months. The sharp braking of monetary growth in April of 1966, has in turn only recently been showing up in spreading signs of pending recession.

Why has the Fed permitted the quantity of money to behave so erratically? Primarily, I believe, because it has used misleading criteria of policy—it is inconceivable that the quantity of money as measured by M_1 could decline for 8 months if the Fed had been determined to have it grow. It is as if a space vehicle took a fix on the wrong star. No matter how sensitive and sophisticated its guiding apparatus, it would go astray. Similarly, the men who guide the Fed have been going astray because they have been looking at interest rates and other measures of credit conditions rather than the quantity of money.



Interest rates began rising in 1965 because of the sharp rise in the demand for credit that accompanied the onset of inflation. The Fed slowed the rise by accelerating monetary growth—but the rates continued rising, and the Fed interpreted this as a sign that it had tightened, whereas in fact it had eased.

Similarly, interest rates are currently showing some weakness—because the demand for credit has been declining in response to monetary restriction since April 1966. Yet the Fed interprets the weakness as a sign that it has eased—whereas only the Fed's continued tightness prevents interest rates from falling more rapidly.

The Fed's erratic policy reflects also its failure to allow for the delay between its actions and their effects on the economy. Said Governor Robertson of the Board in a recent speech: "Monetary policy will be formulated by the Federal Reserve, day by day, in the light of economic conditions *as they emerge*." This is a formula guaranteed to produce bad policy. If it is followed, the Fed will continue to step too hard on the brake until the recessionary effects are clear and unmistakable, and then will step too hard on the accelerator. Like a good duck hunter, the Fed should lead its target, not shoot where it now is.

What policy should the Fed now adopt? It is almost surely too late to prevent a recession—that damage has already been done. It is not too late to prevent the recession from turning into a severe downturn. To that end, the Fed should at once act to increase the quantity of money at a rate of about 5 percent per year for M_2. If the Fed adopted and persisted in such a policy, it could moderate the coming recession without paving the way for a new burst of inflation.

[From Newsweek, June 3, 1968]

MONETARY POLICY

(By Milton Friedman)

In two earlier columns on monetary policy, I was highly critical of the Federal Reserve System for acting too late and then, when it did act, for overreacting. This time, I come to praise, not to criticize. Since November 1967, the Fed has moved not only in the right direction but also by about the right amount.

The recent record is summarized in the accompanying table, which gives the annual rate of growth for two monetary totals, for industrial production, which is a sensitive index of changes in economic activity, and for consumer prices. Because it takes time for monetary changes to exert their influence, the rates of growth of production and prices are given for periods that begin 6 months later than the corresponding periods for money.

Period for money	Rate of change (percent per year)				Period for production and prices
	Money [1]		Industrial production	Consumer prices	
	M_1	M_2			
April 1965 to April 1966	6.0	9.6	9.9	3.7	October 1965 to October 1966.
April 1966 to January 1967	−.2	3.7	−2.3	2.3	October 1966 to July 1967.
January 1967 to November 1967	7.7	11.9	5.2	4.0	July 1967 to April 1968.
November 1967 to April 1968	4.7	5.3			

[1] M_1 = currency plus adjusted demand deposits. M_2=M_1 plus time deposits in commercial banks.

As an aid in interpreting these numbers, let me note that a long-term rate of growth in M_2 of about 5 percent per year would be consistent with roughly stable prices. The 5 percent would match the growth in output and leave a little over to satisfy the desire of people to hold somewhat more money relative to their income as they become richer.

From April 1965 to April 1966 the Fed permitted the money supply to grow rapidly despite signs that inflation was accelerating. At long last, in April 1966, it stepped on the brake—abruptly and, as the table shows, too hard. The result was the so-called money crunch in the fall of 1966, the slowdown in the economy recorded in the decline in industrial production, and a cut in price inflation from a rate of 3.7 percent per year to a rate of 2.3 percent per year.

The sharper response of production than of prices is typical. An inflationary process, once underway, develops an inertia of its own. It takes an economic slowdown to stop the acceleration of prices and, even then, it takes a long time to restore price stability. That is why it is so important to prevent inflation from gaining momentum.

Concerned by the signs of emerging slack in the economy, the Fed reversed policy in January 1967. This time, to its credit, it acted more promptly than usual. But, as usual, it reacted too sharply, not only restoring, but exceeding the earlier excessive rate of monetary growth.

As a result, I wrote last October, "it is almost surely too late to prevent an appreciable price rise—that damage has already been done. It is not too late to prevent the price rise from turning into a severe inflation. To that end, the Fed should at once act to limit the increase in the quantity of money to a rate of about 5 percent per year for M_2. If the Fed adopted and persisted in such a policy, it could moderate the coming inflation without paving the way for a new recession."

It *was* too late to prevent an appreciable price rise. Prices have recently been rising at 4 percent per year. But in November 1967 the Fed did reverse its policy and M_2 has been growing since at only slightly more than 5 percent per year.

There has not yet been time for this moderate policy to have much effect—as is reflected in the absence of any entries for production and prices in our table matching the final period for money. But if the Fed persists in its present policy, the exuberant expansion in the economy will taper off later this year and so will the rate of price rise—whether or not there is a tax increase. There may also be some rise in unemployment before the price inflation is brought under control, though any rise is likely to be small.

But will the Fed persist? Will it keep its cool? Or will continuing inflation lead it, as in April 1966 to step still harder on the brake in the hope of getting quicker results? Alternatively, will the first signs of reduced expansion and increased unemployment lead it, as in January 1967, to start the printing presses whirring again and set off a new burst of inflation?

The Fed's steadiness in the past 6 months—despite the gold crisis, high, and rising interest rates and the controversy over Government expenditures and taxes—is a hopeful augury.

STATEMENT OF GARY FROMM, THE BROOKINGS INSTITUTION

Thank you for the opportunity for submitting a statement in regard to H.R. 11.

While I find much in the act that I would approve, I also see certain dangers. In particular, allowing the President directly to control monetary policy makes that stabilization and growth instrument subject to the viscissitudes of shortrun fluctuations in political opinions. Moreover, mistakes in forecasting would tend to be magnified if all countercyclical policies were closely coordinated.

At this juncture, I would recommend that the Federal Reserve be given clearer congressional guidelines as to its economic objectives and be required more fully to disclose its anticipated stabilization program and report on the results. Formalization of the coordinating relationships vis-a-vis the Council of Economic Advisers, the Bureau of the Budget, and the Treasury Department might be helpful, too.

As to administrative reforms, certainly some are in order. However, at present, greatly weakening the Board's autonomy might be deferred until the response to improved guidelines, reporting, and coordination can be assessed.

Should you desire, I would be happy to comment on these matters at greater length.

STATEMENT OF TILFORD C. GAINES, MANUFACTURERS HANOVER TRUST CO.

H.R. 11—I. QUESTIONS ON MONETARY POLICY GUIDELINES AND OPEN-MARKET OPERATIONS

1. Do you believe that a program coordinating fiscal, debt management, and monetary policies should be set forth at the beginning of each year for the purpose of achieving the goals of the Employment Act, or alternatively should we treat monetary and fiscal policies as independent mutually exclusive stabilization policies?

It would be helpful to have a program set forth at the beginning of each year aimed at broad coordination of public economic policies. Such a program would have to be flexible to permit adaption to changing circumstances and, in most cases, would deal only with objectives rather than with techniques for achieving those objectives.

2. If you believe a program should be specified, do you believe that the President should be responsible for drawing up this program, or alternatively should such responsibility be dispersed between the Federal Reserve System and agencies responsible to the President? (Please note that informal consulting arrangements can be made as desired whether responsibility is assigned to the President or divided between the President and the Federal Reserve. The concern here is with the assignment of formal responsibility for drawing up the economic program).

The responsibility for drawing up the program should be dispersed between the Federal Reserve System and the agencies responsible to the President, with the end product a single document signed both by the Federal Reserve and the Council of Economic Advisers (as agent for the President). Differences between the agencies on the economic

outlook and on broad policy objectives would seldom arise, and if they should arise there would be advantages in having them discussed in open debate rather than suppressed. Only two cases come to mind of such differences in recent years: in 1950–51, when the Federal Reserve abandoned support of a pegged interest rate structure and in late 1965 when the Federal Reserve raised the discount rate contrary to the wish of the administration. In both cases, subsequent events vindicated the Federal Reserve. This does not argue that the Federal Reserve possesses infallible wisdom, but it does suggest the danger of imputing such wisdom to the executive branch. There is the further point that the tradition of central bank independence grew out of a long history of currency debasement by monarchs and elected officials. Perhaps this is no longer an important consideration, but it does suggest that the central bank might best be permitted its present independence unless there are clear benefits to be derived from restricting that independence. There has been close cooperation between the agencies of the executive branch and the Federal Reserve in developing economic policies. The only benefit that might be realized by changing the present arrangements would be the concentration of policy power in the executive branch. This would seem to be a dubious benefit.

3. Concerning monetary policy guidelines:

A. Should monetary policy be used to try to achieve the goals of the Employment Act via intervention of money supply (defined as desired) as provided in H.R. 11, or alternatively should H.R. 11 be amended to make some other variable or variables the immediate target of monetary policy; for example, interest rates, bank credit, liquidity, high powered or base-money, total bank reserves, excess reserves and free reserves? Please define the target variable or combination of variables recommended and state the reasons for your choice. (If desired, recommend a target variable or variables not listed here). It would be most helpful if, in providing the reasons for your choice, you list the actions the Federal Reserve should take to control the target variable (or variables) and also explain the link between your recommended target of monetary policy and the goals of the economy as defined by the Employment Act.

The immediate target variable of Federal Reserve operations in trying to achieve the goals of the Employment Act should meet two requirements: First, it should be related causally to economic activity; second, it should be a variable that the Federal Reserve System is able to regulate within rather broad limits. Based on my observation of the American financial system, money supply—however defined—does not meet either of these requirements. The rate of change in money supply is primarily a result rather than a cause of the rate of change in current dollar economic activity and, in any case, there is reason to doubt that the Federal Reserve is able to regulate rate of change in money supply. The second quarter of this year provides an illustration of the impotence of the Federal Reserve in regulating money supply growth. Demand deposts in the second quarter grew at an 8.5-percent annual rate, in spite of severely restrictive Federal Reserve policy. For the Federal Reserve to have attempted to reduce that rate of growth to fall within any reasonable target range would have required policy actions that would have been devastating to the orderly functioning of the national and international money market. The popular monetary theories are rooted in experience in compara-

tively primitive 19th century economies, experience that is not wholly applicable to our highly complex financial system. The simple fact is that our financial mechanism offers a vast array of competitive financial assets among which the holder of financial claims may select, and there is no realistic way that the Federal Reserve may prevent the conversion process among these claims. None of this is to say that money supply would not grow at a fairly orderly rate if the economy itself were growing at an orderly rate, but the cause-effect relationship runs from orderly economic growth to orderly monetary growth rather than the reverse.

A preferable target variable would be the total and composition of credit flows within the flow of funds accounting system. The broad economic projection prepared by the Council of Economic Advisers each year is translatable into rough approximations of the credit required, by sectors if the growth targets in the Council's projections are to be achieved. Through its operations in the Government securities market, and perhaps in Government agency securities, the Federal Reserve System is in a position to have a marginal influence upon the overall availability of credit and the availability of credit at different maturity sectors.

B. Should the guidelines of monetary policy be specified in terms of some index of past, present, or future economic activity, or alternatively in terms of the target variable's value or growth? For example, should the President's 1969 program for achieving the goals of the Employment Act be formulated to require consistency with some set of overall indicators of economic activity, or alternatively so that your target variable attains a certain value or growth regardless of the economic winds? Please indicate the reasons for your preference.

Policy guidelines should be derived consistent with the growth target established in the report of the Council of Economic Advisers. The relationship between the financial variables which the Federal Reserve might use as an immediate target, including the proposed flow of funds target, is not invariable with respect to real economic growth. Therefore, to establish guidelines in terms of some fixed rate of growth in the immediate target variable would not guarantee optimum results for the ultimate variable, real economic growth.

C. For only those persons who recommend that some index of economic activity be used to guide the monetary authorities in controlling the target variable: Should we use a leading (forward looking), lagging (backward looking) or coincident indicator of economic activity? It would be most helpful also if you would identify the index you would like to see used and specify how the target variable should be related to this index.

There is no single index of economic activity that is wholly adequate for guiding the monetary authorities in controlling the target variable. All business condition analysis is an effort to predict the future from a wide array of data measuring the immediate past and present. Mechanically, perhaps the most useful approach would be continuous measurement and prediction of the economy through the medium of a comprehensive predictive model, such as the MIT-Federal Reserve financial flows model. The month-by-month output of such a model would measure the extent to which the economy was achieving and was expected to achieve the targets for economic growth established by the Council of Economic Advisers in collaboration with the Federal Re-

serve System. The model would simultaneously test the extent to which the financial flow targets were being achieved and the extent to which failure to achieve the immediate financial flow targets might be impeding achievement of the economic growth target.

4. Concerning debt management policy: Given the goals of the Employment Act, what can debt management do to help their implementation? (If you believe that debt management has no role to play in this matter, please explain why.)

The principal contribution of debt management should be to avoid financing operations or practices that would needlessly interfere with the orderly flow of funds to other users of credit. At times of huge Treasury deficits, as in the past 2 years, there is little that debt management can do to avoid being a disruptive influence, since it is inescapable that some part of the money raised by the Treasury will be preempted from other uses, with resulting distortions in sectorial economic and financial balance. During what one may hope will be more typical periods of only moderate deficit or surplus, the principal area of interest in Treasury financing is the refunding of existing debt rather than the financing of new debt. At such times, three considerations might guide the Treasury. First, every effort should be made to maintain an orderly maturity distribution of the debt in order to avoid a piling up of short debt that would require more frequent and larger Treasury financing operations.

This guideline does not imply that the Treasury must attempt to sell large amounts of long-term bonds; it does imply that the Treasury design its financing so as regularly to place new securities in the intermediate maturity range. Second, the Treasury should avoid massive shifts in the debt between maturity areas. For example, the refunding of several billions of dollars of maturing debt into the long-term area might be feasible at a time of easy bond market conditions, but the resulting preemptng of long-term funds and freeing of short-term funds would have selective effects upon the availability of credit to different types of borrowers. In particular, such financing could have serious backlash effects upon the mortgage market. Third, Treasury financing should be devised with an eye to the international money market and the U.S. balance of payments. The effect of Treasury financing decisions upon the term structure of interest rates might, at certain times, sharply influence the movement of short-term funds into or out of the United States. This should not be a determining consideration, but it should have an influence upon Treasury planning.

5. Concerning open market operations: H.R. 11 requires that the FOMC conduct open market transactions "in accordance with the programs and policies of the President pursuant to the Employment Act of 1946." And in this connection, H.R. 11 provides that "The Federal Reserve Board shall submit a quarterly report to the Congress stating, in comprehensive detail, its past and prospective actions and policies under this section and otherwise with respect to monetary affairs, and indicating specifically how such actions and policies facilitate the economic program of the President."

A. H.R. 11 makes no provision whatever for conducting open market operations for so-called "defensive" or "road-clearing" purposes, that is to counteract seasonal and other transient factors affecting money market and credit conditions. Do you see any merit in using open market operations for defensive purposes or should they be used

only to facilitate achievement of the President's economic program and the goals of the Employment Act? What risks and costs, if any, must be faced and paid if open market transactions are used to counteract transient influences?

There is no realistic way that the Federal Reserve can avoid some amount of "defensive" open market operations. At different seasons of the year, over specific holidays, etc., there are very large changes in available reserves. For example: deposits increase seasonally each fall and winter, causing required reserves to increase; deposits are pulled down sharply over the Labor Day weekend and the Fourth of July as consumers withdraw currency for long weekends or vacations. It is difficult to see what point would be served by permitting these predictable influences upon bank reserves alternatively to ease or tighten the money market. To the extent that the Federal Reserve goes to a longer reserve averaging period, liberalizes use of the discount window, or permits reserve excesses as well as shortages to be carried into the next averaging period, the need for day-to-day defensive open market operations will, of course, be reduced.

The various amendments to Federal Reserve regulations currently being proposed will move in this direction, but some intervention to deal with seasonal variations in reserve needs will still be required. It would seem that the heart of this question is not whether all defensive operations should be avoided, reducing open market operations to a mechanical provision of a predetermined amount of new reserves each week, but whether all of the daily in-and-out operations now undertaken to steady the "tone of the market" are necessary. Expressed in this way, and in consideration of the changes in the regulations now pending, it does seem the money market could be given greater latitude for making its own day-to-day adjustments without the continuous mothering of the open market desk.

B. Do you believe that monetary policy can be effectively and efficiently implemented by open market operations?

C. For what purpose, if any, should (a) rediscounting, (b) changes in reserve requirements, and (c) regulation Q be used? How might H.R. 11 be amended to implement your recommendations?

Open market operations are the most powerful of the instruments available to the Federal Reserve System, but probably should not be relied upon exclusively for achieving immediate Federal Reserve targets. For example, if open market operations are to avoid the day-to-day defensive actions aimed at limiting fluctuations in the reserve base or in the "tone of the market," it is essential that liberal discount facilities be available in order that banks may make day-to-day or week-to-week adjustments through the discount window for short-term fluctuations in total reserves. Also, as distasteful as any form of price control may be, the record suggests that regulation Q may be used in certain circumstances to achieve restraining effects on bank credit, or to assist in directing savings flow through intermediaries, that cannot be as effectvely achieved through open market operations. Ideally, one might like to see all types of interest rate regulation abandoned, so as to permit the private credit markets to allocate credit competitively.

Realistically, however, traditional attitudes toward interest rates and their reflection in political concern suggests that the objective of a truly competitive financial system is not a likelihood for some while. One in-

strument of Federal Reserve policy that might be foregone is changes in reserve requirements. In fact, reserve requirements themselves (particularly on time deposits) are in the nature of a discriminatory tax on commercial banks, and the very principle of reserve requirements should be carefully examined. Given their existence, however, there can be little justification for the periodic increases in requirements that have been made in recent years when open market operations could as easily and more equitably have accomplished the same thing. I would have no specific recommendations for amendments to H.R. 11 that might incorporate these comments on the use of instruments other than open market operations in the executive of Federal Reserve policy.

D. Do you see any merit in requiring the Federal Reserve Board to make detailed quarterly reports to the Congress on past and prospective actions and policies? Are there any risks and costs in this procedure? In what ways, if any, would you modify the reporting provision? What information do you believe should be included in such reports as you recommend the Federal Reserve submit to the Congress?

The principal advantage that might be obtained from requiring the Federal Reserve Board to make detailed quarterly reports to the Congress would be a better informed Congress, better able to exercise its responsibilities for the management of the Nation's money. There would be obvious costs in the preparation and hearings on such reports, but such costs would be nominal when viewed against the benefits that might be obtained. There should be no risks in this requirement unless the hearings were used as the forum for a vendetta against the Federal Reserve or unless the hearings led to instructions from the Congress that the Federal Reserve achieve highly precise targets, an outcome that could be realized only at the cost of Federal Reserve flexibility and financial market stability. In its reports to the Congress, the Federal Reserve should review the broad economic targets toward which policies have been aimed, the immediate targets expressed in terms of credit flows, the actions that have been taken to achieve those targets, and the degree of success obtained on both the immediate targets and the ultimate economic targets.

E. What costs and benefits would accrue if representatives of the Congress, the Treasury, and the CEA were observers at Open Market Committee meetings?

The suggestion that representatives of the Congress, the Treasury, and the CEA attend Open Market Committee meetings as observers probably will encounter serious opposition because of the high degree of confidentiality essential to these meetings. In the abstract, it is by no means obvious that this opposition is well grounded. After all, carefully selected Members of the Congress and of other Government agencies participate in the most highly confidential discussions within such critical functions as the Defense Department. There is no reason for presupposing that representatives from the Congress, the Treasury, and the CEA would be less responsible in guarding the confidentiality of Open Market Committee meetings than are the 40 or 50 Governors, bank presidents, and senior staff people who now attend these meetings. It was my privilege to attend meetings of the Open Market Committee for a number of years while I was associated with the Federal Reserve Bank of New York.

It occurs to me that an important benefit from having outsiders, particularly Members of the Congress attend these meetings would be

the impression that the observer would form of the intelligence and dedication to responsible money and credit management that characterizes the meetings. The observers would be useful as liaison between the Federal Reserve, the Congress, and the other departments of Government. In particular, the Members of the Congress attending these meetings would be much better able to understand the objectives that the Federal Reserve had been pursuing and the often intricate reasons why those objectives were not fully realized. Unfortunately, all of this is in the abstract. In the actual case, if the observers were people prejudiced against the Federal Reserve System and committed to its destruction, the result of their attendance at meetings of the Open Market Committee would be disruptive to Federal Reserve policy and injurious to the welfare of the United States. It follows that if such observers are to be invited to FOMC meetings, the Federal Reserve should have some voice in their selection.

II. APPRAISAL OF THE STRUCTURE OF THE FEDERAL RESERVE

H.R. 11 provides for the following structural changes in the Federal Reserve System:

1. Retiring Federal Reserve bank stock;

2. Reducing the number of members of the Federal Reserve Board to five and their terms of office to no longer than 5 years;

3. Making the term of the Chairman of the Board coterminus with that of the President of the United States;

4. An audit for each fiscal year of the Federal Reserve Board and the Federal Reserve Banks and their branches by the Comptroller General of the United States; and

5. Funds to operate the Federal Reserve System to be appropriated by the Congress of the United States.

Please comment freely on these several provisions. In particular, it would be most helpful if you would indicate any risks involved in adopting these provisions and discuss whether their adoption would facilitate the grand aim of H.R. 11, which is to provide for coordination by the President of monetary and fiscal policies.

Some of the structural changes in the Federal Reserve System provided in H.R. 11 are rather unimportant while appearing to be dramatic while others of great substance appear to be innocent. Specifically, retiring the Federal Reserve bank stock now owned by the member banks appears to be a fundamental alteration in the character of the Federal Reserve System, shifting it from private to public ownership, but logically this should not be a significant change. The Federal Reserve System has been wholly independent of the member banks from its founding, and the ownership of the Reserve Banks by the member banks has not given the member banks any control or influence upon Federal Reserve policy. The present form of corporate structure has given each Reserve bank a board of directors, providing the mechanism for an important flow of information from industry and finance into the Federal Reserve. But these boards could be redesignated advisory committees and serve the same function.

The matter of providing that the Comptroller General of the United States audit the Federal Reserve Board and the Federal Reserve banks each year has been strongly resisted by the Federal Reserve as a

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foot in the door of their independence that might lead to ultimate, complete loss of independence. To a reasoning person it might seem that this is carrying the principle of the camel's nose somewhat further than could be supported. There is a clear dividing line between the right of the Government to audit the Federal Reserve System and a decision to bring Federal Reserve policy under control and determination by the executive branch of the Government. Similarly, there should be no objection to making the term of the Chairman of the Federal Reserve Board coterminous with that of the President of the United States. In fact, the incumbent Chairman on numerous occasions has proposed that this be done. The practical issue involved here is that a harmonious relationship between the Executive and the Federal Reserve is much more likely to be achieved if the President is able to select his own Chairman from among the members of the Board at the beginning of his term of office. In turn, the improved harmony between the Executive and the Federal Reserve should tend to promote a better meshing of fiscal and monetary policies toward common economic ends.

Even in the case of these logically innocuous changes, however, the question arises as to whether under the actual circumstances the changes would be desirable. What is important in addition to the logic of the case is the motivation behind the proposed changes. If the motivation is no more than a tidying up of unimportant anomalies in the law, then it would be difficult to argue against the changes. But if the motivation is a desire to weaken or substantially alter the Federal Reserve System through a process of gradually nibbling away at the arrangements that safeguard Federal Reserve independence, then the changes should be strongly resisted. The minor benefits to be obtained from the proposals would not justify the dangers to the economic welfare of the country of a vulnerable, weakened central bank.

The other structural changes proposed in H.R. 11 could be of major significance for the effective functioning of the Federal Reserve System. The proposal to reduce the number of Governors to five and to reduce their terms from 14 to no longer than 5 years is such a change. There certainly is nothing sacred about the present seven-man board and the present 14-year term of office, but a board consisting of seven men has functioned well and has brought in a broad range of interests and points of view.

Also, the 14-year term has enabled the incumbent Governors to learn in depth the often complex theoretical and practical issues with which monetary policy must deal. In actual fact, a number of Governors have not served out their full terms, so that each President in recent years has had an opportunity to appoint more new Governors to the Federal Reserve Board than would be indicated by the 14 years provided in the Federal Reserve Act. At the same time, the long years served by any number of the Governors has made possible a continuity of policy and a depth of wisdom and understanding that shorter terms and steady turnover would not. As in all proposed changes of existing law or custom, the first question that must be anwered is whether or not change serves a useful purpose of sufficient importance to justify its enactment. In this case, the system of seven Governors

serving 14-year terms has worked well and there is no apparent overriding reason why this arrangement should be changed.

Similarly, H.R. 11 would eliminate the Open Market Committee and concentrate responsibility for open market operations in the Board of Governors. Anyone familiar at firsthand with the work of the Open Market Committee is aware that the inclusion of five of the presidents on the committee has contributed importantly to the debt of discussion. Of course, Reserve bank presidents could continue to advise on developments in their respective districts, so that the regional contribution now provided for through meetings of the Open Market Committee would not be wholly lost.

But once again, the question should be answered as to precisely what the advantages are that would be derived from this change. The Congress established the Federal Reserve System in a form consistent with our Federal Republic—a central bank with the various regions of the country represented in the policymaking organization. The system has worked well and there is no apparent reason why it should be changed.

Finally, the proposal that funds to operate the Federal Reserve System be appropriated by the Congress is an apparently innocent proposal but one that is potentially dangerous. The long history of money management has repeatedly emphasized the need for the central bank to be as independent as possible from the political process. There is no more certain way to get the central bank involved in the political process than to make the appropriation of funds necessary for its existence subject to action by the Congress. By comparison with other Government agencies, the total staff and total expenses of the Federal Reserve System are nominal. There certainly can be no suspicion that the Federal Reserve is spending lavishly and that such expenditures might be curtailed if subjected to congressional scrutiny. It is not possible to foresee economies from this proposal; its only apparent purpose would seem to be to bring Federal Reserve policy directly under congressional control, and the only reason for this objective would be to enable the Congress to direct the Federal Reserve as to the kind of policies that should be followed if its appropriations are to be approved. The System has worked well as now constituted and almost surely over the history of the Federal Reserve has worked better than would have been possible if Congress had been calling the tune.

STATEMENT OF WILLIAM I. GREENWALD, CCNY

Replies to questions on monetary policy guidelines and open market operations, invited by Congressman Wright Patman, chairman, House of Representatives, Subcommittee on Domestic Finance of the Committee on Banking and Currency, on September 18, 1968.

ANSWERS—I

(1) I endorse a program coordinating fiscal, debt management, and monetary policies being set forth at the beginning of each year for the purpose of achieving the goals of the Employment Act.

(2) The target program, for administrative simplicity, might be

best vested in the Office of the President, assuming formal consulting arrangements are mandated.

(3)(A) Monetary policy to achieve targets and goals via intervention of the money supply is supported, again, in order to minimize the number of interventions.

(3)(B) The guidelines for monetary policy need specification in terms of future economic activity (real terms), sustained by a certain value of growth (money terms). The reason for my preference is the unsettled and unresolved scientific theory and evidence regarding monetary theory.

(3)(C) No comment.

(3)(D) No comment.

(3)(E) No comment.

(3)(F) No comment.

(4) Debt management policy has to be coordinated (subordinated) with monetary-fiscal guidelines set for the target program.

(5)(A) Very short term factors—that is, seasonal and transient elements—should be neglected and minimally influenced by monetary intervention.

(5)(B) No.

(5)(C) The power to control and change margin requirements were given to the Federal Reserve System by section 7 of the SEA of 1934. The power over this selective and particularistic control might better be transferred to the Securities and Exchange Commission.

(5)(E) In my opinion, the costs and benefits, aside from those relating to communication of economic information, primarily are administrative matters.

II

(1) No comment.

(2) No comment.

(3) No comment.

(4) I endorse an annual audit of the type indicated.

(5) I support a continued financial independence of the Federal Reserve System from either the executive or legislative branch, in order to minimize the political factors in the System.

III

No comment.

STATEMENT OF HERSCHEL I. GROSSMAN, BROWN UNIVERSITY

H.R. 11 raises three basic and distinct questions regarding the formulation and execution of monetary policy.

1. What variable or variables should be used as proximate indicators of the consistency of current monetary policy with its goals and as proximate targets for monetary policy?

2. What should be the relative importance of fixed rules as contrasted with current discretion in selecting and determining the appropriate value of these proximate targets?

3. To the extent that current discretion is to be exercised, who should have the authority to exercise it?

These comments begin with a discussion of the goals of monetary policy and then consider each of these questions in turn. In summary, the conclusions reached are as follows:

1. Interest rates and the money supply should be used as complementary indicators and proximate targets for monetary policy.
2. Discretion should be permitted in the execution of policy, so long as it is agreed to give priority to macroeconomic goals and to make explicite the rationale for policy actions.
3. The formal authority to formulate and execute monetary policy probably should not be transferred from the Federal Reserve System to the administration, although to do so would not be likely to have significant consequences.

I. GOALS OF MONETARY POLICY

All three questions posed above deal directly with some operational aspect of monetary policy. However, in each case the answer will vary depending upon the ends or goals of monetary policy. First, proximate indicators or targets, which are not themselves goals of policy, may be useful because the effects of policy upon the goals are either not predictable with certainty or not immediately manifested (or at least immediately observable). A good proximate indicator and target would be both a good predictor of the goal variables and itself more immediately observable than the goal variables. Second, rules may be preferable to discretion because they may be an effective way to prevent the pursuit of undesirable goals. Third, the operationally most significant consequence of assigning the authority to carry out policy may well be that certain goals will be favored. Consequently, the first step in discussing these questions must be to specify the goals which monetary policy is to serve.

Monetary policy traditionally has been concerned with a variety of goals, which are often incompatible. Incompatibility implies that tradeoffs must be made among the goals. These historical goals may usefully be classified according to whether they involve the value of money (the price level) or the allocation of resources.

The classic goal of price level stability immediately presents a conflict with another macroeconomic goal of low-aggregate unemployment of scarce resources. Unfortunately, policymakers have frequently obscured the need for establishing priorities in this area by advancing meaningless arguments such as "an unacceptable rate of price increase, if not halted by accepting modest unemployment now, inevitably will lead to severe unemployment at some future time." However, although the trade-off between price level stability and low unemployment appears rarely to have been explicitly recognized in the public statements of monetary policy formulators, it has undoubtedly been important in practice. We may suppose that policy typically aims for the minimum aggregate unemployment consistent with a maximum tolerable proportionate rate of price level increase (denoted by $\dot{P}^*$). If the higher the acutal rate of price level increase (denoted by $\dot{P}$) the lower aggregate unemployment, $\dot{P}^*$ becomes a target as well as a maximum rate.

Examples of resource allocation goals of monetary policy have been facilitation of (cheap) financing of the public debt, stability (profitability) of financial institutions, high level of activity in the construction industry, and stability of exchange rates and the price of gold. There seems to be a general consensus among economists that monetary policy should be principally, if not exclusively, concerned with

macroeconomic goals. Allocation goals seem inappropriate for two principal reasons: First, whereas monetary policy is just about unique in being capable of direction toward macroeconomic goals (fiscal policy seems too inflexible to be generally a practical alternative), other policies may be used to achieve allocation goals. Consequently, both sets of goals could in principle be achieved if monetary policy gives precedence to the macroeconomic goals in any case of conflict. For example, construction activity could be insulated from the effects of high-interest rates by the removal of legal constraints and by direct subsidies. Second, and perhaps more basic, these particular allocation goals seem to be in themselves generally unworthy because they imply a less economically efficient allocation of resources. For example, why should a ceiling be put on interest rate increases in order to protect financial intermediaries—whose essential activity is speculation on the future level of interest rates through borrowing short and lending long—from their own mistakes? Why should the relative riskiness of this activity be artificially reduced? Similarly, why should foreign exchange dealings be made relatively less risky by exchange rate stabilization?

II. PROXIMATE INDICATORS OF MONETARY POLICY

The allocation goals of monetary policy all have the common characteristic that they more or less directly imply limitations on the behavior of market interest rates. The effects of monetary policy upon interest rates are both very predictable and quickly observable, at least relative to the effects upon the price level and aggregate unemployment. Consequently, if and when any of these allocation goals are paramount, the need for and interest in proximate indicators is minimal.

However, regardless of the relative importance of the various allocation and macroeconomic goals, so long as monetary policy is at all seriously concerned with either of the macroeconomic goals, the question of choice of proximate indicators becomes interesting. Suppose, for simplicity, that the conflict between goals is resolved by saying that monetary policy should ignore allocation considerations, and should aim for constant equality between $\dot{P}^*$ and $\dot{P}$. The question is how can one tell whether current monetary policy is consistent with this equality.

One cannot simply look at current $\dot{P}$. Because of lags, currently observed $\dot{P}$ is probably completely independent of current monetary policy. Three sorts of lags should be distinguished, each of which contribute additively to the total lag: First, the latest available data on $\dot{P}$ is not current $\dot{P}$. The process of collecting and reporting information takes time. (This observation lag might be termed technical, whereas the other two lags relate to economic behavior). Second, the reaction time of aggregate excess demand to monetary policy is likely to be finite. Third, the reaction time of $\dot{P}$ to changes in aggregate excess demand is also likely to be finite. In addition, even once these reactions begin they are likely to be distributed over time, with relatively small initial weights. Consequently, even though monetary policy could in principle bring about any desired change in $\dot{P}$ with only these reaction times separating cause and effect, in reality such relatively large doses

of monetary policy as to be impractical are likely to be necessary to effect large changes in $\dot{P}$ even that quickly.

The consequence of any of these lags is that evaluation of current monetary policy requires prediction of the effects of current monetary policy upon future $\dot{P}$. Such forecasting might be simplified by finding an endogenous variable whose reactions to monetary policy are more quickly observable than those of $\dot{P}$, but whose value gives a reliable indication of the future course of $\dot{P}$. Such a variable could serve as a proximate indicator and target for monetary policy. Two prominent and conceivably qualified classes of candidates for this role are indexes of the level of interest rates and measures of the supply of money. Both of these classes have much shorter observation lags than does $\dot{P}$. Also, both these classes have the potential for indicating the level of aggregate excess demand in the near future and thus for predicting $\dot{P}$ in the more distant future. In addition, both these classes contain certain variables—for example, money market rates and high-powered or base money—which appear to be immediately, or almost immediately responsive, to monetary policy.

In order to infer from the observed level of interest rates (denoted by r) information about the future relationship between $\dot{P}$ and $\dot{P}^*$, one must know how r compares with that level of interest rates (denoted by r*) which would generate (with a reaction lag) a level of excess aggregate demand which in turn would generate (with a reaction lag $\dot{P}$ equivalent to $\dot{P}^*$. Of course, r* is not observable. Nor is it easy to infer, because not only does it vary with exogenous shifts in the excess demand function, but it is also dependent, through the distributed lag in the response of aggregate demand to the level of interest rates, upon past value of r.

The obvious alternative to r as a proximate indicator is the rate of growth of some concept of the money supply (denoted by $\dot{M}$). We may suppose that the excess flow supply of money balances will correspond fairly closely to some subsequent level of excess aggregate demand. In order to use $\dot{M}$ as an indicator, we must know the rate of desired additions to money balances (denoted by $\dot{M}^*$) which would be associated with r*. Of course, like r*, $\dot{M}^*$ is not observable, and the inferences about it involve analogous difficulties.

Ideally, both the correct interest rate and money supply indicators should imply the same evaluation of current monetary policy. However, given the uncertainties involved in ascertaining both r* and $\dot{M}^*$, it would seem foolish to rely exclusively on either one. At any moment, policymakers may be more confident about their estimates of either r* or $\dot{M}^*$, and should draw their conclusions accordingly. As forecasting techniques improve, confidence about the reliability of either of these indicators will increase. At the same time, better forecasting, perhaps paradoxically, will lessen the value of proximate indicators by improving the reliability of direct inferences about the effects of monetary policy upon P. However, for the foreseeable future, the element of uncertainty in forecasting is likely to remain substantial. In this situation, presumably all available knowledge should be utilized. Interest rate and money supply indicators should be regarded as complements, not as substitutes.

Policymakers often refer to and apparently utilize other variables as proximate indicators of monetary policy. Of these, the two which seem most prominent are various concepts of the supply of bank credit and the quantity of free reserves. Regarding bank credit, it is hard to see how this could even potentially be a relatively useful indicator since its value reflects both the total supply of credit as well as the desired degree of intermediation between ultimate borrowers and lenders. Regarding free reserves, as frequently noted, the actual quantity is only meaningful in relation to the unobservable desired quantity. Consequently, the use of free reserves as an indicator is roughly equivalent to the use of high-powered or base money.

III. RULES VS. DISCRETION

The preceding discussion suggests that the selection of good proximate indicators and targets for monetary policy and the determining of their appropriate values is a relatively sophisticated task. The question then arises as to whether this process should be left to current discretion or guided by simple rules, to be reviewed only periodically. The advocacy of rules is, prima facie, a defeatist attitude; for it almost certainly excludes the attainment of the degree of perfection which in principle would be possible under discretion. Nevertheless, rules have been advocated because it is felt that in practice they would enhance the achievement of the chosen goals of monetary policy. This improvement might result either from better execution of the means of monetary policy or from better formulation of the goals themselves, or from both. As regards means, advocacy of rules implies a low opinion of either the degree of understanding or of the forecasting ability possessed by any possible discretionary formulators of monetary policy, or of both. As regards goals, advocacy of rules which are incompatible with the pursuance of certain goals implies disagreement with these goals and belief that a discretionary authority might pursue them.

The question of rules vs. discretion, of course, cannot be answered in general, but only in reference to specific rules and to a specific monetary authority. The only rule which seems to be currently receiving serious consideration would involve a constant $\dot{M}$, for some concept of the money supply. Viewed as a method for achieving equality between $\dot{P}$ and $\dot{P}^*$, the performance of this rule would depend upon the constancy of $\dot{M}^*$ for the selected money supply concept. Advocates of this rule concede that it probably would not smooth out minor cyclical divergences, but argue very convincingly that it would exclude the possibility of major inflations or contractions. However, given the current state of knowledge and understanding, even on the part of those currently responsible for formulating monetary policy, such a rule does not appear attractive. Currently, the chances of discretion resulting in a major mistake are probably nil. Moreover, discretion, now, probably would be capable of near perfection in achieving equality $\dot{P}$ and $\dot{P}^*$ even in the very short run, if it were directed exclusively toward that goal. The record of monetary policy during the 1960's seems not to be inconsistent with this view.

An entirely independent motivation for advocating the constancy of M is that such a rule would generally be inconsistent with pursuance of the allocation goals of monetary policy. Consequently, to the extent that the authorities are likely to give priority to allocation goals in times of goal conflicts, such a rule could enhance attainment of the macroeconomic goals. However, if the essence of the dispute does relate to goals, clarity would certainly be enhanced by confrontation directly with this issue, rather than through the subterfuge of operational rules. Moreover, if agreement were achieved regarding the priority of macroeconomic goals, the full potential of discretionary policy formulation could then be realized in achieving them.

The distinction between rules and discretion becomes in principle purely formal if the rules are reviewed very frequently. In practice, however, even in these circumstances an operationally significant difference may exist. For example, it has been suggested that rules or guidelines be formulated which the policymakers could violate so long as they stated their reasons. In effect, this arrangement would permit complete discretion, but, at the same time, would cause the rationale for policy actions to be made explicit. Such explicitness would prevent sloppy or casual formulations and better and more widespread understanding of policy. The danger of explicitness generating unfavorable expectations is probably minimal.

IV. THE DISTRIBUTION OF AUTHORITY

Given that discretion is to be exercised, the question then must be answered as to how to distribute the authority to exercise it. In the present context, this issue is equivalent to the question of how independent the Federal Reserve System should be of the administration and the Congress. Again, in regard to this issue, both the means and ends of monetary policy may be considered, although the latter are probably more relevant. With respect to means, there would seem to be no a priori reason to expect that either the Fed or administration officials would generally have greater understanding or knowledge of effects of monetary policy. Only the Congress, because of the sluggishness with which it operates, is obviously not qualified to execute monetary policy.

The argument about the distribution of authority arises primarily because the exercise of discretion in the execution of monetary policy carries with it the ability to exercise discretion in establishing priorities among the possible policy goals. The possibility of separating these two aspects of the policymaking process is limited by the fact that what are for the policy executor ends in themselves can usually be represented to be means to achieve more generally agreed upon goals. For example, the allocation goals of monetary policy are often argued quite plausibly, if fallaciously, to be prerequisites to the attainment of the macroeconomic goals.

One argument which could resolve this issue as a matter of principle is that the independence in goal choice of the monetary authority from the immediate will of the elected representatives of the people is undemocratic. However, historical precedent suggests that the contrary principle of effective checks and balances is just as relevant. In any event this issue is more likely to be decided as a matter of practice than of principle.

At present the Fed has, on paper at least, a significant degree of independence in determining the course of monetary policy. Moreover, because the political process makes fiscal policy very inflexible, authority over monetary policy implies ultimate authority over stabilization policy. However, in exercising this authority the Fed is subject to pressure from the administration. The force of this pressure is not directly observable by outsiders. However, it would appear likely that it is generally great enough to make the administration the ultimate arbitor of monetary policy. Consequently, so long as the administration still received the advice and counsel of Fed officials, very little of consequence would likely be changed by a formal transfer of authority from the Fed to the administration. Moreover, the present formal separation of power does force the Fed and the administration to explain, at least to each other, the arguments for the policies which they are advocating. In addition, the present arrangements offer an amount of political convenience to the administration in that they allow for blaming the Fed for ultimately beneficial policies which may be unpopular in the short run, for example, "tight money."

STATEMENT OF SEYMOUR E. HARRIS, EMERITUS, HARVARD UNIVERSITY AND UNIVERSITY OF CALIFORNIA, SAN DIEGO

Introduction

The integration of monetary policy with fiscal and debt policy could be greatly improved. It is simply upside-down economics for the Fed to go one way and the President and his advisers another. We cannot, as cannot other nations, afford the luxury of independence for the central bank, nor control of monetary policy for 15 years by one official who, however devoted, nevertheless is ruled by an excessive fear of inflation. H.R. 11 is a long step forward toward integration and reduced powers for the Fed.

I–1. THERE SHOULD BE A COORDINATION OF MONETARY AND FISCAL POLICY

An appropriate mix of monetary and fiscal policy is needed. In the years 1961–63, for example, the Government relied on both expansionist fiscal and monetary policy in order to get out of a moderately stagnate economy. In 1965–66 recourse was had to monetary restriction because the Fed feared an inflation. Inadequate recourse was had to fiscal policy, with the result that excessive dependence on monetary restriction induced the dangerous crunch of 1966. In 1967 and 1968, inadequate use was made of restrictive fiscal policy and the Fed, though fearful of a return to the crunch of 1966, returned to monetary restriction.

I–2. WHO IS TO BE RESPONSIBLE?

The current attack is to discuss the issues of economic policies among the Treasury, the Budget Bureau, and the Council of Economic Advisers. They tend to determine fiscal policy. But they also consult with the Fed. In my opinion the three agencies of the executive should recommend policies to the President. Since monetary policy is a necessary weapon, some negotiation with the Fed is necessary.

But the role of the Fed should be limited. The executive should have increased control over monetary policy. The Fed through most of its history has been excessively fearful of inflation, and therefore has generally provided less than the optimum monetary resources.

Independence for the Fed is not supportable. It is the responsibility of the executive to determine the supply of money and its price. It is unwise for the Fed to operate in one direction and the President in another—as in 1966.

This does not mean that the Fed operates merely to further the Treasury's objective of low money rates. In the early post-World War II period the Government could be criticized for imposing a cheap-money policy in order to reduce the cost of money to the Treasury.

Under Eisenhower, there was much talk of the independent monetary policy. Actually the Fed, generally interested in restrictive policies, gave Eisenhower what he wanted. The President feared inflation and hence cooperated with the Fed in the pursuant of high money rates. Under Kennedy, the President paid lipservice to the independence of the Fed. But he insisted upon supplies of money adequate enough to assure a return to prosperity. The supply of money increased substantially and yet long-term rates were stabilized.

Interest rate on Aaa bonds, for example, were as follows: 1952 =2.96; 1960=4.41; 1965=4.49.

In the 8 Eisenhower years, the average rise of real GNP was 3 percent; in the first 5 years of Kennedy and Johnson, under expansionist monetary policies, was 5 percent.

Despite the expansionist monetary policies from 1961 through 1965, the rise of prices was but 1.3 percent a year as compared with 2 percent from 1952 to 1960.

In 1966, 1967, and 1968, the results of policy were not as good as in earlier years. Prices rose by 1.7, 2.9, and 2.9 percent in the years 1965, 1966, and 1967, and may well rise by 4 percent in 1968; and despite restrictive monetary policies in 1966 and 1968. Moreover, in 1967 and 1968, the rate of rise of real GNP tended to decline. One explanation of this fact is that wages' rates were beginning to rise at a more rapid rate and also excess capacity had been greatly reduced. Additional resources were not provided in proportion as demand rose; and hence the rise of demand brought some additional inflation.

I–3–A. WHAT GUIDELINES FOR MONETARY POLICY?

Monetary policy should be enlisted for achieving maximum growth and employment, relative stability of prices, the latter both to stimulate output and improve the competitive position of the United States; and as a means of attaining money rates low enough in relation to expected profits to stimulate investment and cut down unemployment.

Creation of money as a means of reducing unemployment should be used with caution. By 1965–66, with unemployment falling below 4 percent, there was evidence of increased pressure on prices.

Money rates, indebtedness of member banks, reserves of member banks, free reserves are not guidelines of monetary policy. They are tools for achieving an expansive or restrictive monetary policy.

I–3–B. GUIDELINES OF MONETARY POLICY?

The guidelines should be especially given by movements in GNP, employment, prices, rate of interest. When prices are rising too much in relation to output, that guide should suggest some moderation in the expansion of money. In the first 5 years of the Kennedy-Johnson administration, for example, GNP (real) rose about five times as much as prices. This was an index of successful general policy, and particularly of monetary policy. But in 1967, GNP rose by 2½ percent and prices by 3 percent. Even a rise of GNP 5/6 as much as prices may not be a bad record. A rise of GNP is a plus item; but the increase of prices is a minus item. But the issues are not merely economic. Ideological issues are also relevant. Rising prices hurt those whose incomes do not respond to the inflation, and notably the old and savers. In general, the rise of prices is likely to be accompanied by higher levels of employment and less unemployment. Hence a case may be made for a policy of some inflation since it brings less unemployment, and hence a lesser degree of concentration of ill fortune on the unemployed.

I–3–C. GUIDES TO MONETARY AUTHORITIES

The indicators of the NBER are useful and especially the leading indicators (LI) which anticipate change. But individual LI's often vary in the direction of movement. They raise many other problems also. Basing policy on past behavior of LI's may be misleading, and in part because in more recent years Government intervention has become a more important factor. Hence the past movements of (say) stock market prices or rate of interest may not be a very good guide for the future. In fact, one can raise some general issues of projections along these lines. Thus a projection of GNP for 1969 may prove to be off by a good margin, the explanation being a Government policy not anticipated. A prognosticator may also prove to be right only because unanticipated Government policy brought about the growth (say) anticipated. The economist who guesses right because he also guessed right on Government's contribution is to be applauded. But if his projections are confirmed by history only because of policies he did not anticipate, his credit should be limited.

At any rate, the use of LI's should give better results if recourse is had to a dozen (say) that in the past proved reliable (and not all 36), and if the trends for several months, rather than one or two, are considered.

I–3–D. VARYING GUIDELINES

Indeed, guidelines should vary from year to year. A strong case can be made out, for example, for seeking a 5–6 percent rise of output per year in the years 1961–64, years of large excess capacity and output substantially below potential; and at the same time should seek a rise of output restricted to 4 percent in 1967 and 1968. Why the difference? In the earlier period, a substantial rise of output is possible without inflation because part of the rising demand can be absorbed out of excess capacity. But in 1968 the country can profit primarily from an increase of numbers on the labor market and a 2–3 percent increase of productivity. Insofar as demand rises above 4 percent, which measures the gains from these channels, then the excess of demand

would be reflected primarily in a rise of prices rather than one of output. The policy of tax increases and expenditure reduction of 1968 has been supported in order to contain growth to a level of around 4 percent.

Of course the task of the Government depends on the contribution of the private economy. Should consumption, private investment, anticipated Government expenditures, and the excise of exports yield an unacceptable level of output and unemployment, then the Government has to increase its contribution by raising expenditures and (or) reducing taxes. Moreover, the Government has to consider the strain on the economy associated with the automatic rise of taxes that accompanies increasing income. In planning for the end of the Vietnam War, the Government takes into account the reduction of military expenditures and the rising income and taxes without change of tax structure. Should military expenditures decline by $15 billion, and tax receipts automatically rise by $10 billion with a $40 billion gain in income, then the Government will have to provide $25 billions through increased spending on nonmilitary items and cuts in taxes. (I assume that the military will not make up for the lag in new weapons of recent years.)

I–3–E. VARIATION IN TARGETS GROWTH?

The variations should be related to the potential of the economy. Labor supply, hours of work, productivity gain, (related) the contribution of capital and technology will suggest potential growth. Over long periods of time, the annual gain of man-hour output—say 3 percent—can, through the operation of the compound interest law, greatly increase output. In 25 years output would double; in 50 years increase by 3⅔ times.

I–3–F. MONETARY AUTHORITY ALLOWED TO ADJUST TARGETS VARIABLES DURING THE YEAR?

I would give the monetary authority full authority to adjust to changing prospects. Projections for 3 or even 6 months yield reasonably good results. But beyond 6 months, the actual change may diverge greatly from the projected one. If by June, the economy seemed to be on the downgrade surely the Fed should be tempted to introduce expansionist policies. In early 1968, the tax increase and spending cut seemed to support an anti-inflationary policy. But even in the first half of 1968, there were signs of trouble: high and rising interest rates, excessive inventory building, unsatisfactory housing, reduced Government contributions to spending, greater doubts about the economy—all of these raised questions. By the middle of 1968, a growing consensus feared an economic decline. Surely the Fed restrictive monetary policy should be abandoned. (I write in August 1968).

All planned economics operate on the principle that when developments deviate from the expected, freedom to change policies should prevail.

I–4. THE ROLE OF DEBT MANAGEMENT

Debt management can contribute much. For example, when the economy is just beginning to recover, it is mistaken policy for the Government to issue long-term securities in large amounts. The effect

is then to raise interest rates just when the economy needs the lift of a decline in rate. The Eisenhower administration made such mistakes. Again, when the economy needs high short-term money rates in order to increase imports of capital and discourage outward movements, then the appropriate policy is to issue large amounts of short-term paper and thus get the short-term rate up. Hence the balance of payments would improve. Moreover, the long-term market could then be protected to some extent against rises, with favorable effects on the economy.

In the great crisis of 1966, the country, and especially the housing industry, were starved for money. The Executive helped prevent a disaster by withdrawing large issues that were to be sold and in this way reduced competition in a badly provisioned market.

I–5–A. USE OF OPEN MARKET OPERATIONS

I am not sure I understand the thrust of this question. In general, I would use open market operations to increase or reduce the reserves of member banks. The size of reserves largely determines the amount of money that banks create. This is of course not the only determinant. There is something to the idea that when reserves are maintained or built up through a rise of indebtedness to the Fed, then the expansive effects of a rise of reserves is less than when the additional reserves stem from purchases of securities to raise the reserves of member banks.

A comparison of Federal Reserve bank credit and member bank reserves from 1960 to 1967 will suggest the contribution of open market operation.

[In billions of dollars]

	December 1960	June 1968
Federal Reserve credit outstanding	27.2	51.3
P.S. held	27.3	51.3
Discounts and advances	.1	.7
Gold stock	18.0	10.4
Currency in circulation	33.0	47.5
Member bank reserves	19.3	25.7

These figures reveal:

1. That the major origin of open market operation was the financing of additional money in circulation and the loss of gold. Without Fed intervention, reserves of member banks would drop with large losses of gold or increased money in circulation.

	Billion
Rise of Federal Reserve credit outstanding	$24.1
Financing: Rise of currency in circulation and loss of gold	17.1
Providing additional M.B. reserves	6.4

It is clear that the largest source of Federal Reserve credit originates in offsetting rises of money in circulation and loss of gold, not purchases to expand the total reserves of member banks.

	Billion
Offsetting gain of Federal Reserve credit	$17.1
Expansion due to open market operations	6.4

I see no alternative but to use open market operations for "defensive" reasons (i.e. $17.1 B in 7½ years), and also to satisfy needs for expansion. In the 7 years, 1960–67, the rise of money was as follows:

Rise—December 1960–December 1967

	Billion
I. Money supply	$40.4
(*a*) Currency	11.5
(*b*) Demand deposits	29.0
II. Time deposits	110.9

What is especially striking is the *average* rise of *money and money plus time deposits*, December 1952–December 1960 and December 1960–December 1967.

[In billions of dollars]

	1952–60	1960–67
Money	1.7	5.8
Money plus time deposits	5.8	21.6

In the Eisenhower years, money increased only about one-third as much per year as in the 7 Kennedy-Johnson years, and about one-quarter as much for money plus time deposits. Despite the large demands put on the system by large losses of gold and rises of money in circulation, the Fed, under pressure from the two Presidents in 1961–67 expanded monetary supplies at a rate of about three times that of the Eisenhower period.

I–5–B. OPEN-MARKET OPERATIONS AN ADEQUATE TOOL?

I am not sure I understand this question: "Do you believe that monetary policy can be effectively and efficiently implemented solely by open-market operations?" Open-market operations are probably the most potent weapon. To some extent the Fed, by raising rates or reducing them, can directly influence the price of money. But ever since the midtwenties open-market operations have been the major weapon of monetary policy. Through influencing the volume of indebtedness and through changes of reserve requirements, it is possible also to influence the supply of money.

I–5–C. USE OF REDISCOUNTING, CHANGES IN RESERVE REQUIREMENTS, AND REGULATION Q

Rediscounting is a tool for increasing the effectiveness of Fed policy. But the total impact is not ordinarily great.

By changing reserve requirements the Fed can induce a rise or fall in required member bank reserves. But this is an overall weapon and may upset some parts of the money market. But similar unwanted effects may follow open-market operation. Rediscounting to this extent has an advantage over open-market operations, for rediscounting relates to the amount of cash needed by individual banks.

One troublesome aspect of changes in reserve requirements is that they result in windfalls or penalties to banks accordingly as requirements are reduced or increased. Thus, allowance of currency and coins as reserves in 1959–60 greatly increased reserves of banks, and thus substantially improved the profit position of banks. Recourse of changes in reserve requirements results in varying impact on the price (yield) of different assets. Dependence on open-market operations improves the prices and reduces the yield on Government securities. By the middle of 1968, the Federal Reserve banks held more than $51

billion in Government securities as compared with but $150 million in June 1929. Even by 1939, the portfolio amounted only to $2½ billion. Clearly, open-market operations greatly favor the Treasury as sellers of securities, whereas a reduction of reserve requirements and accompanying expansion of money provides additional demand and higher prices for all kinds of assets.

Under regulation Q, the Fed sets maximum rates on savings and time deposits held by commercial banks. By allowing higher rates under regulation Q, the Fed has, in fact, favored commercial banks against savings banks and S. & L.'s. In the last few years, the result has been the capture of a much larger part of the savings and time deposits by the commercial banks, with unpleasant consequences for S. & L.'s. The housing market in California was especially hit. Another effect has been a large relative increase in time deposits for financial institutions and hence greater interest of financial institutions in long-term assets.

I 5–D. I SEE MERITS IN FEDERAL RESERVE REPORTING TO CONGRESS EVERY 3 MONTHS "ON PAST AND PRESENT PROSPECTIVE ACTIONS AND POLICIES"

If the Fed reveals its hand to Congress, then policies favorable to the economy are more likely to prevail. In most major countries, the central banks have to reconcile differences with the executive, with the Government the ultimate source of responsibility and authority.

J–5–E. REPRESENTATIVES OF CONGRESS, THE TREASURY, AND COUNCIL OF ECONOMIC ADVISERS AS OBSERVERS AT OPEN-MARKET COMMITTEE MEETINGS

At present the Secretary of the Treasury, the Council of Economic Advisers, and the Director of the Budget meet once a week for a discussion of issues. As senior consultant to the Secretary of the Treasury, I am invited to these meetings and often attend them. I think the meetings are very helpful, and are attended by about 12 high officials. Ordinarily the Chairman of the Federal Reserve Board is not present though there are some meetings with Mr. Martin. I see no reason why issues of open-market policy should not be discussed with the three relevant departments, both with the Chairman of the Federal Reserve Bank and other members. This might be better than the "observer" policy. The Fed has some special responsibilities in helping to stabilize the economy, and hence they should be allowed to discuss their responsibilities freely and without other agencies and Congressmen breathing down their necks. I have generally held the view that the Fed is too independent of both the Executive and the Congress. Yet I would not go as far as introducing these observers. But there should be much more free discussion between the Fed and the three other relevant agencies, and even with responsible Members of Congress who, by virtue of their knowledge and position, are strong candidates for keeping themselves informed. Surely if the Fed and the others are to work out a proposal to the President, the three departments, and to some extent the Congress should discuss open-market policies fully and frankly.

II–1. *Retiring Federal Reserve stock.*—I have no strong views on this issue.

II–2. REDUCING THE NUMBER OF MEMBERS OF THE FEDERAL RESERVE BOARD TO FIVE AND TERMS TO 5 YEARS

In general, I approve this recommendation. The Board would be more efficient with five members, and in this way the next administration will be able to tie Federal policy more to the views of the Executive. It may be well to get rid of the less able members of the Board now. I say that though I am aware with the appointments in particular of Messrs. Mitchell, Maisel, and Brimmer, the average quality has greatly improved. The staff also is much improved over the staff of earlier years.

It is certainly a mistake for one member of the Board to control monetary policy over a period of more than 15 years. A limit of 10 or even 6 years should be placed upon the Chairman. It is particularly unfortunate that the Chairman, though a devoted public servant with high moral standards, is obsessed by the fears of inflation when justified and not so justified. Fortunately, the new members have pruned the authority of the Chairman and it must be said that in the 1960's—except for 1966 and 1968—the Chairman has abandoned to some extent the obsession with inflation. But it is risky to allow one member of the Board to control monetary policy and to that extent the economy.

II–3. MAKING THE TERMS OF THE BOARD AND THE PRESIDENT COTERMINOUS

This is an excellent idea. The possibilities of a well-integrated policy would be greatly increased. It would be helpful if the Chairman's term might be extended by 1 or 2 years additional.

II–4, 5. AN AUDIT OF THE FEDERAL RESERVE BOARD AND FEDERAL RESERVE BANKS BY THE COMPTROLLER AND APPROPRIATIONS BY CONGRESS

I see no serious objection. I do not see why the Fed should profit from special financial arrangements not open to other parts of the Government.

III. COMMENTS ON RECENT MONETARY POLICY

I have commented elsewhere in this paper. In general, I would say that monetary policy in the years 1961–68 overall were better than under Eisenhower. Martin yielded to the pressures of Presidents Kennedy and Johnson, and he has to share his authority increasingly since 1961.

Of course there are exceptions. The policy in 1965 beginning with the December 1965 rise of rates was almost disastrous. Even before December 1964, there were numerous statements by the Chairman of the Federal Reserve Board about the dangers of inflation and the need of restraint.

Yet from 1964 to the middle of 1968, GNP (in 1958 prices) rose from $582 to $702 billion, a rise of 21 percent in 3½ years, or about 6 percent a year. Moreover, in this period, prices rose only by 11 percent, or 3 percent a year. This is not a perfect record; but note that real GNP rose twice as much as prices. Thus, policy would have been much more sterile had the authorities listened to Martin's concentration on fears of inflation.

21–570—68——17

The hard-money policy of 1966 could scarcely be justified. First, because it was the first real defiance of executive control over economic policy. Second, because the rate of interest rose spectacularly and the supply of money responded most inadequately. This is evident in the following changes in interest rates:

	1964	1966	1967	July 19, 1968
Taxable bonds	4.15	4.65	4.85	5.14
Corporate bonds, Aaa	4.40	5.13	5.51	6.26
FHA new home mortgage bonds	5.45	6.29	6.55	
3-month Treasury bill	3.55	4.88	4.32	5.467

These are unprecedented increases in rates, and especially long-term rates. Only the passage of the tax increase stopped the rise. But the decline of rates has been of most modest proportions. The Fed still hesitated to give the economy a lift even though rates continued to rise through most of 1958, until a passage of the tax bill, and there were increasing signs of an economic decline.

I might comment on one omission in the questionnarie. The cost-push aspect of inflation requires consideration. With wage rates rising 6 percent (prices 4 percent), the burden put upon both fiscal and monetary policy is greatly increased.

STATEMENT OF LOWELL HARRISS, COLUMBIA UNIVERSITY

MAKING MONETARY AND FISCAL POLICIES WORK: COMMENTS ON H.R. 11

The important topics covered by H.R. 11 deserve exhaustive analysis on a broad scale. The committee deserves high commendation for its undertaking. The press of many demands prevents me at this time from giving the points the direct attention I should like. Within recent years, however, my writings have touched on several of them. Selection and recasting of materials from several sources permits me to respond, incompletely and inadequately but most respectfully, to some of your inquiries.[1]

THE AVERAGE WAGE RATE: A BASIC FACTOR OFTEN OVERLOOKED

1. The magnitudes appropriate for policy decisions depend upon a factor too often overlooked—the average wage rate. Total aggregate demand of $900 million (GNP) would buy 150 billion hours of labor at $5 an hour (total cost to the employer), leaving $150 billion for other factors. If aggregate demand rises by $10 billion (through fiscal or monetary policy) and if this increase all goes to labor, an additional 2 billion hours of employment are created—providing wages remain at $5 an hour, average or, more accurately, at the margin). If average wages were to rise to $5.20 (4 percent), however, the $760 billion now available to labor would not even pay for 150 billion hours of employ-

[1] Adapted from the following by C. Lowell Harriss: *The American Economy,* 6th ed. (Homewood, Ill.; R. D. Irwin, Inc., 1968); with (W. J. Shultz) *American Public Finance,* 8th ed. (Englewood Cliffs, N.J., Prentice-Hall, Inc., 1965); *Money and Banking,* 2d ed. (Boston: Allyn & Bacon, 1965); "Fiscal Action To Influence Employment and the Price Level: Some Criteria," Government Finance Brief, No. 4, 1966, Tax Foundation (from testimony for the Joint Economic Committee); "Inflation's Hidden Effects," "The National Debt: Looking Ahead, *Tax Review,* July 1967 and March 1968 (Tax Foundation); "Making Tax Policy Work," Manufacturers Hanover Trust Co., October 1967; "Objectives of Fiscal Policies: Looking at Goals," *Business Papers,* Oklahoma State University, No. 5, 1967.

ment (144 billion). Depending upon the *cost of labor*, as well as of other factors of production, dollar increases in aggregate demand do not necessarily insure more employment.

2. More to the point, the volume of *real employment* from any given monetary demand relates to the *price of labor*. The figures above are too rounded to be entirely realistic but will serve to illustrate. A 4-percent rise in the average price of labor will "cause" a drop of about 4 percent in man-hours paid for from any given dollar amount of total demand.

1. *The effects of fiscal policy depend upon monetary actions.*—Shifts in Government deficit and surplus can tip the balance and keep the economy from going too far in either direction, and certainly prevent expansion or contraction from cumulating dangerously. It is vital, to distinguish between two points (*a*) the amount of Government spending, and (*b*) the source of the funds. If the Government cuts or increases its spending while private spenders make equal, but opposite, changes, there will be no net alteration in aggregate demand.

2. If *inflation* threatens, how can fiscal action cut overall spending? The Government can take more money (in taxes) from private spenders than it spends itself. By reducing disposable income in this way, it cuts business and family buying. The Treasury can use the surplus to retire securities held by commercial banks. The effect will be greater if debt changes are those of the Federal Reserve banks or if currency is retired. The monetary authorities must, of course, prevent increases in bank loans to business that offset declines in Government debt. The imperative necessity of the coordination of monetary with fiscal policy must never be forgotten. The total volume of M (money) will fall. Or the Treasury, by merely holding the surplus as idle bank deposits can give them a V (velocity) of zero.

3. If *recession* seems in the offing, Government can lower taxes to leave families and businesses with more disposable income. Government can also increase total demand by itself spending more without taking more from the public. Where can it get the money to make up the difference? By increasing M. How? It can borrow from commercial banks. (If it has been holding deposits idle, it can use them, raising the V from zero; currency issue is also possible.)

4. The effective force changing national income (in the short run) comes *not* from the amount of Government spending, nor even solely from *changes* in such spending. What counts more will be the *way the changes are financed*. Some economists question the effectiveness of monetary policy in a recession because businesses cannot be counted upon to react promptly to easy money by borrowing and spending enough more to give full employment. By fiscal action, however, Government can do enough, by creating purchasing power and injecting it into the stream of national income, directly and quickly.

5. The results of *deficit financing* will depend, not only upon the amounts involved, but also upon the kinds of tax and spending changes. More important is the way the money to cover the deficit is raised. If the borrowing is accomplished by selling savings bonds in a way to absorb purchasing power that otherwise would be spent on consumption or investment, the ultimate net effect of the whole process may be little change in national income. But if the debt is sold to commercial banks, the economy can get a true stimulus as net new

purchasing power is injected. There can be such *net* injection only if bank lending that would otherwise occur is not curtailed.

6. A shift from deficit or balanced budget financing to surplus financing operates, in essence, as the reverse of a shift to deficit financing. In general, a move to surplus financing has a contractive effect on the economy as more money is taken from the taxpaying public than is paid back in expenditure. *The crux of the matter is the use of the funds received by the former holders of the debt.* If banks are repaid and the money stock thereby reduced, the downward pressure on business activity can be substantial. If the funds made available to the private economy by debt retirement go into financing an increase in private investment, or consumption, the contractive result will not be significant.

7. Changes in the total flow of income resulting from fiscal operations depend significantly upon increases or decreases in the country's stock of money. *Changes in bank lending are the chief agency through which fiscal operations introduce purchasing power into the income flow or withdraw purchasing power from it.* Changes in the volume of deposits in commercial banks are monetary developments.

BANKS AND THE RATE OF INTEREST

1. Borrowers want money. They have no reason to care whether the money is newly created or whether it is the result of saving out of income. The significance for the economy, however, is tremendous.

2. The *demand for loans*, often expressed as a demand for credit, can be met out of the supply of *savings*. There is a price, an interest rate, which will balance the quantities of *credit* demanded and supplied. The "thing" which changes hands is money. For money as such, there is a demand and also a supply. The supply-demand of credit and the supply-demand of money are essentially different. Much misunderstanding results from the fact that commercial banks both grant credit (make loans) and create money (demand deposits).

3. Some of the supply of loanable funds, and especially some of the *change* in the amount supplied in the short run, results from commercial bank lending in the form of *money creation*. Funds for lending of this sort can involve virtually no real cost in the sense of labor and materials. Under some circumstances the creation of demand deposits for some borrowers may not require any sacrifice of desirable alternatives. Government can influence the amount of such lending by the rules which regulate banks in their creation of money.

4. Is it not possible, then, to use the banking system to control the rate of interest? More tempting, perhaps, is the possibility that by enabling banks to "manufacture" money more easily, man can lower the cost of borrowing. At any given time, society can permit banks to expand their loans—extend more credit—even though there has not been a penny more of voluntary savings. This fact is undeniable. Another fact is also undeniable. Such loan expansion increases the stock of money.

5. An increase in the volume of funds available for lending will tend to reduce interest rates. But this is *not* the *only* result. As the new money is spent, the volume of economic activity in dollar terms will go up. So may the price level.

6. Will a rise in the price level affect interest rates? It ought to induce some lenders to try to get a higher yield as compensation for the loss in value of money. Some owners of bonds will sell, perhaps to buy stock or real assets. Some holders of money will shift to goods. Borrowers will tend to seek larger loans to benefit from rising prices. Thus, *both demand and supply changes* (after the initial injection) *move to raise interest rates.*

7. Unless banks add another injection of money, interest rates tend to rise. Except temporarily, banking policy cannot lower interest rates, unless injections of new money into the economy are continued. In a world of essentially full employment, except as the quantity of new money matches growth of productive capacity, such a practice must be self-defeating. As the growing stock of money circulates, the upward pressure on prices will continue.

8. When there is substantial unemployment, of course, the effects of the increase in bank-created funds for lending—money—may appear primarily as greater output, with little rise in prices. Higher incomes will both stimulate saving and raise the demand for borrowed funds. The relative magnitudes will depend upon a host of conditions whose net effect will not be clear before the process has gotten underway. But I find difficulty in believing that the interest rate will not go up. If so, the actions to lower interest rates are successful only temporarily, successful, that is, in terms of the narrow goal of influencing the one price, the rate of interest.

9. What about the power of the monetary authorities and the banking system to *raise* interest rates? Again, the basic forces of demand and supply dominate. Banks have influence in the short run. By reducing reserves or raising reserve requirements, the monetary authorities could force banks to reduce loans outstanding. Interest rates would tend to rise. But for the longer pull they would not rise a great deal unless the process were repeated and repeated, something which is improbable, partly because the downward movement of national income would reduce demand for borrowed funds.

10. Briefly, and explicitly excluding inflationary possibilities, bank actions *over any extended period* will not have much effect on the *level* of interest rates. The influence in the short run is quite another matter. Changes in short-term rates that are large in percentage terms can result from alterations in bank lending. Such changes in lending may result from forces apparently outside the banks—a decline or a rise in business demand for loans—or from official actions which alter the capacity of banks to make loans.

OUR MONETARY POLICY AND ITS USE

Ambitions are more easily raised than satisfied. Some of us have come to expect a great deal from fiscal and monetary action, to seek both big and varied objectives. Yet what can we really expect to accomplish? What is possible? What are attainable objectives? Several factors affect the attainments which are possible.

1. The monetary authorities cannot directly change the income stream. What they do will not in itself constitute an increase or decrease in the flow of expenditures through the economy. The Federal Reserve changes the availability of money, or of close money substitutes.

2. The effects of monetary change cannot be pinpointed. Even if an initial impact were to be focused by some sort of selective action, such as short-term business (self-liquidating commercial) loans or special treatment of mortgage lending, the results will gradually spread over the economy; other sectors feel the results, some promptly, others only after delay.

3. Monetary action will not build houses or raise the productivity of manufacturing or make people friendlier. It will not in itself modify the underlying real elements of the economy. Monetary conditions, however, are an essential element of the framework within which we produce and consume.

4. The tools or implements of monetary policy, of course, help determine the "possible." The chief tools influence the stock of money and its close substitutes. (*a*) The monetary authorities cannot control the willingness of banks to lend or of customers to borrow. (*b*) Even if the quantity of money were controlled rigidly, no central authority would be able to control *velocity* or the changing *desires for liquidity*. (*c*) The authorities do not know by how much either changes in interest rates or in the prices of securities will influence the volume of investment. Apparently, however, demand schedules for many types of investment goods are highly inelastic with respect to interest. We certainly do not know how big the marginal responses will be.

5. The choice of what we ought to try to do will depend upon the extent of confidence in our ability to predict the effect of different kinds of action. Prediction remains an uncertain art.

6. Another factor affecting the possible is the quality both of the personnel who will make and administer policy and of their advisers. Will the people who must make the decisions be well qualified? What assurance can the public have that those responsible for policy are competent to act as well as is required for success? A person or group not qualified to do the job well (no matter how competent to act on other problems) may in fact have decisive influence. For example, a banker who is well qualified to judge the quality of business loans may have little competence for deciding how much change in the quantity of bank lending will serve the public best. Serious errors may produce costly mistakes. The existence of this risk underlies the argument for trying to rely upon carefully devised rules in preference to frequent exercise of judgment.

7. What might seem possible in theory may in fact be impossible because of practical realities. For example, two such different things as the temporary strength of a few leaders in Congress or delays in getting a half dozen pieces of key information may modify significantly the hopes of success in dealing with a particular situation. The freedom to use monetary policy also depends in part upon what monetary authorities in other lands are doing. The "possible" in one country rests somewhat upon the "actual" in others.

8. The intermixture of *monetary* and *credit* policy seems certain to continue to create confusion. Society's need for money—as a medium of exchange, a store of value, a unit of account, a standard of deferred payment—is different from its need for credit. The attempt to meet *desires for loans* by creating money—or the destruction of money when the demand for credit slackens—is not likely to produce the best *monetary* policy. Yet the two are grouped together, with officials in and out of Congress often more concerned about credit than about

the stock of money. The desire to help one section of the economy (farming) or restrict another (the stock market) can be satisfied, perhaps, by credit policy. Monetary policy, however, is not an efficient instrument for such purposes.

9. Some goals are simple, some complex. Some are clearly the means toward other ends, while others are more nearly ends in themselves. Shall we, for example, settle upon a rather specific goal for the monetary authorities, such as a stable or slowly rising quantity of money? Or should we seek a goal embracing much more of economic life, such as maximum employment or the rapid growth of real income? Monetary goals, like money, are means to other ends. It is hopeless to expect monetary action in itself to bring us to our real objectives—the goods and services we would get from the full employment operation of a free economy. Yet it is also hopeless to expect to achieve the real objectives if monetary currents are running strongly against their realization.

10. The issue of rules versus authorities is this: (*a*) Monetary policy and directives for action can be stated in terms that are clear, definite, and precise. (The statements would be embodied in laws passed by Congress.) Human beings in carrying out the policy would be left little (or no) room for judgment or direction. (*b*) In contrast, the monetary system can be framed to give power to be used by authorities (an individual or a group) as they think best in the light of the conditions which actually develop. The first kind of policy is one of *rules*, the second one of *authorities*. Between the extremes lies possibilities of compromise.

11. *Arguments in favor of rules.*—(*a*) One argument for fixed rules derives from the fact that the monetary system makes up such a vital part of the economic framework. If this part is certain, then individuals and businesses can arrange their affairs more efficiently than if they are uncertain about what may develop in this important part of economic life. Expectations will be more certain. There is less room for surprise. Society can largely eliminate one source of risk—and risk is a cost. (*b*) If rules are fixed, changes in monetary policy will not make things worse. Adhering to a rule assures protection against some human errors. Even if the rule may not be best for every situation, there is no danger of bad selection of alternative actions or bad timing as authorities try to meet changing conditions. Thus, the public avoids not only the cost of uncertainty but some of the risks of poor policy. At the worst, we may sacrifice little to obtain this gain because the potential superiority of flexible over fixed policy will not be large, whereas the losses from shifting to an inappropriate policy can be substantial. (*c*) The record of discretionary management has by no means been brilliant. Evaluating the record is difficult; one cannot know what would have been produced by different actions. Nevertheless, the accomplishment does in itself provide a convincing testimonial to the superiority of authority over rule.

12. *Arguments against rules.*—The major argument against reliance upon fixed rules is that discretion *may* be used wisely to meet needs as they develop. No two sets of economic conditions, after all, are identical; the future is unknown. How can men, with all their limitations as human beings, set a general rule for the future which will serve as well as the best that men can devise as conditions actually develop? Can we not get the best results if the monetary system is adaptable?

A fixed rule can hardly serve all desirable goals equally effectively, and a policy well suited to achieving one goal (such as price level stability) may be poorly adapted for another (economic growth), which may increase in relative importance. Insulation from troubles coming from other countries may require flexibility in monetary policy. Not enough is known about the ability of officials to implement a rule to be confident of success. (Two more or less fixed rules—the gold standard and the balanced Government budget—had considerable weight for decades. Yet they did not control in the sense of displacing other guides of policy.)

13. Perhaps the *clearest-cut monetary goal* would be to *regulate the quantity of money itself*. The objective is *less ambitious* than others to be discussed later. *And it could be achieved.* The control envisaged would be more rigorous than is possible now, when private decisions also influence the expansion and contraction of bank loans—and therefore the stock of money. The quantity of money to be outstanding would be determined. Anyone seeking to borrow money would have to get it from the existing stock. Commercial bank *creation* of deposits would be impossible. The requirement that demand deposits be backed by 100 percent reserves offers a possibility worth more attention than can be discussed here. The monetary authorities controlling reserves would then have one-for-one control of the quantity of money. If such a plan or, more realistically, one less rigid were adopted, what might be the guides or standards of the amount of money?

13a. One possibility would be to *fix the quantity of money* once and for all. Clearly, then, no economic disturbance could arise out of changes in the quantity of money. A single objection, however, dooms this suggestion: In a growing economy, the price level, including wage rates, would decline as total output increased. Price declines on the scale that would be involved would create intolerable strain. Rigidities are too numerous and too severe.

13b. A more realistic possibility would be to *increase the stock of money at some steady and definite rate.* No one, then, need have any doubt about the amount of money in the economy, next month or next year. Once the policy had been determined and necessary changes made in financial institutions to assure practical implementation, the monetary authorities would have no discretion. Every week or month the Federal Reserve would buy enough assets (Government debt) in the open market to build the money stock as agreed upon, possibly with seasonal adjustment. Or the Treasury would adjust its financing —debt refunding, new borrowing, and currency issue—to provide the expansion. The injections of new money might be set to equal as nearly as possible the expected growth in the economy so that the price level would be essentially stable.

A proposal so rigid may seem unduly restrictive. Would the gain—the removal of what has been a source of economic instability, changes in the rate of money creation and destruction—be worth the loss of freedom to change the quantity of money? History records many occasions on which discretionary monetary action rather than strict adherence to a rule could have served the public interest. Nevertheless, an advocate of the strict control of the stock of money must not necessarily abandon his case when presented with such evidence. He may argue that the trouble which seems to call for remedial action would

not have developed if his plan had been in effect earlier. The strict rule does not conform to our tradition. More important, however, is the belief that in a world of freedom and uncertainty men should try to adapt monetary policy to the conditions which do actually arise. And one weakness is clearer today than it was even a few years ago. "*Money*" *is not easily defined.* Close, and not-so-close, substitutes exist. Changes in the totals of substitutes can upset the results expected from a policy of fixed growth of the money stock.

14. Any policy based on strict control of the quantity of money has an inherent weakness. It ignores *velocity.* Is there, then, a policy which deliberately takes account of velocity? One approach would seek to regulate either the total of money payments (MV), or the total of income payments (MVy). The goal would probably be some stated, regular increase in the aggregate. Regulation of the total of money payments would be a more powerful instrument of economic control than one limited to the quantity of money. Achievement, however, would be very much more difficult. Velocity is the result of the way millions of economic units act.

Though a central authority can control M within narrow limits, it *cannot control the use of* M. (Among the problems for which there is yet no good solution is the changing importance of "nonincome" uses of money, such as the purchase and sale of securities.) The use of money is the most decentralized, the most dispersed, of economic realities. A proposal which includes allowances for changes in V is quite a different thing from one which involves M only. In fact, the working out of the policy would have to rely upon those changes which the monetary authorities are actually able to make—changes in M. These would be larger or smaller, depending upon the *expected* movements in V.

Is a goal which can be achieved only by correct forecasts of V overly ambitious? So it would seem. Yet the monetary policies most widely accepted today do, at least indirectly, involve this more ambitious objective. This fact is true of the pursuit of price level goals.

15. Fiscal and monetary policies are by no means perfect substitutes for each other. They are not fully interchangeable. Nevertheless, the effects of any fiscal policy must work out in an environment which depends significantly upon monetary policy. Both public debate and advanced professional analysis often benefit from assuming "other things being the same." Real world processes, however, do not permit the simplification which involves a fiscal policy change which has no monetary effect. Economists disagree in their weighting of the relative importance of monetary and fiscal actions under different combinations of conditions. Such differences of view, however, do not justify what sometimes seems to be the denial, by implication, that monetary policy will significantly influence the outcome of fiscal action.

16. Who can possibly judge the effects of different possible fiscal actions next month or next recession without making assumptions about monetary conditions? The leaders of our Government have the potential power to assure themselves of a much higher degree of certainty about monetary policy than has been the case to date. True, velocity of circulation will remain beyond direct control of official agencies. But changes in the stock of money—defined as currency plus demand deposits—can be controlled within a moderate range, not

necessarily from week to week but for short periods relative to phases of a business cycle. Changes in the amount of money added to the economy do more than influence interest rates when newly created deposits add to the supply of loanable funds as the money is injected into the economy. *The money continues to exist, to pass from hand to hand, to be used in transactions.*

17. Other policies, notably those affecting wage rates, also influence employment and price levels. The higher the level of average wage rates, the greater the dollar total of demand needed for any total of employment. Raising the minimum wage and extending coverage would aggravate the problems of achieving full employment with price level stability. The resulting wage rate structure would obstruct the absorption into the employed labor force of young people and others whose productivity has not yet reached the legal minimum.

ON THE USE OF FISCAL POLICY

1. Fiscal policy results from (1) the recommendations of numerous elements of the executive branch, (2) the actions of revenue-raising committees and the appropriations committees (and their subcommittees) in both House and Senate, and (3) The Houses of Congress themselves. Monetary policy is made by the Federal Reserve subject to an undeterminable influence from the executive branch, Congress, foreign central banks, and other sources.

2. An outsider cannot evaluate the "real-life" working of these arrangements. But I have read much of what has appeared in print. It leaves me uneasy. The men who have made the decisions do not seem always to have understood the issues, processes, mechanisms—including the ties between monetary and fiscal policies—as well as we should like. Perhaps, however, the past is a poor guide to the future. Will not everyone have learned? Unfortunately, some of us are slow learners. Even more to be regretted, the "truth" is not always crystal clear.

3. The validity of one point, however, seems beyond question: *The public may justifiably expect that the two groups of decisionmakers coordinate policies.* Where arrangements fail to assure coordination, what needs to be done? My few suggestions assume no major change in relations among the branches of our Government.

4. More remains to be done in providing evidence about what has (just) happened and in analyzing the probable results of alternative courses of action. Much merit supports the recent efforts to get the Federal Reserve to inform the Joint Economic Committee of the bases for monetary policy actions. Congressional hearings advance understanding. Nevertheless, they cannot do all that is reasonably possible in threshing out tough questions—and many are tough. The public forum has some disadvantages as a means of examining complex and controversial issues. "Second thoughts" cannot get into the discussion when there is no second round. How can any committee of Congress be certain that it is getting the full and complete thinking of Federal Reserve and executive agencies, with articulation of doubts and differences of view among the men and women with a rightful claim to competence?

5. A summary which links the revenue changes to the general level of economic activity, is as follows: Within the limits of existing capacity, the amount the economy produces will depend upon the total dollar demand for goods and services—the buying of families, businesses, and governments. At the prevailing level of prices, including wage rates, some total dollar amount of demand will be needed to buy the output which would be produced at full utilization of capacity. If total demand falls short, unemployment will result because wage rates and many prices are inflexible downward. On the other hand, a total of demand greater than "needed" will bid up prices—will be inflationary. In either case, fortunately, action by the Federal Government may improve matters. A reduction in tax collections will leave taxpayers with more dollars and thus raise private demand. A rise in tax collections, however, will force the private sector to spend less and dampen forces of inflation.

6. The *process* by which revenue change influences national income will depend in part upon the responses of the financial system.

A reduction in their tax bills will leave families and businesses with more money to spend, but the Treasury will get fewer dollars for Federal spending. Without a budget surplus, would not the Treasury then need to curtail its purchasing by about as much as consumers increase theirs? If so, total buying by consumers, Government, and business can hardly rise to give the economy much of a boost. If Federal expenditure programs, those which are presumably justified on their own merits, are to be maintained while consumer and business buying expands, how can the Treasury get dollars to make up for those withheld from it by tax reduction?

By borrowing—but where? What if all the funds being supplied for lending are being taken by businesses, home buyers, State-local governments, and others? Treasury borrowing which would absorb part of this limited supply would thereby force others to scale down their plans. *A tax cut cannot lead to net stimulation of total demand when the resultant Federal borrowing deprives private borrowers of loan funds they would have spent.*

7. On the other hand, the Treasury may be able to borrow in an environment in which commercial banks create enough in demand deposits to permit the new Federal securities to be sold without depriving other borrowers of funds. Federal Reserve cooperation can assure such a result. The Fed has power to provide the banking system with enough lending capacity to enable the Treasury to be accommodated without requiring curtailment of business and consumer borrowing.

8. *The process by which tax reduction leads to an increase in total purchasing power, therefore, requires monetary policy that permits the Treasury to borrow more without reducing the funds available to other borrowers.* Directly or indirectly, the Government must get dollars which would otherwise not be used. Federal expenditure of newly created money will add to the total demand for business output. Furthermore, the effects do not end with the first use of new money. The added dollars will continue to circulate and thereby finance some transactions which would not otherwise be made. The cumulative stimulus from dollars created to finance tax reduction will exceed the original amount somewhat—but no one knows by how much. Failure of the Federal Reserve to expand bank lending capacity, or failure of the

financial system to perform "normally" may frustrate hopes. In such cases, tax reduction will not spur the economy through expansion of total purchasing power.

9. The recent U.S. record and the postwar experience of many other economies must confirm the fear that expansionary fiscal and monetary policies are likely to bring price-level increases before full utilization of capacity. During Mr. Kennedy's Presidency, the economy did not press on the limits of productive capacity; and the price level, according to many observers, was essentially stable. Even rapid increases in the money supply, however, need not have much influence on the price level, if the new dollars are used to buy goods and services that would not otherwise have been produced. Clearly, however, the nearer the economy comes to full utilization of productive capacity, the greater the likelihood that additions to demand will bid up prices.

10. A rise in the taxpayments of individuals and corporations will reduce the funds available to them for other purposes. To varying degrees, families, and businesses will curtail their buying, thereby reducing this element of total demand. *More dollars*, however, are *pouring into the Treasury*. Experience suggests that *their availability will tempt lawmakers to raise Federal spending*, perhaps with only a short lag.

11. If tax collections exceed Federal spending, the Treasury can use the "unspent" dollars to retire debt. Assume that the Treasury retires debt. The financial institutions which get cash as a result are in a position to increase their lending; upward pressure on interest rates may ease. The demand for loans tends to be high under conditions which lead to anti-inflationary action, and borrowing can be expected to rise. The kinds of things bought with the borrowed funds will differ considerably from the consumer items forgone because of the tax increase. Borrowed funds, for example, are used more for capital goods. But total dollar demands on the economy may be about the same. To the extent that this is so, an increase in tax revenue and reduction of Federal debt will have little or no restraining, anti-inflationary effect.

12. Is there some way to prevent the dollars which are used for debt retirement from reappearing as demand in the private sector? Not as a practical matter. But roughly equivalent restraining effects can be obtained through Federal Reserve action.

Many sources of savings feed into the stream of loanable funds to which the Treasury will be making additions. Another source of loanable funds consists of additions to demand deposits by the banking system. The Fed has power to prevent, or slow down, the growth of bank deposits. Bank lending, therefore, can be kept lower than if the Treasury's debt repayment were not adding to funds available for lending. Such restraint imposed by the Federal Reserve can seek to keep total outlays on investment goods around the level expected if there had been no tax increase. The latter has forced down consumption, however, so that total demand will press less heavily on productive capacity. Another result is that the stock of money grows more slowly than otherwise. Therefore, fewer dollars will be created for future transactions.

13. The tie between a tax increase and monetary policy is often presented in slightly different terms. At any given time the Fed believes that there is a maximum by which it can permit bank lending to rise

without creating inflationary pressures. If tax collections were greater, a higher rate of monetary expansion would be consistent with price level stability.

MANAGEMENT OF THE DEBT

Even when the debt is not growing its existence continues to present problems.

1. Some aspects of debt management are technical, but others have significance for the economy generally. A borrowing of $10 billion to repay an equal amount will not have neutral effects on the economy; nor will all holders of old debt accept new debt in return. The Treasury may not borrow from the same groups as hold the maturing debt. It obtains funds in some areas of the market and then makes fund available elsewhere. Consequently, the management of the debt will change interest rates and the relative ease or tightness of credit in sectors of the market. Within limits, which shift from time to time, the choices made in refinancing outstanding Federal debt can serve a constructive purpose.

2. Yet the choices can also have unwelcomed effects, since distinguishing the desirable from the undesirable cannot always be done with absolute certainty. Nevertheless, the men close to the credit and money markets—the Treasury and its advisers—can generally make better policy decisions if the range of available alternatives is broad rather than narrow. Anything in law or tradition which limits the scope for choice in refunding also reduces the possibility of making debt management an effective instrument of policy and creates more than a slight danger of unwise actions. The economy as a whole will function at least a little differently, for better or worse, as a result of decisions about managing outstanding debt.

3. The existence of the debt also affects the economy in terms of liquidity. Monetizing the debt proceeds as each passing day reduces the remaining life of outstanding debt. An obligation due within a few days or weeks has very different liquidity characteristics from one due in 20 years. The shorter the debt, the more it resembles—and serves the liquidity purposes of—money. A Federal debt that does not grow, one that may remain in about the same hands, can gradually become more and more like money. The effects can be at least a little like the inflation-creating tendencies of additions to the money supply. One consideration for the Treasury in managing the debt, therefore, is to have a structure which conforms as well as possible with the economy's apparent needs for liquidity.

4. Some balance of long-, intermediate-, and short-term debt will be better than another. To achieve this balance the Treasury must be able to sell the kinds of issues required. But if new long-term debt cannot in fact be sold, the maturity structure will deteriorate somewhat. Even with ingenious mixes of new issues offered in advanced refundings, the Treasury cannot always achieve the results it would like when the law limits its freedom of maneuver.

5. A ceiling of 4¼ percent on interest payable on debt with a maturity over 5 years was a legacy from World War I. Congress in 1967 met part of a Treasury request for authority to sell notes maturing up to 7 years at whatever interest rate the market requires. For longer debt, however, the 4¼-percent limit continues. *Imagine trying to fi-*

nance an industrial enterprise or a public utility or housing with such a restriction—no borrowing for more than 7 years.

For long the 4¼-percent limit had no operational significance. In the 1920's when interest rates were higher, the Treasury was retiring debt. After that, either the level of interest rates or the structure enabled the Treasury to manage a large and growing debt with little or no interference from the ceiling. But this is not the case today. Nor will it always be the case in the future. Long-term loans of top quality may often command more than 4¼ percent. Why? The *productivity of capital*—which underlies much of the demand for private borrowing—will often be appreciably higher. And may not inflation reduce willingness to lend for long periods at interest rates acceptable in the past?

Neither the Treasury nor the Federal Reserve makes interest rates; both are among many elements in the market. Interest rates result from operation of the forces of demand and supply. Part of the demand comes from the National Government. The Treasury in managing the outstanding debt must often borrow. Its demands can have significant effects for a time in a part of the market even though its total debt is not growing. If market forces lead to interest rates which are above 4¼ percent, what can the Treasury do as it faces the need to refund old debt? Will generous citizens lend "below the market" as a favor? Not extensively. The law permits the Treasury to borrow on short term, now up to 7 years, and pay whatever rates the market demands. On such debt, the Treasury will pay much over 4¼ percent. *The legal limit*, therefore, *does not determine the interest cost of the debt.*

6. The *ceiling* does affect the *structure* of the debt—and in a way which can be unfortunate. Today, it forces more debt into relatively short-term form. The shorter the debt, the greater the liquidity and "moneyness." Debt becomes more nearly *monetized.* When the Federal debt seems likely to endure for generations, a ceiling which prohibits borrowing for 30 or 20 or even 10 years prevents the best adjustment to reality. The ceiling forces issuance of relatively liquid debt forms. To call it an engine of inflation is to exaggerate, but some such result does occur. Today, and very probably in the years ahead, the most skillful management cannot keep the debt from becoming more liquid, from making the economy a little more inflation prone.

7. There is a widespread belief that Government borrowing to finance spending has an expansive effect on business, and debt retirement a contractive influence. This view is oversimplified, to say the least. The economic effects of Government borrowing differ according to whether such borrowing: (*a*) absorbs funds that would otherwise be spent for consumption; (*b*) absorbs savings that would otherwise finance investment (that is, creation of new capital properties); or (*c*) results in the creation of money. The effects are intimately related to what happens in the monetary and financial system.

8. *Absorption of funds that would otherwise be spent.*—When the Federal Treasury persuades workers to buy savings bonds through payroll-deduction plans, or other arrangements which involve commitments to buy regularly, the economic effect of the borrowing will be somewhat the same as that of a payroll tax—within limits. Some of the purchasing power they divert into bond purchases would otherwise have gone into consumption spending.

9. *Absorption of funds being saved or already saved.*—When individuals or institutions (other than commercial banks) buy newly issued Government bonds with funds they have saved or received from savers, the immediate effect is much the same as if the accumulated savings had been absorbed by a tax. The effect may be the same whether the bond purchaser uses funds on hand and awaiting investment or sells some other form of security to buy the Government bond. In the latter case, the securities or properties sold may eventually find their way to some holder of accumulated savings who used them in this way instead of financing new investment. However, if the eventual purchaser of the assets which are sold borrows from a commercial bank to pay for them, the situation falls into the category of Government borrowing in which bank loans and demand deposits are created. Businesses and individuals seeking funds to pay for new investment goods find conditions tighter. Borrowing costs will certainly rise, and the sale of newly issued shares of stock will be more difficult. Some planned investment will be forgone because of higher financing costs. Government absorption of private savings, therefore, tends to contract national income, more or less offsetting the expansive effects produced by spending the proceeds of the loan.

10. *Borrowing that results in creation of money (deposits created by bank lending).*—Government borrowing can result in the creation of money—new demand deposits at commercial banks. The borrowing government gets newly created purchasing power, upon which it draws to pay its expenses. The spending of the borrowed funds has an expansive effect upon the economy. The newly created deposits move into the country's stream of monetary payments. The public has more money to spend than otherwise. Total spending, and therefore national income (at least in a monetary sense), are above what they would be if the money had not been created. *Money used is not used up. It continues to circulate.*

11. However—and this point is often overlooked—the net effect of government borrowing depends upon what happens to private borrowing. If bank lending capacity is so limited that lending to government leads to less lending to business, the net expansive effect is correspondingly smaller than one might expect from looking at government actions alone.

12. *Debt reduction.*—When a government uses an excess of current revenue to retire a debt issue held by banks, the economic effect is the reverse of floating such an issue. The government repays the debt with bank deposits which it has accumulated, and these deposits go out of existence. Although, in a strict sense, the actual transaction of the debt retirement does not affect the level of business, the process of obtaining the money withdraws purchasing power from the public. And the destruction of deposits in a significant sense passes the contractive effect on into the future—unless private borrowing from banks rises to offset the drop in government borrowing. The raising of the funds to retire the loan would, of course, contract national income.

13. When a government retires a debt issue previously bought by individuals or institutions with saved funds, the effect of the retirement is the reverse of that of the borrowing. The funds received by the bondholders are now available for new investment or consumption spending. The added availability of funds, plus any increase in consumer spending, would stimulate investment. Some time

would be required, however, to offset the contractive effects of the taxation that raised the funds.

14. *Debt and currency.*—Currency is, to some extent, a substitute for Federal debt. If government were to issue currency to retire some debt, the stimulating effect could be great indeed. If the debt were that held by private savers—individuals or institutions—they would generally try to use the funds to buy new income-providing securities, real estate, or other property. The stimulus to investment could be strong. If the government, in contrast, were to borrow from savers to retire currency, the contractive effects would be substantial. In general, the higher the "moneyness" of the debt form, the closer it is to currency.

15. The Federal Government can influence the level of economic activity through management of its debt. For a large part of the outstanding debt, it ought to have the discretion of shifting between issues with a low degree of "moneyness"—long-term obligations of the kind purchased with real savings by individuals and financial institutions—and debt which is nearly money—the issues sold to commercial banks. (The 4¼-percent ceiling now limits the freedom.) To help check inflation, the Treasury could sell more long-term debt and use the proceeds to pay off debt held by commercial banks. To stimulate the economy, the Treasury could increase its borrowings from the banking system and pay institutional and private investors (assuming appropriate monetary policy). Such a policy would not be costless. It would require the Treasury to do more refunding into long-term issues than it might otherwise plan to do during a boom when interest rates were high, and to forgo opportunities to refund into long-term issues when interest rates were low during a slump.

STATEMENT OF E. C. HARWOOD, AMERICAN INSTITUTE FOR ECONOMIC RESEARCH

This is in reply to your letters dated July 9, 1968, and September 18, 1968.

After conducting extensive research during the past 45 years on money-credit problems, I have concluded:

(*a*) That money-credit developments in recent decades constitutes a repetition of past major economic blunders on a larger scale than ever before; and,

(*b*) That the increasingly complicated plans proposed for coping with the problems that have arisen cannot be useful in the long run; and,

(*c*) That the only hope for avoidance of seriously adverse consequences lies in correction of past errors by restoring sound commercial banking.

The results of research that support the findings and conclusions above are presented in the accompanying Economic Education Bulletin, "Why Gold?"

I hope that this reply to your letters, as well as the accompanying bulletin will be helpful to you and your committee.

Space limitations prevented printing the above mentioned *Bulletin* in full. Reprinted below are sections IV and V of "Why Gold?"

IV. The Gold Standard and the Gold Dollar

ELEMENTS OF THE GOLD STANDARD

For a country to be on the full gold standard the following conditions must be met:

1. The standard monetary unit is a fixed amount of gold.
2. All domestic currency and coin are freely exchangeable at their face value for gold, and whoever obtains gold is free to use it in any way he chooses.
3. There is no limit on the amount of gold that may be brought to the mint for coinage.
4. Gold is full legal tender for payment of all obligations.
5. There is no restriction on the importation or exportation of gold.

VARIANTS OF THE GOLD STANDARD

A country is on a *gold coin standard* when the foregoing requirements are met and its currency and nongold coin are freely exchangeable for gold coins that are multiples of the amount of gold constituting the monetary unit. The dollar, for example, as legally defined, is 15.238 grains of gold, nine-tenths fine. If $10 gold pieces were being minted, each one would consist of 152.38 grains of gold, nine-tenths fine.

In a country that is on a *gold bullion standard*, currency and nongold coin are redeemable in gold bullion at a fixed amount of gold for each monetary unit, the minimum obtainable being the amount in a gold bar of a certain specified weight. When the purpose of this kind of gold standard is to discourage the circulation of gold and so economize in its use, the gold bars in which the currency is redeemable are of considerable weight. For example, when England was on the gold bullion standard from 1925 to 1931, currency could be redeemed only in gold bars weighing 400 ounces. This variant of the gold standard has been objected to on the grounds that "A gold bullion standard is a rich man's standard, operating above, and out of reach of, the man of small means. It would be responsive only to the behavior of the rich man, the banks other business enterpries, and the government * * * [with a gold coin standard] there is no discrimination against any individual, particularly the man with small capital, and it is most important that he be able to exercise his preferences and thereby to register his doubts because these are part of the machinery of automatic braking which the gold coin standard provides." [1]

In a country that is on the *gold-exchange standard*, currencies of foreign countries are used as reserves for the domestic currency, often in conjunction with some gold. The principal currencies thus used are U.S. dollars and British pounds. Although the country's monetary system is thus one stage removed from gold, the value of its currency is kept at the established gold parity because of the indirect convertibility of the currency into gold. The principal hazard inherent in this variant of the gold standard is the possibility, which can never be entirely absent, that at some time the currencies used as reserves will be devalued, as was the British pound in November 1967. A serious disadvantage of the widespread use of the gold-exchange standard is described elsewhere in this study.

The most important features of the gold standard, whether redemption is in gold coin or gold bullion, are the fixed amount of gold in the monetary unit and the freedom with which gold and currency are interchangeable at the Treasury or central bank. Fixity in the amount of gold in the monetary unit makes gold and the currency representing it an efficient medium of exchange and a relatively stable measure and store of value. The free interchangeability of gold and currency by citizens and foreigners alike provides an automatic mechanism that tends to restrain unsound monetary and fiscal practices. Extreme currency and credit inflation is not possible while the rules of the gold standard prevail.

The significance of these features of the gold standard will be considered at greater length in subsequent sections of this study. Here it is sufficient to note that it is the lack of full and free redeemability of U.S. currency for gold that keeps the United States from being on a full gold bullion standard. Although foreign governments and central banks can exchange U.S. currency for gold at the U.S. Treasury, individuals and firms, whether American or foreign, are not allowed to do so, except under license for certain purposes. Thus, the United States, while internationally on a restricted gold bullion standard, is on an in-

[1] Walter E. Spahr, *The Case for the Gold Standard*, New York, Economists' National Committee on Monetary Policy, 1940, pp. 28–29.

convertible paper currency standard domestically. This bifurcated departure from the full gold standard has been at the root of the Nation's money-credit problem for three decades.

"PAPER GOLD" AND THE SDR PROPOSAL

Some authorities, including those in the United States, would supplement or replace the gold-exchange standard with some sort of international "paper gold" for use as a monetary reserve asset by national governments. Advocates of such a *"paper gold" standard* hope that such "paper gold" will be printed and distributed in sufficient quantities eventually to replace gold as the basic monetary reserve of the world.

During 1967 United States authorities made a concentrated effort to persuade the member countries of the International Monetary Fund to accept a plan for creating a paper asset to be used for settling payments imbalances and held as monetary reserves. Agreements made at meetings of the Fund membership in London and Rio de Janeiro during the summer of 1967 were heralded by U.S. officials as momentous steps toward revolutionary reform of the international monetary system. However, the substance of these agreements soon was seen to be little more than a face-saving concession to the United States.

France and other European countries agreed to a plan for augmenting world monetary reserves if such reserves became inadequate, but only on the conditions that they collectively would have sufficient voting power to veto the plan as well as other important operations of the International Monetary Fund. Thus, only tentative endorsement was made of a plan to grant each member of the Fund "special drawing rights" (sometimes referred to as SDR's) in addition to its existing rights to borrow from that organization. Such drawing rights would be transferred within specified limits from the central bank of one country to that of another in settlement of international payments imbalances. If such a plan ever is implemented, it will represent merely an extension of the present inflationary gold-exchange standard rather than a radically new development.

The possibility of the plan becoming operational seems remote. Continental European countries presumably will not permit its implementation as long as they continue to accumulate dollar claims as a result of the continuing imbalance of payments of the United States.

Recent international monetary developments have made authorities of these countries even more reluctant than before to continue accumulating dollar claims and British pounds. Such developments have emphasized the superiority of gold to "paper gold" for use as monetary reserves. Current world sentiment, particularly in Europe, is for closer, rather than looser, monetary ties to gold.

WHAT IS A DOLLAR?

An article in the *Financial Times* (London), September 1, 1960, included the following statement: "The U.S. dollar made a further recovery, rising one-half cent to regain its peak level of $35.24–26." Americans who read this surely wondered what it could mean. It must have surprised them to be told that a dollar was $35.24–26. Moreover, the terms "recovery," "rising," "regain," and "peak level" all misled because they implied that what occurred was favorable to "the U.S. dollar." The sentence quoted epitomizes the confusion of terms, unwarranted connotations, and disregard for accurate definition that are often apparent in discussion of monetary matters.

Perhaps the most common semantic error in the field of money and credit is that due to mistaking *claims* on dollars for the dollars themselves. This error appears in various ways, one of which is the phrase, "the dollar price of gold." Those who use this expression are thinking perhaps of the dollar as a piece of paper currency or a credit to a checking account. However, the fact is that "dollar" is the statutory or legal name for a specified amount of gold. By authority of the Gold Reserve Act of 1934 the dollar was specified as $15\frac{5}{21}$ grains of gold nine-tenths fine, which is the equivalent of one thirty-fifth of an ounce (troy weight) of pure gold. Paper currency and paper credits are not dollars. They represent and may serve as claims upon actual dollars, each of which is the specified amount of gold.

To refer to the dollar price of an ounce of gold is like referring to the price of potatoes in terms of potatoes. It would be foolish to say that the price of a bushel of potatoes is 60 pounds of potatoes. If, however, there were certificates or book credits representing potatoes, one might have to offer in the marketplace

certificates or credits representing 61 or more pounds of potatoes in order to obtain a 60-pound bushel of actual potatoes. This might be the situation if there were some cost or other impediment to the conversion of the certificates or credits directly into the potatoes that they purported to represent. The situation in the London gold market and other gold markets abroad is similar to this whenever the amount of U.S. currency required to obtain an ounce of gold exceeds $35 plus the cost of obtaining gold from the U.S. Treasury and transporting it to the foreign market.

In the London market British currency is exchanged for gold (subject to certain restrictions, among which is the prohibition of gold purchases by British subjects), but the amount of that currency required to obtain an ounce of gold can be translated easily into an equivalent amount of U.S. currency which a foreign holder who wanted gold could use to buy the necessary British currency in the foreign exchange market.

Thus, the financial reporter quoted above should have said, in order to be accurate, that the amount of U.S. currency required to purchase an ounce of gold in London *represented* $35.24 (or $35.26). He should have made clear that *two different things* were involved in the exchange.

V. Economic Benefits of the Gold Standard

In discussing the economic benefits of the gold standard, we should face frankly the fact that it is not a panacea for all economic ills. Those who offer patent medicines alleged to be cures for all the physical ailments of mankind have long been regarded as quacks. So likewise should we regard individuals who offer any single simple remedy for all economic ills.

Particularly important is it to realize that there are both short-term and longrun economic problems, the business cycles of boom and depression as well as the long-term trend. The major economic benefits of a return to the gold standard will not include solutions for all present or short-term economic problems but will be related more definitely to the industrial progress and even the survival of the United States in the longer run.

Inhibiting unwise fiscal and banking policies

Readers who think that an inflationary trend may be quickly reversed by some happy coincidence of events may be underestimating the temptations involved. In France and most other nations the takings of government-planned embezzlement through depreciation of the currency have been relatively small, because the savings and life insurance of the citizens have been only a fraction of the amount per capita here in the United States. In the United States the present value of life insurance policy reserves, social security trust funds, individual holdings of Government and other bonds, and the savings accounts of American citizens approximates $850 billion. This can readily be stolen by the subtle processes of inflating and repeated devaluations.

If a redeemable currency were restored, the wiser and more farsighted of the Nation's citizens who saw the dangers in unsound fiscal or banking policies could demand gold, and Treasury and bank officials ordinarily would act with awareness of this fact. A possible resulting outflow of gold would force the Federal Reserve authorities and the Government to reconsider unwise policies.

Instead of depending on the wisdom of a selected few who might err disastrously, the Nation would provide freedom of action for the many hundreds of thousands of its wisest citizens who presumably can best foresee the probable effects of unwise policies and so act as to counteract those policies. In the absence of the combined judgment of a multitude of keen and experienced observers, there may be no effective check on unwise policies until they have resulted in serious disaster. No wise monetary authority or fiscal policymaker should want to be without such an important guide to policy as a redeemable currency provides, and no foolish monetary authority should be permitted to disregard that guide.

Although all money-credit systems require some control, if only to prevent abuses, the automatic features of the gold standard give early warning of credit abuses or unsound procedures and therefore facilitate corrections by a minimum of managements. Because it minimizes the excuse for controls, the gold standard is especially disliked by those who seek to enmesh the economy in a network of socialistic restrictions.

The Federal Reserve Board should be free to act when there are warning signs of unsound financial developments. An independent agency to provide the minimum degree of appropriate control has been proved by long experience to be the only effective means of managing a nation's money-credit system.

Confidence in the future worth of the dollar is essential to long-term Government financing. Experience has shown that a nation that meets its promises to pay enjoys the best credit standing. When the United States resumed gold redemption of its currency in 1879, one immediate and striking result was the reestablishment of the Government's credit standing. Government bonds could be floated at substantially lower interest rates.

Redeemable promises to pay presumably would not be issued as recklessly as irredeemable promises might be, in fact usually have been. Throughout the course of history, governments relieved of fulfilling their promises to redeem currency on demand sooner or later have taken advantage of such an invitation to reckless irresponsibility.

The fixed amount of gold in each dollar has a relatively stable purchasing power in the long run. Specifically, when not disturbed by the inflating or deflating of other purchasing media, the exchange value of gold has remained remarkably stable for generations. Changes in prices based on gold usually have been gradual rather than seriously disruptive.

When prices continue rising in a country on the gold standard, gold tends to move out from the reserves securing currency and bank deposits, thereby limiting or preventing the further expansion of credit and a subsequent rise in prices.

Gold is universally accepted as a medium of exchange. Even when practically all nations of the world have been "off the gold standard" as far as domestic redeemability was concerned, they have sought gold; and the people of the world, whenever there was widespread fear of monetary depreciation, have done likewise. Gold is universally recognized as a valuable substance that does not deteriorate in storage. The fact that a currency is convertible into gold should assure for that currency virtually the same value in exchange and acceptability as gold itself. Such was the Nation's experience for the several decades during which the United States adhered to the full gold standard. Moreover, history shows that experiments with managed paper-money standards, tried by many of the principal nations of the world in the past 250 years, inevitably failed.

RESTORATION OF INVESTORS' CONFIDENCE

Another important benefit of the full gold standard would be a restoration of confidence, among those who save, in the future value of their savings. Here in the United States, the small annual savings of individuals, largely accumulated by those who labor, reach an astronomical total each year. For example, during 1967 personal savings totaled about $38 billion.

Since mid-1950 the confidence of small investors in the future value of U.S. savings bonds seems to have decreased. Redemptions have exceeded sales with the result that the total held has decreased in the past decade despite increasing population.

To what extent the cashing of savings bonds has reflected distrust of the future value of the dollar, no one knows. Nevertheless, long experience in many countries of the world clearly indicates that such developments, on a much larger and far more devastating scale, are to be expected when public confidence in money diminishes. As our Nation figuratively walks a monetary tightrope above the abyss of national disaster, little imagination is required to visualize the torrent of demand that could flood the Nation's market places if fear finally impelled the multitude of small savers to buy goods, whether needed or not, as an alternative to seeing the value of their savings rapidly diminish.

Also to be considered in this connection is the desirability of ending the search for "hedges" against inflation. Small investors are faced with the question, How much of my funds should I invest in such a way that I will be protected against continuing depreciation? Unfortunately it is those individuals who can least afford to take the risks that all equity investments involve who may not have enough income, even for the necessities of life, unless they risk such losses in the hope that an increasing income will offset any further rise in living costs.

When assured of the future value of their savings, men have confidence and are willing to invest. Such confidence and the resulting long-term commitments facilitate orderly progress. When they have a fixed standard and a redeemable currency the future of which is not being questioned, men can recognize "bargains" and act accordingly. Probably this accounts in part for the fact that firm

adherence to the gold standard has invariably hastened recovery from business depressions.

When there is no fixed standard and redeemable currency or its future is in question, men have an inadequate basis for judging "bargains" accurately. Consequently, they hesitate to make commitments; and while potential employers hesitate, the unemployed wait in Government-induced idleness. Such was the Nation's experience during the money-juggling years after 1932.

ENDING ADJUSTMENTS FOR A FLUCTUATING DOLLAR

Another benefit that could result from return to the full gold standard is the ending of those statisticians' nightmares, the adjustments of indexes for fluctuations in the value of the dollar. Of course, the gold standard would not prevent in the future, any more than it did in the past, the serious distortions of economic values that are attributable to credit inflation and deflation, (the twin evidences of incompetent and unwise banking). Such distortions, however, are relatively limited in magnitude and duration as long as a fixed gold standard is maintained. Return to the gold standard would make unnecessary the elaborate efforts to adjust statistical value-series that have been necessary in recent years.

Without adequate bases for economic comparisons even the simplest representations by labor seeking a higher wage or by capital seeking a greater reward become almost unintelligible. The complications resulting from adjustments for a rubber dollar are to many people incomprehensible.

Thinking for the moment only of labor's aspect of the problem, we should ask how John Doe is to judge what a pension payable in 1980 dollars is worth to him today? Will the dollar he knows today shrink in value as rapidly as the dollar has during the past two decades, perhaps even more? If so, what is the use of social security and company pension benefits anyway? Is the whole game of trying to provide for the distant future to be a fruitless one that few laboring men can hope to understand?

But labor is not the only economic factor cheated by the fluctuating dollar. When plant depreciation charges are based on values long outdated by a shrinking dollar, capital likewise loses. The ordinary books of account reveal profits that are illusory and encourage policies that ultimately can lead many business firms into bankruptcy.

When both parties to a contract have a fixed standard unit as the measure of their respective obligations, they can judge the risks involved far more accurately than when their contract promises are stated in the necessarily vague and fluctuating terms of a managed currency.

Although, under the gold standard, the buying power of the dollar may be distorted temporarily either by unsound credit expansion (inflation) or the collapse of such unsound credit expansion (deflation), in the long run the exchange value of gold varies relatively little; no other medium of exchange as yet has proved to be so stable.

In the long run, with an irredeemable paper-currency system, the inevitable distortions of economic value judgments are reflected in the attitudes of individuals and business organizations. Expedient adaptation to the exigencies of the near future becomes the dominating policy; long-range considerations are forgotten or disregarded. When such views predominate, will the United States continue to be one of the leading nations of the world?

LIFTING THE VEIL THAT CONCEALS BASIC ECONOMIC PROBLEMS

Another economic benefit that would result from returning to the full gold standard would be removal of the "money veil" or "money illusion" that conceals from most people the Nation's basic economic problems. Removing the "veil" would not guarantee that those now in a position to solve the problems would see them clearly and promptly take appropriate actions, but throughout the Nation many for whom the problems were clarified might press in various ways, including the political, for their solution.

For example, the present monopoly power of organized labor in basic industries may not be understood by the general public as long as inflationary additions to the supply of purchasing media readily permit wage and price increases. This monopoly power has been made possible by discriminatory statutes and abused by some labor leaders with despotic control on an industrywide basis. While the inflationary process goes on, however, such monopoly becomes more firmly entrenched, more determined to get an increasing share of the wealth

produced. The longer the public remains blind to the issue, the more difficult and disruptive the final settlement probably will be.

Insofar as the depreciation charges of business are based on prices lower than those currently prevailing and are therefore inadequate for the replacement of capital equipment, business profits are in part illusory; they reflect a hidden consumption of capital.

Taxes based on illusory gains are destructive of real wealth. They hamper the sound growth of the economy, the continued growth that appears to be essential to survival in the world as we know it today.

An inflation-stimulated boom is not sound prosperity. There have been several such booms in the Nation's history, and all have been followed by severe depressions. Never have managers of a "managed irredeemable money" been able to create a sound and lasting prosperity.

The creation of deposits and currency based on Government debt and noncommercial bank loans does not create real wealth. Such a procedure only deludes those who strive to measure and exchange wealth, and it invites overspeculation; paper gains are lost in the inevitable depression aftermath.

Men are free to the extent that the culture or society in which they live permits them to plan and choose their goals, provides equality of opportunity to act effectively in pursuit of those goals, and permits them to retain the fruits of their labors. There is much evidence to indicate that increasing departure from economic freedom is destroying Western civilization, including our own country; but the economic relationships involved are so obscured by the veil of manipulated money that all too few have any understanding of what the Nation's greatest economic problem is.

"TO PROMOTE MAXIMUM EMPLOYMENT, PRODUCTION, AND PURCHASING POWER" [1]

The experience of history shows that an irredeemable currency endangers the economic system that uses it. Innumerable instances testify to the truth of this assertion, and none refute it. A fixed monetary standard, on the other hand, facilitates the achievement of equilibrium among the economic factors of production, without which there can be neither full employment nor optimum output of products to be purchased.

Only if labor has a fixed and simple standard of value free from the misconceptions attributable to a depreciating currency can it judge the real value of its present gains and possible future pension benefits. The efforts of those who labor to obtain social security benefits and company pensions will be fruitless if the depreciation of the dollar continues at the rate of the past two and one-half decades.

John Maynard (Lord) Keynes, who was a leader among the advocates of a so-called managed irredeemable currency, openly avowed that his scheme was a means of deceiving those who labor and who neither understand nor are in a position to take advantage of the vagaries of such an irredeemable paper money system. (See Keynes *The General Theory of Employment, Interest, and Money*, ch. 2, pt. II.) Only the shrewd speculator and the man of great wealth can expect to profit in the long run from a "managed" irredeemable currency.

In the absence of a fixed monetary standard and a redeemable currency the pressure for continued inflation tends to rob those who have the least economic power, depleting the only resources they have. The widows and orphans, the elderly and the ill in health, are virtually defenseless against the ravages of a depreciating dollar that diminishes the buying power of their savings and depreciates the values of life insurance and annuities.

Technological progress, given a fixed monetary unit and sound fiscal and banking policies, ordinarily would result in a gradual lowering of costs and prices that would benefit all consumers. Especially beneficial would this be for those whom most men strive hardest to protect, their potential widows and their children.

FACILITATING LONG-TERM INDUSTRIAL PROGRESS

But of all the benefits to be expected from a return to the full gold standard, perhaps the most important in the present and foreseeable future would be the achievement of the most rapid rate of long-term industrial growth that the economy can sustain. We do not imply that a return to the gold standard alone would insure this highly desirable outcome (future military strength will, even more

[1] The declared purpose of the Employment Act of 1946.

than in the past, depend on industrial progress) ; but failure to restore the gold standard almost certainly will prevent the optimum rate of economic growth.

Restoration of the full gold standard would, in all probability, be followed by a long-term downward trend of prices that might continue for some years as the inflationary purchasing media now in circulation were slowly eliminated. That a long-term downward trend of prices could be a greater aid to industrial progress than continually rising prices may surprise many who have accepted the widely publicized notion that the reverse is true.

However, the idea that perpetually rising prices are better than falling prices in the interests of an expanding economy in the long run seems to have no basis in recorded economic experience and lacks even theoretical justification. As far as can be discovered, the only seemingly valid argument in support of this notion is based on the fact that prices usually rise during the recovery phase of business-cycle changes. But business cycles are short-term changes; we must turn to other considerations to learn the truth about the relation between rising or falling prices in the long run and economic progress.

First, what light can be obtained from a brief review of the relationships that appear to be involved? Industrial progress results from taking advantage of the scientific and technological advances that make possible more effective use of the three basic factors of production: land, labor, and capital. Now the scientific and technological advances are not distributed evenly over all industries or all types of industries, nor are they evenly distributed over all the companies in any one industry. Therefore, in order to derive the utmost industrial advantage from new developments, land, labor, and capital must be shifted from those companies, industries, and types of industries where the scientific and technological advance is slow or nonexistent and must be moved into the companies and industries where the technological advance is the most rapid and most fruitful at particular times.

As it happens, only one effective way to judge the relative economic worth of various technological changes has been discovered, and that is the test of relatively free competitive markets. Continually rising prices induced by more and more inflating as a longrun policy have the effect of permanently distorting the markets as long as the policy is continued. Under such circumstances, company A, if it is leading the technological advance, will enjoy not only the profits attributable so that leadership but also the "windfall" profits attributable to inflation. Company B, if it is lagging in the technological advance, might be experiencing losses in the absence of inflation, but under the conditions assumed might be able to report profits in spite of its inability to keep up with the technological progression.

Under the circumstances just described, what will happen? The management of company A will, of course, try to expand rapidly and will have profits available that can be used for that purpose. But A can expand its plant and labor force only by bidding a higher price for the three economic factors than B can. If B is encouraged by inflationary profits to continue its existing rate of operations or perhaps even expand somewhat, from what source can A get those factors of production?

One would expect industrial growth to be hampered by such conditions, because resources cannot be shifted readily to more effective uses from inefficient companies that continue to operate.

On the other hand, when technological progress is reflected in a price level not artificially supported by inflationary monetary manipulation and accompanying currency depreciation, one could expect the long-term trend of prices to be downward, gradually perhaps, but nevertheless downward. And the absence of inflation, accompanied by a downward trend of prices, would prevent windfall profits in the lagging companies and industries, which would experience losses. Such concerns would be forced to release land, labor, and capital to other uses. The shifts that must be made if industrial progress is to be at the optimum rate will then be readily effected. Surely there are few facts more obvious that that the price of progress is *change*.

So much for theoretical aspects of the problem. Is there any proof that the reasoning offered is sound?

In 1879, 14 years after the end of the Civil War, the United States returned to the gold standard. For the decade of the 1870's, the average level of commodity prices measured by one comprehensive index was 117.5. For the three successive 5-year periods beginning with 1880–84, the average levels of commodity prices measured by the same index were 101, 84, and 78. The decline

was almost continuous, and by the end of the 15-year period following 1879, prices were down 33 percent from the average level for the 1870's.

During the same period industrial production increased at the most rapid rate for the most prolonged period in the Nation's history. Specifically, if the average physical volume of manufacturing production for the 1870's be considered the base or 100-percent level, the average index numbers for each of the next three successive 5-year periods were 158, 196, and 245. In 15 years the gain was 145 percent, more than 6 percent compounded annually. Moreover, for 11 of the 15 years, industrial production remained well above the estimated long-term trend. These developments showed how groundless were the widespread fears, preceding the return to a currency redeemable in gold, that resumption of the gold standard would be calamitous and that a prolonged fall of prices must inevitably be accompanied by industrial stagnation.

Lest the foregoing be misunderstood, we should make clear that the figures just presented are not offered as conclusive proof that the preceding theory is sound. But the facts of history seem to place the burden of proof on those who sponsor and defend the Nation's long-continued, inflationary monetary policies, who urge that prolonged inflating and continually rising prices will insure rapid long-term industrial progress.

We have a right, even a duty, to ask the proponents of inflation, Are you not denying to your country the known and demonstrable benefits of a sound monetary system; are you not jeopardizing the industrial progress on which our survival in a possibly hostile world will have to depend?

MAINTAINING THE FREEDOM OF AMERICAN CITIZENS

Foreign governments and central banks can obtain gold on demand in exchange for the Government's promise on our paper currency to make such payments; but American citizens cannot obtain from their Government fulfillment of its specific promise to pay on demand. All Federal Reserve notes (except the new ones being issued) carry the unequivocal pledge that the United States "will pay to the bearer on demand" the number of dollars indicated. Instead of giving to the bearer on demand the dollars promised, the Treasury merely will give other paper promises to pay dollars. Such subterfuge, the substitution of promises for promises instead of the thing promised, is unworthy of a great Nation and an honest people.

A fully redeemable currency would restore to the people some degree of control over unsound banking and spendthrift government. Since the departure from the gold standard in 1933, the people of the United States have lost, in large part, their control over the public purse. The full gold standard would restore that control and help prevent the large losses that continuing inflation causes. It would help to preserve the system of free enterprise and free markets that has made the Nation the leading industrial power of the world, and without which the people cannot remain free. It would provide the best assurance that this Nation would remain free and would continue to grow stronger than its enemies.

STATEMENT OF GABRIEL HAUGE, MANUFACTURERS HANOVER TRUST CO.

DEAR MR. PATMAN: Upon returning to my office I have found your letter of July 9th inviting me to reply to questions pertaining to hearings to be held on H.R. 11.

Upon inquiry here, I find that our economist, Dr. Tilford C. Gaines, received a similar letter and has been in the process of preparing his replies before your September 1, 1968, deadline.

In view of the fact that whatever replies I might have made to your questionnaire would have been developed in consultation with him. I hope you will accept his submission on behalf of both of us.

STATEMENT OF THOMAS M. HAVRILESKY, UNIVERSITY OF MARYLAND

(1) A COORDINATED MACROECONOMIC POLICY PROGRAM

Part 1 elicits an opinion on the advisability of coordinating fiscal, monetary, and debt management policies at the beginning of each year under the aegis of the President. Part 2 asks whether this program should be developed solely by the President or jointly by all agencies. I shall briefly answer these questions and then enumerate additional suggestions.

The obvious interrelationship between fiscal, monetary, and debt-management policies makes "independent" policy formulation an implausible alternative to a coordinated program. The office of the President by force of circumstance is the most feasible instrumentality for harmonizing monetary, fiscal, and debt-management policies. Therefore the executive must author the program. Coordination, however, should evolve from an exchange of opinion among the Federal Reserve, the Treasury, the Council of Economic Advisers, the Bureau of the Budget, and other agencies of macroeconomic policy.

Some Additional Observations

Polices cannot be skillfully coordinated unless all parties to the program have identical or compatible objectives. Any program of coordination should cite the desired values for the goal-variables [1] of economic policy. The goals of macroeconomic policy should be clearly stated each year; for example, a *specific* percentage of unemployment, a *specific* acceptable rate of price level change, etc. If desired values of the goal-variables are incompatible, for instance, the economy may not be able to produce both 3 percent unemployment and a near zero rate of price inflation, priorities or weights would have to be assigned.[2]

The coordinated policy program should be premised upon an exchange of opinion among fiscal, monetary, and other agents of the Federal Government; the results of the interchange could be made more operational if all parties used similar hypotheses about the structure of the economy. I do not suggest that various conceptions about the state of macroeconomic nature need be identical or absolutely valid for all classes of phenomena, but hopefully the monetary and fiscal agents and advisers will not pour their respective opinions into alien coordinate systems. If the President, as an arbiter and the ultimately responsible author of the program, would resolve conflicts between the hypotheses of say the Federal Reserve System and the Treasury, the program might proceed more effectively.

The coordinated stabilization policy program should also sift and consolidate predictions of the course of future economic activity and forecasts of noneconomic policy force impinging upon achievement of the goals of policy. (See (3), p. 278.) This would promote, at the outset of the year, compatible stabilization policy actions by monetary and fiscal authorities. The absence of such coordination has created

[1] This hybrid term is used to designate the variables in the economic structure which monetary and fiscal authorities ultimately try to influence, such as the level of unemployment and the rate of change of the price level.

[2] This might be achieved for some goals by setting a feasible desired rate of increase of aggregate demand as an intermediate target for all macroeconomic policy agencies. This suggestion is a logical extension of the target strategy discussed in the text of the statement.

some difficulty in the past. For instance, in recent years monetary policy actions may have been inappropriate because of inadequate forecasts of defense spending plans. (See (8) p. 282.)

If these steps were taken, the President could consequently issue a general statement of fiscal and monetary policy recommendations as seen from a first-of-the-year vantage point. Because of the lack of perfect foresight of economic events, the Office of the President cannot effectively specify monetary and fiscal stabilization policy for the *entire* year; it cannot effectively prescribe the desired value of the monetary guideline-variable, because the appropriate value of this variable will change from time to time. (See (3) p. 278.)

In summary, ideally the Office of the President should promote standardized, or at least consistent hypotheses about the structure of the economy among all parties to stabilization policy; it should cite the specific goals of policy and their relative importance; it should consolidate economic predictions and forecasts; it should set the initial tenor of stabilization policy for all agencies for the forthcoming year.

(2) A GUIDELINE OR INTERMEDIATE TARGET STRATEGY

Part 3A inquires as to the advisability of imposing an intermediate guideline- or target-variable upon the monetary authority. I first present a summary statement of my views on this issue and then develop these views at greater length.

Summary

The adoption of a guideline strategy, as discussed below, offers considerable promise. However, I am skeptical that we can yet specify a money supply guideline, or any guideline, for monetary policy. I do not favor the President selecting *any* guideline for the Federal Reserve System at this time without thorough apprehension of the issues involved. Because of these issues, as discussed in sections (a) through (d) below, choice of a guideline-variable should be deliberated and prominence should be accorded the opinions of the monetary authority. To select a guideline-variable for the Federal Reserve System or any agency without further study of the issues seems to invite more radical (I use the term in the philosophical rather than the political sense) change than many seem to realize. (See sec. (d) p. 278.)[3]

As a separate matter, I believe that *no* guideline-variable, when one is selected, should have a fixed desired value or a fixed range of desired values. The laudable design of macroeconomic policy coordination seems to have become mistakenly predicated upon the concept of a fixed monetary rule. If, after studied consideration of the issues, a guideline-variable were adopted, I favor that the Federal Reserve System be permitted to announce different desired values of that variable as frequently as necessary. (See (3) p. 278.)

Because the Office of the President would issue a coordinated program but once a year, it could not continually prescribe the desired value of the guideline-variable. The Federal Reserve System, on the

[3] To avoid misinterpreting the author's position the staff notes that in concluding this discussion the author states, "Yet I believe that enough is known that . . . I favor a total reserve target-variable or a monetary base target-variable or a little less conservatively a narrow money supply target-variable."

other hand, has available not only the earlier forecasts of the President's program, but also has current forecasts non-monetary-policy forces, such as defense spending, which affect the goal-variables, such as the level of unemployment, as well as current predictions of future economic activity. (See (3) p. 278.) Therefore, the monetary authority can better specify the desired level or rate of change of the guideline-variable. It would, of course, be held responsible for these changes within the framework of H.R. 11's proposed "quarterly report to Congress, stating in comprehensive detail its past and prospective actions."

The role of a monetary policy guideline-variable

A target- or guideline-variable is a variable, such as the long-term interest rate or the money supply, which is affected by monetary policy with less lag than monetary policy affects ultimate goal-variables, such as the level of unemployment.[4] The target-variable, in turn, affects the goal-variables after some lag. The advantage of a target-variable is that by adjusting policy to affect adroitly the target-variable the monetary authority can (to the extent that the target-variable is predictably related to the goal-variables and to the extent that policy can predictably and/or swiftly affect the target-variable) bring about desired values of the goal-variable. For instance, if the long-term interest rate's effect upon the goal-variables of unemployment and the price level is well known and if the long-term interest rate can be affected by monetary policy with little lag, the Federal Reserve, by readily attaining desired values of the long-term interest rate, can easily achieve a desired level of unemployment and a desired (acceptable) rate of price inflation.

Some issues in selection of a target-variable

There are many problems in target-variable selection. One of these is finding a target-variable which is *both* affected with no lag and related with complete certainty to the goals of policy. Such an *ideal* target-variable probably does not exist. For instance, the Federal Reserve can control free reserves with very little lag but the relation of this very proximate potential target-variable to the goal-variables is known only with considerable uncertainty. Therefore, this readily influenced target-variable does not allow good control of the ultimate goal-variables. On the other hand, while the relation of a less proximate potential target-variable, such as aggregate demand, to the goal-variables is quite well understood,[5] it is not easily controlled by monetary policy; therefore, it, too, does not allow good control of the ultimate goal-variables. Monetary research ought to suggest an optimal

[4] I believe the linkage between monetary policy action and the target-variables and goal-variables is as follows. Open market transactions in short-term securities affect money market conditions (marginal reserve measures, short-term interest rates, etc.), after a earning assets eventually respond, the money supply and short-term interest rates are affected; effects are transmitted in the market after a lag to long-term interest rates and a range of credit conditions. Certain components of investment spending respond after a short lag total reserves and the monetary base respond; as bank purchases or sales of lag to the changed short- and long-term interest rates and credit terms via the cost effect as well as the effect on the price of real assets relative to their supply price. There may, in addition, be a wealth effect wrought by changes in the stock of financial assets. Eventually aggregate investment and aggregate consumption respond and finally the goal-variables of policy are affected. This final reaction overlooks the earlier response of certain measures of the balance-of-payments problem to the change in short-term interest rates.

[5] See footnote 2.

target-variable, one which is influenced as readily as possible by monetary policy and, concurrently, relates as closely as possible to the goal-variable.

Now let us systematically relate the degree of controllability of both the target-variable and the goal-variable to the foresight required of the monetary authority. As a general rule:

(*a*) *A preferable target-variable should reduce the foresight required of the monetary authority.*—It is reasonable to assume that target-variables chronologically *less* proximate to monetary policy action (affected after a sizable lag) are chronologically *more* proximate to the goal-variables (affecting them after a short lag). It has been recognized, in addition, that the greater the lag between monetary policy action and the target-variable, the more distant and hence the less accurate the monetary authority's *current* forecasts of non-monetary-policy forces affecting the target-variable. Also, after the target-variable is affected, the greater the lag between it and the goal-variables, the more distant and hence the less accurate the monetary authority's forecasts [6] of the non-monetary-policy forces affecting the goal-variables. It then follows that *less* accuracy of forecasts of non-monetary-policy forces affecting the target-variable must be sacrificed for *more* accuracy of forecasts of non-monetary-policy forces affecting the goal-variables. The optimal target-variables can neither be too proximate to policy action (because forecasts of the effects of non-monetary-policy forces on the goal-variables will be quite poor) nor too proximate to the goal-variables (because forecasts of the effects of non-monetary-policy forces on the target-variable will be quite poor and undesired variation in the target-variable will cause undesired variation in the goal-variables).

From this sketch it is not obvious that the money supply is an optimal target. Even if the money supply can be fairly accurately controlled, the long lag between the money supply and (unspecified) goal-variables and hence the inaccuracy of forecasts affecting the goal-variables, could make systematic countercyclical policy influence on the goal-variables highly unreliable.

Other aspects of the issue of policymaker foresight and knowledge have already received some attention in discussion of the target problem and therefore require little elaboration here. Generally, they all recognize the need for accuracy of the monetary authority's knowledge of both the relation between policy action and the target-variable and the relation between the target-variable and the goal-variable.[7] Most of the earlier discussion has centered on the latter linkage. For instance, it has been aptly contended that a money supply target-variable requires knowledge of the money demand function and that a long-term interest rate target-variable requires knowledge of the marginal real rate of return. To impart some generality to and to systematize this problem, my discussion has focused on the relation between the lags and the forecasts of exogenous disturbances affecting the transmission of monetary policy.

[6] These latter forecasts are made at the time the target-variable is affected by policy action and influence the desired value of the target-variable. (See (3) p. 278.) This discussion is based on my paper "The Optimal Proximity of a Monetary Policy Target-Variable".

[7] In addition, the issue of target-variable measurability has been mentioned. For instance, if data on an otherwise good target-variable are not readily available its usefulness is restricted. I feel, however, that the resources of the Federal Reserve System can be reallocated to make data on otherwise attractive target-variables more immediately available and meaningful. For instance, Federal Reserve reporting of the money supply series has improved immensely in recent years.

(*b*) *The selection of a target-variable depends on specific weights attached to the goals of policy and the dominant tool of monetary policy.*—If the rate of income growth is an important goal-variable, some form of a quantity target-variable may be preferable to an interest rate target-variable. For example, a specified desired growth rate of the monetary base, the money supply, or bank credit may be a simpler concomitant of income growth than an interest rate level. On the other hand, if some measure of the balance-of-payments problem is an important goal-variable, an interest rate target-variable may be preferable; that is, to lessen certain aspects of the balance-of-payments problem all one need know would be certain international interest rate spreads.

Target-variable choice depends also on the dominant tool of monetary policy; for example, a short-term interest rate target-variable might relate more closely to the discount rate tool than a total reserves target-variable.

(*c*) *The selection of a more useful target-variable requires that the Congress rescind its implicit mandate to the monetary authority for money market stabilization.*—The Federal Reserve System has in the past seemed to derive satisfaction from achieving an "announced value"[8] of a target-variable irrespective of its relation to the goal-variables. There are two rather popular reasons for this. First, there is the well-known Federal Reserve tradition of stabilizing money market conditions. This may result both from the well-publicized influence on the central bank of money market operators and bankers, who are notably averse to volatile short-term interest rates, as well as from the historical mandate from Congress for orderly money market conditions. Second, the Federal Reserve System and especially the manager of the open market account are probably wary of error (missing "announced" targets) in daily or weekly operations.[9] If the monetary authority gives preference to achieving the desired targets irrespective of the closeness of the target-variable's relation to the goal-variable, more proximate, more easily attained target-variables, such as variables which measure the condition of the money market, will be selected and control over the goal-variables will be sacrificed. As outlined in section (b), the less the lag between monetary policy and the target-variable, the greater the lag between the target-variable and the goal-variables. This implies less accurate forecasts of non-monetary-policy forces affecting the goal-variables; consequently, control over the goal-variables will be sacrificed.[10]

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[8] Although currently these "announcements" have been somewhat impressionistic statements about the "tone" and "feel" of money market conditions, they may perhaps be translatable by some arcane process into a bounds for one or several of the variables which measure the condition of the money market.

[9] Two likely reasons for this come to mind. First the Federal Reserve System strongly prefers to hit an "announced" target because by avoiding errors it reduces the blame it receives for adverse changes in the goal-variables. This is not to be confused with the more reprehensible Federal Reserve practices of ambigously alluding to a bewildering assortment of unused longer run target-variables, before and after the fact. Second, as suggested by section (d) below, the Federal Reserve System and the open market account manager are probably not oriented to learning by error and receive less benefit from a missed announced target than would a more experimentally minded central bank. This is elaborated in my paper "Some Risks of Monetary Policy Innovation," forthcoming in *Quarterly Review of Economics and Business.*

[10] Some economists have suggested that both money market stabilization and longer run targets could be pursued, others have suggested that they are incompatible in a world of uncertain knowledge. The point here is that if the Federal Reserve is concerned with achieving one or several targets independently of the effect on the goal-variable, a more proximate target-variable will be chosen, and by the assumptions of section (b) above, goal-variable control will be sacrificed.

The tradition of money market stabilization will disappear as the banker's influence on the Federal Reserve System continues to wane. This tradition would further fade if Congress would rescind its mandate to the Federal Reserve System to stabilize money market conditions. Given these two influences, the central bank would then become less fearful of error (missing "announced" targets). The confluence of all these tendencies ought to make the monetary authority more willing to adopt target-variables less proximate to policy action. Closer control of the goal-variables would then be more likely. This means that some "defensive" operations directed at money market stabilization must be sacrificed.

There are probably numerous economists who now would not hesitate to impose an operationally "better" target-variable upon the Federal Reserve System to help dispense with its apparent aversion to missing announced targets. However, I believe that this would be a rather reckless obtrusion.

(*d*) *The selected target-variable should not force the Federal Reserve System into a contrived risk-assuming posture.*—It seems to me that the monetary authority is a risk-averse technologist who performs his assigned task according to often obsolete theories (perhaps inapplicable to any phenomena such as the free reserves doctrine), or rules of thumb. (When confounded by theoretically oriented critics, the officials of the Federal Reserve often and perhaps aptly contend that monetary policy is an "art", that is, it is handled by rule of thumb.) In this case, exacting the adoption of an announced target which can be hit only after a tedious trial-and-error process would probably impose radical institutional change upon the central bank. Indeed, a space vehicle manufacturer would not be expected to "launch" new projects until all but the uninsurable risks have been reduced to tolerable limits. Is learning by trial-and-error experiment the proper domain of the central bank? What effects would such radical change have upon economic behavior? [11] While I believe that the central bank's aversion to error will abate both as the banker's influence wanes and if Congress rescinds its mandate for money market stabilization. These questions should be considered before a particular target-variable is chosen.

Having little empirical evidence and being cognizant of the gravity of some of the above constraints, it is difficult to offer a specific target-variable for adoption. *Yet I do believe enough is known that the target-variable of monetary policy may be extended beyond variables which measure money-market conditions such as free reserves and the short-term interest rate. I favor a total reserve target-vairable or a monetary base target-variable or a little less conservatively a narrow money supply target-variable.* [Emphasis supplied.]

(3) ALTERING THE DESIRED VALUE OF THE TARGET-VARIABLE

Parts 3B and 3C seek an indication of the factors which influence the setting of the target-variable's desired value. After outlining this I

[11] Society recognizes that risk-assuming, innovative behavior by many organizations could be disruptive and sets maximum acceptable limits to this activity by many means; including law, insurance underwriting, custom, etc. It is possible, for instance, that if the central bank's stabilization of money-market conditions were terminated, the financial asset demand functions of households and businesses would shift thus vitiating current estimates of these important relations, reducing the policymaker's knowledge even further and making stabilization policy less effective.

adduce several reasons why the target-variable should not have a fixed value.

The role of leading indicators and forecasts

The desired level or rate of change of the target-variable should be altered periodically depending on changes in leading indexes of future economic activity (which relate to the goal-variables) and changes in forecasts of non-monetary-policy forces affecting the goal-variables. Indexes must lead economic activity by the size of the lag between policy action and its effect on the goal-variables. The particular leading index chosen depends on the length of the lag which in turn depends on the specific goal-variables and their respective weights. For instance, if the price level responds to aggregate demand after a greater lag than unemployment, monetary policy for price stability must use an index which leads economic activity by a greater degree than the index used by monetary policy for low unemployment.

The length of the forecast of the impact of non-monetary-policy forces depends on the length of the lag between the target-variable and the goal-variable. For instance, if residential construction is a target-vairable, forecosts of the impact of nonmonetary forces on the goal-variables need be less proximate than if the monetary base were the target-variable.

The monetary authority must also use forecasts of non-monetary-policy forces affecting the target-variable. These forecasts will effect the strength of policy action but will not affect the desired value of the target-variable unless they are correlated to non-monetary-policy forces affecting the goal-variable.

Many economists believe that lags of monetary policy are variable. This would clearly weaken the usefulness of forecasts because the policymaker would know neither the necessary temporal length of his forecasts nor what leading indicator of economic activity to consult.

It has been suggested that the presence of varying excess demands and excess capacities in the economy causes a change in the rate of change of the money supply to affect economic activity with a varying lag.[12] If these excess demands and excess capacities were better understood, this Friedman lag might be more predictable and the monetary authority would know how far in the future he must forecast and what leading indicator of economic activity he must consult.

On the other hand, the variability of the rate of change of the money supply has been suggested as a cause of the Friedman lag.[13] Varying money supply impulses are believed to cause economic activity to be affected after a varying lag. For instance, if the monetary authority maintains a target value of, that is, pegs, the short-term interest rate, the money supply would show considerable variability, as it is used to moderate the effect of changing credit demands upon the short-term rate. However, if the money supply instead were actually employed as the target-variable and were made to react consistently to identical stimuli, *ceteris paribus*, its variability and the variability of the lag would be reduced.

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[12] Franco Modigliani, *Statement* before the Joint Economic Committee Congress of the United States, 90th Cong., second sess., May 8, 1968, p. 12.

[13] Karl Brunner, "The Role of Money and Monetary Policy" *Review*. Federal Reserve Bank of St. Louis, July 1968, p. 20.

CRITICISM OF A FIXED MONETARY RULE

I do not favor a fixed (or fixed range) desired value for the target-variable for five general reasons that have been expertly discussed elsewhere and need only be reviewed here. First, countercyclical monetary policy should not be abrogated by resort to rule because of the imminent possibility of continued improvement of Federal Reserve knowledge and effectiveness. Second, as has been popularly contended, fixed rules are inconsistent with cyclically changing goal-variables because the relation between a target-variable such as the money supply and a goal-variable, such as the level of employment, is not constant over the business cycle. Third, a fixed rule would be inconsistent with observed variation in the secular growth of the economy. For instance, technological change would alter the rate of growth of the economy and make obsolete a predetermined growth rate of the money supply or some other financial quantity. Fourth, fixed rules may actually have a destabilizing effect upon the cyclical movements of the goal-variables. This is surely true of a pegged interest rate and may be true of a pegged rate of money supply growth.[14] Fifth, by some occult process, the laudable purpose of macroeconomic policy coordination and congressional review of monetary policy has been predicated upon the monetary rule concept. A rule is not necessary for Congress to readily discover what the monetary authority is doing. The quarterly required reports featured by H.R. 11 would serve this purpose. Finally there is no reason to believe that "rule" is intrinsically superior to discretion.

This belief is highly suspect because it is grounded in the philosophy that Central Government activism is innately evil and irrevocably undemocratic. Indeed, the absence of an effective activist Central Government would directly abandon more economic and political prerogative to the few inordinately powerful private interests. Popular freedom and welfare are already subjugated to such concentrated private political and economic power that the relinquishing of more power by the Central Government (where there is, at least, a hope of its being democratically influenced) should not be permitted.

(4) DEBT MANAGEMENT POLICY AND DEFENSIVE OPERATIONS

Parts 4 and 5A inquire as to the role of debt management policy and money market stabilization through "defensive" open market operations.

Debt management can best assist macroeconomic policy by continued implementation of the well-known techniques by which the debt may be more efficiently refunded in order to reduce instability arising from Treasury activity in the money market. This is, of course, a concomitant of the proposal that Congress relieve the monetary authority of its undue concern for attaining an intermediate target-variable irrespective of its effect upon the goal-variables of policy as discussed in (2), sections (c) and (d) p. 274. In other words, because of the undue weight the Federal Reserve attaches to attaining an announced target, they adopt target-variables which can easily be influenced

[14] William Brainard and James Tobin, "Econometric Models: Their Problems and Usefulness," *American Economic Review* supplement, May 1968.

(variables which measure conditions) money market. Under conditions discussed in (2) page 274 this results in sacrifice of control of the goal-variables.

To the extent that defensive open-market operations place undue emphasis on money market stabilization for its own sake, they would be superfluous if Congress explicitly relieved the Federal Reserve of this responsibility. However, to the extent that "defensive" operations are used to maintain a desired value for the target-variable which is consistent with desired values of the goal-variables, they are necessary. Short-term money market variability may very well be suppresed by improved debt-placement technques.

(5) SECONDARY TOOLS OF MONETARY POLICY

Parts 5B and 5C ask about the role of the other tools of monetary policy. These issues have been extensively discussed for some years and only opinion need be registered here.

The discount rate has impeded the implementation of monetary policy because it is not changed frequently enough to discourage member bank borrowing for profit. If not altered more frequently, the discount rate should be tied to the short-term Treasury bill rate. Regulation Q has also impeded monetary policy and should be abolished. Reserve requirements, if *raised* as well as lowered more effectively could result in potentially less Government debt in the banks in the long run. This would benefit the taxpayer because more interest would be returned from the Federal Reserve banks to the Treasury. Open market policy should remain the principal tool of monetary policy.

(6) FEDERAL RESERVE REPORTING TO CONGRESS AND OBSERVERS AT OPEN MARKET COMMITTEE MEETINGS

Parts 5D and 5E ask about the costs and benefits of: (1) requiring quarterly Federal Reserve System reports to Congress and (2) the presence of observers at Open Market Committee Meetings.

Complete written record should be made at least as often as the desired level or rate of change of the target-variable is altered. These should be collected and sent to Congress quarterly. The rationale for desired changes in the target-variable would include alterations in leading indicators as they predict independent variations in the goal-variables and new forecasts of the impact of non-monetary-policy forces on the goal-variable. The risks of this procedure to the Federal Reserve would be minimal if the issues regarding target-variable selection were given their due consideration. (See (2), sections (c) and (d) p. 274.)

As part of the coordination program a fairly extensive and enriching dialogue between monetary and fiscal agents and advisors would include extra-agency observers at Federal Reserve as well as Treasury and CEA meetings.

(7) ALTERING THE STRUCTURE OF THE FEDERAL RESERVE SYSTEM

Part II concerns numerous proposals for altering the structure of the Federal Reserve System.

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I interpret these provisions of H.R. 11 as helping to assure that the goals of macroeconomic policy, popularly mandated to the President, are more directly effectuated by monetary policy. This is premised on the principle that the Federal Reserve System should not be a money supply trustee and the public should ultimately have jurisdiction over monetary conditions. This principle can be effectuated in part by relieving the monetary authority of its short-run money market orientation. (See (2), sections (c) and (d) p. 274.) The most formidable constraint on this process should be the necessity of having the Federal Reserve System remain a fairly viable source of economic opinion. Therefore I generally favor all provisions of this part of H.R. 11 except for having the Federal Reserve seek congressional appropriation. This feature could inhibit the effective cultivation of the relatively independent economic opinion necessary for an effective program. Congressional or executive whim might temporarily vitiate the research-critical capacility of the CEA and the Treasury but could not immediately effect the Federal Reserve System as long as it were fiscally independent. Other features of the bill might permit central government to reduce the valuable critical independence of the System but surely not as quickly as the fiscal provision. My support of the provisions, other than the appropriations feature, is based on the belief that Central Government will not long remain in a scientific dark age.

(8) RECENT MONETARY POLICY

Part III seeks an opinion on recent monetary policy. My opinions on monetary policy since 1964 shall be confined to a few remarks.

In December 1965 the Federal Reserve System now appears to have acted too late in raising the discount rate and launching tighter money. However, I recall the dominant opinion at the time among many economists (especially in government) was that the System's action was premature; this historical instance argues for preserving the independence of the Federal Reserve's critical opinion within a coordinated policy program and suggests caution in reform of the Federal Reserve System's structure. (See (7) p. 281.)

Through December 1966 the reduced growth in the narrow money supply was appropriate, grounded as it was on forecasts of the effects of non-monetary-policy forces; namely, defense spending, upon the economy.

The swing to buoyant growth in the money supply in 1967 was only roughly suitable given indicators of the expected decline of economic activity and the increased demand for liquidity. However, after mid-1967 money supply growth was excessive, primarily because of inaccurate forecasts of defense spending and inaccurate assessment of the prospects for passage of the tax increase during that time. Again this instance testifies to the desirability of a coordinated program. (See (1) p. 273.)

In retrospect the earlier 1968 increases in the money supply growth seem to have been anticipating the promised economic slowdown of late 1968 and early 1969.

STATEMENT OF DONALD D. HESTER, UNIVERSITY OF WISCONSIN

H.R. 11 is a dangerous bill for, while it commendably introduces some long overdue reforms, it simultaneously endangers the existence of one of our most successful and effective public agencies.

Specifically, the bill is desirable in striking out the myth that the Reserve System is somehow owned and hence controlled by the banking community. The fiction of Federal Reserve bank stock is worth discarding. It is also on sound footing when it urges closer coordination between the executive branch of the Government and Federal Reserve policy. Toward this end it is probably a valuable contribution to make the term of the Chairman of the Board coterminous with that of the President.

However, it is not necessary for the President to have additional powers or controls over the Board for he and the Congress can always largely offset Federal Reserve policy through Treasury actions. If a really intransigent Board failed to cooperate with the executive branch, appropriate legislation could then be drawn up in time to avert any serious disruption in the economy.

Reducing the number of and/or term of Federal Reserve Board members, auditing the accounts of, and/or authorizing congressional appropriations for the Federal Reserve System seem to be unnecessary and to be capable of annihilating this efficient and effective agency. In my judgment the recent performance of the Federal Reserve System compares favorably to other Federal financial agencies both in its day-to-day supervision of private sector firms and its longer run planning of our financial system. It has made mistakes, of course, but its continuing research programs and its flexibility in coping with new situations have proven to be admirable safeguards. Both its long-term research and its flexibility are likely to be seriously compromised if H.R. 11 is enacted.

The financial structure of the American economy is complex; only long experience and study of our System can guide effective policy formation. The present 14-year terms of Board members is an appropriate span because it insures both a mature understanding of the System and continuity in System research programs.

Flexibility of policy and research programs are likely to suffer if the Board must seek congressional approval for its research budget. Other agencies which must receive congressional approval of expenditures, such as the SEC or the FHLBB, have suffered from inadequate staff and research funds; their effectiveness has been correspondingly curtailed. New services, such as nationwide computerization of check clearing, are sure to suffer from budget cuts just when the American banking system is about to become overburdened with paperwork.

If evidence of corruption or gross inefficiency at the Federal Reserve were available, then congressional appropriation of System funds might be desirable. However, I know of no such evidence. Along the same lines, a regular audit of Federal Reserve System accounts seems an unnecessary and expensive control procedure at this time. It obviously could allow confidential System plans and bank examination data to be leaked to the public in a damaging and costly fashion. More importantly it might endanger the integrity of the Federal Reserve System. Congressmen, acting in behalf of lobbies, could exact substan-

tial concessions from the System in return for generous appropriation votes.

The founders of the Federal Reserve System wisely recognized that money is power and that politics is the game of acquiring power. They were equally wise in insulating the prime supervisory agency from congressional supervision of budgets, from rapid turnover in Board membership, and from executive branch auditing of accounts. Until clear evidence of weakness in this arrangement is available, I urge rejection of H.R. 11.

The list of questions concerning monetary guidelines flows from a philosophical approach to policy implementation which I oppose. In responding to these questions I shall attempt to suggest both my preferences for policy formation and the deficiencies of the "guideline," "indicator", or "target-variable" approach.

Questions I–1, I–2.—Policy, monetary, fiscal, or debt management, should not be constrained by a program drawn up on January 1; all three policies should be coordinated so as to reach the goals of the President and, of course, those stated in the Employment Act of 1946. A principal advantage of both monetary and debt management policy is that the lag between a decision to act and the debt or monetary action is arbitrarily short. As the recent surtax experience amply testifies, such immediate implementation is not always possible for fiscal policy. It would be very unwise to impair our most flexible instruments by tying them to a program. It also serves no good purpose to tip off speculators about the direction in which interest rates are likely to move.

This is not to say, however, that these policies should be applied independently of present and prospective fiscal policies. The Economic Report of the President is a valuable document in its own right; it does not need to be supplemented by statements about the likely direction of monetary policies. The President should continue to be responsible for producing the report.

Question I–3.—A target-variable, rather tautologically, is something one aims at. If many variables are "targets," as I believe should be the case, then many guns or "instruments" will be needed. I see no justification for shooting at the money supply or some interest rate; they are simply instruments. What matters are targets involving the level of employment, the rate of change of consumer prices, the rate of growth of GNP, the balance of payments, the distribution of income and wealth, and the equality of opportunity. The relations between these targets and the instruments of monetary policy are complex and can be represented only in the form of a rather detailed analytic model. A well-structured model is likely to suggest explicitly the relation between various policy instruments and the goals which, say, the Council of Economic Advisers may wish to achieve. The model will also suggest whether certain goals are within our reach. It will not yield *exact* prescriptions because most equations are not exact relationships. It nonetheless can be a very useful aid in developing policy and in setting values for different instrument variables.

Existing econometric models are imperfect in various ways and are being improved as time passes. Each model specifies a link between various policy instruments and targets. This linkage varies from model to model because different model builders have different ways of repre-

senting the economy. It also differs because models have been estimated from different time periods. The legal environment, preferences, and technology of our great economy change as time passes; there is no reason to expect stationary relationships. Unfortunately, different estimation techniques are also a source for different linkages.

I am not able to write down a multiequation model which is completely adequate for conducting the economic affairs of the Federal Government. Indeed, I do not think such models are likely to appear during the next decades. I do think that various interest rates, tax rates, Government expenditure flows, money supply measures, and legal restrictions such as usury laws, reserve requirements, interest rate ceilings, and minimum wages are important instruments. Because the economy constantly changes, I would always hope that policy implementors would use such models with a good bit of discretion and with a sense for how the system is changing.

But, a few things are clear. First, if the economy cannot be adequately described with many equations, it certainly cannot be adequately described with few.

Second, it is sometimes argued that because some variables are historically correlated, they may be expected to continue to be so in future years. Moreover, such a relationship is thought to be a valuable policy guide. Almost all sensible aggregative econometric models exhibit high correlations. High correlations are no substitute for clear thinking and they are a weak basis for policy formation.

Third, except in very fortuitous circumstances if policy instruments are intended to hit a number of goals (targets), it will be necessary to have a number of instruments simultaneously applied at specific levels. When goals change, many of the instruments will have to change as well if policy is to succeed.

Finally, to concede that our knowledge about the relation between policy instruments and goals (targets) is imperfect and sometimes misleading does not mean that models are evils. We should not opt for simplistic, ignorant policy rules simply because we lack omniscence. I believe that it is sheer insanity to look for some touchstone or crude univariate rule of thumb to keep our economy in order. The economy is complicated and our Government is capable of dealing with it more responsibly. Mathematical models applied with discretion are the promising path.

Question I–4.—I am very uncertain about the importance of debt policy. Most recent empirical studies have uncovered little evidence of a relation between interest rates and change in the maturity structure of the Federal debt. Nevertheless, intuitively I believe that lengthening the debt maturity will tend to discourage real investment. The failure of this result to appear in empirical studies probably reflects our ignorance about the very complex simultaneous structure of asset markets. Debt management, in my unsubstantiated view, can be valuable in determining the level of employment and in fostering intermediate-term economic growth.

Question I–5.—I have previously commented upon the inadvisability of adhering strictly to some predrawn policy schedule for the year ahead. I can see no advantages which the economy might realize by having Congress regularly informed.

Seasonal and other transient factors should enter directly into the large models discussed above. If the solutions to those models suggest that defensive policies are desirable, then of course they should be pursued. There is no reason to consider such factors independently; reaching the goals in the President's economic program is the sole objective.

I should stress that a defensive smoothing of seasonal fluctuations is not necessarily a desirable activity of the Federal Reserve System. In its absence, private sector firms would make allowance for the existence of such fluctuations when managing their cash positions. However, it is probably true that economies of scale exist in such smoothing operations and that the economy as a whole is best served by having the Federal Reserve offset transient money fluctuations.

I think it would be a serious mistake to restrict monetary policy to a single vehicle, open-market operations. As suggested above there are considerable advantages in having a number of policy instruments available in order to reach the many objectives to which the country and its leadership aspire. Variations in reserve requirements, margin requirements, discount rates, and so forth, are all potentially useful. I do not think that monetary policy can be efficiently implemented solely by open-market operations, although they are a very effective vehicle.

Changes in other instruments such as discount rates affect many variables which are importantly related to our economic objectives. In the absence of the aforementioned aggregative economic model, it is irresponsible for me to guess the intensity with which each target-variable is affected by changes in instruments. Orders of magnitude can be inferred from some recently published econometric model simulation studies. Below I suggest that recent interest rate regulations may have worked rather severe hardships on the housing industry, but these regulations were not initially imposed by the Federal Reserve System.

I have previously argued that confidentiality is essential in implementing monetary policy. Chance disclosures can result in immense profits. In addition, applying monetary policy is not an exact science. It is easy to imagine that individuals interested in discrediting monetary policy could irresponsibly publicize minor technical flaws. These critics might in turn cause monetary authorities to act with less speed than was in the national interest.

I am not sympathetic to regular reports to Congress and I have no suggestions for what should be included in such reports. Similarly, I think that it is unnecessary for Congress, the Treasury, or the CEA to have observers at Open Market Committee meetings. Those organizations have ample channels to transmit information to the committee under the present arrangement.

Question II.—At the beginning of this statement I indicated my opinion of H.R. 11. Items 2, 4, and 5 are potentially dangerous and will not help the President implement policy. As suggested above, these proposals are likely to compromise both the effectiveness and quality of our monetary system. A more appealing reform proposal would be for the Congress to reduce the current number of Federal agencies regulating financial markets and to put the survivors under an agency modeled after the Federal Reserve System. I have the general impression that these other agencies' policies are less coordinated with current fiscal policy than are actions of the Federal Reserve. It might also be a good idea to increase the control which the Board of Gover-

nors has over the 12 individual Federal Reserve banks although this is a relatively minor reform.

Question III.—The following summary of recent financial developments is an abridged version of a paper to be published elsewhere. It does not purport to be a complete evaluation of recent policy, but only an incomplete exposition of how monetary policy may have operated. The evaluation has two main messages. First, interest rates and interest rate restrictions are powerful instruments in allocating investment funds within the economy. Monetary policy works and is potent.

Second, the disruptive allocative effects described below would have been unnecessary if the administration and Congress had followed the advice of most professional economists and promptly raised taxes in 1966 or 1967. It is no fault of the Federal Reserve System that our Government irresponsibly failed to allow for the costs of our Vietnam war involvement. Open market operations in 1966 doubtlessly considerably retarded inflationary pressures which are now so ominous. If the Federal Reserve had not acted, price increases and associated hardships would be far more troublesome today. Precisely this flexibility in policy formation must not be sacrificed with the passage of H.R. 11.

Table 1 reports recent quarterly financial acquistions by the household sector as measured in the flow-of-funds accounts.[1] In addition it reports how individuals distributed their disposable income between consumption and saving in the national income accounts. All flows are seasonally adjusted and reported at annual rates. The household sector is the largest sector reported in the flow-of-funds accounts.

TABLE 1.—RECENT AGGREGATIVE QUARTERLY STATISTICS, 1963–68

[In billions of dollars]

	Disposable personal income (SA)	Personal saving (SA)	(NET) financial acquisitions by households (SA)					
			Demand deposits and currency	Commercial bank savings accounts	Savings institution savings accounts	Life insurance reserves	Pension fund reserves	Credit market instruments
1963—1st quarter	369.7	19.3						
2d quarter	400.7	19.2						
3d quarter	406.9	18.8						
4th quarter	414.1	22.5						
1964—1st quarter	423.9	22.0						
2d quarter	435.8	27.7	2.2	8.3	15.8	4.4	11.7	7.6
3d quarter	443.1	25.6	4.1	8.5	17.1	4.2	10.8	1.8
4th quarter	449.6	29.5	13.7	11.2	15.2	4.2	12.0	.9
1965—1st quarter	456.0	24.5	6.5	13.5	13.3	4.6	10.4	−2.9
2d quarter	464.0	24.0	.9	9.8	12.3	4.8	11.6	11.7
3d quarter	479.4	30.9	5.9	15.8	13.2	4.9	11.2	3.7
4th quarter	489.3	29.3	11.7	13.8	12.5	4.8	11.7	−1.0
1966—1st quarter	497.5	26.6	−2.2	11.6	9.8	4.7	13.0	13.7
2d quarter	503.3	28.7	1.4	14.3	4.9	4.7	11.5	15.4
3d quarter	512.4	29.2	.5	13.0	5.3	4.6	13.5	11.1
4th quarter	522.0	34.6	8.1	8.5	9.3	4.6	15.1	2.0
1967—1st quarter	532.7	38.8	13.6	18.0	16.9	5.3	12.4	−12.9
2d quarter	540.0	36.0	14.2	17.9	20.6	3.9	14.7	−18.0
3d quarter	548.2	39.5	7.3	18.7	18.0	4.6	14.9	−1.1
4th quarter	557.9	41.6	14.5	8.5	10.7	5.3	15.2	16.8
1968—1st quarter	571.5	38.0						

Sources: (a) Survey of Current Business, June 1968; (b) Business Statistics, the 1967 biennial supplement to the Survey of Current Business; and (c) Federal Reserve Bulletin, October 1966 and May 1968.

[1] Households include persons as members of households and personal trusts and nonprofit organizations serving individuals such a foundations, private schools and hospitals, labor unions, churches, and charitable organizations. About 10 percent of household sector assets are believed to be controlled by personal trusts and nonprofit organizations. (Flow-of-funds accounts 1945–67, p. I. 33.)

First, note the marked increase in the saving rate by individuals. Roughly speaking the average propensity to save was 5 percent in 1963, 6 percent in 1964–66, and 7 percent since then. Classical economists would have expected this pattern because interest rates were rising quite steadily until September 1966 and then reached a new high region beginning in late 1967.[2] These saving data are consistent with an hypothesis which argues that monetary policy is effectively transmitted through fluctuations in bond interest rates.

The remaining columns in the table show net acquisitions of financial assets by households. Quarterly acquisition flows into life insurance and pension fund reserves have been quite stable through time. Contractual agreements for these assets prevent wide quarter-to-quarter fluctuations. Net acquisitions of demand deposits and currency by households fluctuate greatly. These data do not appear particularly illuminating when attempting to describe recent events.

Net acquisitions of commercial bank savings account deposits by households also do not appear useful for describing recent events. A slight slowdown in deposit growth occurred in 1966 and a strong recovery began in the first quarter of 1967, but this pattern only weakly mirrored events at savings institutions.

The remaining two series, savings institution deposits and credit market instruments, appear to have been very interactive. In the first three quarters of 1966, households greatly reduced their acquisitions of savings deposits and simultaneously shifted heavily into various credit market instruments. During the first two quarters of 1967, they disposed of many of these securities and rapidly reacquired savings institution deposits. During the last quarter of 1967 the process again seems to be reversing itself. In table 2 it can be seen that among credit instruments, most of the swing involved debt instruments of the U.S. Government.

TABLE 2.—DETAILS OF RECENT SWINGS IN CREDIT MARKET INSTRUMENTS

[Financial acquisitions by households, seasonally adjusted]

	U.S. Government securities	State and local obligations	Corporate and foreign bonds	Corporate stock	Mortgages
1965—4th quarter	1.7	3.0	−2.1	−3.4	−.3
1966—1st quarter	8.7	2.7	3.5	1.2	−2.3
2d quarter	11.0	−3.1	3.4	4.3	−.2
3d quarter	7.0	4.4	.8	−1.6	.6
4th quarter	4.9	4.8	−2.8	−5.3	.5
1967—1st quarter	−8.6	−.5	−.7	−2.6	−.5
2d quarter	−9.9	−2.4	.9	−4.8	−1.7
3d quarter		1.9	3.6	−6.2	−.4
4th quarter	15.1	1.1	2.6	−2.1	.2

Source: Federal Reserve Bulletin, May 1968.

It appears that households were responding very sensitively to the levels of Government security interest rates. During the latter part of 1965, 1966, and 1967, interest rates paid on deposits at savings and loan associations were relatively stationary when compared to bond market interest rates. Households bought U.S. Government securities heavily during the two periods of high interest rates, 1966 and late 1967; they sold them during the first half of 1967 when interest rates were lower. It is very difficult to escape the conclusion that Government

[2] A brief rise in the saving rate in 1964 above 1965–66 levels can reasonably be attributed to the tax cut of 1964.

securities and savings institution deposits are close substitutes. Open-market operations are likely to be especially effective in diminishing flows through savinge institutions when interest rates on savings deposits fall behind rates of return on Government securities as they did during this period.

The savings and loan industry is an extremely complex financial intermediary which is regulated by the Federal Home Loan Bank Board. About two-thirds of savings institution assets are in savings and loan associations. For brevity, attention will be confined to this indusrty. Approximately 85 percent of the industry's assets are in first mortgage loans; savings and loan associations are the largest suppliers of 1–4 family conventional mortgages in the American economy by a wide margin. Except for New England and the Mid-Atlantic States, savings and loan associations dominate local mortgage markets across the country. The industry grew rapidly until the end of 1963 and then more slowly until 1966 when growth nearly ceased for a year. The slowdown in growth after 1963 partly reflected a profit squeeze which the industry experienced because of rising interest (or dividend) rates paid on deposits (or shares) and falling new mortgage loan interest rates.

In March 1965 the Bank Board became alarmed that rising deposit interest rates might seriously endanger the stability of the industry Thus:

> * * * there is clear evidence that for some time escalation of dividends has accelerated the flow of savings to institutions or markets where performance did not fully justify further injections of mortgage money * * *. The Board found that institutions were raising dividend rates under conditions which did not appear to require more aggressive competition for funds * * * the Board determined that it would be unwise to extend advances to members increasing dividend rates until it had an opportunity to evaluate the effect of * * * [recent increases in dividend rates by some associations]. (Federal Home Loan Bank Board. *Annual Report*, 1965, p. 51.)

These advances restrictions were modified several times in the subsequent months.

> During the month of June [1966], it became increasingly evident that the policy of restraining dividend increases by restricting access to Board credit was losing effectiveness * * *. In late 1966, the Board terminated all restrictions under this program. (*Annual Report*, 1966, p. 47.)

In their place on September 21, 1966, Congress empowered the Federal Home Loan Bank Board, after consulting with the Board of Governors of the Federal Reserve System and the Board of Directors of the Federal Deposit Insurance Corporation, to put ceilings on rates paid on deposits; these powers continue to the present day.

As one might have expected, deposit growth weakened very significantly in response to interest rate restrictions beginning in mid-1965. This weakness continued until late 1966 when declines in bond rates occurred. During the first 6 months of 1968 the experience of 1966 appears to be recurring. Thus, during these months the net deposit inflow was $2 billion in 1966, $6 billion in 1967, and $3.6 billion in 1968.[3] The principal difference between 1966 and 1968 is that interest rates of commercial banks and mutual savings banks were more effectively controlled in the latter year.

[3] Sources are recent releases from the Data Management Division of the Federal Home Loan Bank Board.

The effect of these interest rate restrictions on mortgage flows appears to have been dramatic. Until mid-1964, mortgage acquisitions were steadily rising, if allowance is made for seasonal variations. Acquisitions leveled off in 1965 and then collapsed in 1966 and early 1967. They partially recovered in 1967, but in recent months again seem to be falling. Mortgage acquisitions by insured savings and loan associations in 1967 were below those in 1962; 1968 is likely to be no better. Given the growth in the American population and the rising price of houses, it is apparent that the number of mortgage transactions executed per capita has fallen considerably in recent years. Rising mortgage interest rates have sharply curbed demand for new mortgage loans.

The above picture is broadly consistent with the following interpretation although it is certainly not unique in that respect. Because the average maturity of their assets, essentially mortgage loans, is longer than the effective average maturity of their deposit liabilities, rises in interest rates will temporarily depress the net worth of savings and loan associations. In order to protect liquidity and, in the case of stock associations, the rate of return on invested capital, associations may initiate further rises in deposit interest rates to attract new funds. The Federal Home Loan Bank Board, in its role of protecting the solvency and stability of the industry, becomes alarmed at declining net worth and with rises in foreclosures and reacquired real estate which naturally occur with mortgage loan growth. It therefore curbs further deposit interest rate increases. By this action it makes deposit flows into associations very sensitive to changes in other interest rates in the money market. In effect, the Bank Board has greatly increased potential short-term interest rate fluctuations in mortgage markets by stabilizing fluctuations in deposit interest rates.

Table 3 reports seasonally adjusted quarterly investment series from the National Income Accounts. The series suggest that monetary policy discriminated heavily against investment in residential structures and that this burden was concentrated in late 1966 and early 1967. Accompanying this investment slump was a very pronounced acceleration of Federal defense spending associated with the Vietnam war buildup. Government spending tends to grow steadily in the United States, but a rapid acceleration of this magnitude must be offset elsewhere in a full-employment system if price stability is to be maintained. A relatively compelling interpretation of table 3 is that the housing industry bore much of the burden of the defense buildup.

This need not have been the case if fiscal policy and especially tax increases had been introduced at an earlier date. Monetary policy did a big job as well as could be hoped for. Hopefully the lesson from this experience wil not go unheeded if further spending increases become necessary.

Deflationary monetary policy works by inducing the private sector to reduce its spending and increase its saving. This may be achieved by driving up interest rates which discourages investment and increases the reward for saving. In recent years households have saved more and invested less in new residential construction. Monetary policy has worked to offset inflationary pressure.

TABLE 3.—QUARTERLY INVESTMENT FLOWS, 1963–68 (SA)

	Nonresidential structures	Producers' durable equipment	Nonfarm residential structures	Change in business inventories	Federal defense expenditures
1963—1st quarter	18.8	33.2	25.5	4.7	51.2
2d quarter	19.7	33.8	26.2	4.8	50.5
3d quarter	19.4	35.5	26.5	6.0	51.0
4th quarter	19.9	36.8	27.4	8.1	50.3
1964—1st quarter	20.4	37.9	27.1	4.8	50.5
2d quarter	21.1	39.0	26.6	6.1	50.7
3d quarter	21.4	41.0	26.5	4.8	49.8
4th quarter	21.8	41.6	26.3	7.7	48.9
1965—1st quarter	23.1	44.1	26.6	10.6	48.4
2d quarter	24.7	44.6	26.5	8.8	49.2
3d quarter	25.1	46.8	26.4	9.4	50.3
4th quarter	27.3	48.3	26.2	9.9	52.4
1966—1st quarter	28.3	50.0	26.5	9.9	55.1
2d quarter	27.5	51.2	25.3	14.0	58.4
3d quarter	28.2	53.1	23.2	11.4	63.0
4th quarter	27.7	55.1	20.4	18.5	65.6
1967—1st quarter	27.7	54.2	20.9	7.1	70.2
2d quarter	26.3	55.2	22.5	.5	72.5
3d quarter	26.6	56.2	25.0	3.8	73.3
4th quarter	26.7	57.3	27.0	9.2	74.2
1968—1st quarter	28.5	58.7	27.6	2.7	76.7

Sources: (a) Survey of Current Business, June 1968. (b) Business Statistics, the 1967 biennial supplement to the Survey of Current Business.

STATEMENT OF WALTER E. HOADLEY, BANK OF AMERICA

I appreciate the opportunity to comment to your committee on the general question of the coordination of monetary and fiscal policy and on H.R. 11.

Certainly most economists would agree that both monetary and fiscal policy have a major role in the achievement of the goals of "maximum employment, production, and purchasing power" as set out in the Employment Act of 1946. Moreover, monetary and fiscal policy have a crucial role in helping to alleviate the whole range of new problems caused by the substantial achievement of full employment itself. Maintaining full employment, once achieved, probably poses one of the most serious economic problems facing the Nation over the period ahead.

In the past 3 fiscal years, increases in Federal revenues have fallen far short of increases in Federal expenditures and the result has been clearly inflationary fiscal policy. Monetary policy actions have tended to be very restrictive in an attempt to offset the inflationary impact of fiscal policy.

Although we can all agree as to the desirability of increased cordination of monetary and fiscal policy, care must be exercised that they are not tied together in such a way that inflationary fiscal policy is reinforced by inflationary monetary policy. Under present institutional arrangements, monetary policy is much more flexible than fiscal policy in practice. Thus, when evidence becomes available that economic projections or projected Federal receipts or expenditures are in error, monetary policy can be more quickly adapted to the changed circumstances.

In this context, I fear that there would be little net gain and very possibly a net loss to the economy by setting out a program coordinating fiscal, debt management, and monetary policies at the beginning of each year. This does not imply that monetary and fiscal policies are independent and mutually exclusive, but only that the Federal Reserve

should maintain a degree of flexibility to adapt monetary policy to changing conditions.

While I firmly believe that forecasting is an indispensable and inevitable element in all decisionmaking, I am concerned that specific public forecasts of monetary policy would become self-defeating. This is likely because of the vagaries of international monetary and political developments as well as unpredictable domestic events not to mention the present well-advanced degree of sophistication in United States and worldwide financial markets.

As recent experience amply demonstrates, we need to improve our ability to forecast economic activity and find ways to increase the flexibility of fiscal policy and the timeliness of its application. The tools of monetary policy must be improved if we are to avoid the selective impact of monetary restraint on certain sectors of our economy, especially residential construction. However, at this time, I know of no single economic indicator which could serve as an exclusive guide to the monetary authorities.

Debt-management policy could be used as more of an adjunct to monetary and fiscal policy if the 4¼ percent ceiling on Treasury bonds were removed. At present, inflationary fiscal policy is reinforced by debt management policy as the deficit must be financed with short-term, highly liquid securities. Removal of the interest rate ceiling would allow a more orderly and effective debt management policy.

The modification in the discount window operation recently proposed by the Federal Reserve would largely eliminate "defensive" open market operations. Instead normal market operations could then be used to implement monetary policy. Regulation Q should not be used as a tool of monetary policy.

The Federal Reserve now reports in great detail annually to the Congress on past actions. In addition, reports are made available on open market committee meetings after a reasonable delay. As suggested, it would be difficult and presumably unwise for the Federal Reserve to report on prospective actions because of the present margin of error in worldwide economic forecasts and the need for a flexible monetary policy response to changing economic conditions. I see little benefits to additional reports nor in the presence of Members of the Congress, the Treasury, or the CEA at Open Market Committee meetings.

I'm still not convinced that the suggested changes in the structure of the Federal Reserve System as provided in H.R. 11 would be an improvement; there is real value, however, in reviewing the structure periodically to insure that it keeps abreast of national needs and changing money market and institutional conditions. In any event, the members of the Federal Reserve Board need to be as free as possible from short-term partisan political considerations.

The period since 1964 has been a period in which fiscal policy was overly stimulative and contributed to inflationary pressures. The attempts of the Federal Reserve to control inflation without precipitating a recession have generated many stresses and strains in the financial markets and depressed residential construction activity. And, although I may not have always agreed completely with the actions taken by the Federal Reserve Board, I think the Federal Reserve System performed rather well during this difficult period.

In closing, let me make it clear that I strongly support the use of the tools of fiscal and monetary policy and debt management to achieve the goals of full employment and rapid economic growth within the context of price stability. Any action which the Congress could take to make these tools more effective in achieving these goals would certainly be welcome. However, on the whole, I believe that H.R. 11 would be counterproductive in this regard and therefore I could not recommend its passage. As stated at the outset, I'm convinced we have much to learn to cope with the special problems of full employment itself and would commend this matter to your committee's attention.

Again, thank you for giving me the opportunity to express my views in this important area.

STATEMENT OF GEORGE HORWICH, PURDUE UNIVERSITY

Reply to Questionnaire on H.R. 11

I

1 and 2: I believe that a program should ultimately be established requiring coordination of monetary and fiscal policies and debt management. However, I am not prepared to outline such a program at this time. I think it should be the subject of further study, in light of the interest rate rule for the Federal Reserve, and its implications for fiscal policy, that I have proposed in my answer to question 3.

3. (A and B): I have enclosed a statement, "The Proper Role of Monetary Policy."

4: In general, the Treasury should finance its deficits so as to minimize its total interest payments. Given this objective, the Federal Reserve should then act to equate the long- and short-term market rates to their respective natural rates, where the latter are defined to include the impact of continuing Federal borrowing. From the viewpoint of the Federal Reserve, it is important to recognize that even if long- and short-term securities are close substitutes, their natural rates can move independently of each other. Open market operations that ignore this possibility could create instability of financial markets and the total economy.

As an example of the kind of term-structure problem the Federal Reserve should be concerned with, suppose that the long-term natural rate falls, while simultaneously the short-term natural rate rises. Appropriate stabilizing action might be an immediate open market purchase in the long-term market and an open market sale in the short-term market. If, instead, the Federal Reserve were to reduce the long-term market rate to its natural level without acting in the short-term market, its purchase of long-term securities would create funds that spill over and drive the short-term market rate farther away from its higher natural level. This would constitute an inflationary disturbance for the economy which, in the absence of any policy action at all, might not have occurred.

5. (A): Defensive open market operations may be as important as those directed to longer run goals. A seasonal drain of currency out of bank reserves creates monetary instability which need not and should not be tolerated. Like all monetary disturbances, it will be reflected

in a discrepancy between the market and the natural rate of interest (in this case, the market rate will rise above the natural rate as the reserve drain forces banks to contract earning assets). The advantage of our interest rate rule in this connection is that it calls forth the appropriate stabilizing action by the Federal Reserve against both long-run (e.g., cyclical) and short-run (e.g., seasonal) financial disturbances.

(*B*) In the first instance, Federal Reserve policy should be implemented by open market operations. However, if the aim of policy is to influence financial markets selectively (say, the short-term market in one direction and the long-term in another, as in the example under question 4), it may be desirable to prevent commercial banks from responding to any reserve changes resulting from the operation. This would in particular be necessary if the banks tended to operate on the term structure in a way opposite to that desired by the Federal Reserve. One way to prevent the commercial banks from participating in the financial markets under such circumstances is to alter their reserve requirements so as to keep their effective reserves constant.

(*C*) I have nothing to suggest at this time in regard to rediscounting policy. The authority to regulate interest payments on time deposits is an unnecessary source of instability, providing no apparent benefits, and should be immediately rescinded.

(*D and E*): I see no reason for the Federal Reserve not to report on its actions and policies. But it should not be required to do so without requiring that the Treasury also report on the monetary and economic implications of its total budgetary and existing asset activity. I do not think that monetary policy formulation would be facilitated in the physical presence of representatives from the other governmental branches.

II

There is no useful purpose served by retaining Federal Reserve stock. However, reducing the Federal Reserve System to a branch of the executive, dependent on Congress for its appropriations, as H.R. 11 provides, would, at the present time, be a disaster for the conduct of monetary policy. In principle, one cannot justify the separation of monetary powers between the Federal Reserve and the Treasury, or the relative independence of the Federal Reserve. But the consolidation of these powers and the destruction of an independent central bank, without a clear and detailed understanding of what responsibility the consolidated authority would have, would serve only to place the infinitely more sophisticated Federal Reserve at the mercy of the Treasury. This is not a prospect that I look forward to.

A supplementary paper follows:

The Proper Role of Monetary Policy

I. INTRODUCTION

I do not believe that the money stock, broadly or narrowly defined, is an appropriate target or a useful indicator for monetary policy. The central bank will exercise its comparative stabilization advantage if it ignores the money stock as such and, at high and sometimes low levels of employment, acts instead to equate the market rate (or rates) of

interest to the natural rate (or rates) of interest. This old Wicksellian prescripion, endorsed by Keynes and Robertson as late as the early 1930's, has been lost sight of in the postwar period. Nevertheless, properly reinterpreted in a modern institutional and theoretical framework, the Wicksellian rule can be made operational and applicable to contemporary monetary policy.

In order to understand the interest rate rule and, at the same time, to see why a rule formulated in terms of the observed money stock, which H.R. 11 advances, is not an acceptable alternative, we must turn to available evidence on the empirical behavior of money. Particularly relevant is the fact, documented in section II, that the stock of money is an endogenous (internally determined) variable, positively related to the rate of interest. This empirical phenomenon may be interpreted in Wicksellian terms. As such, it reveals clearly the inadequacies of the observed money stock as a guideline to policy. The appropriate level or growth rate of money, as determined by the Federal Reserve, will depend critically on the relation between the market and the natural rate of interest. Moreover, the endogenous fluctuations of money lead to a very misleading assessment of the de facto impact of the Federal Reserve on the stock of money; since money supply series reflect both endogenous and policy actions, the effect of policy on observed money may be completely obscured.

I. THE ENDOGENOUS MONEY STOCK: THE FACTS AND AN INTERPRETATION

Many economists have called attention to the endogenous character of money. For the first time, however, we have available a systematic and rigorous empirical description of the response of monetary components to the ebb and flow of economic activity. This is the contribution of a new volume published this year by Richard D. Irwin, *The Neutralized Money Stock: An Unbiased Measure of Federal Reserve Policy Actions.* The author is Patric H. Hendershott, of Northwestern University, and formerly of the research staff of the Board of Governors.

Henderhott begins with a reserve identity for the narrowly defined money stock that involves the addition and subtraction of 14 bank reserve and deposit items. Seven of the items fluctuate significantly over the course of the business cycle. They are: U.S. Government securities held by the Federal Reserve; Federal Reserve float; the gold stock; currency outside banks; member bank time deposits; excess reserves; and borrowings from the Federal Reserve. Hendershott considers the security holdings of the Federal Reserve to be exogenous and proceeds to analyze quarterly changes in the other six components over the period 1952–64. This is done in multiple-regression equations in which the explanatory variables are wealth, total national product, market rates of interest, and occasional other variables.

Hendershott summarizes his findings with respect to the behavior of the observed money stock in the following way. Consider a typical postwar upswing, characterized by an investment schedule shifting to the right. As a consequence, both interest rates and income rise. The rise in income causes a drain of bank reserves into currency, reducing the stock of money. Higher income also increases Federal Reserve float, and this almost offsets the impact of the currency drain on reserves. In addition, the increase in income raises time deposits and imports of

foreign goods, both of which contract the money supply—the latter by inducing a gold outflow. On net, the increase of income in the upswing reduces the stock of money. But the concurrent rise in interest rates raises money by increasing member bank borrowings, decreasing member bank excess reserves, decreasing time deposits, and increasing the inflow of gold via the capital account of the balance of payments. All of the interest rate effects thus raise the money supply, and they do so by a much greater amount than the income effects lower it. On net, since income and interest rates move together, money is highly procyclical.

Hendershott's findings can be interpreted as providing strong support for the Wicksellian money-supply process. In that celebrated framework, there is, first and foremost, the natural rate, which is the rate of interest at which desired saving and investment are equal. From the viewpoint of observable financial phenomena, we need both to narrow and broaden the saving and investment totals relevant to the natural rate. Only those components of saving and investment channeled directly or indirectly through the money and capital—the claims or securities—markets can have any bearing on the rate of interest, which is, after all, an inverse function of the price of claims.[1] Moreover, since saving and investment are continuing or flow variables, characteristic of a growing economy, they generate a flow demand and flow supply, suspectively, of nonmonetary financial claims. The natural rate is thus the rate of interest at which the flow supply and flow demand for securities would be in equilibrium.

Finally, we must broaden the security supply side to include the substantial quantity of Government debt, about which Wicksell knew very little, and which today has all the properties of both a stock and continuing flow supply phenomenon. Its relevance to the rate of interest is unquestioned.

To summarize, there is a natural rate for every possible pair of flow security schedules generated by alternative levels and growth rates of capital, wealth, disposable income, and Government borrowing.[2]

The other conerstone of Wicksell's doctrine is the market rate of interest, and this is determined by all security supplies and demands—stocks and flows combined. In a very brief interval, flows are nonexistent and the market rate is determined solely in the existing-security market.

When the market rate and the flow equilibrium or natural rate are the same, the market rate is constant over time and, for a given growth rate of the economy, so is the endogenously determined money stock. When, because of rising investment prospects or increasing Government borrowing, an increased rate of security supply raises the natural rate, we have at the still unchanged market rate an excess flow supply of securities which is also an excess demand for commodities. The excess securities fall in price and rise in yield, whereupon they are purchased by bankers, expanding total bank credit and the money

[1] Investment financed by current retained earnings constitutes equal additions to saving and investment and, since it ultimately raises the value of the firm's shares, may be considered as being indirectly channeled through the securities market.

[2] It should be noted that the flow demand does not include continuing (flow) security purchases by commercial or Federal Reserve banks. Such purchases entail continuing money creation and are thus inflationary. The natural rate is intended to be an interest rate at which, in the absence of output and demand for money changes, the price level would be constant over time.

supply. In the opposite case when the natural rate falls below the market rate, there is at the higher market rate an excess flow demand for securities which creates an excess supply of commodities. The excess security demand also lowers the market rate and induces bankers to sell off earning assets, contracting bank credit and money. The greater the gap between the market and natural rates, the greater, of course, is the force altering market rates and the stock of money.

III. AN INTEREST RATE POLICY RULE

It follows directly that if the monetary authority does not like the endogenous changes in the money stock, it can prevent them by equating the market rate to the natural rate. This imposes on the economy instant equality between the financial components of saving and investment—or, more generally, between saving plus taxes and investment plus Government spending. Instead of banks—an inflationary source—savers and taxpayers would buy additional securities issued to finance additional investment or Government expenditures. Since the monetary authority will raise the market rate to a higher natural level by an open-market sale or an increase in reserve requirements, the desire of commercial banks, nurtured by the higher interest rates, to buy additional securities and create money is curtailed by a contraction of the reserve base or the effective reserve base. Conversely, when expenditures and the natural rate fall, the appropriate action is an open-market purchase or a reduction in reserve requirements.

The practical significance of the Wicksellian policy action is that the lag of anywhere from 6 to 16 months commonly attributed to the income effect of monetary policy is not applicable. For what occurs under the interest rate rule is not an independent change in the stock of money, followed, after some months, by a change in money income, but rather there occurs a change in market interest rates that prevents, at once, unwanted dependent changes in the stock of money and money income. The relevant lag is the time required for a change in interest rates to spread throughout the money and capital markets. The consensus among financial economists is that this lag is very brief—no more than several weeks or a month at most.

It seems obvious than central banks, whose direct policy impact is felt in the financial markets, should have as their target not the money stock as such, but an appropriate market rate of return on financial instruments. This is an objective that central banks are uniquely equipped to accomplish, with both speed and efficiency. By taking the natural rate as their interest rate target, central banks act as a catalyst, driving market rates in a direction they would take in any event. The contribution of the central bank is to accelerate these predetermined interest movements; ideally, to eliminate the lag of the market rate behind the natural rate and thereby prevent undesired changes in money, income, and the price level that accompany the endogenous interest adjustment process. Since in closing the gap between the two interest rates the central bank removes the very source of endogenous monetary change, it follows that a once-for-all, rather than a continuous policy action, is all that this interest rate policy requires.

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Whether the monetary authority will always want to take offsetting action against the endogenous money stock depends, of course, on the direction of the internal monetary change and the state of the economy. During a period of low unemployment, which we have experienced for the past several years, the adjustment of the market rate to higher *or* lower natural rates—heading off inflation or deflation—would seem desirable. At less than full employment, immediate reductions in the market rate to lower natural rates, neutralizing the endogenous deflationary tendency, is clearly called for. However—and this is the only general exception—the central bank may choose to allow an excess of the natural over the market rate to exert its full inflationary force on a depressed economy.

Even in the latter case, changes in the money stock via fiscal policy, which can bypass financial markets and act directly to raise spending and income, may be a preferred earlier course of action. It is precisely the advantage of the Wicksellian rule, as opposed to automatic money supply policies, that it assigns to the central bank only a portion of the total responsibility for stabilization. The central bank is charged only with the elimination of undesired discrepancies between the market and natural rates of interest. For all other disturbances, which are those that involve direct movements between commodities and cash balances without an intervening change in the market or natural rates, fiscal-induced monetary changes are the appropriate stabilizing measure.

While the Wicksellian rule defines the separate responsibilities of the fiscal and monetary authorities, it also points to the area of their interaction. For the very natural rate that we recommend as a guide to the central bank is in part determined by Government taxation and borrowing. Thus if the central bank should find that the natural rate is so high or low that it feels inhibited from moving or allowing the market rate to move to the natural level, then it is the responsibility of the Government to alter its budget so as to bring the natural rate within reach. There is reason to believe that in the past several years the combined effect of Government and private demands for funds has driven the natural rate to extremely high levels—perhaps 10 or 15 percent—higher than it is politically feasible to allow market rates to rise.

The impact of such an extreme natural rate on the endogenous money stock, given the *relatively* low market rate, is worth noting for the benefit of those who would impose a simplistic monetary rule on the Federal Reserve. Suppose, as might have been true in 1967 and the first half of this year, that the natural rate is 12 percent and, in the absence of policy actions, the market rate is 4 percent and rising, and the endogenously determined money stock is advancing at an annual rate of 10 percent. Now, the central bank reduces the growth rate of money from 10 to 6 percent as it raises market rates from 4 to 7 percent. The market rate is still below the natural rate, but the discrepancy has been reduced from 8 to 5 percent and monetary growth cut by 40 percent. Whether the continued growth rate of the observed money stock is the proper rate depends on the current rate of inflation (positive), the extent of unemployment (low), the balance of payments (deteriorating), and the allocative and political effects (considerable) of still higher market rates of interest. But the question here is whether, in

these circumstances, an automatic monetary growth rule can reasonably be imposed on the central bank and whether observed monetary behavior can be taken as prima facie evidence of monetary policy actions.[3] Is it accurate to say, as quantity theorists do, that in this example the central bank is pursuing an easy money policy, even while it has reduced the growth rate of money by 40 percent of what it otherwise would have been? Are monetary growth-rule adherents, some of whom complain about the highest interest rates in 40 years, willing to accept the market rate of 12 percent that, say, a 3 or 4 percent growth rate of money might entail?[4] My answer to the first question is definitely no, and to the second, probably not.

The interest rate rule of Wicksell is not, of course, simple, for it requires both a clear understanding of the monetary interest rate mechanism and knowledge of the natural rate, which is not directly observable. I would favor a Wicksellian monetary policy, even in the absence of precise information on the natural rate. This is because, as I try to shown in section IV, the Federal Reserve seems almost intuitively and with some success, to follow such a policy, even without having formulated it or obtained the necessary empirical information. But the fundamental point is that the current absence of a measure of the natural rate has no relevance whatever to the desirability or even the ultimate feasibility of the interest rate policy.[5] No one who is familiar with the progress of economic measurement will doubt that the natural rate will be measured, once it has been operationally defined (as I have tried to do), and economists have become convinced (as I have) it is needed.

As a byproduct of a broad empirical study of the money and capital markets we have undertaken, Hendershott and I will estimate quarterly series of three natural rates. We have begun by classifying every balance sheet item of the several sectors of the Federal Reserve's flow-of-funds accounts into one of three security categories: the long-term primary, the short-term primary, and the savings-account intermediary. For each security grouping, we are estimating separate total demand-and-supply equations that will explain the determination of its interest rate and thus, at the same time, the term structure relation.

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[3] The ability of the Federal Reserve to reduce the monetary growth rate to any prescribed low level is not in question. As Hendershott has emphasized, the "new" view of money determination, as exemplified by Gramley and Chase, is an explicit statement of the mechanism by which the Federal Reserve achieves a given monetary growth rate; it is not a statement of the inability of the Federal Reserve to control the stock of money. See Hendershott, "Open Market Operations, the Money Stock, and Various Policy Issues," in K. Brunner, ed., *Indicators and Targets of Monetary Policy* (San Francisco: Chandler Publishing Co., forthcoming); and L. E. Gramley and S. B. Chase, "Time Deposits in Monetary Analyses," *Federal Reserve Bulletin*, LI, October 1965, pp. 1380–1406.

[4] I find it paradoxical that one of the stanchest new advocates of a constant (within narrow bounds) growth-rate-of-money policy is the chairman of the Joint Economic Committee of Congress, who at the same time is well known for his opposition to high interest rates. He seems unaware that maintaining monetary growth within his proposed bounds could entail fantastically high market rates of interest.

[5] In his presidential address, "The Role of Monetary Policy" (*American Economic Review*, LVIII, March 1968, pp. 1–17), Milton Friedman cites as clearly relevant the fact that no one has succeeded in measuring the natural rate (p. 10). He also adds that the natural rate will vary over time and that the market rate will diverge from the natural rate for reasons in addition to that of monetary policy (pp. 10–11). It is, of course, precisely because the natural rate is variable over the business cycle and the market rate fluctuates for any reason that our interest rate rule is necessary. The usefulness of the policy rule in terms of the various types of disturbances in my paper, "A Framework for Monetary Policy," in K. Brunner, ed., *Indicators and Targets of Monetary Policy, op. cit.* (This volume contains the proceedings of the UCLA Conference on indicators and targets of monetary policy held in April 1966.)

Our demand-and-supply equations each take the following convenient form:

$$\frac{S_d}{W}=f(R)$$

$$\frac{S_s}{K}=h(R)$$

The symbol S denotes the quantity of one of the three securities; the subscripts d and s refer to demand and supply, respectively; W, a scale variable for demand, is gross financial assets of demanders; K is the stock of capital which the given security supply has to a large extent financed; R is a vector of the three interest rates; and f and h are the functional relationships between security demand and supply and R.

If we multiply demand and supply by their denominators and take the first differences (Δ) of each equation we obtain:

$$\Delta S_d=f(R)\Delta W+W_{-1}\Delta f(R)$$

$$\Delta S_s=h(R)\Delta k+K_{-1}\Delta h(R)$$

where the expressions on the right side are identically equal to $\Delta[f(R)W]$ and $\Delta[h(R)K]$, respectively. The change in security quantities corresponds, of course, to the flow-of-funds data. Now, from the viewpoint of policy, the change is security demand, ΔS_d, has been usefully partitioned into a component, $f(R)\Delta W$, which, at alternative interest rate levels, is due to the continuing growth of wealth, ΔW, and a component, $W_{-1}\Delta f(R)$, which is the demand response determined by the preexisting stock of wealth and changes in the rates of interest. The first component is thus the flow demand and the second, the stock demand for securities. Similarly, the change in security supply is the sum of a flow response based on the continuing growth of capital, $h(R)\Delta K$, and a stock adjustment term reflecting interest-rate changes, $K_{-1}\Delta h(R)$. Together with appropriate lag structures, we will thereby estimate coefficients of both the flow and stock demand and supply for securities of each of the three markets. The interest rate which clears the flow equations only is the natural rate of the given market.

IV. NEUTRALIZED MONEY: THE FEDERAL RESERVE AND THE WICKSELLIAN RULE IN THE POSTWAR PERIOD

Hendershott's study, referred to above, has as its main theme the derivation of a money supply series from which endogenous influences—primarily interest rates and income—have been removed and which thereby reflects only the actions of the Federal Reserve. This is the "neutralized money stock," which, together with a proxy for the natural rate described below, provides a Wicksellian alternative to the simplistic quantity theory interpretation of monetary events and policy of 1952–64.

The derivation of the neutralized money stock is as follows. Recall that Hendershott derived regression equations in which the dependent variables were the six major endogenous components of the

stock of money. In each equation the observed values of the explanatory variables are replaced by trend values from which the effect of cyclical movements has been removed. For example, since pocket currency depends on national income, a cycle-free trend series of income is derived. This smoothed GNP, together with the other decycled explanatory variables, is substituted into the currency equation to yield a cycle-free or "neutralized" level of currency. That is the currency level that would have prevailed in the absence of cyclical movements in its underlying determinants. All of the six major endogenous monetary components are similarly recalculated, using cycle-free values of their explanatory variables. The new levels of the monetary components, so derived, are substituted into the money identity to produce the neutralized money stock. This is a series in which the impact of cyclical movements primarily in national income and interest rates has been removed. It reveals essentially the influence on money of current Federal Reserve policy actions.[6] Thus it is a measure of monetary policy that is analogous to the full-employment budget surplus measure of fiscal policy. Just as the latter reflects the influence of fiscal policy, not the business cycle, on the budget surplus, the neutralized money stock reflects the influence of monetary policy, not the business cycle, on the money stock.

The neutralized money stock offers an interesting chronicle of Federal Reserve policies from 1952 to 1964 (see chart I). During those years, there were three recessions: 1953–54, 1957–58, and 1960–61. In the year prior to the 1953 recession, the neutralized money stock was rising, but it accelerates sharply in August 1953, the first month of that recession. It continues to rise steeply until the recession ends in August 1954, whereupon its rate of increase falls off markedly. Monetary restraint, signaled by the downturn of neutralized money, occurs in April 1955, the eighth month of the boom, and continues through all the rest of the upswing and beyond, until December 1957, the fifth month of the 1957–58 recession. The sharpest increase in neutralized money over the entire period begins in December 1957, in the middle of the recession, and continues for 1 year, the last two-thirds of which is in the new upswing which began in May 1958. A very pronounced decline of neutralized money begins in January 1959, the ninth month of the upswing, and ends in June 1960, the first month of the 1960–61 recession. The ensuing monetary expansion continues through 1964.

[6] An important underlying assumption in this neutralization procedure is that the explanatory variables whose cyclical fluctuations are removed are not themselves influenced by current Federal Reserve actions. This is certainly true of income in any quarter, which may reflect past, but hardly current, monetary policies. However, the other major explanatory variable—interest rates—is jointly determined by internal forces and the Federal Reserve. I do not myself believe that the Federal Reserve exerts very much influence on interest rates, but whether it does or not is not critical to Hendershott's procedure. The fact that interest rates are not entirely endogenous causes the neutralized money supply—the series which reflects the influence of monetary policy only—to rise and fall more precipitously than it otherwise would. But failing to take account of the Federal Reserve's influence on interest rates does not alter the turning points of neutralized money. Consider a simple case in which interest rates are reduced by an open-market purchase. The fall in interest has secondary effects on the money stock, causing it, through various components, to contract—though in context, still rising on net. Now the neutralization procedure assumes that interest rates fall only for endogenous reasons and raises them forthwith to their trend. The neutral money level is obtained by recalculating what will then be a higher money stock based on higher (trend value) interest rates. The monetary series that is supposed to reflect only Federal Reserve actions in fact overstates them by removing the second-order contraction due to the Federal Reserve's own downward influence on interest rates. The opposite would be true for an open market sale. The neutralization, by erasing the simultaneous expansionary effect of the increase in interest rates, attributes a greater monetary contraction to the policy action than it in fact produced. But as long as the Federal Reserve always creates inverse direct movements in interest and money, the neutralization will never misstate the direction of the true cyclically neutral series and thus its turning points.

The observed money stock, during this same period, exhibits its usual procyclical and utterly perverse pattern. Observed money was also increasing prior to the 1953 recession, but instead of accelerating in the first recession month, as does neutralized money, it remains on a plateau until mid-1954. It then begins an increase which continues throughout the remaining 4 months of the recession and *all* of the subsequent business upswing. Neutralized money, you will recall, started down in April 1955, relatively early in the boom. The observed stock does not decline until the onset of the 1957 recession and then it falls until February 1958, the seventh month of that recession. The rise beginning at that point reaches an upper turning point in June 1959—late in the upswing of 1958–59, and 7 months after the downturn of neutralized money. Finally, the observed series turns up in July 1960, the second month of that recession.

There are five turning points of monetary policy in this period. Three of them appear in the neutralized money series more than 6 months before they appear in the observed series, and the observed series never leads the neutralized. Hendershott's findings are considerably more favorable to an assessment of Federal Reserve actions, vis-a-vis the business cycle, than are the studies of Kareken and Solow,[7] Culbertson,[8] and Brunner and Meltzer,[9] all of whom analyze observed monetary series.

Apart from a brief analysis of gold-offsetting actions, Hendershott does not try to explain the underlying determinants of monetary changes due to the Federal Reserve. However, as I have indicated, I believe that the Federal Reserve probably does act, more or less, to equate the market rate to the natural rate. The only exceptions to this occur when it misses turning points in the natural rate or, in recessions, when it allows the excess of the natural over the market rate free reign in drawing money and income to the full-employment level.

Hard evidence for this position may be forthcoming when Hendershott and I complete our interest rate study. To this committee I offer the folowing preliminary evidence. Suppose we take as a proxy for the natural rate gross private domestic investment plus the Federal Government deficit. The investment series will correlate with the sum of private security flows if investment financed out of cash balances is a constant fraction of total investment and if ex ante and ex post investment are always equal. The investment figure plus the Government deficit will move with the natural rate on the further assumption that net shifts in the flow securities market are always on the side of supply. This seems reasonable, since saving, the demand side of the flow securities market, is a relatively constant proportion of disposable income, and the latter itself is a stable series—much more so than total income.

My point is that the interaction of the natural-rate proxy, the observed market rate or rates of interest, the observed money stock, and Federal Reserve policy actions as measured by Hendershott's neutralized money series can be interpreted within the Wicksellian framework consistently and cogently. This is illustrated for the postwar period by again referring to chart I.

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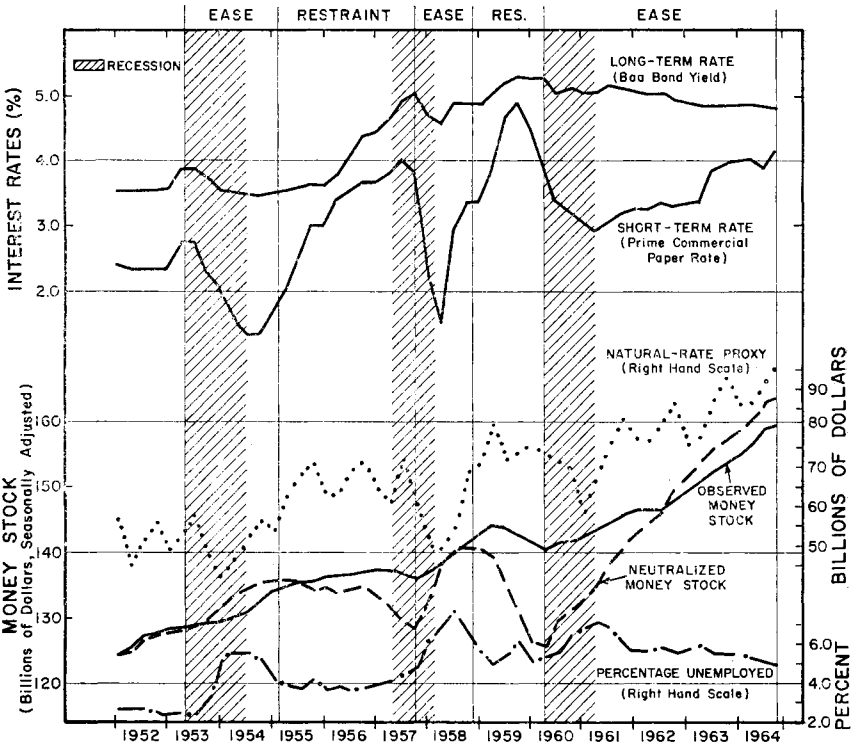
[7] Kareken, J. and Solow, R. M., "Lags in Monetary Policy," *Stabilization Policies* (New York: Prentice-Hall, Inc., 1963), pp. 1–96.

[8] Culbertson, J. M., "The Use of Monetary Policy," *Southern Economic Journal*, XXVIII, October 1961, pp. 130–137.

[9] Brunner, K., and Meltzer, A. H., "An Alternative Approach to the Monetary Mechanism," Subcommittee on Domestic Finance, Committee on Banking and Currency, 88th Cong., 2d sess. (Washington, D.C.: U.S. Government Printing Office, 1964).



Source: Federal Reserve Bulletins and P. H. Hendershott, *The Neutralized Money Stock.*

CHART 1

One quarter after the onset of the 1953–54 recession, both the short- and the long-term market rates and the natural-rate proxy drop sharply. The Federal Reserve, as revealed by neutralized money, takes vigorous expansionary monetary action throughout the recession. This produces the synchronous movements in the market and natural rates, cushioning the deflationary effects of the reduced natural rate. The Federal Reserve may, in fact, have equalized the market and natural rates for there is virtual stability of the observed money stock during the decline of the natural rate. The natural rate turns upward in the middle of the recession, but neutralized monetary expansion continues, as does, therefore, the decline of the market rates. The observed money stock increases during this last phase of the recession, indicating that the Federal Reserve's action, together with the rise of the natural rate, probably drove the market rate below the natural rate.

At the start of the 1954–57 upswing, the growth of neutralized money tapers off and the market rates swing sharply upward, now paralleling the continued rise of the natural rate. Observed money continues to grow, indicating that the market rates, though rising, are still below the natural rate. The natural rate reaches a plateau in early 1956, oscillating about it for the entire year and through September 1957, the first quarter of the 1957–58 recession. But the market rates continue rising throughout the upswing in response to the decline of neutralized money, which began early in 1955. The rise of the market

rates may also be attributed to the fact that in spite of their substantial increase, they still did not reach the natural rate which continued to pull them upward. This latter possibility is supported by the monotonic rise of observed money during the upswing.

After the first quarter, and for the remainder of the 1957–58 recession, the natural rate and the short-term market rate turn downward. In the second recession quarter, the long-term rate declines with the others. During these first 6 months neutralized and observed money are both falling, indicating that the Federal Reserve has kept the market rates above the natural rate. But this is reversed in the middle of the recession as both money series turn up, evidence of the market rate now falling below the natural rate, though both rates continue to decline.

Shortly after the start of the 1958–59 upswing, the natural rate recovers smartly. The diminishing rate of increase of neutralized money allows the market rates to rise with the natural rate. The market rates do not rise so much that they prevent observed money from rising, but observed money does not increase sufficiently to push unemployment very far below a 6-percent rate.

The natural rate turns down in the middle of the very brief 1958–59 upswing. Unfortunately, neutralized money turns down with the natural rate. This forces the market rate to continue rising for 6 months and observed money to fall precipitously—just as one would expect when the market rate is above the natural rate.

Late in the 1958–59 upswing, the natural rate recovers slightly and momentarily. A quarter earlier the market rates start to fall, in spite of the continuing decline of neutralized money. Observed money is also declining, indicating a market rate above the natural rate. Market and natural rates fall throughout most of the 1960–61 recession. But neutralized and observed money rise. The natural rate turns up late in the recession. Market rates decline for an additional quarter in the face of continued monetary expansion. In the final upswing, the natural rate continues its advance. Short-term interest rates rise, but long terms fall. The average market rate rises very little, as neutralized and observed money climb vigorously.

STATEMENT OF WILLIAM R. HOSEK, UNIVERSITY OF NEW HAMPSHIRE

I. MONETARY POLICY GUIDELINES AND OPEN MARKET OPERATIONS

1. The implementation of monetary policy in the United States involves a fundamental question of political democracy as well as one of economic efficiency. Since the Constitution assigns the responsibility for coining money and regulating its value to the Congress, it would seem that the coordination of monetary policy with other goals of the Congress follows from that responsibility. In addition, the Congress has declared its responsibility in the area of fiscal policy by the passage of the Employment Act of 1946. Hence monetary and fiscal policies cannot or at least should not be treated as independent policies because the ultimate responsibility for their implementation cannot be divided.

From the standpoint of economic planning, fiscal and monetary policies are not mutually exclusive because the impact of each is felt in all sectors of the economy. Both monetary and fiscal action influ-

ence, for example, the rate of unemployment. The magnitude of a specific fiscal policy designed to reduce unemployment by a certain amount cannot be determined without making specific assumptions about the concurrent actions of the monetary authorities. That is, the "employment multiplier" of, say, an increase in the level of Government expenditures depends in part upon the actions taken by the Federal Reserve.[1]

Reasonably accurate predictions of the effects of public policies require, therefore, the coordinated effort of both the fiscal and monetary authorities. The outlining of such an effort at the beginning of each year is desirable.

2. The construction of such a program should be, in our opinion, the sole responsibility of an elected official (the President) rather than of an appointed agency either in whole or in part. The responsibility for public policy should rest with officials who can be called periodically before the electorate to account for their actions and policies.

3. With respect to the role of monetary policy, the President should specify in his program a desired rate of growth in the money supply (defined as currency in the hands of the public plus demand deposits plus commercial bank time deposits). In deciding on the immediate target of monetary policy, we asked the following questions, (1) What financial variable bears the closest and the most stable relationship to the ultimate targets of policy such as employment and output? (2) Can information about that variable be obtained within a short period of time, say, less than a month? (3) Is that variable within the reasonable control of the Federal Reserve?

We believe the answer to the first question is "the money supply inclusive of time deposits" and the answer to the second and third questions is "Yes." Indicators such as free reserves, total member bank reserves or high-powered money are only links in the chain leading from Federal Reserve action to the money supply and thence to the level of economic activity. The impact of changes in the money supply is well stated by the Board of Governors.

At each level of income and interest rates, there will be an amount of money that the public wishes to hold for transactions, or for precautionary or speculative purposes. Suppose that actions taken by the Federal Reserve fail to provide the desired amount of money. In that event some reaction is likely to be registered both in spending and in interest rates.

In an attempt to reestablish its desired level of balances, the public may spend less, or it may sell off financial assets (or purchase few of them), with a consequent rise in interest rates. As interest rates rise in this situation they too influence decisions to spend and to save * * *

On the other hand, a volume of money in excess of what the public wishes to hold leads to increased spending and lending and to reductions in interest rates.[2]

We may add to the above by saying that such changes in interest rates will affect the spending of both investors and consumers[3] with

[1] This point is illustrated by comparative static analysis in my "Macroeconomic Models With a Behavioral Money Supply Function," unpublished Ph. D. dissertation, University of California, Santa Barbara, 1967.

[2] Board of Governors, *The Federal Reserve System* (Washington, 1963), pp. 132–133.

[3] Recent estimates of the influence of interest rates upon consumer expenditures were made by Colin Wright, "Some Evidence on the Interest Elasticity of Consumption," *American Economic Review*, LVII (September 1967), pp. 850–855.

consequent changes in the relative prices of real as well as financial assets. Changes in the relative prices of real goods subsequently lead to changes in production and employment.

Data on changes in the money supply are available to the Federal Reserve within a short period of time. Hence the money supply is a readily observable target variable. In addition, the Federal Reserve can exercise close control over the money supply by the appropriate use of open-market operations. Such control is possible if the appropriate defensive operations are specified. For example, we may consider open-market operations within the following framework: Define the money supply M as the product of high-powered or base money B and the money multiplier or "multiple expansion ratio" m.

$$\mathrm{M}=\mathrm{mB} \tag{1}$$

In (1), M is the broadly defined money supply and B consists of currency in the hands of the public plus total member bank reserves. The multiplier m is functionally related to the public's preferences between time and demand deposits, currency and demand deposits, member bank's preferences for excess reserves and of course the required reserve ratios on time and demand deposits. The specific form of this relationship can be derived from (1) with the following result:[4]

$$m=\frac{k+t+1}{k+(r+e)(1+t)} \tag{2}$$

Here t is the ratio of time to demand deposits, k is the ratio of currency to demand deposits, e is the ratio of excess reserves to total time plus demand deposits and r is the ratio of required reserves to those deposits. Data on the factors making up these ratios are readily available to the Federal Reserve and hence m can be computed on a fairly current basis.

Base money B can be computed from data on those factors, less leakages, supplying reserves to member banks, the major component of which is the Federal Reserve's portfolio of U.S. Government securities. We can now specify the form that defensive behavior may take when attempting to reach some money supply target. We modify (1) as follows:

$$M=m(B_o+S) \tag{3}$$

In this case the Federal Reserve's portfolio of Government securities S is separated from all other base money items B_o. Solving (3) for S we obtain:

$$S=\frac{M}{m}-B_o \tag{4}$$

Differentiating fully (4) becomes:

$$dS=\frac{1}{m}\,dM-\frac{M}{m^2}\,dm-dB_o \tag{5}$$

[4] This is derived for the conventionally defined money stock by Robert Weintraub, "The Stock of Money, Interest Rates and the Business Cycle, 1952–64," *Western Economic Journal*, V (June 1967), pp. 257–270.

Suppose the Federal Reserve is requested to *change* the money supply by some amount X; then (5) becomes

$$dS = \frac{1}{m}X - \frac{M}{m^2}\,dm - dB_o \tag{6}$$

Given the level of m and M, the value of X and any changes in m or B_o, the appropriate volume of open market purchases or sales is determined by (6). By suitable mathematical manipulation equation (4) and consequently (6) can be expressed in terms of rates of change with respect to time or percentage changes with respect to time. In any case the money supply target can be reached by appropriate open-market operations including the necessary defensive operations.

We earlier suggested that the money supply target be specified in terms of a rate of growth. In particular we believe that the rate of growth should be specified as a rate that is equal to the expected rate of growth in potential GNP. This should be done after the money supply is initially raised to the full employment *level*. In other words, an estimate is first made of the level of money balances that would be demanded by the public if the economy was at full employment. The money supply is then raised to that level. Thereafter, the money supply is made to grow as fast as full employment, or potential, GNP. There are a number of reasons for this choice. First, as long as the economy operates at less than "maximum employment" monetary policy should be essentially expansionary. It will be expansionary if the foregoing procedure is followed.

Second, such a policy removes the need to rely, at least in part, on the "feel" or "tone" of the market. Monetary policy is instead expressed in terms of a specific quantitative target.

Third, such a policy acts as an automatic stabilizer. The expansionary policy becomes stronger as employment falls and weaker as employment nears full employment.

Fourth, such a policy minimizes the potentially destabilizing effect of sudden and unexpected changes in the money supply. Further, the money supply is prevented from reenforcing cyclical swings in economic activity since it would not move in an essentially procyclical fashion as in the 1950's.

The last reason is a practical reason. An alternative to the policy suggested here involves the selection of certain ultimate targets such as unemployment and the price level and the specification of desired values for those targets such as 3-percent unemployment for the unemployment target. In addition, relative weights must be specified for each target variable. For example, full employment may be assigned a weight that is 50 percent of the total weight of all the targets while price stability may receive a weight of only 10 percent.

At least three controversial decisions must be made here. For example, should price stability be a legitimate goal? It is not mentioned in the 1946 Employment Act. If so, is price stability or high employment the more important goal? Further, what is a tolerable rate of growth in prices? However, this is not the last step. In order to convert the policy into action we must know, quantatively, the "multipliers" of the system. We must ask, "By what amount will, say, unemployment change when the money supply is changed by a certain amount?" Such multipliers may be derived from econometric models

of the economy. The specific change in the Federal Reserve's immediate target variable, say the money supply, is a function of the ultimate targets themselves, the desired values of those targets, the weights assigned to the targets and the multipliers derived from some econometric model.

In view of the many political and economic issues that can be raised with respect to the above, if that course were followed, we see no reason why monetary policy would be surrounded with any less controversy than it is now.

In recommending a specific rate of growth for the money supply equal to that estimated for potential GNP, we of course recognize that the estimated growth rate for potential GNP may vary from year to year. The estimate may vary due to changes in technology, population growth, age distribution of the labor force, et cetera. Where such changes have occurred or are expected to occur the specified rate of growth in the money supply will also vary. In addition, because of the development of long-run or secular trends in the income velocity of money it may be necessary to cause the money supply to grow at a slightly faster or slower rate than potential GNP.

We recommend too, that the money supply guideline admit of as little discretion on the part of the monetary authorities as is feasible. It may be argued, for example, that the Federal Reserve should be permitted to expand the money supply above the guideline rate in order to ease a new Treasury financing operation. First, this action would lead to a misallocation of resources as a consequence of the inflationary impact of the resulting larger money supply. Second, and more important, this action may help to hide the real costs of certain Federal Government policies. Specifically the costs of the large funding operations that have been made necessary to finance the conflict in Vietnam would be more clearly identified if the Federal Government found it necessary to enter the loanable funds market on a par with other borrowers.

Another example is in order. The U.S. balance-of-payment deficit is a cause for concern both domestically and in the international sector. Rapidly rising prices and wage rates in the United States are often cited as a major cause. In addition short-term private capital outflows have come under criticism from time to time. Discretionary monetary policy seems to call for tight money conditions with some rise in interest rates. We should like to suggest an alternative view of the crisis.

Traditional economic theory suggests that changes in imports and exports are responsive to changes in relative prices among countries and that capital flows vary in response to changes in relative interest rates. If, however, we examine the factors making up the U.S. balance of payments we note that some factors are probably not responsive to relative prices and interest rates but may be classified as "autonomous" elements. "Net U.S. Government grants and loans" is determined by political considerations rather than in response to relative prices.

"U.S. military expenditures" is another autonomous element in the balance of payments. Merchandise exports and military sales that are tied to U.S. foreign aid also fall into this category. In assessing the soundness of the U.S. economy and the resulting need or lack of need for restrictive pressure on prices and wages, the balance of payments should be computed from only those factors that are responsive to relative prices and interest rates.

Table 1 represents a rough attempt to illustrate the point made above. The data used in computing the adjusted balance in the table were obtained from the *Economic Report of the President, 1966*, pages 300–301. The liquidity basis balance was used for the unadjusted balance in table 1. In arriving at the adjusted balance, military sales and purchases and U.S. Government grants and loans were treated as autonomous factors. In addition, we assumed that 80 percent of U.S. grants and loans were tied to purchases of merchandise and military equipment from the United States. Actually the 80 percent is arbitrary since the true percentage varies from year to year. The figure used is for illustrative purposes only.

TABLE 1.—U.S. BALANCE OF PAYMENTS

Year	Unadjusted	Adjusted
1955	−$1,145	$2,198
1956	−935	2,486
1957	520	4,250
1958	−3,529	423
1959	−3,743	−239
1960	−3,881	−280
1961	−2,370	1,140
1962	−2,203	1,477
1963	−2,670	975
1964	−2,798	738
1965	−1,269	2,195

The result is that the adjusted balance presents a different conclusion about the soundness of the U.S. economy than the unadjusted balance. In particular, the adjusted balance does not indicate the need for restrictive monetary policy. The difference between the two series provides an index of the cost of maintaining a large-scale military force overseas and of foreign military and economic aid. For regardless of how we compute an adjusted balance, it is the actual balance that matters in the international arena and affects the gold position of this country. If we consider the grants and military expenditures vital to the interests of this country, we should be willing to incur the costs. Monetary and fiscal policies that attempt to hide the costs by wage and price ceilings or import quotas simply distort resource allocation and hamper our ability to assess political decisions in terms of costs and benefits.

We therefore recommend that monetary policy be directed toward stimulating long-run growth at full employment, leaving to the free forces of the market the task of allocating resources. A monetary policy designed to "peg" the rate of growth in the money supply to the rate of growth in potential, or full employment, the gross national product is consistent with this objective. 4. Assuming that the Federal Reserve is constrained from easing or accommodating Treasury refunding operations such operations could produce significant and potentially destabilizing impacts upon the money markets. Nevertheless, if funds are to be allocated from lesser valued uses toward higher valued uses the markets for loanable funds must be free to entry. Further, each lender should seek to maximize his gain and each borrower—including the Federal Government—should seek to minimize the cost of borrowing.

While this may direct funds toward the higest valued uses, the sheer size of periodic Treasury operations will undoubtedly result in sub-

stantial periodic fluctuations in interest rates. Also, the attempt by the Treasury to minimize its borrowing costs by offering some optimal "mix" of maturities will interfere with its efforts to combat balance-of-payments problem through the alteration of relative yields on securities of different maturities.

However, the question as to whether or not the relative yields of short- and long-term securities can be changed by lengthening or shortening the average maturity of the Federal debt is by no means settled. With respect to the interest-rate fluctuations indicated above,[5] it is the function of a flexible price mechanism to provide the signals neecssary to guide efficient resource allocation. The free formation of interest rates will, by providing the appropriate signals, insure that funds flow to those borrowers who value them most.

Despite the possible problems noted above, we believe that the role of debt management is to finance the public debt at the best rates available in a free money market without the aid of accommodation by the Federal Reserve.

5. With respect to open market operations, the attainment of a money supply goal requires the use of defensive operations as outlined earlier. The suggested objective of causing the money supply to grow at a specified rate requires that the Federal Reserve observe and offset factors outside its control that influence the money supply. The immediate objective of open market operations—a specified change in the money supply—will not be achieved if, say, the multiple expansion ratio changes and the Federal Reserve does not compensate for this change. Equation (6), stated earlier, indicates a possible framework within which defensive operations may take place in order to achieve a specified money supply target.

Defensive operations of course require that the Federal Reserve maintain a careful watch over those factors that influence base money and the multiple expansion ratio. In this case, better information about week-to-week changes in deposits, reserves, and currency may be needed. But this is a small cost to pay for stability in the money supply process.

The framework outlined in equation (6) permits the money supply objective to be reached solely through open market operations. Changes in required reserve ratios or the discount rate are not necessary to achieve the money supply objective. We further suggest that the discount privilege be restricted as much as is feasible if not completely eliminated. Member banks should be encouraged to practice more self-reliance and to plan for their temporary and seasonal needs by appropriate husbanding of excess reserves or by borrowing in the Federal funds market. Restriction of the discount privilege would also help to reduce the number of factors that the Federal Reserve must observe in calculating the magnitude of defensive operations.

Except for long-run structural adjustments we see no role for changes in required reserve ratios in the stabilization program that cannot be handled by open market operations. The well known arguments about the inflexibility and insensitivity of reserve requirement changes apply here.

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[5] We assume that Treasury operations will continue to be "lumpy." However, if they are smoothed out the interest rate fluctuations will be smoothed out.

We suggest that interest rate ceilings on time deposits, as provided by regulation Q, be eliminated. First, ceiling rates above those rates that clear the loanable funds markets serve no purpose. Second, if flexible interest rates are not permitted to allocate funds such funds may be allocated on a noneconomic basis. This may be neither in the interest of the borrower or lender, bank or depositor.

We believe that the Federal Reserve Board should make quarterly reports to the Congress on past actions, but not on future actions. The reason for reports on past actions is plain enough; the Congress in exercising its responsibility to regulate the value of money must examine and voice its approval or disapproval of the actions of the agency to whom it has delegated authority. Reports on future actions, however, may generate speculation as to the impact of open-market operations on interest rates. This may induce disorder in the money markets and tend to frustrate the Federal Reserve's attempts to carry out its assigned objective.

The reports on past actions should include data on the actual growth of the money supply and open-market operations as well as an analysis of the defensive operations that were necessary to achieve the money supply goal. If detailed quarterly reports are submitted to the Congress the actions of the Federal Reserve can be successfully evaluated. No additional benefits would accrue if outside observers were present at meetings of the Federal Open Market Committee. In any case, under the proposal suggested in this paper, Open Market Committee meetings would no longer be characterized by discussions concerning tone and feel of the market, easy versus tight credit conditions, sustainable or unsustainable growth, et cetera. Instead, the Committee would make estimates of the expected changes in the multiple-expansion ratio and base money and provide specific instructions to the manager of the system open market account as to the magnitude of open-market operations for the period between the current and next meetings.

II. APPRAISAL OF THE STRUCTURE OF THE FEDERAL RESERVE

We view the retirement of Federal Reserve bank stock together with the funding of operating expenses and capital needs by congressional appropriations as highly desirable. A conflict of interest may develop when the regulator is financed by the regulated. Where member banks may, by virtue of their share in the Federal Reserve, elect six of the nine directors of each district bank, it is not at all clear whose interests will be served in the event of a conflict between the interests of the member banks and the interests of the public. By being forced to make annual appropriations to finance the Federal Reserve, the Congress will be made continually aware of its responsibility in the area of monetary policy.

In this connection an annual audit of the System is necessary to enable the Congress to make informed judgments when considering appropriation requests.

The proposed alterations in the Board of Governors seem consistent with the theme of H.R. 11, although we are not sure such alterations are necessary. With the President establishing the monetary policy guidelines and the Congress periodically reviewing the Federal Re-

serve's attempt to carry out those guidelines, the Federal Reserve Board seems constrained from doing anything but carrying out the prescribed policy. As long as the President's guidelines are clear and as long as the power over the purse resides with the Congress, the proposed alterations seem redundant. These statements do not, of course, apply if the Federal Reserve is left with a large measure of discretionary power.

The major risk associated with the restructuring of the Federal Reserve System may arise at times of disagreement between the President and the Congress. Such disagreement in the past has delayed the implementation of specific fiscal policies proposed by the President. Similarly, operating funds for the Federal Reserve necessary to carry out the President's guidelines may not be appropriated by the Congress at the time they are needed.

III. RECENT MONETARY POLICY

Although the overall growth in the money supply (seasonally adjusted) during the past 4 years has been moderate (4.67 percent for money conventionally defined and 9.26 percent for money inclusive of time deposits), such growth has at times been erratic. The range for money conventionally defined, for example, includes an 8.2-percent *decrease* in April 1965, followed by a 13.5-percent *increase* the next month. The extrema in the range are a 10.5-percent decrease in June 1966, and the 13.5-percent increase in May 1965. A study of the impact upon expectations in the private sector produced by such erratic month-to-month changes in the money supply might provide some insights into the usually volatile behavior of private investment.

Referring to table 2, growth in the money supply (conventionally defined, M_1 or inclusive of time deposits, M_2) was moderate during 1964 and 1965.

TABLE 2.—PERCENT CHANGES IN MONEY SUPPLY, PRODUCTION, AND PRICES, 1964–67

Year	M_1	M_2	Production	Prices
1964	4.16	8.12	8.36	1.11
1965	5.00	8.62	8.65	1.92
1966	1.36	6.78	5.04	3.33
1967	7.04	9.28	1.89	3.40

Note: Percent changes in production were obtained from the Index of Industrial Production and price changes were obtained from the Consumer Price Index.

However, 1966 and 1967 represent sharp contrasts with a substantial decline in 1966 and an astounding increase in 1967. It is interesting that the unprecedented (during the 1960's) increase in the money supply in 1967 is described in the policy directives of the Federal Open Market Committee as "attaining somewhat easier conditions in the money market . . ." [6]

In table 2 we also note that production expanded vigorously and price increases were tolerable in 1964 and 1965 when the money supply grew at a moderate pace. However, the rate of expansion in produc-

[6] This statement appears in the Jan. 10, 1967, directive and is followed by "somewhat easier conditions" on Mar. 7 and Apr. 4. Thereafter no change occurs until Nov. 27.

tion declined substantially and prices increased rapidly in 1966 and 1967, the 2 years of the 4 in which the money supply behaved most erratically. More specifically, from April 1966 to January 1967 the conventionally defined money supply *declined* at an annual rate of 0.2 percent. A few months later, from October 1966 to June 1967, industrial production declined at a 3.6-percent annual rate. This fact by itself proves nothing. Economic theory does hypothesize, however, a causal relationship extending from changes in the money supply to changes in production. The events of 1966 and 1967 do not refute that hypothesis.

STATEMENT OF DUDLEY W. JOHNSON, UNIVERSITY OF WASHINGTON, SEATTLE

The questions formulated by the Committee on Banking and Currency are of immense social importance. I am honored to be asked my views about them. Because of the number and complexity of the questions involved, I shall answer and identify each question separately.

I. QUESTIONS ON MONETARY POLICY GUIDELINES AND OPEN MARKET OPERATIONS

(*1*) *Should there be set forth at the beginning of each year a program for coordinating fiscal debt management and monetary policies for the purpose of achieving the goals of the Employment Act, or alternatively, should we treat monetary and fiscal policies as independent, mutually exclusive stabilization policies?*

This question raises the issue of the external relation of the Federal Reserve System to the other agencies of economic policymaking, and, more broadly, to the political processes of government.

I am in favor of such a program for a number of reasons.

If the public was aware of its existence and understood its objectives such a program could contribute to the development of a coherent and coordinated use of fiscal and monetary policy. It is highly desirable to develop conscious acceptance by both the public and government officials of the use of fiscal policy to achieve short-run economic stability. This is especially desirable now because of our chronic balance-of-payments problem. Monetary policy can no longer be used for domestic purposes only. Increasing emphasis must be placed on fiscal policy as the primary instrument for accomplishing domestic objectives.

I doubt the average citizen reads the *Economic Reports* of the President or has much knowledge of the macroeconomic impact of the tax expenditure structure. If we created machinery for a coordinated program of monetary-fiscal policy the public would be more informed of the objectives and impacts of macroeconomic policies. Professor Harry Johnson has said: "It is one thing to concur in a tax cut after years of preaching by a conservative press that taxes are too high, and to do so after paying appropriate lip service to the need for economy in Government spending. It is quite another to set up machinery allowing the administration to cut taxes without a gesture in the direction of cutting spending, and to allow the administration to do so on the

basis of its own judgment of what the economy requires. And it would be a still more demanding test to empower the administration to raise taxes when it felt that fiscal restraint was necessary to prevent inflationary developments.[1]

Another reason for advocating a program to coordinate monetary-fiscal policies better than now is technical. Few actions by the Government, including the Federal Reserve System, may be classified as "pure" monetary policies or "pure" fiscal policies. This is in spite of the fact fiscal policy action, for example, increases or decreases in personal income tax rates, affect the flow of income directly and are *distinguishable* from monetary policy actions Notwithstanding these distinctions fiscal actions powerfully affect monetary and credit conditions. Monetary measures which often accompany fiscal actions produce significant differences in the economic impact of the fiscal policies.

With the exception of a balanced change in taxes and expenditures, many types of fiscal policies lead either to borrowing or new money creation. Many times it is advantageous to finance a governmental deficit by new money creation. This requires cooperation of the Federal Reserve. If this is not forthcoming discretionary fiscal policy can be frustrated in achieving its goals.

A case in point is a tax cut in which expenditures are unchanged. The objective is to reduce unemployment and expand output. Monetary policy accompanying this fiscal action is critical in influencing its effectiveness.

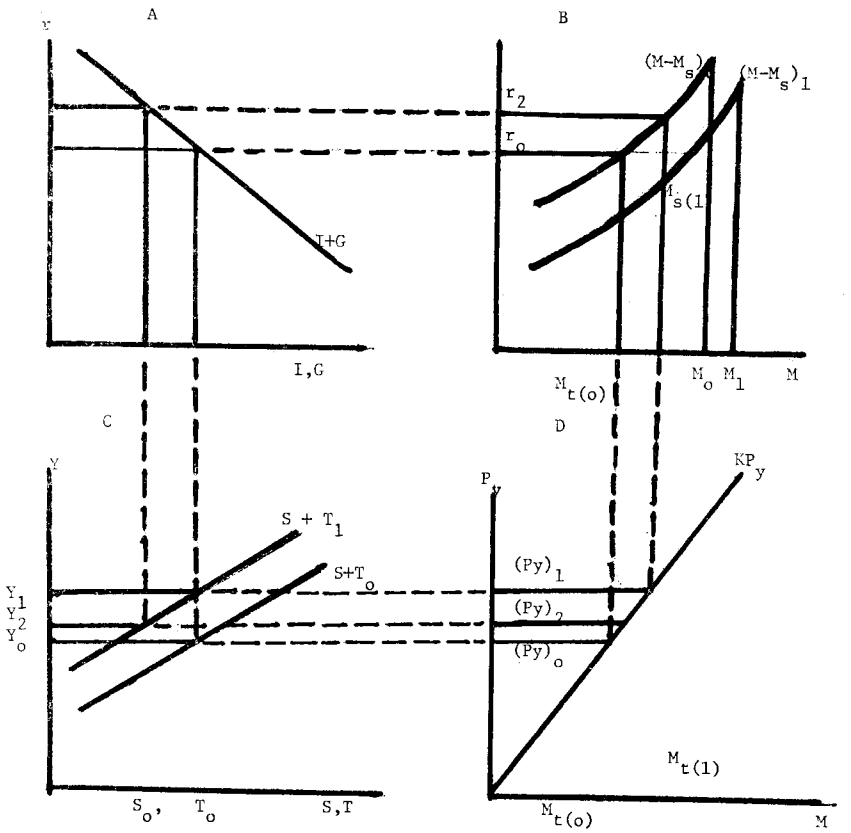
This may be demonstrated as follows: Assume the level of unemployment depends on the level of aggregate demand and is, therefore, amenable to monetary-fiscal policies. Assume, also, a closed economy (no foreign trade) and a simple Keynesian world in which the determinant of total consumer spending is absolute current disposable income, not relative or permanent income. Investment depends on "the" rate of interest, not on a simple linear function of national income. The model, in real terms, is shown in figure 1.

All the elements in this figure are traditional. Part A is the Keynesian investment-demand function and includes a constant amount of Government expenditure. Part B is the Keynesian demand for money function where the speculative demand for money is subtracted from the total supply of money giving the curve ($M–M_s$), the supply of transactions balances. Part C is the Keynesian saving-investment diagram with the axes reversed and the income scale compressed to an equal distance on it represents more dollars than the same distance on the horizontal axis. Part is explained by the quantity theory. The tax function is incorporated with the savings function. The zero subscripts indicate initial equilibrium situation.

[1] Harry G. Johnson, "Major Issues in Monetary and Fiscal Policies," Federal Reserve Bulletin, vol. 50 (November 1964), pp. 1400–1413.

Figure 1

EFFECTS OF A TAX RATE REDUCTION



Assume an identical percentage reduction in the tax rate for all personal income recipients. The consumption function shifts upward or, in our model, a reduction occurs in the savings function. The new savings function is $(S+T)_1$. Income goes from Y_0 to Y_1, via the multiplier. This means an enlarged transactions demand from $M_{t(0)}$ to $M_{t(1)}$.

If the money supply is increased to M_1, this chain of events can happen as "the" interest rate stays at r_0 so that investment spending does not fail. But assume the money supply remains unchanged at M_0. An equal expansion in income and employment could not occur. Higher interest rates retard the increase in spending resulting from the tax cut. The new equilibrium level lies between Y_1 and Y_2. It is less than would be predicted from the multiplier effect alone.

The order of magnitude of the difference is an empirical question. Indirect evidence on this question is available from Friedman and Meiselman's study.[2] They found that when the money supply is held

[2] Milton Friedman and David Meiselman, "The Relative Stability of Monetary Velocity and the Investment Multiplier in the United States, 1897–1958." A staff paper for the Report of the Commission on Money and Credit.

constant, the partial correlation between autonomous expenditures and consumption—the former defined as net private domestic investment, plus the Government deficit on income and product account, plus the foreign balance—is small for the period 1897–1958. In many comparisons, the relationship was negative.[3]

In any discussion of the expansionary effects of reduced taxes in creating budgetary deficits, it is crucial to specify how the deficits will be financed. If financed through the banking system the money supply is increased. If borrowed from the nonbank sector the money supply is unchanged.

Admittedly, government borrowing with no new money creation by the central bank is atypical and is used here to make a point. Even if the Federal Reserve would like to achieve this goal, it usually produces high-powered money when the Government is borrowing by buying some of the Government bond issue. It does this because it believes one of its functions is to maintain an "orderly bond market." This is in spite of the fact Chairman Martin, of the Federal Reserve, has stated on several occasions, during the period of unemployment in the Kennedy administration, that budgetary deficits resulting from a contemplated tax cut should be financed from the real savings of the community. That is, the money supply should not be increased.

Monetary policy is significant in influencing the degree of success of discretionary fiscal policy and should be coordinated with it. The need for monetary-fiscal coordination in the United States becomes even more apparent when our balance of payments situation is considered. We want to select a *combination* of fiscal and monetary policies that will permit a high level of employment without aggravating the balance-of-payments situation.

Several other items should be mentioned in this context. In the case of changes in the money supply there are fiscal repercussions. Open market operations as conducted by the Federal Reserve System, for example, change banks' reserves and the money supply. They also change the amount of Government debt held by the public and thereby change interest payments on the debt. This can affect the Government's tax or expenditure policy. Alteration in the money supply, interest rates, etc., produced by the Federal Reserve influence economic activity, hence the amount of tax receipts flowing into the Government is influenced. The size of the fiscal tail attached to the monetary policy dog varies, but it is almost always there.

Since open-market operations conducted by the Federal Reserve, and debt management operations conducted by the U.S. Treasury, are just different names for the same monetary tool, they should be coordinated.[4] It is my understanding they are. I have no information on how successful the present arrangement is. When the Federal Reserve sells Government securities, the amount of high-powered money available for use as bank reserves, or currency in circulation, is reduced. This tends to make the money supply smaller than it otherwise would be. If the Treasury sells similar Government securities of the same amount and uses the funds received to add to its balance with Federal Reserve, or its holdings of currency, the effects are identical.

[3] *Ibid.*, p. 46.

[4] In writing this section I have followed the presentation employed by Milton Friedman in his *A Program for Monetary Stability* (New York City: Fordham University Press, 1959), pp. 52–55.

When the Federal Reserve buys Government securities, the amount of high-powered money available for bank reserves or currency in circulation is increased and thereby tends to increase the money supply. If the Treasury purchases similar Government securities of the same total amount from its account at the Federal Reserve or its holdings of currency, the effects are identical.

Debt management, defined as the manipulation of the composition of the public debt of a *given* size, can be achieved by either the Federal Reserve or the Treasury. Assume a goal of changing the maturity composition of debt in the hands of the public. This can be accomplished without changing the supply of high-powered money by offsetting Federal Reserve sales and purchases, or by offsetting Treasury issue and redemptions of securities.

If policymakers are considering a monetary action, or trying to ascertain what the effects of such an action will likely be, they should consider the monetary accounts of both the Federal Reserve and Treasury. Furthermore, the Treasury in its debt management activities, or other "routine" tax-expenditure activities, is involved in independent monetary actions. Unless coordinated with Federal Reserve action these actions can be a source of instability.

Let me expand this point: When the Treasury spends funds from its account at the Federal Reserve, commercial bank reserves are larger than they otherwise would be. The public's level of demand deposits is also increased. If the Treasury made its disbursements with currency, then the public's supply of currency would be enlarged. To the extent this currency flowed back in to the banking system, bank reserves would increase.

Unlike the Federal Reserve, the Treasury maintains deposits at commercial banks and conducts some of its operations with these funds. When the Treasury transfers its deposits at commercial banks to Federal Reserve banks, or to its holdings of currency, the same monetary effects are produced as those which come about when the public decides to convert demand deposits into currency. Downward pressure on the money supply is exerted because member bank reserves fall by an amount equal to the transfer of funds from the commercial banks. The opposite effects accrue when the Treasury transfers deposits from Federal Reserve banks to commercial banks.

The Treasury's ability to make transfers of its deposits from commercial banks to Federal Reserve banks obviously can be, and has been used as a monetary tool to affect the behavior of the money supply. On the other hand, Treasury debt management has developed tax and loan accounts, and the device of spaced calls for transfer of its deposits at commercial banks to the Federal Reserve, to lessen effects on bank reserves and the money supply. Aside from these devices the use of Treasury deposits at the Federal Reserve and deposits at commercial banks involves the Treasury in independent monetary actions. Unless Treasury and Federal Reserve actions are coordinated our monetary system will be less stable.

I.(2) If you believe a program should be specified, do you believe that the President should be responsible for drawing up this program, or alternatively should such responsibility be dispersed between the Federal Reserve System and agencies responsible to the President?

This question pertains to the *formal* responsibility for drawing up

the economic program, not to any informal consulting arrangements that could be devised between the President and the Federal Reserve. The issue raised here is in essence a political problem. Economic theory and scientific research are of limited usefulness in answering this question. Even though my skills as an economist *per se* do not enable me to provide a scientific answer to this question, I am concerned with the issues raised here in my role as a citizen and my interest in political economy.

In my judgment the responsibility for *drawing up* as well as *implementing* such a program should be formally lodged with the President. The administration should have the responsibility for *submitting* to Congress each year a program which coordinates fiscal, debt management, and monetary policies for the purpose of achieving the goals of the Employment Act of 1946. The administration should also have at its disposal the macroeconomic tools needed to achieve these goals.

My recommendation would entail several institutional changes. Monetary policy should be transferred to the administration. In other words, the Federal Reserve System should no longer be an "independent" central bank whose independence is presumably needed to protect the value of money from the inflationary spending propensities of elected officials. Under present institutional arrangements, the Federal Reserve Board and the Open Market Committee, the two policymaking bodies of the System, have authority to make policy independently of the administration or Congress. Congress has turned control of monetary matters over to a nonlegislative organ.

In my judgment, the technical arguments against an independent central bank are indicated in my answer to the previous question. An independent central bank is consistent neither with political democracy nor modern concepts of the economic responsibilities of government. I realize integration would impose numerous difficulties. Should the central bank be coordinated with the Treasury under the executive department, for example, or should it be subordinate to the Treasury?

If one is really serious about coordinating monetary-fiscal policy to achieve the goals of the Employment Act of 1946 the present way of implementing fiscal policy should be abolished. Budgeting authority under the executive branch should be given discretionary control of fiscal policy. This would require a substantial institutional change. Congress would have to give up some of its control over taxes, or substantially alter the method by which it presently conducts fiscal policy. Given present economic responsibilities of government, the present system is, in our judgment, archaic and badly in need of change.

I.(3)A. Concerning monetary policy guidelines: Should monetary policy be used via intervention of the money supply as provided in H.R. 11, alternatively should H.R. 11 be amended to make some other variable or variables the immediate target of monetary policy?

Unless stated otherwise in the discussion that follows I ignore the balance of payments in the United States. There is only one way in which we can use monetary policy, however defined, to resolve domestic problems. We must have some other mechanism for handling balance-of-payments problems. I turn now to question I(3)A.

In my judgment, the central bank should watch the money supply. A sound monetary policy is one in which the central bank varies the

money supply in a way to achieve the desired total of gross national product spending which produces a fully employed economy. This would focus the attention of policymakers on problems entrusted to their control rather than on the technical position of financial markets.

My recommendation is based on the assumption the Federal Reserve System controls the money supply. Obviously, it does not possess a machine with a dial to manipulate the money supply at will. Controlling the money supply is a complicated process. Some economists argue that only in an irrelevant long-run sense does the central bank control the money supply. I reject this view. The behavior of the money supply emerges from the interaction of the public and the banks in response to the Government sector's monetary accounts.

The monetary base, which is controlled by the monetary division of the economy's government, consists of currency issued by the Treasury (coin, silver certificates, and other Treasury currency issues), notes issued by Federal Reserve banks, and deposits of member banks at Federal Reserve banks. This is often called the stock of high-powered money. Monetary scholars have shown there is a close and predictable link between Federal Reserve policy and the stock of money. In a sense the Federal Reserve must watch everything—free reserves, interest rates, and so forth. The key issue is the terms in which it formulates policy. In my view, the Federal Reserve should state its policy in terms of what is going to happen to the money supply. Although interest rates, excess reserves, free reserves, bank credit, and other attributes of our monetary institutions are important, in the final analysis the money supply and its effect on interest rates influences the level of economic activity. It is almost superfluous to observe the money supply should be the Federal Reserve's primary concern.

In fulfilling its responsibilities in controlling the money supply the Federal Reserve should rely primarily on open-market operations. Open-market operations are more efficient than other instruments of monetary policy. Open-market operations can be used continuously, from day to day, and in varying degrees. The central bank determines the size of open-market operations, hence the amount of reserves created or destroyed is determined precisely. This is not true with discounting or moral suasion. The initiative to rediscount or abstain from rediscounting, or to be persuaded by the central bank, is in the hands of the member banks. Moreover, there is a certain cumbersomeness in the reserve requirement apparatus that precludes its being used day to day.

An important intellectual distinction exists between, say, open-market purchases of agricultural commodities by a central agency, and open-market purchases or sales of government securities by a country's central bank. Our interest in government purchases of wheat, cotton, for example, is largely confined to agricultural markets. Repercussions beyond immediate markets in which purchases, for sales, are made are usually not of critical concern. This is not the case for open-market operations in security markets. Effects of purchases and sales of securities on prices of credit instruments *per se*, while very interesting to market operators, are less so to students of monetary economics. Economists are more interested in their impact on the behavior of commercial banks and on markets in the real sector.

Open-market purchases and sales of securities by the central bank, or the Treasury, have a *direct* impact on highly technical, specialized security markets. This is why those who participate in goods and services markets, and labor markets, express interest in securities transactions of central banks, and other instruments of monetary control. Activities of the central bank can be expected to induce chain reactions on employment, income and prices through security markets.

THE LINK BETWEEN MONEY AND THE GOALS OF THE ECONOMY AS DEFINED BY THE EMPLOYMENT ACT

How does a change in the money supply affect the level of economic activity? Consider an expansion in the money supply through an open-market purchase of Treasury bills by the central bank. Assume this is done when the economy is at underemployment and is therefore capable of realizing increases in production and employment. In general, we will find: (1) banks with excess reserves, which will remain until their deposit liabilities increase by a multiple of the value of the securities purchased, (2) the community will hold more money and less Treasury bills before the open-market purchase is made, and (3) yields on Treasury bills are lower in absolute terms, and lower relative to the long-term rate of interest.

Will rising securities prices (falling yields) and the change in the asset structure of the community balance sheet have an important effect on "real" markets? Although I believe monetary policy operates primarily through the medium of interest rates, the "asset structure effect" of an open-market purchase, which involves a disequilibrium between the community's actual balance sheet and its desired one, is worth brief mention here. This disequilibrium can affect markets for nonmarketable securities and real assets.

In what follows we ignore a number of theoretical and empirical problems—difficulties associated with risk and imperfect foresight, the length of the lag of a monetary policy action in the "real" economy, the actual degree of the responsiveness of spending to alterations in the interest rate, and the relation of market rates of interest to the cost of capital of business firms.

After an initial purchase of securities by the central bank a temporary short-run equilibrium exists. Individuals parted with bills for money because they saw an attractive selling opportunity. This does not mean they will want to hold the money indefinitely. The shift to money is a temporary shift in their search for a long-term equilibrium necessitated by the altered circumstances.

Given this disparity between the community's actual balance sheet and its desired one, we assume it attempts to correct the situation by purchasing marketable securities. If so, their yield will be lowered. At any given moment of time the supply of marketable securities is fixed.

New purchases will cause another disequilibrium in the balance sheets of individuals and firms in the community. The process will continue and yields will be reduced further. The community's net worth, measured at market prices, is increased. This will increase the demand prices of all assets (the present discounted value). Spending units in the community may eventually shift their expenditures to nonmarketable securities and real assets.

In summary, the creation of money by open-market purchases alters the asset structure of the community. Some upward effects on total community net worth are produced. The effect is to increase current consumption and investment spending. I do not know how strong these effects are. Economic logic does suggest they are there. I believe an expansion of money works primarily through new investment spending (including in the term "investment spending" spending on consumers' durables in excess of their being used up). It is to this vital link I now turn.

What follows is the most important factor in the process by which monetary policy works to affect economic activity. When banks and lenders have funds to lend, and when the interest yields of investments have been bid down, the result will tend to be an increase in lending and borrowing activity. The fall in rates of interest has other effects. It now becomes more profitable to produce real physical assets. This leads to an increase in the demand for resources employed in their productions.

The incomes received in these new lines of activity are spent by their recipients. This is the familiar propensity-to-consume mechanism.

The primary expansion in investment, induced by the central bank's purchase of Government securities, results in a secondary chain of consumption respending in accordance with familiar multiplier sequence. The reduction in interest rates caused by the acquisition of additional financial assets will cause an increase in the purchase of real assets as well as current goods and services.

Nothing is sacred about our description of this process. The order chosen is for expositional purposes only. The first impact of falling interest rates might be on the purchase of goods. The process probably occurs simultaneously. An initial increase in the money supply brought on by the purchase of securities by the central bank will tend, *via* its impact on the demand for other assets, to produce an increase in money expenditures on all types of assets and hence on investment and consumption. Because of its impact on *relative* prices of assets and flows of services the purchase of securities will tend to produce a further increase in consumer expenditures.

The process of adjustment described above applies also when the central bank sells securities in the open market. Suppose the monetary authorities judge that without such action important inflationary pressures will develop. Restriction of banks' liquidity, wrenching banks out of portfolio balance, will affect securities prices. These prices fall—yields will increase—under the pressure of excess supply, as banks are forced into the market.

Restricted bank credit can, via a rise in interest rates and the calling in of loans, lead to an elimination of excess demand in commodity and labor markets. Firms forced to repay banks will cancel orders and make emergency selling offers.

If the monetary authorities wanted they could bring about awesome deflationary pressures. If banks had to liquidate, say, $15 billion in loans and investments, inflationary pressures would obviously be eliminated.

We see here some of the inherent difficulties of central banking. How large a dose is called for? Will the anti-inflationary effects of the sale of securities be delayed too long? If so, when they do occur the problem might be underemployment rather than inflation. Which markets will

be promptly affected? Which markets can be influenced only after a delay? [5]

I.(3)B. Should the guidelines of monetary policy be specified in terms of some index of past, present, or future economic activity, or alternatively, in terms of the target-variable value or growth?

The only target-variable I am aware of which some suggest should be stabilized at a predetermined rate of growth, regardless of the economic climate, is the money supply. I reject this view. As I stated earlier, monetary policy should have as its overall goal achieving the desired level of aggregate monetary demand to give us a fully employed economy. I find it impossible to imagine how one is able to *prescribe in advance* what the needed rate of change in the money supply should be. It all depends on the prevailing level of employment. If we have an underemployed economy, then the behavior of the money supply is inappropriate. It should be expanded until the recovery reaches full employment.

We might experience a future period in which the marginal efficiency of capital has been shifted to a low level by past capital formation, and we might find that monetary policy needs to speed up the rate of growth in the money supply in order to offset interest-induced declines in the income velocity of money. We might also find that a predetermined rate of growth in the money supply 3 or 4 percent does not produce full-employment GNP so we would experience a period of stagnating employment. In my view, a simple formula like stabilizing the rate of growth of the money supply cannot be expected to

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[5] For the specialist, symbolism may clarify. We use Prof. Paul Samuelson's presentation (see his paper in the proceedings of a Symposium in *Money, Interest Rates, and Economic Activity*, sponsored by the American Bankers Association, pp. 54–55). Let *net worth* equal the sum of money plus Government bonds (mostly short term) plus value of capital goods.

$$NW = M + B + K$$
$$= M + \pi(i) + (b + k)$$
$$= NW(a_1 + a_2 + a_3)$$

Where $\pi(i)$ represents the capitalization factor that depicts a bidding up of prices of existing machines or face-value bonds when the interest rate drops; and (a_i) represents the respective fractions of NW represented by the three kinds of assets. An open-market purchase represents an increase in M matched by a decrease in b; except that this would involve a lowering of i and a (slight) increase in $\pi(i)$, the drop in b would equal the rise in M.

Writing Y for money income, y for real income, and assuming for expositional simplicity the price level of consumption (C) and investment goods (I) remain constant until full employment is reached, our system becomes:

(1) $$Py = PC\left(\frac{Y}{P}, \frac{NW}{p}; a_2, a_3\right) + PI\left(i, \frac{Y}{p}, k\right)$$

(2) $$\frac{M}{Y} = L\left(i, \frac{\pi(i)b + \pi(i)k, \frac{Y}{p}}{p}\right)$$

with the usual properties—

$$\frac{\partial C}{\partial y} > 0, \frac{\partial C}{\frac{\partial (NW)}{p}} > 0, \frac{\partial I}{\partial i} < 0, \frac{\partial I}{\partial k} < 0$$

$$\frac{\partial L}{\partial i} > 0, \frac{\partial L}{\partial (b)} > 0, \frac{\partial L}{\partial y} > 0$$

In this model an increase in M, as a result of an open-market operation that lowers b, will slightly decrease i, slightly raise NW, and significently raise I. $Y + C$ will thereby be increased. After full employment is reached further increases in M will tend to result ultimately in rises in P with small ultimate further changes in i or y. If k/y is increased in the translation by the positive M, k and y will be permanently higher and i lower.

work as well as intelligent action by the Federal Reserve in pursuit of a full-employment, optimal growth, and properly effective demand program.

The theoretical model implicit in the stable money growth rate

Those who support the case for replacing discretionary management by a fixed rule of monetary increase related to the normal growth of the economy assume that money national income, Y, is some simple function of the money supply—$Y=f(M)$; change M and you change Y in the same direction. Implicit in this model is the assumption that velocity is independent of interest rates. Some advocates of this policy make the demand for money depend only on expected ("permanent") income and prices, and not on interest rates. Disallowing interest rates an important influence on velocity is perplexing. There are good theoretical reasons and considerable empirical evidence to support the proposition that interest rates influence velocity.

The following hypothesis is suggested to explain why the major advocator of such a fixed money growth rule, Prof. Milton Friedman, assumes that velocity is independent of interest rates. If one has a velocity function independent of interest rates the world of monetary affairs becomes very simple indeed. If interest rates do not affect velocity, monetary analysis can be divorced from analysis of the real sector, since the quantity of money will affect money income in the short run and prices in the long run without interference from the real forces.

In order to make the fixed money growth rule attractive, velocity must be independent of interest rates. In the absence of this, the case for replacing discretionary monetary management by a fixed money growth rule breaks down. Variations in interest rates generated by the real sector would make such a policy rule automatically destabilizing. If, on the other hand, interest rates do affect velocity, as I believe they do, monetary analysis must incorporate the real sector in a general equilibrium model which simultaneously explains interest rates, velocity, real income and prices.

The need for a general equilibrium model comprising the real and monetary sectors is what the Keynesian revolution was about. To admit interest rates into the demand function for money is to accept the Keynesian revolution and Keynes' attack on the quantity theory.

The logic of the variable lag

For many of the supporters of the fixed money growth rule, it is the variable lag in monetary policy that makes discretionary monetary policy impractical and rules out the advisability of the Federal Reserve's manipulating variations in the rate of growth of the money supply. Given the lag, an increase in the rate of growth of the money supply during a recession might first make its effects felt during a boom period. Similarly, a decrease in the rate of growth in the money stock during an inflation may take effect in the following recession, thereby aggravating the current problem.

In determining the lag, Prof. Milton Friedman plotted a time series of the rate of change of the seasonally corrected stock of money. He compared this with National Bureau reference dates for general cyclical peaks and troughs of the cycles and found the monetary change time series precede the business cycle peaks and troughs. "On the aver-

age, the rate of change of the money supply has reached its peak nearly 16 months before the peak in general business and has reached its trough over * * * 12 months before the trough in general business * * * Moreover, the timing varies considerably from cycle to cycle—since 1907, the shortest time span by which the money peak preceded the business cycle peak was 13 months, the longest 24 months; the corresponding range at trough is 5 months to 21 months." [6] Since the stock of money and its rate of change are what the Federal Reserve wish them to be, Friedman identifies the cause to be the peak or trough in monetary changes and the long-delayed effect to be the corresponding peak or trough in business activity.

The fallacy to this line of argument is suggested by the following *reductio ad absurdum*:

> Imagine an economy buffeted by all kinds of cyclical forces, endogenous and exogenous. Suppose that by heroic and perhaps even cyclical variation in the money supply and its rate of change, the Federal Reserve manages deftly to counter all disturbing impulses and to stabilize the level of economic activity absolutely. Then an observer following the Friedman method would see peaks and troughs in monetary change accompanied by a steady level of aggregate activity. He would presumably conclude that monetary policy has no effects at all, which would be precisely the opposite of the truth.[7]

The logic of this position by Friedman is equivalent to saying that because interest rates tend to fall in recessions along with private investment, investment demand is positively related to interest rates.

The empirical validity of the monetary lag

Many contemporary economists disagree with Friedman's empirical results. They contend that the lag in monetary policy (and fiscal policy as well) is short enough for a change in policy to have a stabilizing influence on income and output. J. M. Culbertson, for example, has stated:

> The broad record of experience seems to me to support the view that anti-cyclical monetary, debt management, and fiscal adjustments can be counted on to have their predominant direct effects within 3 to 6 months, soon enough that if they are undertaken moderately early they will not be distabilizing.[8]

John Karaken and Robert M. Solow in their empirical study concluded the following:

> Our conclusion is that it (monetary policy) works neither so slowly as Fredman thinks, nor as quickly and surely as the Federal Reserve itself seems to believe. We find that the effect of monetary policy on the flow of expenditures is far from overwhelming, though it is of a magnitude worth exploiting in the interests of economic stability. We also find that though the *full* results of policy changes on the flow of expenditures may be a long time coming, nevertheless the chain of effects is spread out over a fairly wide interval. This means that some effect comes reasonably quickly and that the effects build up over time so that some substantial stabilizing power results after a lapse of time of the order or 6 or 9 months.[9]

In conclusion, I would argue that in spite of the fact that our knowledge of the magnitude of the impact of money supply changes on final

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[6] Milton Friedman, "The Supply of Money and Change in Prices and Output," in *The Relationship of Prices to Economic Stability and Growth*, Compendium of papers submitted by panelists appearing before the Joint Economic Committee (Washington, D.C., 1958), pp. 249–250.

[7] John Karaken and Robert M. Solow, "Lags in Monetary Policy," in the Commission on Money and Credit's *Stabilization Policies* (Prentice-Hall, Englewood Cliffs, N.J., 1963), p. 16.

[8] J. M. Culbertson, "Friedman on the Lag in Effect of Monetary Policy," *Journal of Political Economy* (1960), p. 621.

[9] John Karaken and Robert M. Solow, *op. cit.*, p. 2.

expenditures or the time required to make them effective is imperfect, short-run stabilization should not be abandoned as a primary objective of monetary policy.

I. (3) C. Should the monetary authorities in controlling the target variable, use a leading (forward-looking), lagging (backward-looking), or coincident indicator of economic activity?

I would place primary emphasis on the *current* level of employment as the guide to current monetary policy. That is to say, I want monetary policy to be used to manipulate the money supply in such a way to provide a sufficient level of total spending so we have a fully employed economy.

Full employment has long been a goal of national economic policy. It formally became a goal of Government policy with the passage of the Employment Act of 1946. But what constitutes full employment? Does it mean that on the average only 4 percent of the labor force is unemployed? Or 6 percent? Or 3 percent? Or 0 percent? We know that we can never have 0 percent unemployment in a dynamic world. We will always experience some frictional unemployment. Moreover, from an operational standpoint it is impossible to set a precise goal on the level of unemployment.

Members of society exect much from the Government. This is especially so in the elimination of unemployment. Citizens will not tolerate levels of unemployment which, by historical standards, would be considered low. Granting there is no scientifically correct answer to the question of how low unemployment should be, I would arbitrarily define a fully employed economy as one in which the annual average unemployment rate does not exceed 3 percent. My values are such that any level of unemployment above this rate is socially undesirable.

In my view, there is no simple formula to relate the money supply to the level of employment. Given monetary increases will be sufficient to give us the desired total gross national product spending at some times, but insufficient at other times. The appropriate behavior of the money supply cannot be predetermined. It depends on the level of economic activity. The Federal Reserve can produce all the money it wants at negligible social cost—how much does it cost to print money or buy bonds? A major problem is that because of our balance-of-payments deficit, monetary policy in recent years exclusively for domestic goals has not been used. In all likelihood this will continue to be the case.

Adjustments of international transactions operate through changes in relative prices including interest rates and changes in income. Changes in relative prices are induced either by modification of exchange rates or by changes in domestic price levels under fixed exchange rates. For successful operation, a fixed exchange rate requires the growth rate of the money supply be adjusted to the evolving balance of payments. A persistent deficit would have to be corrected by a relative deceleration of the money supply. This retardation must be sufficiently large to generate the relative fall in domestic prices and income required to restore equilibrium. Under a fixed exchange rate system several constraints are imposed on domestic monetary policy.

Government policymakers in the United States must realize the commitment to maintain the price of gold at $35 an ounce, and to convert all foreign-owned dollar balances into gold at this rate, is incompatible with a monetary policy designed to achieve domestic objectives. In my judgment, a monetary "crisis" like that of last March

would be salutary—let the gold go. This might force the U.S. Government to seriously move toward altering the present international monetary mechanism. We *might* even experience an environment of greater freedom of exchange rates.

Before moving on I would like to add that the behavior of prices, current and anticipated, is relevant in conducting monetary policy. Even though there is some evidence to support a policy of secular inflation, on balance it seems a target of overall price-level stability is the "best" price-level policy to pursue. Stable prices offer the advantages of (1) being readily understood by members of the community, and (2) providing the most equitable treatment of the financial claims of the various creditor-debtor groups in the economy.

I concede there are possible costs of a stable price policy. The attainment of a stable price level might create problems in the unemployment of labor and capital. Excessive social costs might materialize. The relevant question is the nature of these costs. How such unemployment may result from a policy aimed at price level stability? It has been estimated that in the U.S. price stability might cost 7 or 8 percent employment instead of the 2 or 3 percent that is unavoidable because of frictions.[10]

The trade-off problem is: How much does price stability cost in terms of unemployment or retardation, or both, given some rate of increase in average productivity? There are also trade-off problems between price stability and high employment, economic growth, and balanced international accounts.

The trade-off problem can be depicted by the use of the so-called Phillips curve, as drawn in figure 2.

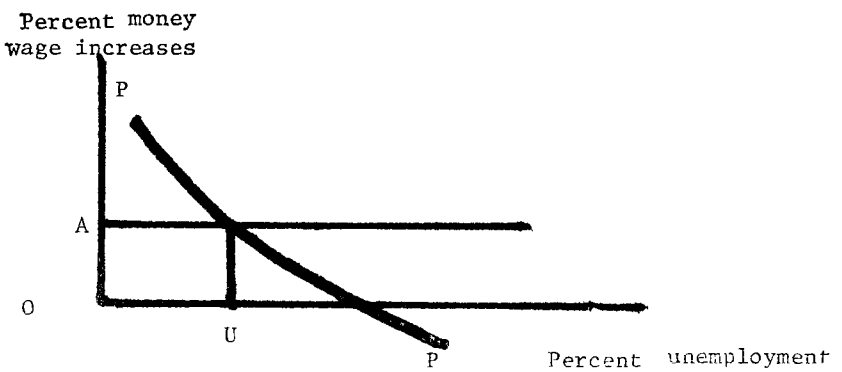

FIGURE 2

Assume OA represents the percentage change in money wages and labor productivity. Then OU measures the unemployment rate required to hold the money wage increase to the average productivity increase OA so that the price level remains stable. In other words, it requires OU of unemployment to keep money wages from rising

[10] Paul Samuelson and Robert M. Solow, "Analytical Aspects of Anti-Inflation Policy," *American Economic Review*, L (May 1960), pp. 177–194.

more rapidly than labor productivity in order to avoid cost inflation. The unemployment intercept for the United States, as noted earlier, has been estimated to be in the neighborhood of 7 to 8 percent. Moreover, it is argued this figure will rise over time.

If we are forced to choose between rising prices with full employment, or stable prices and increased unemployment, rising prices appear preferable. This is a value judgment; nevertheless, social costs associated with inflation are probably less than those associated with serious unemployment. The loss of output is manifest and measurable in recessions in terms of unemployed workers and idle plants and equipment. Economic costs in this situation can be measured by the decline in national income. Output losses are much more difficult to measure during periods of moderate inflation. Adverse redistributive effects in income occur in both inflationary and recessionary periods. Such changes are objectionable regardless of how one believes income ought to be distributed. They are arbitrary and unanticipated. It is common knowledge that inflation redistributes income from creditors to debtors and from other fixed-income receivers to those whose incomes adjust upward relatively more rapidly. In recessions, those who lose real income are unemployed, equity holders, and owners of unincorporated business.

Income losses are more substantial in recessions than during moderate inflations. If rising prices level and a low level of unemployment were chosen over a stable price level with more unemployment, output might be greater. The additional output from this choice might be used to compensate in part those who lose from rising price levels.

Inflation should not be allowed to continued forever. As long as marginal social benefits from an inflation-induced rise in output exceed the marginal social costs, a policy of creeping inflation should be continued. Whenever the costs exceed the benefits, anti-inflationary measures should be undertaken. The principle of equalization of social benefits and social costs dictates this policy change.

I.(4). Debt management policy?

Government debt influences aggregate demand for goods and services in several ways. The first effect occurs when the debt is acquired. This is the direct fiscal effect of Government expenditures exceeding taxes. According to the familiar multiplier theory, the larger Government expenditures are relative to tax receipts, the greater is aggregate demand. A second effect is called the monetary effects of the debt—the impact of private ownership of claims against the Central Government on private aggregate demand for goods and services. The fiscal effect works through the influence of budget expenditures and receipt on private income. The monetary effect of Government debt works through the impact of the debt on the size and composition of private wealth.

Debt management is not related to the fiscal effects of Government debt. It is defined as the manipulation by both the Treasury and Federal Reserve of the composition of a debt of *given* size. In considering the monetary effects of the debt a distinction must be made between the monetary effects of a *change* in the size of the debt, and the monetary effects of a change in the composition of a given *stock* of public debt—i.e., the monetary effects of debt management. We are interested in the contribution debt management can make toward the goals of the Employment Act. We ignore how debt management policies effect

the interest cost of the Treasury. Note that *changes* in the size of the debt require deficits or surpluses. This is not a matter of debt management. Such changes are a byproduct of fiscal policy. Moreover, decisions by the central bank which alter the money supply held by the public, such as changes in reserve requirements and the *amount* (but not the composition) of open-market purchases and sales, come under the heading of monetary policy, not debt management. Given a budgetary surplus or deficit, the decision as to what portion of the surplus is to be used to retire debt and what portion is to be used to build up the Treasury's cash balances, or the decision as to what portion of the deficit is to be financed by borrowing and what is to be financed by drawing down cash balances, all fall under the heading of monetary policy. This is so because changes in the Treasury's cash balance have effects on the money supply, and in some cases on bank reserves.

The traditional view is that various debt management policies can influence the level of private expenditures. The orthodox theory implies that during periods of prosperity the Treasury should attempt to sell long-term securities and buy short-term securities—i.e., lengthen the average maturity of the debt. The reasoning underlying this view is that such sales will reduce the volume of long-term funds available for investment, long-term interest rates will increase and liquidity will be reduced. Presumably, investment spending will be reduced.

The counterpart of this theory is that in times of recessions short-term securities should be sold and long-term securities bought by the Treasury—i.e., the outstanding debt should be shortened. Liquidity will be increased, and the long-term rate of interest will be lowered and presumably investment spending will be stimulated.

Such a stabilization theory of debt management is too simple, and the reasoning underlying this orthodox theory is not obvious. Assume the Treasury or the central bank undertakes an antideflationary debt management policy—i.e., sells long-term securities (borrows in the long-term market) and uses the funds to retire (buy) short-term debt—the average maturity of the outstanding debt is lengthened. Two things happen simultaneously, the long-term rate rises, and presumably this exercises a restrictive effect on investment undertakings. The short-term rate also falls, and this affects certain types of spending decisions in an expansionary manner.

When funds are drawn from the long-term sector and injected into the short-term sector, we have two forces working simultaneously—one expansionary and one restrictive. The net result of this debt management technique depends on which one of these two effects is greater.

There might be some restrictive effects of lengthening the—debt by shifting funds from the long-term sector (selling bonds) to the short-term (buying short-term debt). Conversely, some stimulating effects may occur from shifting funds from the short-term sector to the long-term sector and shortening the debt. The order of magnitude is an empirical question on which I have no evidence.

The effects of various debt management techniques on private demand depend on the elasticities of investment demand functions and upon the elasticities of supply in various markets. Little evidence exists regarding these elasticities.

Alterations in the term structure of interest rates are not the only effects resulting from changes in the composition of the publicly held debt. There is a liquidity effect. Almost a complete theory of debt

management has been constructed on the basis of the liquidity argument.[11] The analysis runs somewhat as follows. Assume the Treasury sells long-term securities and purchases short-term debt with the proceeds. Those who bought long-term securities are much less liquid than before. Those who sold short-term securities for cash are only a little bit more liquid than before.

Those whose liquidity is reduced will substantially decrease their demand for goods and securities, while those whose liquidity increased only slightly will increase their spending only slightly. The net result is deflationary. If the Treasury were to buy long-term securities and sell short-term securities, the result would be just the opposite—i.e., expansionary. Note, we are dealing here with a direct liquidity effect. This is not dependent on interest rate changes.

Our argument here is an extension of the idea that the level of aggregate monetary demand is affected by the size of the stock of cash balances, or other liquid assets, held by households and business firms. The level of private expenditures is influenced by the absolute *size* of the stock of liquid claims and how liquid this stock is.

There is little doubt about the important role played by the stock of accumulated wealth on influencing the level of expenditures, and especially on the part of the consumers. But the empirical evidence is mixed regarding the importance of changes in the stock of liquid assets on spending. Some investigations have shown that liquid assets appreciably affect consumer expenditures. Others have obtained predictive relationships that are quite satisfactory without using liquid assets. There exists some doubt on the empirical importance of the size of the stock of liquid assets. It is more doubtful that changing the composition of such a stock exerts any important influence on spending.

In my view, it does not seem possible to specify any precise rules to govern debt management. We do not know enough about the effects of alternative debt management techniques to be specific. Neither should we take too seriously the economic stabilization effects of debt management. All debt management effects are of secondary importance. When some people are made more liquid, some are made less. When some interest rates rise, some fall.

Given the considerable doubt about the impacts of changes in the level of interest rates and liquidity on private spending, it is not surprising that changes in the structure of interest rates and liquidity on spending are difficult to determine.

This does not mean that the composition of the debt is of no significance. If a large stock of highly liquid debt exists during an inflationary situation, the task of monetary authorities is difficult. What is important for economic stabilization goals is not *what* kind of security the Treasury or Federal Reserve buys or sells, but *how* much is bought or sold.

I A. (5). Are there any merits in using open-market operations for defensive purposes or should they be used only to facilitate achievement of the President's economic program and the goals of the Employment Act?

In general, I do not believe in having short-run technical problems of the money market dominate monetary policy. This diverts atten-

[11] E. R. Rolph, "Principles of Debt Management," *American Economic Review*, XLVII (June 1957), pp. 302–320.

tion away from control of the money supply and certain types of so-called defensive operations that should be transferred to the individual banker. When the Treasury transfers its deposits from a member bank to the central bank, the member bank may have a reserve deficiency. I see no merit in having the Federal Reserve correct this temporary deficiency by a defensive open-market purchase.

The same holds true with respect to Federal Reserve float. This is a major source of short-run variations in member bank reserve balances and a major reason to justify defensive open-market operations. If the float rises for some reason, I do not believe open-market operations of the central bank should be used to adjust reserve position. I fail to understand why the Federal Reserve cannot make credits and debits to member bank reserve balances simultaneously. This would abolish float.

There is one type of defensive action by the Federal Reserve that I feel is justified: Open-market purchases by the central bank when the Treasury is offering sizable offerings of new debt instruments. In the absence of such defensive actions, the market for private and Government bonds would be subjected to considerable instability.

I B. (5). Do you believe that monetary policy can be effectively and efficiently implemented solely by open-market operation?

Yes, I do.

I C. (5). The purposes of other tools of monetary policy, along with Regulation Q.

(1) *Changes in reserve requirements.*—When the Federal Reserve system was created by Congress in 1913, the enabling legislation specified the percentage legal requirements against demand and time deposits in various categories of banks. In 1933 Congress gave the Board of Governors temporary authority to vary these requirements within a range. In 1935 they were permanently granted ths authority.

The effect of a change in the reserve-requirement ratio on potential lending is obvious. For any given bank in the system, reducing (or increasing) the ratio, other things remaining the same, directly increases (decreases) the *volume* of excess reserves.

Looking at the banking system as a whole, altering the ratio has a double effect: (1) the volume of excess reserves is affected, and (2) the demand deposit multiplier (the multiple by which a dollar of excess reserves may give rise to, or support, new deposits) is changed. When reserves are changed by altering the legal required reserve ratio, the change in reserves is effected without altering market rates of interest.

Changes in the reserve ratio can be a powerful monetary tool. Assume city banks' demand deposits subject to reserve requirements are $87 billion, approximately what they are now. A 1-percent change in the required-reserve ratio would change excess reserves by $870 million—compared to excess reserves prevailing now of approximately $80 million for city banks; $250 million for all member banks. Since changes in the reserve ratio are large in their impact on reserves this tool has been used very gingerly. The smallest change ever made was one-half of 1 percentage point. Applied to all member manks, this is a substantial change in total required reserves—well over 4 percent. Alteration in reserve requirements are public and produce disturbing announcement effects. The Federal Reserve's power to alter reserve requirements should be abolished because of these technical defects, and

the fact that whatever is accomplished by reserve requirement changes could be achieved by open-market operation.

(2) *Rediscounting.*—A central bank can influence the financial system through its lending activities to commercial banks. The lending activities may work through two avenues, lending policy and lending rates. The interest rate charged by the central bank to member banks for granting the latter central bank credit is called the discount rate. Some call this rate the rediscount rate.

Even though the financial pages in the popular press play up changes in the discount rate by the Federal Reserve with a great deal of publicity, it is not currently used in the United States as a discretionary instrument variable designed to influence the general credit situation. It does not serve the end of monetary policy. To be sure, it could be used if the discount rate were moved independently of market rates so as to encourage nonemergency borrowing at one time and discourage it at another.

At one time, in the United States the discount rate was used in this manner. Now it isn't. Discount rate policy, as it is practiced in both the United States and Canada, is essentially a technical financial device that aids commercial banks in the often difficult task of adjusting their reserve position. Some interpret changes in the discount rate as a signal of intent of policy from the monetary authorities.

I am not well enough versed in the institutional arrangements surrounding the rediscounting process to offer any specific recommendations. My answer consists merely of two observations. First, I don't understand the discount window policy of the Federal Reserve. It has been succinctly stated by the Federal Reserve Bank of New York as follows:

> The source of funds to which a member bank turns when it finds itself in need of reserves will depend upon the expected duration of the need for reserves, the availability of liquid short-term investment assets in portfolio, and the money management practice of the bank. Reserve shortages that are expected to be of some duration may be covered by liquidating Treasury bills or other secondary reserve assets, if these are available in sufficient amount in the bank's portfolio * * * When the reserve need is expected to be of only a few days' or, at most, a very few weeks' duration, a member bank may properly borrow from its Federal Reserve Bank.[12]

Presumably, each Federal Reserve bank considers reasons why a member bank requests Federal Reserve credit. Will the borrowed funds be used for "prudent reasons," or is the bank attempting to profit from rate differentials (differences between the market rates of interest and the discount rate)? Is the bank extending an "undue" amount of credit for speculating in securities, real estate, or commodities?

I don't understand the rationale for these administrative restrictions. If banks borrow for "need" and not for profit, and repay quickly as the Federal Reserve maintains, why the administrative complications. This probably reduces the amount of borrowing to meet such "needs." To the extent banks borrow to exploit a difference between the discount rate and market rates—that is, make a profit—this could easily be eliminated by the use of a penalty rate. It might be advantageous to have an open discount window policy at a penalty rate.

[12] "Borrowing from the Fed." *Federal Reserve Bank of New York Monthly Review.* September 1959, p. 138.

Secondly, I suspect that something should be done regarding the relationship between the discount rate and the Treasury bill rate which would improve the arrangement through which reserve adjustments are made by individual banks. When the Treasury bill rate exceeds the discount rate many commercial banks will hold Treasury bills rather than sell Federal funds. The quantity supplied of Federal funds is diminished. If the Treasury bill rate is sufficiently above the Federal funds rate, it is profitable for banks with surplus reserves to pay the higher transaction costs and acquire bills even if they turn around and sell them in a few days.

If the Federal funds rate does not rise above the discount rate this promotes an increase in borrowing at the Reserve banks. The central bank is supplying through the discount window some of the reserves that it has attempted to absorb through open-market sales of securities. This is generally followed by an increase in the discount rate above the Treasury bill rate. This phenomenon probably results in promoting "disorderly conditions" in the money markets because the cost and yield on assets used by banks to make reserve adjustments have been suddenly changed.

I am not sure how important these considerations are. Apparently this restriction on the Federal funds market as a mechanism for adjusting reserve positions is of some consequence. Professors Brunner and Meltzer have recommended that the discount rate should always be above the Treasury bill rate.[13] By doing this, as well as maintaining a close relationship between the two rates in the direction and timing of movements, it would eliminate the ceiling on the Federal funds rate and make the discount rate more in line with the market.

(3) *Regulation Q.*—This regulation gives the Federal Reserve System the power to fix maximum rates commercial banks may pay to time depositors. Changes in maximum rates affect the level of time and savings deposits at commercial banks. The volume of money the public lends to the commercial banks on time deposits is positively related to interest rates banks offer.

The Federal Reserve requires reserves of Federal Reserve deposits be held against time and savings deposits. A lower reserve ratio applies to time and savings deposits compared to demand deposits. An increase in the level of these deposits affects commercial bank reserves and, therefore, demand deposit money. Without further research it would be difficult to diagnose whether the potency of monetary policy is helped or hindered by Government regulation on time deposit rates.

Personally, I am against such controls. I see no justification for governmental interference on this issue. Legal imposed ceilings on time deposits create too many difficulties. Since World War II time deposit branches of commercial banks have, for the most part, been at a competitive disadvantage *vis-a-vis* financial intermediaries. The latter institutions have had no controls on rates they can pay on borrowed funds.

Given this competitive disadvantage, it is not surprising that the market share of the intermediating branches of commercial banks has been steadily declining since the war. Moreover, in periods of tight

[13] Karl Brunner and Allen H. Meltzer, *An Alternative Approach to the Monetary Mechanism,* Subcommittee on Domestic Finance, Committee on Banking and Currency, House of Representatives, 88th Cong., second sess., p. 89.

money when Treasury bill rates exceed interest rate ceilings commercial banks are at a further competitive disadvantage. For this reason ceiling rates were repeatedly raised in the 1960's. To improve the competitive position of commercial banks is to undermine the competitive advantage that nonbank financial intermediaries, like savings and loan associations, had previously been enjoying. The latter institutions began to run into informal ceilings.

All of this probably depressed the flow of funds available for housing. In periods of tight money, when regulation Q is relaxed, it has a particularly harsh impact on residential construction, and on the smaller commercial banks outside the large urban areas.

In my opinion the market should determine interest rates on time deposits. This would allow a market-determined allocation of loan funds between intermediary branches of commercial banks and other depositories of private savings. The alleged reason for the institution of interest ceiling rates is the necessity to control the volume of credit and protect the bank's profits by eliminating the temptation to engage in unusual and risky high-yield investment.

The argument about the volume of credit is irrelevant and discriminatory. If one is prepared to argue it is desirable to control the terms at which people rent their property to others, then equity requires that all such credit be regulated. Money credit passing through financial intermediaries; house credit passing through real estate firms; or car credit passing through car rental agencies; or money credit passing through the bond market.

The profit-squeeze argument is nonsensical. If one argues it is desirable to control the small fraction of the bankers' costs consisting of interest payments to savers, it should be equally desirable to control the 60 to 70 percent of the bankers' costs consisting of wages, supplies of materials, rents, and so on.

On the basis of these arguments I recommend abolishing regulation Q and all of the interest-fixing regulations. Surely the Federal Reserve cannot justify regulation Q on grounds it is needed to help control the money supply. Its other monetary tools are much more effective for this purpose.

I D. (5). The making of quarterly reports by the Federal Reserve Board to Congress.

Since Congress has entrusted the Federal Reserve with managing our monetary affairs, I believe the Federal Reserve Board should make detailed quarterly reports to Congress on past and prospective action and policies. The Research Division of the Board of Governors is excellent. This holds true for the individual Reserve banks with which I am familiar. I am confident this is true of all others. A regularized reporting procedure would lead to a better utilization of the Research Division of the Federal Reserve.

I think reports should be of a different nature than the views and statements generally presented by the policymakers of the Federal Reserve. I find it hard to determine sometimes just where the Federal Reserve stands on certain fundamental issues. Nor do they have a well reasoned analysis supporting some of their policy actions. Given the excellent economists in the Research Division of the Federal Reserve, their reports could meet the highest professional standards. The public, the staffs of the executive departments, the Congress, and the academic

community would all benefit from a quarterly analysis of past and expected monetary policy decision.

I E. (5). What costs and benefits would accrue if representatives of the Congress, the Treasury and the CEA were observers at Open Market Committee meetings?

In my view, the benefit-cost ratio for such a recommendation would be less than one; therefore, I am against it. I have no evidence to support this directly. Based on many years in academic life I am convinced the committee system of making decisions is unwieldy. I see no reason why it would differ in the formulation of national monetary policy.

Why compound the present committee system, as a means of regulating the volume of open-market operations, with added members? It already has more than the official number of 12 members. The 12 Reserve bank presidents participate in most of the meetings, along with a number of vice presdents, advisers, and staff.

Adding more members may contribute to the development of an active and at times heated discussion. It is not clear how this would contribute beneficially to the formulation of a wiser monetary policy. I would recommend to leave Reserve bank presidents and vice presidents home, and use the Chairman of the Board of Governors, along with his advisers, a representative from Congress, the Treasury, and the CEA. This would permit a variety of viewpoints on the formulation of monetary policy. Under present arrangements, too much weight is given to bankers' views on monetary matters.

II. APPRAISAL OF THE STRUCTURE OF THE FEDERAL RESERVE

1. *Retiring Federal Reserve bank stock.*—Under present arrangements, each member bank is required to subscribe 6 percent of its capital and surplus to the capital of the Reserve bank, although only 3 percent need be paid in. Each bank receives a 6-percent dividend on paid-in stock holdings. As is well known, member bank shareholders do not have the power and privileges that customarily belong to the stockholders of privately managed corporations.

I have no strong feelings about the above recommendations. The present ownership of Reserve banks is, to be sure, an anomaly. The Federal Reserve is a monopoly bank and can create as much money as it deems feasible. There is no economic need for member banks to supply capital to it. If the present capital subscription regulation deters State chartered commercial banks from becoming members of the Federal Reserve, it seems to me wise to abolish it according to the procedures set forth in H.R. 11. I suspect other factors are much more important in determining why a significant fraction of commercial banks do not belong to the Federal Reserve.

2. *Reducing the number of members of the Federal Reserve Board to five and their term of office to no longer than 5 years.*— I see no magic in the number of five. It is a step in the direction of reducing the size of the Board. I would like the term of office of each Board member coterminous with the President of the United States.

3. *Tenure of the Chairman of the Board.*—It should be coterminous with the President of the United States. Each President should have the right to appoint his own monetary authorities to carry out the monetary policy needed to meet his economic program. This would make

a major contribution toward coordinating monetary and fiscal policies of the President.

4. *Auditing requirement.*—I suspect the system's finances have been relatively easy and may have led to the sumptuous Board headquarters at Washington. Liberal support has often been granted for trivial research. There is a real resource cost in this.

A general audit of the Federal Reserve Board and their branches by the Comptroller General of the United States would probably be salutary. This provision does not offer much to the grand aim of H.R. 11.

5. *Funds to operate the Federal Reserve to be appropriated by Congress.*—I see no need for this. The central bank is not managed for profit. The Federal Reserve does not exploit the fact it has a monopoly on the production of a good with high market value and low production costs.

III. COMMENTS ON RECENT MONETARY POLICY

A general view of monetary policy

To make an evaluation of the conduct of monetary policy it is necessary to take a position on what monetary control can be expected to achieve. This necessitates a general view of how monetary policy affects the economy. One view that emerges from the research and thinking associated with the reports of the Radcliffe Committee in England and the Commission on Money and Credit can be summarized as follows: Monetary policy has a direct and measurable effect on interest rates and bank reserves, hence credit conditions. Changes in these variables produce an observable effect on the flows of credit through certain markets, notably the volume of bank loans and the demand for mortgage financing for new residential construction. Shortrun economic stabilization is not necessarily facilitated by control over interest rates, bank reserves, general credit conditions, or even over the volume of particular types of lending. Most important is control over aggregate monetary demand.

It is difficult to establish empirically that monetary policy has a reliable, speedy, and quantitatively significant influence on final aggregate demand. Links between changes in the money supply and aggregate demand are tenuous. This difficulty has led some experts to conclude shortrun monetary policy has no influence on the economy.

This view that money does not matter is rejected here for two reasons: (1) The basis of monetary theory is that monetary policy has an influence on economic activity. (2) Empirical evidence produced by many scholars in the field support the proposition that money does matter. Available evidence clearly indicates monetary events are not mere afterthoughts to nonmonetary factors which determine income, employment, and prices. Central bank operations have a direct influence on interest rates and the money supply. Changes in these variables do produce an effect on the volume of final aggregate demand. In spite of the fact that our knowledge of the magnitude of this effect on final expenditures, or the time required to make it effective is imperfect, shortrun stabilization should not be abandoned as a primary objective of monetary policy.

This view of the importance of money does not stem from any belief there is a simple and highly predictable shortrun relation between the

money supply and the level of aggregate spending. The relation is very complex. The extreme view in which the stock of money becomes the necessary and sufficient detriment of money income should also be rejected. Restricting the money supply will restrict aggregate spending. Increasing the money supply will normally tend to increase aggregate monetary demand.

The efficiency of past monetary management in the United States depends upon the time period one selects in which to make an evaluation. The failure of the Federal Reserve to stem the monetary collapse of 1929–33, and the passivity of the Federal Reserve System before the renewal of monetary policy in the 1950's, are obviously periods in which it would be difficult to give the Federal Reserve very high marks.

During the period from the accord to the present the Federal Reserve's record is more impressive, but still leaves much to be desired. In making this evaluation I consider the performance of monetary authorities in achieving our basic domestic goal of full employment.

From 1951 until the present there have been two recessions, 1953–54 and 1957–58. Two other periods of short, small declines in GNP have occurred; third quarter, 1959 and from mid-1960 to first quarter, 1961. All these downturns have been of relatively short duration. They have all had one thing in common—an absolute reduction in the stock of high-powered money, and a reduction in the money supply. Appropriate countercyclical policy would have dictated that both move in the opposite direction.

Was the cause of the fall in the stock of high-powered money because the Federal Reserve was a net seller of Government securities? With the exception of the 1953–54 downturn this was not the case. Other downturns were characterized by net purchases of Government securities by the Federal Reserve. Even so the stock of high-powered money fell because of the gold outflow. Countercyclical purchases of Government securities by the central bank did not have as much impact on the stock of high-powered money, and the money supply, as they might have had. The commitment of the U.S. Treasury to buy and sell gold freely at $35 per fine troy ounce reduces the effectiveness of domestic countercyclical monetary policy.

In my judgment, the same observation can be made for much of the period from January 1961 to December 1965. During 1961 to 1963 unemployment averaged over 6 percent of the labor force. During 1964, the unemployment rate averaged over 5 percent, in 1965 over 4.5 percent. Not until January 1968, did the unemployment rate fall to 3.5 percent. It was still 3.5 percent in May 1968.

The money supply did increase continuously each month during the period January 1961 to January 1968. On January 1961, it was $151.2 billion. By January 1968, it was $182.3 billion. Even though it increased, the money supply did not increase fast enough to alleviate unemployment prevailing during this period.

With the exception of a few periods from January 1961 to April 1968, the Federal Reserve increased its holdings of Government securities. The stock of high-powered money did not increase nearly as much. From the beginning of 1958 to the beginning of 1965, for example, the Federal Reserve's holdings of Government securities increased by $17 billion. The stock of high-powered money during the same period increased by only $7.5 billion. Most of this difference is

due to large losses of monetary gold during the interval in question. These losses amounted to approximately $9.1 billion. Gold losses were so large from the beginning of 1958 to the end of 1960 the stock of high-powered money declined. This is in spite of Federal Reserve purchases of $3.2 billion in Government securities.

It should be noted here that some economists criticize the Federal Reserve for undertaking large open market purchases from mid-1964 to April 1968. Many would consider this an inflationary period. The Consumer Price Index rose from 108.0 on June 1964 (1957–59=100), to 119.9 on April 1968.

I am not too concerned about the registered rise in the price level as measured by the Consumer Price Index. There are many upward biases in the index which cause an exaggeration in the *actual* rise in the general level of prices. I concede a continued rise could be serious. In a period such as we are in now, characterized by large deficits on the part of the Government, and increased private investment demand, the central bank must assume a greater role in controlling resulting inflationary pressures.

The question remains of the efficacy of recent monetary policy. We must bear in mind the Federal Reserve is under continual pressure from the legislative and executive branches of the Federal Government to pursue a policy designed to meet the domestic and international goals of these other branches of Government.

Recognizing this, one may argue that recent monetary policy has been highly successful, and the onus for not having a fully employed economy until recently should be placed on the Federal Government. Expansionary fiscal policy may have been insufficient to compensate for Federal Reserve actions designed to alleviate our balance-of-payments problem. The Federal Government has created this situation by its policy of freely buying and selling gold at $35 per fine troy ounce. In other words, we cannot have a monetary policy devoted exclusively to domestic goals and worry about balance of payments. If I were to summarize briefly monetary policy from January 1961 to January 1968, I would say it was characterized by gold against jobs. Gold won.

The Federal Reserve must be criticized to the extent it did not impress upon the legislative and executive branches the impossibility of pursuing an effective monetary policy to implement domestic objectives given present arrangements of handling international accounts.

I want to be emphatic on this point even though I am not engaged in decisionmaking related to monetary policy formulation. Monetary authorities did not undertake sufficient monetary expansion during the period 1961–67 to obtain a fully employed economy because of fear of worsening the gold drain. I can say unequivocally if I were the monetary manager I would never have pursued such an action. The social costs are much too high.

We must not overlook the fact that when we have less than a fully employed economy the unemployment rate of minority groups, particularly among Negroes, is a multiple of the unemployment rate among whites. The implications of this situation are much more serious than the loss of gold. I would let the gold drain in order to expand the money supply sufficiently to permit a fully employed economy. Perhaps this would force central bankers throughout the world to alter the present international monetary mechanism. More bluntly, the

present enshrinement of gold should be dethroned. We will never be able to dethrone gold, and the meaningless myths surrounding gold, unless our monetary managers exhibit more leadership than they have been prone to do in the past.

STATEMENT OF EDWARD J. KANE, BOSTON COLLEGE

H.R. 11 provides for a number of structural reforms of the Federal Reserve System. Some of these, like the provisions to retire Federal Reserve bank stock, would have little substantive effect. But the other reforms are designed primarily to break the vaunted independence of the System, and thereby to make monetary policy (in the words of the bill's preamble) "responsive to the best interests of the people of the United States." While the bill would without question reduce the independence of the central bank, I doubt very much if it would increase either the welfare of the people or their influence on makers of monetary policy.

I think that a restructuring of U.S. policymaking institutions could be very helpful, but not the restructuring embodied in this bill. Two things in particular are bad about this legislation.

First, while the bill invokes two attractive principles—*viz.*, responsible government and the integration of aggregate economic policies—it does not surrender the congressional authority necessary to insure their realization. Responsible government involves responsibility *to* someone and is not achieved by pulling the System in two directions at once: to subject the System to greater Executive authority—although far from enough to insure full Executive control and responsibility—and to institute new and powerful congressional controls over System finances and require quarterly reports on Federal Reserve policy actions. Nor can we honestly conceive of constructing an integrated policy mix until the integrating agency is given real authority over the important instrument of Federal tax rates. The integration envisaged by this bill must be deemed "token" at best.

Second, the bill would establish an unproven and highly controversial theory of how monetary policy works as the standard for communicating Presidential judgments of what constitute desirable monetary policies. The resulting administrative framework simply creates new possibilities for congressional-Presidential clashes and impasses, without promising any significant improvement in monetary-policy performance.

But I am getting ahead of myself. The intended effects of H.R. 11 fall into three categories: First, the bill would concentrate authority over the open market account in the hands of the Federal Reserve Board, diminishing the power of the regional Reserve bank presidents by abolishing the Federal Open Market Committee. Second, it would reduce the political power of the Board vis-a-vis both the legislative and executive branches. Finally, the bill would wipe out the *appearances* of commercial bank power over the System by replacing Federal Reserve bank "stock" with "certificates of ownership."

In the body of this statement, I shall discuss these three types of reforms in reverse order, indicating which I support, which I oppose, and why.

1. Retirement of Federal Reserve bank stock

I have emphasized the "appearances" of commercial bank power because in fact Federal Reserve bank "stock" confers none of the usual powers on its owners. These shares consist effectively of interest-bearing certificates of membership. Thus, although provisions for the retirement of Federal Reserve Bank stock make up fully half of the bill, they represent its least important provisions. They serve merely to bring the language of the Federal Reserve Act into line with the realities of the situation. This may help the layman to understand more clearly how the Federal Reserve System is organized, but it does not make any substantive change in the distribution of administrative power. If only these sections of the bill were passed, Federal Reserve decisions would be made exactly as before.

Of course, returning the approximately 3 percent of member banks' paid-up capital and surplus—currently frozen in Federal Reserve stock certificate—to member banks for investment would affect bank earnings. However, with private interest rates ranging far above this level and the return on bank capital running in excess of 8 percent, this is a change that, far from depriving the banking community of a valued privilege, promises to make commercial bankers better off.

Nevertheless, since private holdings of Federal Reserve bank stock—like the geographic and occupational restrictions on Board members—are an anachronism and confusing to anyone trying to make sense out of the Federal Reserve Act, I think this stock should be retired and I fully support these sections of the bill.

But if Congress is going to eliminate anachronisms, it ought to do a thorough job of it; and there are anachronisms galore in the language of the Federal Reserve Act, for it is an act based on outmoded concepts of banking—the commercial-loan theory—and of the proper distribution of authority within the System. To put it more colorfully, between the language of the Federal Reserve Act and the facts of current Federal Reserve practice, there is a duality that stands as a contemporary realization of Plato's famous *Fable of the Cave*: a gap between the appearances framed in the act and the reality which the Federal Reserve has become. To illustrate the point, let me focus attention on four problem areas.

(*a*) *The very purpose of the System.*—The preamble of the Federal Reserve Act emphasizes the ordinary financial chores the System may be expected to perform ("* * * to furnish an elastic currency, to afford means of discounting commercial paper, to establish a more effective supervision of banking * * *"), while section 12A states that "open-market operations shall be governed with a view to accommodating commerce and business and with regard to their bearing upon the general credit situation of the country." These words suggest an essentially reactive organization, one which would passively accommodate money and credit to what used to be called "the legitimate needs of trade." Although the Federal Reserve does indeed perform tasks of this type—which Federal Reserve spokesmen describe as "defensive operations"—it does much, much more. It intervenes deliberately and actively—dynamically—in economic affairs to promote abstract ends of economic welfare such as those embodied in the Employment Act of 1946.

(*b*) *Distribution of authority within the System.*—The Federal Reserve Act does not indicate the extent to which the authority of the Board over the Reserve banks has grown since the inception of the System. In particular, the language of paragraph 5 of section 14 ought to be amended to indicate clearly just what authority Reserve banks have over discount rates. Currently this paragraph states, with comic ambiguity, that Reserve banks "establish" their discount rates "subject to the review and determination of the Board." According to a 1919 opinion issued by the Attorney General, the latter phrase gives the Board the right "to determine what rates of discount should be charged * * * and to require such rates to be put into effect." However, the matter has never been tested in the courts. In subsequent practice, Reserve banks have acceded to this opinion. Their directors have taken the initiative only occasionally: in delaying slightly those rate changes which they would have preferred not to make and in proposing changes they regarded as advisable but knew would not be approved by the Board.

(*c*) *Backing for Federal Reserve notes.*—By section 16 of Federal Reserve Act, Federal Reserve notes must be fully backed by "collateral security." This requirement seems designed to prevent anyone from thinking of Federal Reserve notes as essentially unbacked currency—greenback issues—which is of course precisely what these notes are. The bulk of the collateral "backing" Federal Reserve notes consists of Treasury securities, and composition-of-collateral requirements—that is, gold-certificate requirements—have been changed in the past whenever they began to bite. This means, when the verbal underbush is cleared away, that the ultimate collateral for these notes comes down to faith and credit of the U.S. Government.

(*d*) *Federal Reserve discount procedures.*—Section 13 of the Federal Reserve Act lays down criteria by which to determine whether particular commercial-bank loans are eligibile for discount at the Reserve bank. These criteria embody the discredited real-bills-doctrine distinction between "productive" and "speculative" loans, and enforcing them increases the costs of operating the Reserve banks. To guard against delays in the event that funds should be needed, many banks follow the practice of having the eligibility of their various customer loans determined by their Reserve bank at regular intervals, irrespective of whether or not they have any specific plans to borrow. It would be more sensible and less costly to administer the discount window if eligibility requirements were framed only in terms of (i) the general credit standing of the customer whose paper is being offered and (ii) the maturity of this paper.

2. Federal Reserve independence

I think it is possible, but not easy to defend the antidemocratic concept of a fully independent central bank. Like the case for an independent judiciary, the argument would emphasize the value of having an agency sufficiently free from shortrun political pressures—particularly election deadlines—that it can afford to take a longrun view of policy needs and effects.

But the Federal Reserve System is far from being—or even acting like—a fully independent central bank. It has only a fragile independence, one rooted not in the Constitution but in an easily amended

act of Congress. This fragility of this independence imposes very real lines of responsibility. The Federal Reserve faces always the possibility of losing its independence, and this possibility forces the System to act as a political animal: to attempt to secure for itself the continued good will of Congress and the Executive, and of the electorate to which these men are ultimately responsible.

Probably because of this desire to stay out of the political limelight, I know of no instances where Federal Reserve policy mistakes can be attributed directly to the System's nominal independence. There is no evidence to suggest that such mistakes as have occurred would have been avoided if only the Federal Reserve had been restructured along the lines envisaged in H.R. 11.

Returning to matters of principle, responsibility requires that it be possible for voters to assign accountability for various Government policies to particular sets of elected officials, so that when voters are displeased with these policies, they can force a change. I have tried to show that one can affirm this principle without at the same time having to condemn the fact of Federal Reserve independence. The issue is not whether the Federal Reserve should be fully independent (i.e., not responsible), but rather under what branch of Government the Federal Reserve should be assigned and how frequently it should be called to account. Under current law, the Federal Reserve is technically a "creature of Congress," but has in recent years shown considerable (albeit far from perfect) responsiveness to executive pressures. Under H.R. 11, the Federal Reserve would become even more closely a creature of Congress (by being made subject to audits, quarterly reports, and annual appropriations) and would at the same time become formally subject to Executive authority.

I regard this part of the proposed legislation as defective in two respects. First, while the Executive is to dictate what policies the Federal Reserve follows, the Federal Reserve is required to report and explain itself to Congress. From the point of view of the electorate, this diffuses responsibility rather than concentrates it. Second, the notion that Presidential authority can be exercised by issuing annual monetary guidelines involves more than a question of the intragovernmental division of authority. Having the Federal Reserve manage its affairs so as to stabilize a specific monetary variable represents a drastic change in the operating criteria of monetary policy, and one that is neither necessary to the establishment of Presidential authority nor in itself well advised.

These problems arise because the legislation stubbornly incorporates the usual "checks and balances." Congress is not going to be asked to weaken its authority relative to the executive. This means that if the Federal Reserve is to be made more responsive to the President, it must be made more responsible to Congress, too. It is this attempt to legislate a dual increase in responsibility that rules out the straightforward solution of making the Federal Reserve part of an executive agency with full authority over aggregate economic policies, and calls instead for the creation of Presidential guidelines.

(*a*) *Making the Federal Reserve More Responsive to Congress.*— If Congress feels it is important to make the Federal Reserve more directly responsible to the electorate, it should create lines of authority that are crystal clear. I believe that the provisions of H.R. 11 calling

for quarterly reports and requiring the Federal Reserve to depend upon annual appropriations should be considered first as alternatives to the provisions to tie the Federal Reserve more closely to the executive branch. Enacting just these provisions would preserve the nominal independence of the Federal Reserve, but would create new channels for legislative harassment of Federal Reserve officials. Congress would be able to keep a closer eye on monetary policy and could more easily punish the Federal Reserve for poor policy performances or reward it for good ones.

But, of course, the emphasis would shift even further toward the shortrun effects of Federal Reserve policies and the important problem of integrating our various national economic policies would remain unsolved. Moreover, Congress has shown itself to be something other than a collection of selfless economic statesmen. Certainly, congressional reaction to proposed Federal tax increases in early 1966 (before Vietnam became a national issue) was very disheartening. On the basis of this evidence, I think that Congress does not want to bear closer responsibility for monetary policy and would not discharge that responsibility particularly well if it were pressed upon it.

Because of the deliberate way in which congressional decisions are reached and the unwillingness of Congress to surrender to the Executive even temporary and experimental authority over first-bracket tax rates, it is important for us to maintain some policy weapons which can be actuated administratively and which do not force individual Congressmen to stand and be counted.

Hence, even if Congress were for some reason to find the Fed's fragile independence no longer palatable, this suggests the wisdom of locating the Federal Reserve in the executive branch and the superfluity of requiring Federal Reserve officials to submit quarterly reports to Congress. If these officials were, in fact, responsible to the President and their policies but part of an integrated policy mix, congressional fire ought to be directed further up the line or at several agencies together. Of course, if the Federal Reserve were located wholly in the executive branch, it would not seem unnatural to institute audit and appropriations procedures, but their institution would make the System more accountable to Congress than ever before.

(*b*) *Making the Federal Reserve more responsible to the Executive.*—Section 11 of H.R. 11 would increase Presidential authority over the Federal Reserve Board, but only slightly. It would make the term of Board Chairman coterminous with that of the President and would reduce the number and terms of office of all Board members in a way that would prevent an outgoing President from freezing Board membership during his successor's first term.* Finally, section 10 of the bill requires that monetary policy "be conducted in accordance with the programs and policies of the President," while section 16 dictates that this accordance with Presidential programs and policies be expressed in terms of "guidelines concerning monetary policy, domestic and foreign, including the growth of the money supply as defined by him."

*In neglecting to consider various places in the Federal Reserve Act where decisions require the support of five or six Board members (e.g., sec. 11, par. 14 and sec. 13, par. 3), this reduction in membership makes certain actions more difficult (and in at least one case, impossible).

The proposed reductions both in the Chairman's and in Board members' terms of office are easy to support, but I do not know how to begin determining the optimal number of Board members. As for the provisions allegedly aimed at increasing policy coordination, I am very much opposed. First, so long as tax policy is reserved to Congress, policy coordination is not a problem which can be solved wholly within the executive branch. Second, if these tax powers were to be ceded to the Executive, coordination would best be achieved by making the Board continuously responsible to the President. In this unlikely case, I would find it hard to see why Board members should not hold their tenure more or less at the pleasure of the President. This would locate the responsibility for monetary policy wholly with the executive branch, and would obviate the necessity for the President's laying down hard and fast monetary guidelines.

Given the current state of monetary theory, this latter point is a particularly important one. The original Federal Reserve Act enshrined a theory that, although widely agreed upon in its day, has since been thoroughly discredited. Constraints on Federal Reserve actions traceable to this theory contributed in 1931 to the policy performance of that era.

H.R. 11 threatens to raise to eminence a theory that is widely disputed right now. This is the theory that maintaining a steady rate of growth in the money supply—somehow defined—will lead to greater macroeconomic stability than the discretionary setting and resetting of numerous complementary controls that the Federal Reserve has offered us in the past. This theory may be true, but it is unproven and under considerable attack. Without actual experimentation or careful simulation, we can predict only broadly the changes that such guidelines would make in our financial environment. Because econometricians are continually developing better and better models of the economy, in a few years we should be in a much better position to assess the wisdom of following various alternative guidelines than we are now. I strongly recommend that Congress wait until this econometric groundwork has been laid.

On the other hand, I do believe that the Federal Reserve officials could be safely asked to explain their policy intentions and accomplishments in a straightforward and unambiguous way, and directed to *experiment* with alternative monetary-policy criteria so as to determine whether in fact guidelines such as the bill envisages might be useful. But legislation that would fix upon one or more particular monetary variables, and without prior experimentation charge the Federal Reserve to regulate singlemindedly those variables' rate of growth strikes me as rash and imprudent.

3. Abolishing the Federal Open Market Committee

In accordance with the principle of responsible government, abolishing the Federal Open Market Committee would make Board members fully accountable for monetary developments. Once again, the desirability of this reform depends on whether or not Congress is willing simultaneously to delegate authority over Federal tax rates. If it is not, there is no reason to tamper seriously with the Federal Reserve's current state of fragile independence, in which the Federal Open Market Committee performs an important role. This is the role of institu-

tionalizing internal heterogeneity and dissent. The research staffs of the 12 Reserve banks—which advise their presidents on questions coming before the FOMC—are partially isolated from each other and develop their own philosophic and theoretical outlooks. Most important, these banks serve as agents for keeping the System in touch with theoretical, evidential, and even popular developments. New ideas can more easily penetrate a single Bank than they can the System as a whole.

Precisely because the Reserve banks have had this role to play, abolishing the FOMC would greatly change staffing reqiuerments at the individual Reserve Banks. First, the post of Reserve bank president would be sharply downgraded, since the post would lose its most glamorous responsibility. Second, maintaining large research staffs would become a good deal less defensible. If the president would not have to vote on matters of national policy, he would have less need for informed advisers to research policy questions. Nevertheless, traditional concern for regional problems and interests would probably prevent any appreciable reduction in Reserve bank personnel.

STATEMENT OF NORMAN F. KEISER, SAN JOSE STATE COLLEGE

I. QUESTIONS ON MONETARY POLICY GUIDELINES AND OPEN MARKET OPERATIONS

1. Should fiscal, debt management, and monetary policies be coordinated?

It is my opinion that the President should, each year, submit to the Congress a total program in which his fiscal, debt management, and monetary policies are clearly delineated. Monetary and fiscal policies are not and should not be treated as "independent mutually exclusive stabilization policies." Their coordination makes for more efficient realization of the goals of the Employment Act. Most situations are such that changing one policy without adjustments in the other will partially or seriously frustrate the realization of one's goal. A good example is the failure to provide a substantial increase in the money supply in the face of a substantial planned deficit.

2. Who should be responsible for drawing up such a program?

Formal responsibility for drawing up such a program should be the President's. Naturally, he will call upon the services of the Federal Reserve and other agencies.

The facts of our political life are such that the administration is held responsible for the attainment of the goals of full employment, general price stability, a high rate of economic growth, and external balance. It should have the authority, properly constituted and with appropriate checks where advisable, to carry out the policies necessary to achieve these goals. Control over monetary policy and discretionary tax authority are necessary tools in an efficiently run stabilization program.

3. Monetary policy guidelines: A. What should be the target(s) of monetary policy? How are they related to the goals of the Employment Act?

Satisfactory answers to these questions will be difficult to arrive at, mainly because there is wide disagreement among the experts on monetary theory, but also because these and related questions are

just now being thoroughly researched. Because of imperfect knowledge, what follows is mostly of a tentative nature.

It is now clear that exclusive reliance on free reserves as a guide to monetary policy is inappropriate because they can be a misleading indicator. This is because the level of free reserves will be influenced by changes in the relationship between short-term interest rates and the Federal Reserve discount rate. Properly interpreted, free reserves are useful as one measure of developments in the credit markets.

Some economists argue that the stock of money should be the sole guide to monetary policy. They also argue that changes in the stock of money determine the levels of output and employment. Neither argument is accepted here. The first is rejected because the determination of the stock of money is a function of the desires of the public for money rather than other financial assets, the yields on these assets, commercial banks' demand for free reserves, *and* the actions of the Federal Reserve. The money stock is not simply an exogenous variable to be controlled directly by th Federal Reserve. The determination of the stock of money, and of interest rates, is an endogenous and complicated matter. In addition, money is only one of several financial assets, each of which is in some way unique. What about time deposits, savings and loan shares, or even the volume of bank loans? Why not select one of these? The second argument is rejected because empirically based knowledge of variables (such as consumption and investment) in macro models tell us differently. Also, it seems that the supply of money and the level of economic activity move approximately simultaneously. Changes in the supply of money do not appear to be causal with respect to changes in output, but rather "permissive" or, under the conditions of very tight monetary policy, "restrictive."

Under present circumstances it seems logical to rely on the variables of interest rates and credit available. Credit availability is a crucial variable through which monetary policy operates and influences the demand for output in the economy. It is much more important than the level of interest rates *per se*. (The rate of interest is generally a minor factor in investment decisions, for example.) But interest rates reflect and influence the demand for and supply of money. Further, changes in the rate of interest are closely related to changes in the availability of credit.

The foregoing should not be interpreted to mean that changes in the money supply should be ignored. Changes in the money supply both reflect and determine conditions in credit markets. Policy changes that alter the supply of money should be related to credit market conditions, changes in the level of output, and the rate of growth of the economy. Changes in the money supply should be watched carefully, as noted below, but the importance of these changes will vary from time to time.

The Federal Reserve may, of course, strongly influence both credit availability and interest rates through its open-market operations, changes in reserve requirements, rediscount rate policy, and other regulations. Changes in the availability of credit and in interest rates will in turn have an impact on the levels of employment, output, and prices.

B. "Should the guidelines of monetary policy be specified in terms of some index of past, present, or future economic activity, or alternatively in terms of the target variable's value or growth?"

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They should be specified in terms of some index of economic activity. We are interested not in a given change in a target value but rather in employment, output, prices, and external equilibrium. Any monetary variable is a means to the attainment of these ends, not an end in itself. The monetary authorities should, though, generally work within a range with respect to the target variable, carefully considering both the short- and long-run impact on the economy when they move outside of this range (in either direction). Certainly, a target variable should not be pursued so that it attains "a certain value or growth regardless of the economic winds."

C. Should leading, lagging, or coincident indicators be used?

Probably a combination of indicators should be used as a basis to (1) forecast the trend of economic activity with respect to both (*a*) aggregate demand and supply, (*b*) industry or sector demand and supply, and (2) predict the impact of monetary actions. One may use a single index, but it seems preferable that the trend of the economy be determined from the picture that appears after several important indexes have been examined. At various times the indexes used would no doubt vary in their importance. The indexes should reflect employment, output, and price trends, and particularly their rate of change.

D, E, and F. Comments for those recommending as a guideline a target-variable's value or growth.

These three parts are, strictly speaking, to be left unanswered, but a few points are worth noting. Most of those who answered question 3B in terms of a target variable's value or growth will no doubt recommend the money supply as the target variable. Despite my answer, the money supply is an important variable whose behavior cannot and should not be ignored. Its value will be related to conditions in the money market as noted above. The rate of growth of the money supply should probably approximate the rate of growth of the economy, and generally be within a range of 3 to 5 percent. Some economists have recommended a 2- to 6-percent range. Generally speaking, this is acceptable, but not as the only guide to monetary policy. The main advantage of such a rule would be the avoidance of sudden changes in the money supply. If such a policy were adopted, the range cited should not be rigidly interpreted. There will be deviations from it, but prolonged departures (that is, excessive or a zero or negative growth rate of the money supply) will result in imbalances and instability. If they do not, the rules need to be changed. Finally, occasional constraints, such as external considerations, may call for exceptions.

4. "Given the goals of the Employment Act, what can debt management do to help their implementation?"

Debt management is defined here as Treasury and Federal Reserve actions that affect the composition of the debt (for example, decisions by the Treasury concerning the types of debt to be issued to (*a*) raise new money, (*b*) refund maturing securities, and decisions by the Federal Reserve concerning the types of debt to be purchased and sold in the conduct of open-market operations). It is assumed here that the criteria followed in policy determination are the least cost per benefit received, the degree of liquidity desired, and the impact on economic stabilization.

When an expansion of the money supply is accepted as a policy goal, it may be achieved by direct printing of money to purchase Gov-

ernment securities outstanding, Federal Reserve purchases of Government securities and turning the securities over to the Government,[1] or by a reduction in reserve requirements. The first and the second actions (monetization of outstanding debt) greatly reduce the interest cost to the Government.[2] Chairman Martin, of the Federal Reserve has stated that increasing the money supply by a given amount is inflationary when it is done by open-market purchases but not if it is done by lowering reserve requirements.[3] This is utter foolishness.

If the goal is to soak up excess liquidity in the economy, Government debt should be sold. The purchase of illiquidity is then the justification for paying interest in the debt. The interest charge should be balanced against the amount of illiquidity achieved. Long-term debt is less liquid and requires a higher interest rate, generally. But it may be that less long-term debt must be sold to attain a given degree of illiquidity. Thus *the interest rate* may be higher but total interest charges the same or lower.

Federal Reserve policy would probably be helped if the term structure of the debt were lengthened. Fewer securities would then have to be sold during periods of tight money, which would reduce the number of times the Treasury would have to go into the market and perhaps interfere with Federal Reserve policy.

5. Open-market operations: A. Should open-market operations be used to counteract seasonal and other transient factors affecting money market and credit conditions?

It seems that they should, and also that the risks and cost of doing so are small. In fact, one reason why some monetary experts favor their use is because continuous operation to offset these influences provides a camouflage for longer run objectives of Federal Reserve policy. Because they are going on continuously and are aimed at many objectives, they tend to avoid the "announcement effects" that accompany changes in reserve requirements or in discount rates. This is often considered an important advantage of open-market operations.[4]

B. Can monetary policy be effectively and efficiently implemented solely by open-market operations?

Yes. Open-market operations are already the primary policy used. They are powerful, effective, and flexible. Changes in the discount rate do not much affect the money and credit supply; they are inept, confusing and, at times, even perverse. Reserve requirements should probably be fixed at some level and then left alone.[5]

C. For what purposes, if any, should (a) rediscounting, (b) changes in reserve requirements, and (c) regulation Q be used?

See *B* above.

D. Are quarterly reports of the Federal Reserve Board to Congress on past and future actions and policies desirable? What risks and costs are there? What should be included in the reports?

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[1] Even if the Federal Reserve holds the securities, about 90 percent of the interest payment is returned to the Federal Government.

[2] It has been estimated that a 4-percent yearly increase in the money supply could retire one-third of the debt in about 10 years, and all of it in about 30 years.

[3] See Joint Economic Committee, *Employment, Growth, and Price Levels*, hearings, July 24, 27, 28, 29, and 30, 1959, pt. 6A, 1959, pp. 1243–1245. Martin further did not accept the least cost principle because it was not the function of the Federal Reserve to help taxpayers and the Treasury.

[4] For details see Warren L. Smith, "The Instruments of General Monetary Control," *The National Banking Review*, September 1963, pp. 47–76. Smith's writings have been drawn on for many of the ideas incorporated in the text up to this point.

[5] *Ibid.*

Such reports seem desirable, and the risks and costs do not seem to me to be serious. In fact, secrecy and mysticism in monetary policy are to be avoided. The reports should include Federal Open Market Committee objectives, policy guides, operations, results, and how these are related to the goals of full employment, general price stability, growth, and external balance. All data and other information should be expressed quantitatively whenever possible.

E. What are the costs and benefits of having representatives from Congress, the Treasury, and the CEA as observers at Federal Open Market Committee meetings?

The advantages of keeping the group small are, I think, obvious. Nonetheless, having representatives from these agencies present will broaden the basis of Federal Open Market Committee decisions. (It makes more sense to have these representatives there than the presidents of the Federal Reserve banks and their associates.) They could not only observe but should also participate in discussions, but not decisions. Other more important changes should be made in the Federal Open Market Committee, though, as noted below.

II. APPRAISAL OF THE STRUCTURE OF THE FEDERAL RESERVE

Comment on H.R. 11, which retires Federal Reserve bank stock, provides for five members on the Board of Governors with 5-year terms, makes the Chairman's term coterminous with that of the President, extends Comptroller General audits to the Federal Reserve Board and Federal Reserve banks, and provides for budgetary allocations from Congress to run the Federal Reserve System.

All these proposals deal with the elimination of FR independence and the coordination of fiscal and monetary policy. They are consistent with the realization of that goal. The recommendations that have been made by economists to attain the goal of fiscal-monetary coordination include the following: (1) Informal relationships (meetings, luncheons, etc.) between the FR and the administration as under Presidents Eisenhower, Kennedy, and Johnson; (2) having the administration set forth in the *Economic Report of the President* its expectations regarding monetary policy; (3) proposals for a committee that would include the appropriate monetary and fiscal agents of the Government; (4) the establishment of a National Economic Council; (5) the creation of a new Department of Finance that would include both the Treasury and the Federal Reserve; and (6) the simple proposal that the Board of Governors be made directly responsible to the President.[6] Before discussing these proposals a few comments regarding the need for reform are appropriate.

It is possible that past and current informal arrangements may prove satisfactory and that FR policies will reflect the views of the administration. On the other hand, it is also equally possible that the Federal Reserve will go its own way (as it has in the past) when the administration which is in power refuses to challenge the Federal Reserve. There is absolutely no reason to expect that such a development may not occur again. It is of further interest to note that (technically) the Federal Reserve is responsible to Congress, but at the same time the

[6] The material that follows is primarily from my *Macroeconomics, Fiscal Policy and Economic Growth*, New York: John Wiley and Sons, 1964, pp. 453–460.

administration, in the eyes of many, has the "moral" responsibility of securing monetary cooperation. The administration is further charged with the responsibility of securing full employment, economic growth, price stability, and a balance of international payments. No one would deny the necessity of carrying out the appropriate monetary policy in the attainment of these goals, yet the administration is virtually powerless (under current laws) to effectuate monetary cooperation.

There are other reasons why some economists have felt that some change should be made in the administrative setup of the Federal Reserve to make it a more responsible agent in democratic society. Many have felt it is too dominated by bankers (or bankers and business). The people on whom the system draws are too closely associated with the banking community and its point of view and interests. Such a background gives too narrow a point of view to those who are responsible for making decisions of a more general economic character and which affect not just the banking and business communities but rather the whole of society.

The Board is supposed to represent a few interest groups,[7] and the System's original purpose was the accommodation of business and banking. But it is now recognized that the Federal Reserve no longer has as its major purpose the accommodation of business. It is now concerned with broad national stabilization objectives, and the current interest-group makeup has a serious omission of representation by other major groups (mainly labor) which are greatly affected by its policies. Despite this, however, the truth of the matter is that we do not need a board representing various groups but rather a board which is highly qualified to develop national monetary policy. But as long as the interest-group basis is retained and labor is simultaneously eliminated, union groups will continue to be suspicious of what it feels is an institutional bias toward "sound money" in preference to economic growth and higher levels of employment.

The banker-business domination accusation is even more appropriately directed toward the board of directors of each Federal Reserve bank. These boards are almost exclusively dominated by bank and big business interests, and their memberships look like a *Who's Who* of American industry.[8] The makeup of the boards of directors, however, may not be particularly significant since it would, under present circumstances, be possible and reasonable to completely abolish them; they are not really necessary.

Even though several Reserve bank presidents have been professional economists, they have also been accused of having too narrow a point of view and interest-group association and bias. But here the problem is somewhat more serious because the presidents are either members of the Federal Open Market Committee or (if not members) sit in on FOMC meetings. While the Board of Governors dominates the OMC, if the Board should split the Federal Reserve bank presidents would determine the vote.

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[7] The President, in appointing the Board, is to do so on the basis of "Fair representation of financial, agricultural, industrial, and commercial interests, and geographical divisions of the country."

[8] See M. D. Reagan, "The Political Structure of the Federal Reserve System," *American Political Science Review*, March 1961. A "pedigree" of the directors and a criticism of the present system can be found in E. Miller, *Review of Economics and Statistics*, November 1961, pp. 380–384. For a criticism of the banker pointer of view of the FR, see K. Brunner and A. Meltzer, *Banking*, March 1964, pp. 49–50.

There is, then, a serious question of the public accountability of the Federal Reserve bank presidents and even of the Board of Governors, whose legal accountability to the Congress amounts to little by way of direct control since the System is financially independent of the Congress. Federal Reserve accountability to the Congress is more mythical than real, and furthermore constitutes an extremely poor administrative setup anyway. Such considerations, along with the secrecy and mysticism that surround Federal Reserve actions, have led John Kenneth Galbraith to state that Federal Reserve independence "reflects * * * the belief that monetary policy is the highly professional prerogative of the financial community. As such, it must be protected from the crude pressure of democratic government." [9]

Many of the recommendations for reform within the Federal Reserve have concerned the makeup of the Federal Open Market Committee. In particular, since the Reserve bank presidents serve on this committee, the issue has turned on how much power the regional bank presidents should have on the FOMC and also the extent to which regional interests *per se* should be represented on the FOMC. It would seem that the need for regional emphasis has passed, that open market operations are national rather than regional, and that it is questionable whether the Reserve bank presidents (who are neither appointed by, nor accountable to, the Congress or the President) should have any vote at all.[10]

Another problem that has created demands for reform is the very size of the Board of Governors itself. In relations with the Treasury, the President, and the CEA and other agencies, the Chairman *is* the Board. In addition, many have questioned the wisdom of a structure in which the Federal Reserve bank presidents may receive almost three times the salary of a Board member. Finally, some have asked questions about the qualifications of some Board members themselves, thus implying that few have been outstanding in any way.[11]

THE PROPOSALS FOR CHANGE

The present arrangement again.—We noted that it is quite possible that the informal arrangements of the past may allow for and achieve effective cooperation between fiscal and monetary policy. We also noted that the circumstances under which the informal arrangement has failed and may again break down. It is also true, of course, that the adoption and pursuance of an extreme policy on the part of the Federal Reserve would result in rapid congressional censure or actual legislative-administrative change. The facts of life are that the Federal Reserve cannot get too far out of step. It is further probably true that no important changes in the political structure of the Federal Reserve are likely to occur in the immediate future despite sound

[9] *The Affluent Society*, Boston: Houghton Mifflin, 1958, p. 227.

[10] For more detailed discussions of these problems, issues and proposed reforms see Reagan, *op. cit.*; George L. Bach, *Federal Reserve Policy-Making*, New York: Knopf, 1950; E. A. Goldenweiser, *American Monetary Management*, New York: McGraw-Hill, 1951; and Joint Committee on the Economic Report, *Monetary Policy and the Management of the Public Debt*, 1952 (Patman) and *Monetary, Credit and Fiscal Policy*, 1949 (Douglas).

[11] Former Chairman of the Board of Governors Eccles states that "I have felt that the Open Market Committee should be composed of those people who were appointed by the President and who were confirmed by the Senate, and whose salary is fixed by the Senate. They have a direct responsibility to Congress." Joint Economic Committee, *State of the Economy and Policies for Full Employment*, Hearings (Aug. 7–10, 13–17, 20–22, 1961), 1962, p. 525.

economic and political reasons for the change. The history of the United States seems to indicate that there will be no extreme changes unless there should be another serious crisis in the economy.

After Arthur Burns stepped own as its chairman, the Advisory Board on Economic Growth and Stability reportedly declined significantly in importance. We have already noted the possible difficulties in the use of the committee or informal meeting system to secure coordination between the Treasury and the Federal Reserve. It is probably nonetheless true that the use of the committee system within government and the informal system between the Treasury and the Federal Reserve is better than nothing, and further that (pending some crisis) these techniques will be the ones used in the immediate future.

A National Economic Council.—Dr. Arthur Burns (a former chairman of the CEA) has suggested that the Advisory Board be continued and there be added periodic meetings of the Board with department and agency heads at the highest level in government and chaired by the President. Such an organization would, in Burns' opinion, "carry a weight in decisions on basic economic policies that would be fully comparable to that of the National Security Council in its sphere." [12] It is interesting to note (1) that Burns himself recognized that the Advisory Board was created because of "the want of regular governmental machinery," and (2) that the Advisory Board apparently declined in importance upon Burns' departure. The type of leadership such an organization has is of obvious importance, as noted. Without adequate leadership the committee system may break down, as apparently happened in this case.

Including Monetary Policy in the Economic Report.—The idea underlying the requirement that the administration present a policy expectation or proposal relative to monetary policy is that any disagreement would become public. In such a case both the administration and the Federal Reserve could be required to defend their policy proposals, which the Federal Reserve does not have to do under present circumstances. Their failure to do so raises some serious questions about public accountability and bureaucratic responsibility in a democracy.[13]

Interdependent and Interagency Committees.—Advisory committees of various sorts were used by President Eisenhower (the Advisory Board on Economic Growth and Stability, for example). On August 21, 1962, President Kennedy established the Cabinet Committee on Economic Growth. It is chaired by the Chairman of the CEA, and its purpose is to serve as a "focal point for concentrating the Government's interests and activities on the growth objective." [14] This committee's work was supplemented by that of the Interagency Growth Study Committee, also chaired by a member of the CEA and responsi-

[12] Arthur F. Burns, *Prosperity Without Inflation,* New York: Fordham University, 1957, pp. 86–87. Burns describes the operation of the Advisory Board and the establishment of another, higher-level committee to deal with problems of economic policy.

[13] In 1959 and 1960 Representative H. Reuss and Senator J. Clark introduced bills which would (1) required the President to make recommendations concerning monetary policy, (2) require the Board, if it disagrees, to explain why, through the President, to the Congress. See Committee on Banking and Currency (Senate), *Employment Act Amendments,* Hearings (Feb. 24–26, 1960), 1960; and Committee on Government Operations (House), *Amending the Employment Act of 1946,* Hearings (Mar. 25, 26; Apr. 9, 1959), 1959. The Board of Governors opposed this and other aspects of the bills. See the Senate hearings, pp 8–10.

[14] *January 1963 Economic Report of the President,* p. 61.

ble "for developing and supervising an integrated program of studies of U.S. economic growth." [15] The extent of cooperation achieved by such committees is highly dependent on the spirit of cooperation of its members and the committee leadership. In other words, there is no assurance that a consensus can be arrived at, or that commitments will be made.

The conclusion to be drawn is not necessarily that such an organization should be formalized by an act of Congress; even a formal agency may be relegated to a secondary role if the President so determines. We should note, however, that a legislative act bringing together as many credit agencies as possible would still serve the purpose of assuring that a reasonably consistent financial policy would be pursued by the Government. A further advantage would be the efficiency in having a single agency or department head deal with the Federal Reserve rather than several, as apparently has been the usual policy. It is generally recognized that such a Council should have something equivalent to cabinet status.

Various other proposals have been made for a Federal National Economic Council. Such a Council should, according to many proposals, be the counterpart to the National Security Council. Some have proposed that it draw up 5- and 10-year economic blueprints setting forth production goals (including consumption, investment, growth rates, etc.), with annual modifications as conditions so dictate. The responsibility for the coordination of fiscal and monetary policies should fall on the council.[16]

Equally important to some observers would be the presentation of such a council's blueprint and annual budget to the Joint Economic Committee. The Joint Economic Committee accordingly should be elevated to such a status that it would examine the coherent program, and its reaction should govern the actions of other congressional committees which pass on economic matters. The Joint Economic Committee, in other words, should take an overall look at the budget, and other congressional committees would be expected to follow its recommendations. This does not mean, of course, that the Joint Economic Committee should make decisions relative to the proper role of the Federal Government, the allocation of resources between private and public uses, and the like; these questions should be decided at the ballot box. It could, however, propose the most efficient ways in which these goals could be effectuated in coordination with the goals of price stability, growth, and full employment.[17]

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[15] *Ibid.*, p. 160.

[16] See the statement of R. V. Gilbert, "Economics for Cold War," Joint Economic Committee, *The Relationship of Prices to Economic Stability and Growth,* Compendium of Papers, 1958, p. 229. We are obviously skipping over the many complicated administrative problems such a proposal would involve. Presumably, however, such a council would have as its primary responsibility the development of policy rather than the enforcement of administrative rules and detail.

[17] For other suggestions for the establishment of a National Economic Council see Warren L. Smith's comments in *ibid.*, Hearings, pp. 347–351; Walter Reuther in Joint Economic Committee, *January 1962 Report of the President,* Hearings, 1959, p. 780; N. H. Jacoby in Joint Economic Committee, *Employment, Growth, and Price Levels,* Hearings, pt. 1, 1959, pp. 67, 76; A. Smithies in G. Colm, editor, *Employment Act: Past and Future,* Washington, D.C.: National Planning Association, 1956, pp. 157–162. Smithies feels strongly that the present departmental and agency separation of fiscal and budgetary functions should be maintained. He further feels that under no circumstances should the independence of the Federal Reserve be sacrificed. He does, however, accept the establishment of a National Economic Council, chaired by the President, for the sole purpose of assisting the President in the determination of fiscal and credit policies. See also George L. Bach's proposal (*op. cit.*, pp. 186–207), which goes into considerable detail but which is somewhat more restricted than the others discussed here.

It has been further proposed that the National Economic Council be granted price, wage, and allocation authorities, particularly for use on a standby basis.[18]

These suggestions are controversial to varying degrees, especially since anything that hints at national economic planning would be widely criticized in our society. This would be particularly true of grants of power over prices, wages, and resources. Further problems would be encountered in an attempt to reduce the prerogatives of the various congressional committees.

There is little reason to assume that we have seen the end of creeping inflation. In view of this, it is indeed likely that new institutional arrangements will be asked for to deal with these problems. So, while proposals such as those discussed here may appear idealistic, future developments may show that there may be good reason to consider them thoroughly ahead of time.[19]

A new departure of finance.—Various proposals have been made to establish an entirely new Department of Finance and incorporate in this single agency the fiscal, monetary, and lending functions of the Government. This new Department of Finance would replace (or incorporate) existing agencies, including both the Treasury and the Board of Governors. Most such proposals recommend that this Department include the functions of the Board of Governors and the Open Market Committee, bank chartering and supervision, and the financial policies of the Government credit agencies (but not their operating duties). Professor Lawson's proposal provides for the continued separate agency status of both the CEA and the Bureau of the Budget, although close cooperation would be expected if not required. His proposal seeks a technique for securing an overall view of the total credit picture. He would expect such a Department to act as "banker" to the operating agencies of the Government, and the Finance Secretary, with Presidential sanction, would make recommendations to Congress, which would accept or ignore them. Lawson further claims that his proposal would contain fiscal-monetary conflicts within a single operating department where they could be resolved in a manner employed by all executive departments. In short, Lawson maintains that all the financial activities of the Government would be brought into clear focus so that responsibility and authority would be vested in one body with final authority over monetary and fiscal matters, subject to Presidential supervision and congressional review.[20]

Board of Governors directly responsible to the President.—One way in which many of the objections to the current modus operandi could be met is by making the Board of Governors of the Federal Reserve directly responsible to the President. The Chairman would be appointed by the President and would report to him. He would argue his case on a basis equal to that of the Treasury Department. The advantages of such a program would be similar to those of the establishment of a new Department of Finance.

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[18] In this respect see G. Colm, editor, *The Employment Act: Past and Future,* pp. 79 ff, and 154.

[19] The interested reader may want to examine Ingvar Ohlsson, "The Swedish National Budget," in Joint Economic Committee, *Economic Policy in Western Europe,* 1959, pp. 265–275, reprinted from *Skandinviska Banken Quarterly Review,* October 1957, pp. 100–107.

[20] Eric Lawson, "A New Department of Finance," *Journal of Finance,* March 1953, pp. 1–9.

There is the further question here of degree of Presidential control. The Board may be retained in its present form but the Chairman appointed by the President, as President Kennedy proposed in 1962, and as the banking legislation of 1935 apparently intended.[21] Or, the entire Board may be replaced by a single head, which is certainly feasible. If it were decided that the head should serve at the will of the President, then the Chief Executive would have complete control and responsibility. It has also been recommended that the system be streamlined by reducing the Board of Governors to a three-man board, and introducing shorter terms (6-year terms, one expiring every 2 years).[22] Under this system as compared with the immediately preceding proposal, Presidential control obviously would be less but still would be significantly greater than it is at the present tme.

My personal feeling is that the Federal Reserve should not be an independent agency. Whether one favors the establishment of a new Department of Finance with the Treasury and the Federal Reserve Board, included on an equal basis under a single Cabinet officer (the Finance Secretary), or making the Board of Governors directly responsible to the President, makes little difference. The original organization of the Federal Reserve assumed a considerably more narrow role than it presently plays in the Nation's economy. Further, it is incongruous to hold the administration responsible for employment, growth, price, and external balance goals and not give it the tools it needs to carry out its responsibilities, or give it assurance that monetary policy will be compatible with its goals. The battle for independence of the Federal Reserve does not make much sense today. Why should the determination of fiscal policy be subjected to the ballot box and monetary policy not? Is there really something sacred, mystical, or supernatural about either fiscal or monetary policy?

The strongest argument in favor of Federal Reserve independence is that an independent agency is more likely to pursue anti-inflationary measures than one responsible to the President and therefore the general electorate. But this is more a function of those who control the Federal Reserve and their banker backgrounds than of the Federal Reserve independence.

We should note that banking groups widely support the independence of the Federal Reserve. The same is true of the business world but to a slightly lesser degree. (One head of General Motors has on at least one occasion publicly condemned the Reserve's tight money policy.) Whenever any group exerts or holds power and authority (and in some cases merely prestige, as do the Reserve bank directors), or can in some manner identify itself with these things, it is reluctant to give them up—as are the bankers. There is, furthermore, little reason to believe that members of the banking community are our best-qualified individuals to determine policy (especially when their own profits are related to this policy). And finally, the very argument of the banking community that the Federal Reserve is the major defender of the value of the dollar (price stability was its major goal throughout the 1950's) is itself the very reason why the Federal Reserve should be a separate agency *within* Government to present this point of view rather than obstinately to go it alone. By all the standards of this

[21] Kennedy proposed, in addition, that the terms of the other members begin and end in odd years instead of even years, and that the salaries of the Board of Governors be raised.

[22] Bach (*op. cit.*, pp. 186–230) has suggested this.

society there is little to support an organization that has characteristics, to a greater or lesser degree, of arbitrariness, special interest group orientation,[23] and undemocratic representation.

It is a bit of an anomaly that the very conservative groups which condemn arbitrary Federal and central power are stanch defendants of the independence of the Federal Reserve. Control over monetary policy has become perhaps one of the conservatives' last vestiges of power as far as national economic policy is concerned. What would their attitude be if the Federal Reserve were similarly independent and dominated by a group of loose money people? Would they still call its independence sacred? [24]

III. COMMENTS ON RECENT MONETARY POLICY

Three comments seem relevant in the remaining space. The first is that unless monetary policy is extremely tight it will not much restrain aggregate demand. It has been traditional to teach that tight money and higher interest rates exert an important restraint on investment. But once again this has not been the case. It seems that it reduced nonresidential, nonfarm fixed investment by about two-thirds of 1 percent of 1966's $75 billion, and less than one and one-third of 1 percent in 1967. Clearly, this was one of the periods of greatest credit stringency in many decades, but the impact on business investment was very small.[25]

The second point is that monetary policy has a significant lag which reflects the time necessary to intensify monetary restrictions and the slow impact of monetary policy on the large firms which account for a high proportion of total investment. In 1966 there was at least a 6-month lag, and then the impact was small. The impact in 1967 involved an even larger lag, the restrictive impact being felt even after the restrictive policy was reversed.[26]

The third point is that the impact on housing can be described as a "shock effect." With a faster and more severe impact, housing bore much of the brunt of tight money. The question may be asked if resources were released from the construction industry and reallocated to industries whose products were in short supply. If not, greater availability of mortgage credit would have meant a higher level of residential construction. This probably could have been attained with little additional impact on the general price level, given wage and price determination in this industry.

Because of the discriminatory impact of a tight monetary policy, its small impact on business investment, the lags in its impact, and the instability caused by periods of rapid and slow growth in the money supply, this observer would like to see greater reliance placed

[23] The Congress was ultimately incensed over the Business Advisory Council. See the Keiser article on the BAC in *The Western Political Quarterly* for June 1958.

[24] I have not commented directly on the retirement of Federal Reserve stock, an audit of the Federal Reserve, and budget allocations from Congress. The rationale for retiring Federal Reserve stock is to do away with the feeling on the part of some commercial bankers that they have a partial ownership in the Federal Reserve System (which they do not have). This is a desirable step; no economic unit should have anything resembling ownership in a regulatory agency under whose jurisdiction it falls. As for budget allocations and an audit, if one argues that the Federal Reserve should not be politically independent, then he should also argue that it not be financially independent. Once this is accepted the Government audit follows logically. As far as I am concerned the Federal Reserve should not refuse a Government audit even under existing organization. To do so merely arouses suspicion.

[25] See Jean Crockett, Irwin Friend, and Henry Shavell, "The Impact of Monetary Stringency on Business Investment," *Survey of Current Business*, August 1967, pp. 10–27.

[26] For smaller firms the lag was shorter and the impact "somewhat severe."

on fiscal policy. If we are serious about our stabilization objectives we should grant the President discretionary authority to raise or lower personal and corporate income taxes by 12.5 percent, and further grant him authority to suspend the investment tax credit. Standby controls over consumer credit should be provided for with respect to downpayments and repayment terms for mortgages. In the future, as in the past, there will be spurts in investment that will result in inflationary pressures. Some thought should be given to alternative techniques of controlling fixed and inventory investment. Monetary policy has had to carry too large a burden in recent years.[27]

STATEMENT OF RAYMOND P. KENT, NOTRE DAME UNIVERSITY

I. QUESTIONS ON MONETARY POLICY GUIDELINES AND OPEN MARKET OPERATIONS

1. On policy coordination: It is essential for our national economic welfare that a program coordinating fiscal, debt management, and monetary policies be set forth at the beginning of each year for the purpose of achieving the goals of the Employment Act. Such a conclusion is not meant to imply that planning and programing for periods much longer than a year should be precluded. On the contrary, longer term planning and programing should be encouraged, but, even so, annual programs would still be desirable for their shares, so to say, in the longer range plans.

2. On responsibility for programs: Full power and responsibility for drawing up the program should unquestionably be assigned to the President. Divided power and responsibility can only lead to confusion in programs and policy goals, uncertainty about coordinated action, and agency decisions at cross purposes with one another. The policies and actions of the Federal Reserve System, in particular, should be made to conform at all times with the mandates of the President's program; but this principle should also apply to the policies and actions of other Federal agencies in the financial sphere such as the Federal Home Loan Bank Board and the Farm Credit Administration.

3. On monetary policy guidelines:

A. Money supply versus other variables as targets.—As a means of achieving the goals of the Employment Act, monetary policy should be aimed at control of the quantity of money in circulation defined as demand deposits and currency. (For this definition, more specifically, I am satisfied with the Federal Reserve method of counting "demand deposits adjusted" and "currency outside banks," with both seasonally adjusted.) Detailed and painstaking studies by leading monetary economists reveal a close relationship between the rate of growth in the money supply and the rate of growth in general business activity—a much higher degree of correlation than has been found between general business activity and other possible "targets" such as interest rates, bank credit, and free reserves. The close relationship of the rate of growth in the stock of money and the rate of growth in general busi-

[27] Consideration should be given to the height to which American society wants interest rates to rise, their social and economic impact, including the influence on income distribution.

ness activity has surely been demonstrated in the low growth rates in the stock of money and real GNP and the high levels of unemployment in most of the decade of the 1950's—a decade of generally restrictive monetary and fiscal policies—by contrast with the high growth rates in the stock of money and real GNP and the declining levels of unemployment of the period since February 1961.

The Federal Reserve System has sufficient capacity to control the rate of growth in the stock of money by means of its open-market operations with their direct effects upon the volume of commercial bank reserves. The adequacy of the open-market instrument has surely been proved by the success of the Federal Reserve in holding down the rate of expansion in the stock of money in the 1950's, speeding up this rate in the early 1960's, and stopping and, indeed, reversing it in the summer of 1966. Its adequacy has been repeatedly proved despite the effects upon bank reserves of gold flows, borrowing at the Federal Reserve banks, shifts in Treasury balances between the Federal Reserve and commercial banks, and large changes in other "factors of increase" and "factors of decrease."

B. Specification of guidelines.—The guidelines of monetary policy should be specified in terms of the stated goals of the Employment Act: "maximum employment, production, and purchasing power." I take "maximum employment" to mean the full employment of all persons who are able and willing to work at prevailing wage and salary levels, with some allowance for "tolerable" unemployment probably not to exceed 3 percent of the civilian labor force; "maximum production" to mean the maintenance of a good rate of economic growth, probably in the vicinity of 4 percent a year compounded; and "maximum purchasing power" to mean the prevention of persistent price-level movements upward or downward exceeding, say, 2 percent a year in wholesale prices and 3 percent a year in consumer prices.

C. Indexes for guidance.—In accordance with my answer to question I–3–B, the indicators to which the President and the monetary and fiscal authorities (including, of course, the Congress) should give most attention are the data on employment and unemployment as published by the Bureau of the Census and the Bureau of Labor Statistics, the growth rates of real GNP as indicated in the GNP data published by the Department of Commerce, and the indexes of wholesale and consumer prices as published by the Bureau of Labor Statistics. In general, these are coincident indicators or are closely related to coincident indicators as classified by the National Bureau of Economic Research, except for its deletion of the prices of farm products and foods from the wholesale price index and its judgment that the Consumer Price Index shows no consistent pattern of leads, coincidence, or lags.

In trying to arrive at judgments on the basis of these indicators, the authorities should, of course, give major attention to their detailed breakdowns, for the details will surely reveal that some of the causes of failure to achieve "maximum employment, production, and purchasing power" are not amenable to correction by actions in the sphere of monetary and fiscal policy, that efforts toward correction by such actions would be likely to have harmful results, and that, therefore, these causes of failure must be attacked by other means. The authorities would surely conclude, for example, that easy monetary and fiscal policies will not create jobs for teenagers if their distressingly high

rate of unemployment is truly attributable to their lack of skills, as is often alleged; for blacks, if the relatively high rate of unemployment among them at all age levels and for both sexes is due to prejudice; or for men and women over 45, if pension programs rather than lack of skills account for their disproportionately high numbers in the ranks of the long-term unemployed. As further examples, they would surely conclude also that tight monetary and fiscal policies would be most unlikely to cause any significant reversal in the high rise since 1957–59 in the costs of medical care and in the interest-rate element among the costs of homeownership, as components of the Consumer Price Index, and the disproportionately high rise in the prices of processed foods and feeds, hides and leather, and machinery and equipment, as components of the wholesale price index.

The authorities must recognize, too, that there is some contradiction among the stated goals of the Employment Act, especially in that strong monetary and fiscal policy actions to accelerate the growth rate of real gross national product or to lower the level of unemployment are likely to increase inflationary pressures, and that strong actions to restrain inflationary pressures are likely to result in lowered growth rates in real gross national product and higher levels of unemployment. In my opinion, therefore, the idea that there must be some "trading off" among these goals is a valid one. Nevertheless, I also think that the alleged necessity for "trading off" is often exaggerated—that some policymakers (and some scholars) are too ready to accept low gross national product growth rates and relatively high levels of unemployment as the "price" that must be paid for containing inflation. Since about 1952, indeed, too many policymakers (and scholars) have been inclined to greatly exaggerate the threat, dangers, and consequences of inflation, as if it were the greatest of economic evils, whereas it should be obvious that our most difficult domestic problems, such as those of slums and ghettos, are largely a consequence of high levels of unemployment and, as it were, the tolerant attitude of policymakers toward these high levels.

Quite in accordance with these views, I think, is the proposition that the stock of money should be increased at a reasonably steady rate. Increases will surely be needed continually for the absorption of constant additions to the labor force and for the creation and operation of new capital facilities, and it would surely be most advantageous to both government and business planners to have the assurance that the increases in the money stock will be provided at not less than a stipulated rate year after year, rather than by fits and starts, as has been our whole experience in the past. I do not know what this rate should be, but I think that it would be quite safe at the outset to say that it ought to be not less than 2 percent a year. There is no reason why we cannot experiment, making changes in the rate as we see what happens. Mistakes will be made, but their consequences should be much less serious than the consequences of utter uncertainty about what the monetary authorities will do in adding to *and subtracting from* the stock of money.

4. Concerning debt management policy: I understand debt management to be management of the total national debt and its components as they stand, so that decisions about changes in the size of the debt are excluded as being more appropriately attributed to fiscal policy.

As thus understood, debt management policy can be made to be quite potent in contributing to the goals of the Employment Act by means of variations in the types and features of the Treasury securities in which the debt takes form. Such variations can be an important means of supporting and giving effect to properly formulated monetary policy. If Federal Reserve open-market buying, for example, leads only to the building up of commercial bank excess reserves, the Treasury can persuade the commercial banks to proceed with money creation by offering them securities having features specially designed to be quite attractive to them, and if, on the other hand, there are heavy demands for commercial bank loads at times when they have limited lending capacities, the Treasury can avoid adding to these demands by offering securities not likely to be attractive to them but attractive to individual and nonbank institutional investors. Among individual and nonbank institutions, the Treasury can importantly influence the availability and flow of funds by offering securities specially tailored to appeal to given groups while using the proceeds of their sales to retire securities held by other groups. Especially important is the capacity of the Treasury to cause shifts in the supplies of short-, intermediate-, and long-term funds for all purposes by simply changing the time structure of its own debt, as by replacing maturing short-term obligations with new intermediate-term obligations. (It should be added that this latter capacity would be greatly strengthened if Congress could be persuaded to remove the present unrealistic restriction on the interest rates that the Treasury may set upon its long-term obligations.)

It is important to emphasize that debt management is always available as a policy instrument; since the Treasury must constantly "roll over" its debt on account of maturities, it has numerous opportunities to influence economic developments by changes in the types and features of its securities, including their maturity patterns.

5. Concerning open-market operations:

A. Open-market operations for defensive purposes.—In addition to the major use of Federal Reserve open-market operations directed to the goals of the President's economic program, it is essential that they also be employed for "defensive" or "road-clearing" purposes. Without such defensive use, commercial bank reserves would often be subject to wide gyrations on account of shifts in Treasury balances, variations in the float, withdrawals and deposits of currency by the general public, and changes in other "factors." Moreover, Treasury financing would be made much more difficult and probably more expensive in the absence of Federal Reserve action in the market to assure the success of its flotations, and, between flotation dates, "disorderly conditions" in the market for Treasury securities could continue for considerable periods of time. All this would tend to have unsettling and distorting effects upon flows of funds among financial institutions and in financial markets and upon many kinds of decision-making about lending and borrowing. Although, therefore, the Federal Reserve might aim at increasing the stock of money by a given percentage in a given period of time, and although it might succeed in this aim eventually, its efforts from month to month or from quarter to quarter would be likely to suffer frequent frustration because of unwanted changes in reserves resulting from changes in factors over

which it has no direct control. On the other hand, it should be possible for the Federal Reserve to effect a reasonably steady expansion in bank reserves at a given rate should it manage its open-market operations specifically toward this objective while freely taking additional actions to offset other reserve-changing developments that would tend to defeat this objective.

B. Open-market operations as sole means of implementing monetary policy.—Our experience since the Federal Reserve-Treasury "accord" of 1951 has demonstrated quite clearly, I think, that Federal Reserve open-market operations are quite adequate in themselves to control the stock of money available in the economy through control of commercial bank reserves. In the whole period since 1951 there have been relatively few changes in reserve requirements and discount rates —a paucity of changes that would seem to prove the unimportance of these devices for monetary control. On the other hand, the fact that the Federal Reserve succeeded in maintaining tight money conditions during much of the period from 1953 through 1958 and through most of the period from 1966 to the present time, chiefly by means of open-market operations, indicates the potency of this instrument.

The huge holdings of Treasury obligations of the Federal Reserve banks are far in excess of the quantity that the System would ever need to sell to prevent excessive expansion in commercial bank reserves, and it can always find buyers by simply reducing the price at which it offers Treasury obligations for sale. At the same time, there are huge amounts of these obligations in the hands of non-Federal Reserve holders available for purchase by the System, and it can always find sellers by raising the price that it is willing to pay.

C. Use of other monetary policy instruments.—(*a*) Rediscounting: "Rediscounting" or borrowing at the Federal Reserve banks by commercial banks results in instantaneous increases in the reserves of the latter and therefore in their capacity to add to the stock of money. But such increases can easily be offset by open-market sales of Treasury obligations by the Federal Reserve should they be expected to defeat monetary policy goals. At the same time, access to the discount window is often of great importance to individual commercial banks as a means of adjusting cash positions that have been drained by large seasonal outflows of deposits or extraordinary outflows of random character, and it can be virtually the sole source of liquidity for numerous institutions—for nonbank financial institutions as well as commercial banks—in times of financial crisis. At the very least, the role of the central bank as the "lender of last resort" should surely be preserved, for this role is essential for public confidence in the capacity of all our financial institutions (with the exception of those few that are managed recklessly) to meet their obligations to pay.

(*b*) Changes in reserve requirements: The authority of the Federal Reserve Board to change reserve requirements should be eliminated. In view of the potency of open-market operations, this power is not needed for effective monetary control. Reserve requirements should be fixed by federal law at uniform levels for all commercial banks regardless of their status as national banks, State member banks, State nonmember insured banks, or State nonmember noninsured banks, and regardless of their location and the volume of their holdings of interbank deposits. The reserve requirement for demand deposits

should probably be higher than for time deposits, but surely at a level much lower than the present requirements as imposed by the Board of Governors—say about 6 or 8 percent or, at most, not in excess of 10 percent. With reserve requirements at one of these lower levels, monetary control through open-market operations would be just as effective as at present. There is no sense in requiring any class of financial institutions to keep idle cash balances equal to 16½ or 17 percent of their deposits of a given type, or even equal to 12 or 12½ percent. Cutting the reserve requirement sharply would enable the commercial banks to expand the proportion of their earning assets to total assets, and this should result in lowered interest rates.

(*c*) Regulation Q: The authority of the Federal Reserve Board to set maximum interest rates that member banks may pay on savings and other time deposits should be eliminated, although the legal provisions for the nonpayment of interest on demand deposits, as our principal kind of money, should be retained. I would also recommend the elimination of the authority of the Federal Deposit Insurance Corporation and the Federal Home Loan Bank Board to set interest and dividend rates on time deposits and share accounts respectively. But, much beyond these recommendations, I would also recommend the elimination of all legal prescriptions of maximum interest rates on loans of all kinds, including maximum rates prescribed by the Federal Housing Administration and the Veterans Administration on loans to be insured or guaranteed. (I realize, of course, that giving effect to this sweeping recommendation would require the cooperation of State legislatures as well as action by Congress; and I also realize that, by way of exception, some kinds of rate safeguards should be retained to protect the poor and weak from gouging by loan sharks and fly-by-night and other disreputable financial institutions.)

As a kind of price fixing by Government, interest rate regulations applicable to deposits, share accounts, loans, guaranties, and the like distort the flow of savings in the economy, often tending to channel them in arbitrary ways to uses much less productive than other freely chosen uses would be. Often, indeed, it appears that the rate setters have only vague ideas about their objectives when decreeing higher or lower rates that may be paid or charged, and much vaguer notions about whether or not the decreed changes will contribute to these uncertain objectives.

D. Detailed reports of the Federal Reserve Board.—If, in one way or another, the Federal Reserve Board is required to make its monetary policy closely conform with the overall economic program of the President, there would seem to be no need for it to make quarterly reports to Congress, detailed or otherwise, on what it has been doing and what it plans to do. The President might want such reports to be assured that Federal Reserve policy is and will be in close rapport with his own policy, but such reports could be asked for at his discretion and not necessarily according to a specific periodical schedule. If, therefore, Congress should want detailed periodical reports on what is going on and what is being planned, it would better direct the President to make these reports, since, in the purview of H.R. 11, it is he who is to have overall responsibility for planning and coordination.

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E. Observers at meetings.—Since H.R. 11 provides for the abolishment of the Federal Open Market Committee, there would be no meetings of such a committee for representatives of Congress, the Treasury, and the Council of Economic Advisers to attend. Accordingly, I take the question to be an inquiry into the advisability of permitting these representatives to attend meetings of the Federal Reserve Board which, also in the purview of H.R. 11, is to have full power over open-market operations (but subject, of course, to the overriding authority of the President). I think that representatives of the agencies mentioned should generally be excluded from the regular, formal meetings of the Board. Although the Board will be expected to tailor its monetary policy at all times to conform with the President's economic plan, it should surely retain a posture of "independence" in its advisory role. It should be quite free to advise the President to adopt a policy different from one originally chosen or to modify the direction of one already adopted, and this freedom would be gravely abridged if representatives of Congress, the Treasury and the Council had a *right* to present themselves at its regular, formal meetings whenever they might choose. On the other hand, there would be likely to be many informal meetings between members of the Board and representatives of Congress and many executive agencies, including the Treasury and the Council—meetings of the type of "informal consulting arrangements" referred to in question I–2.

II. APPRAISAL OF THE STRUCTURE OF THE FEDERAL RESERVE

1. Retirement of Federal Reserve bank stock: I strongly favor the proposal for the retirement of Federal Reserve bank stock. Its ownership by the member banks gives the impression that they have a proprietary interest in the Reserve banks and that, therefore, the Reserve banks should be especially concerned about the interests and welfare of the member banks, as in the case of the stockholders in other classes of stock corporations. And, of course, the retirement of the stock would in no way impede the operations of the Reserve banks, since these operations are in no way dependent upon this member-bank investment.

In the matter of proprietorship, the Subcommittee on Domestic Finance might also consider the advisability of making the boards of directors of the Reserve banks more representative of the broad range of interests in the whole of economic society. In my opinion, there is no good reason why the commercial banks of a district should always have three of the nine board positions, why another three of these positions should be held by businessmen of the district (also chosen by the member banks and presumably sympathetic to their interests), and why only three places should be reserved for representatives of the "public interest." All members of the board of directors of each Reserve bank, whatever their number, should be there to advance the public interest.

2. Members of the Federal Reserve Board and their tenure: Reducing the number of members of the Federal Reserve Board to five and their terms to 5 years would be a step in the right direction, but decidedly a weak step. Although directed by Congress to coordinate its monetary policy with the economic program of the President, the Board could still assert its "independence," refuse to cooperate in fact

if not in word, and, indeed, take actions that would undercut the President's program. Yet the President would not gain control of the Board, in the sense of having a majority of its members as his appointees until more than half of his term had expired. Moreover, his appointees, with assurances of a 5-year tenure, might refuse to do his bidding.

The "independence" of the Federal Reserve Board is a ridiculous anachronism. It is absurd that the very important power of monetary control should be entrusted to an "independent" agency and thus deliberately withheld from the President who has responsibility for virtually everything else of importance in the Federal executive sphere, including the power of deciding upon the use of nuclear weapons. A minimum requirement for the achievement of the "grand aim of H.R. 11" is to provide that all members of the Federal Reserve Board, whatever their number, shall serve at the pleasure of the President. Only in this way can there be final and complete assurance that Federal Reserve monetary policy will be in full accord with the President's economic program. For some assurance on job security during "good behavior" and for continuity in administrative know-how, the members of the Board should be given overlapping terms of 5 years or even longer, as Congress might decide, but the President's power to terminate any member's tenure at any time should be absolute. Claims that uncertain tenure would make it impossible to get competent people to accept appointments to the Board are clearly disproved by the acceptance of Cabinet appointments by many distinguished and competent persons even though they know that they will serve at the President's pleasure.

3. Term of chairman of the Board: If the provision of H.R. 11 for a board of five members having 5-year terms is adopted, the President should unquestionably have the power to designate which member shall be chairman, as well as to switch chairman whenever he so desires. By appointing a member of the Board shortly after taking his own office, and naming this member as chairman, the President would have at least one spokesman on the Board, and precisely the member having the most prominent—and, probably, the most influential—position. But the President should be enabled to exercise this dual appointive power—member and chairman—by the end of January rather than at the end of June as provided for in H.R. 11. Why the delay of more than 5 months after the President himself takes office? Likewise, the President should have the power to name another member as vice chairman—I see no reason why the chairman should have this power in the first instance, even though he could be expected to name a vice chairman satisfactory to the President.

4. Audits by the Comptroller General: It has long been my impression that the internal housekeeping of the Federal Reserve System is well managed, that its income is properly accounted for, that expenditures are kept within reasonable bounds, and that there are careful audits throughout the structure. In the matter of auditing, I doubt that the Comptroller General has such special competence that he could improve on what is already being done in the matter of safeguards or that he could propose meaningful changes in housekeeping procedures of significant scope. (I certaintly do not know why he should be given the power to look into bank examination reports—I can see

no connection between this kind of proposed power and the "grand aim of H.R. 11.")

5. Appropriations for operating expenses: It has also been my long-term impression that the Federal Reserve System has been reasonably careful and conservative in its spending policy and that it can be trusted to continue to dip rather sparingly into its regular flow of interest income to meet its expenditures. If this impression is not seriously at fault, therefore, there appears to be no urgent reason for requiring the System to go to Congress annually for appropriations. It would be rather painful to behold quibbling between Federal Reserve people and members of appropriations committees about a few thousands of dollars for educational grants to Federal Reserve staff members or for the publication of the excellent "monthly reviews" of 11 of the Reserve banks (quibbling as illustrated in *The Federal Reserve System After 50 Years*, 1964); and it would be even more painful to have an annual period of anxiety about whether the System would have to shut up shop temporarily because of the failure of Congress to get its "money bills" passed before the beginning of the fiscal year.

III. COMMENTS ON RECENT MONETARY POLICY

It was inexcusable for the Federal Reserve System to raise discount rates in December and to proceed in its move toward tight money in spite of the public plea of the Secretary of the Treasury that this action be postponed at least until after the publication of the President's budget message in the following month. We thus had the disgraceful spectacle, as it were, of the President bending his knee to the "independent" Board of Governors and being rebuffed—a spectacle all the more disgraceful because the economic situation was obviously such that a delay of a few weeks would not have made much difference. It was likewise inexcusable for the Federal Reserve to produce the "credit crunch" of the summer and fall of 1966, with its contraction of the stock of money and near-panic conditions in financial markets. The abruptness of the change in direction of monetary policy at that time would be hard to justify, and the violence with which the switch was made remains almost unbelievable. Aside from these two episodes, it is rather difficult to criticize recent Federal Reserve policy, not because it has been above reproach, but because we do not know what it was designed to do.

STATEMENT OF LEON H. KEYSERLING*

WASHINGTON, D.C., *August 30, 1968.*

Hon. WRIGHT PATMAN,

Chairman, Subcommittee on Domestic Finance, House Committee on Banking and Currency, U.S. House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: I welcome the opportunity, accorded to me by your letter of July 9, 1968, to comment upon H.R. 11, introduced by you on January 10, 1967, and also to respond to the questions transmitted with your letter. I appreciate the broad latitude of the answers

*Former Chairman, Council of Economic Advisers. Consulting economist and attorney; President, Conference on Economic Progress.

which your letter and the accompanying questionnaire suggest, and will be guided accordingly.

As is well known to you, to members of the House Committee on Banking and Currency, to the Congress at large, and to the public interested in these matters, I have been intensely and increasingly critical of the operations and policies of the Federal Reserve System since 1951 or thereabouts—and increasingly so after my departure from the Government in January 1953 relieved me of some of the restraints necessarily imposed by Government service. I believe that the degree of "independence" enjoyed by the Federal Reserve System since the so-called accord of 1951 has been inconsistent with the original intent of the act creating the System and the early history thereunder, increasingly anachronistic in the modern economy and the modern world, and utterly inconsistent with the purposes of the Employment Act of 1946. I believe that the actual policies of the Federal Reserve System during the past decade and a half have in general been economically wrong and socially indefensible, and have wrought immense if not incalculable damage over the years.

I, therefore, welcome and am in accord with the basic purposes of H.R. 11, and also in accord with those of its specific provisions upon which I feel technically competent to pass judgment. I am glad to note plans to hold hearings on H.R. 11 later this year or early next year, and hope to be accorded the opportunity to participate in these hearings, toward further development of what I am able to set forth now.

My method at this time will be to treat together the questions on monetary policy guidelines and open market operations, and the provisions of H.R. 11, as these matters seem to me rather inseparable; and to follow this phase of my discussion with a broad evaluation of economic and related social trends as these have been impacted upon so adversely by the operations and policies of the Federal Reserve System. Although this broad evaluation may run somewhat beyond the scope intended by the questions submitted to me, I feel that it will shed much light upon the fundamental issues posed by these questions.

QUESTIONS ON MONETARY POLICY GUIDELINES, OPEN MARKET OPERATIONS, AND H.R. 11

Question I (1). I am firmly convinced that a program coordinating (or at least dealing with) fiscal, debt management, and monetary policies should be set forth at the beginning of each year toward achieving the goals of the Employment Act. I shall indicate below why I have distinguished between "coordinating" and "dealing with." I might add that the policies referred to should aim toward stable growth, not just "stabilization."

Question I (2). I firmly believe that the President should utilize his Economic Reports, at the start of each year, for the purpose of developing the above-mentioned policies.

Comment on related portions of H.R. 11.—Section 10 of H.R. 11, dealing with coordination of monetary policies and programs, in effect, seems to me to provide that all of the basic operations and policies of the Federal Reserve System shall stem from and be consistent with the programs and policies of the President. And section 16 of H.R. 11 provides that the programs and policies set forth by the President

under the Employment Act of 1946 shall include his recommendations "on fiscal and debt management and policy and guidelines concerning monetary policy, domestic and foreign, including growth of the money supply as defined by him." These two sections of H.R. 11, read in conjunction, seem to me clearly to vest unequivocally in the President the basic current *policy* functions of the Federal Reserve System, thus reducing that System to the role of administering such policies in detail. Although these are very drastic proposals, I am not prepared to express objection to them, in view of my strong feeling that monetary and other basic national economic policies should not merely be "coordinated" loosely but indeed should be integrated into one overall national economic policy.

But as the foregoing proposals are so drastic, practical considerations might make it worthwhile to consider, *inter alia*, an alternative or modified approach. At the very minimum, in my view, section 16 of H.R. 11 should be retained; the Federal Reserve Board should be required to prepare each year a statement as to the degree of its intent to conform its operations and policies to the programs and policies set forth in the Employment Act; [1] and this statement as prepared by the Federal Reserve Board should be transmitted by the President to the Congress as an adjunct to his Economic Report. If this approach were to be adopted, section 10(b) of H.R. 11 should be modified somewhat by inserting "insofar as feasible" after the word "conducted" in line 16. Paragraph 10(c) of H.R. 11 should be retained. The net consequence of this approach is that a very significant step toward complete integration of basic policies and programs would be obtained, and the Congress would be continuously informed (as would the President) as to the degree of integration actually being achieved. If this did not turn out to be a satisfactory approach, the more drastic approach set forth above would become eminently desirable (although, as I have said, I do not oppose this more drastic approach even now).

Questions I (3A–F). I believe that the policies and programs which the President would set forth in the Economic Report under section 16 of H.R. 11 should attempt to establish some relationship between targets for economic growth and targets for the growth in the money supply. My reason is that the trends in the money supply powerfully influence economic growth (as I shall indicate later on in this discussion). This, I believe to be most important. I also believe that an effort along these lines would necessitate some treatment of "target variables" with respect to interest rates, bank credit, and the other specialized aspects of monetary policy enumerated in question 3A. But I do not believe that legislation or other congressional action at this stage should attempt to establish methods or criteria for setting such targets, nor attempt precise appraisal of the relative weight to be attached to these various "target variables". Rather, I think that these more specialized issues should be worked out pragmatically, following upon immediate initiation of the more drastic or less drastic approach which I have discussed above in my answer to questions I (1) and (2). Upon further study and reflection, I may have more refined answers to this phase of the questionnaire.

[1] The Federal Reserve Board would do this on the basis of preliminary drafts of the intended Economic Report.

Question I (4). The management of the national debt is an integral and vital aspect of an integrated fiscal and monetary policy, toward the end of a unified and optimum overall national economic policy. One of my basic objections to the operations and policies of the Federal Reserve System is that they have, from time to time, played havoc with a rational debt management policy, and indeed in some respects subordinated the Treasury (as an arm of the President) to the Federal Reserve System. Also, debt management, as now affected by the Federal Reserve System, interpenetrates with interest rates, the money supply, economic growth, and social values. However, for reasons stated above, I do not think the time is yet ripe to develop by legislation or other congressional action any precise standards or criteria for debt management. Instead, debt management should be brought more effectively within the control of the Treasury and the President by the means discussed in my answers to questions I (1) and (2).

Questions I (5A–E). What I have said above applies in general to these five questions, but I will make a few comments nonetheless. As to (A), once it is firmly established that the programs and policies of the Federal Reserve System shall be consistent with and in aid of the program and policies of the President in the Economic Report, I think that open market operations might at times be used for defensive purposes to counteract transient influences. However, I am firmly convinced that a unified and optimum overall economic policy should be adjusted mainly toward long-range goals, rather than attempt to shift with the winds. I think that adherence to this long-range perspective will improve our record with respect to both stability and growth; many of the instabilities have occurred or been aggravated because we have not adequately thought through a long-range policy and program. As to (B), I do not believe that monetary policy can be adequately implemented solely by open market operations. As to (C), I would not suggest refined answers at this time, for reasons fully stated above. I think that Sections 10 and 16 of H.R. 11 in their present form, or in the form of the modified alternative which I set forth above, would fully implement the treatment of the problems enumerated in this question. Beyond this, I believe, and have often urged, that the Federal Reserve System should make more use of selective measures, and not rely so exclusively upon blunderbus measures which throw out the baby with the bath, or hurt what ought to be helped while helping or ignoring what ought to be restrained. As to (D), I have already indicated that I favor section 10(c) of H.R. 11, although it might be that semiannual reports would be adequate. As to (E), I think that implementation of this proposal would be beneficial.

Question II. I heartily favor all of the five proposals listed under this question and incorporated in H.R. 11, bearing upon changes in the structure of the Federal Reserve System, even though I do not feel technically qualified to pass in detail upon the proposal to retire Federal Reserve bank stock. These proposals seem admirably designed to delimit appropriately the so-called "independence" of the Federal Reserve System, and to subject its operations and policies more effectively to the policies of the Congress and the President.

I now turn, for reasons stated at the outset, to an evaluation of economic and social trends, followed by depiction of how these trends have been injuriously affected by Federal Reserve operations and policies during the past decade and a half. Without such empirical

evaluation and depiction, all that I have said above, and the proposals in H.R. 11, are vulnerable to a wide variety of spurious but superficially appealing objections.

ECONOMIC AND SOCIAL TRENDS, 1953–67, AND GOALS FOR 1972 AND 1977

The method followed in the ensuing discussion is to examine the deficient rate of real economic growth during 1953–67, and even during 1960–67; analyze the causes of this deficient performance; quantify the economic and social significance of this deficient performance; and then trace the intimate relationship between this deficient performance and the wayward and erroneous monetary policies of the Federal Reserve System during the past decade and a half.

Productivity gains, and their relationship to economic growth

The real rate of economic growth is determined basically by the rate of productivity gains in the private economy and the rate of advance in man-hours of employment.

The actual average annual rate of productivity gain throughout the private economy is determined in large measure by investment in technological progress, advances in the skills of employees, and improvement in managerial talent. But this actual rate of gain is also determined by the condition of the economy. If the economy is suffering from substantial economic slack, all empirical observation shows that the actual rate of productivity gain is considerably lower than the potential gain which would be translated into reality if the economy were operating at optimum use of resources.

To illustrate: The average annual rate of growth in output per man-hour or productivity for the entire U.S. private economy was 0.4 percent during 1910–20; 2.3–2.4 percent during 1920–40; and 3.2 percent during 1940–55. It fell to 2.4 percent during 1955–60, in consequence of the two economic recessions and the very low average annual rate of real economic growth during this period. Under conditions of relatively high real economic growth during 1960–66 the average annual growth rate in productivity was 3.7 percent, indicating resumption of the long-term trend toward an *accelerating* rate of productivity growth. But in 1966–67, when the rate of real economic growth dropped suddenly to only about one-half of what it had averaged during 1960–66, the productivity growth rate fell drastically to 1.6 percent.

Viewing the 3.2 percent actual average annual rate of productivity growth during 1940–55, and the long-term tendency toward *acceleration* under conditions of reasonably full resource use, it is extremely conservative to estimate that the average annual growth rate in the productivity potential was at least 3.2 percent during 1947–60, or during 1953–60. The extraordinarily conservative nature of this estimate is underscored by the fact that the actual average annual growth rate in productivity was 4.0 percent during 1947–53.

And viewing the 4.0 percent actual average annual rate of productivity growth during 1947–53, and 3.7 percent during 1960–66 despite large economic slack in some years, it is also extremely conservative to estimate that the average annual rate of growth in the productivity potential was close to 4.0 percent during 1960–67. Certainly, looking at the trends toward *acceleration* in the productivity growth rate under reasonably good economic conditions, and the actual rates of growth

during 1947–53 and 1960–66, it is reasonable to estimate that from 1967 forward the average annual growth rate in the productivity potential should not be less than 4.0 percent.[2]

Even factoring in (by way of assumption) an average annual growth in employment of only 1 percent during 1953–67, which is an extraordinarily low estimate in view of the greatly excessive rate of unemployment during that period, the combination of this allowance with only a 3.2 percent average annual advance in the productivity potential (much lower than the trend for 1953–67 as a whole) results in the very conservative estimate that the needed or optimum average annual rate of real economic growth during 1953–67 was at least 4.2 percent. Second, combining this very conservative 1-percent employment-growth figure with the close to 4-percent average annual growth rate in the productivity potential during 1960–67, the needed or optimum average annual real economic growth rate during 1960–67 was about 5 percent. Third, utilizing again this extremely conservative 1 percent factor for the average annual growth in employment during the years ahead, and combining this with the estimated 4 percent average annual growth rate in the productivity potential, it appears clear that the needed or optimum average annual real economic growth rate from 1967 forward should be not less than 5 percent, and should be about 6 percent during 1967–70 toward restoration of maximum employment within that year, thus resulting in an average annual real economic growth rate of about 5.3 percent during 1967–77 as a whole.

Deficient real economic growth rates, 1953–67 and 1960–67, and impact upon unemployment

The average annual real economic growth rate was only 3.5 percent during 1953–67 (contrasted with at least 4.2 percent needed), and only 4.7 percent during 1960–67 (contrasted with about 5 percent needed). Moreover, the 4.7-percent average annual rate during 1960–67 was powerfully influenced by the average annual rate of 5.2 percent during 1963–67, which in turn was powerfully influenced by the stimulation of the massive tax cuts in 1964. It is therefore extremely significant to note that, despite these massive tax cuts, their stimulative impact was of rather short duration, with the real economic growth rate from 1966 to 1967 falling to the abysmally low figure of 2.5 percent. According to most forecasters as of now, the real economic growth rate from 1967 to 1968 is set somewhere in the neighborhood of 3 percent, or a little better. The reasons why the massive tax cuts were not more successful in terms of real economic growth will be disclosed shortly in this discussion.

Meanwhile, it should also be noted that the average annual real economic growth rate of 4.7 percent during 1960–67 was considerably lower than the 5.1 percent average annual rate during 1950–53, a period of limited war when our productive resources were not overstrained, when unemployment was somewhat higher than it should have been, and when our growth potentials were considerably lower than in more recent years. The real economic growth rate averaged 4.7 percent during 1922–29, when technology, automation, know-how, and other factors bearing upon our economic growth potentials were

[2] See chart 1. (The charts referred to in this and following footnotes appear at the end of the statement.)

nowhere nearly as favorable as during 1960–67, a period when the imperatives calling for optimum growth were much more insistent than during the 1920's.

The most significant single test of the inadequate real economic growth rate during 1960–67 is that full-time unemployment averaged 3.8 percent during 1967, contrasted with the 2.9 percent which might be regarded as consistent with maximum employment. Indeed, considering the dire consequences of excessive unemployment today, we probably should make every reasonable effort to reduce full-time unemployment to about 2 percent. It stood at only about 1 percent at some times during World War II. Taking into account the full-time equivalent of part-time unemployment, and the concealed unemployment due to those not entering the civilian labor force because of scarcity of job opportunity and therefore not counted as unemployed in the official figures, the true level of unemployment during 1967 averaged 5.6 percent. This contrasts with the 4.1-percent level which might be deemed consistent with maximum employment; 3 percent would be a much better target, under current and foreseeable circumstances.

Whatever may be the causes of unemployment—"structural" or otherwise—more employment requires more total outlays, or a higher GNP. Thus, lowered unemployment requires a higher rate of economic growth. There is much confusion, among economists and others, on this subject.

Still another test of the inadequate economic growth rate during 1960–67 is that actual GNP in 1967 was about $78.4 billion, or about 9 percent, below maximum employment. Much lower estimates by others of the GNP "gap" in 1967 result from inadequate analysis of the growth rate in the productivity potential, from erroneous acceptance of a 4-percent level of full-time unemployment as being consistent with maximum employment, and from projections starting from the base year 1957 instead of the base year 1953, on the erroneous assumption that we were operating under conditions of reasonably full resource use in 1957, although full-time unemployment was 4.3 percent and the true level of unemployment 6.7 percent in that year.[3]

Costs and causes of the deficient real economic growth rate

Based upon the very conservative estimate that the real economic growth rate should have averaged annually 4.2 percent during 1953–67, the actual 3.5-percent performance caused us to forfeit in the aggregate an estimated $836 billion in total national production, and to forfeit an estimated 36.5 million man-years of employment opportunity. Further, analysis of the component parts of these deficiencies indicates that deficiencies of $619.7 billion in consumer expenditures and $44.6 billion in Government outlays at all levels for goods and services came to almost 80 percent of the aggregate national production deficiency of $836 billion. The aggregate deficiency in consumer outlays correlated with a forfeiture of $10,250 in average family income during 1953–67 as a whole. The deficiency in public outlays explained the virtual starvation of some of our most urgent domestic priorities. The deficiency in gross private business investment (including net foreign), aggregating $171.7 billion, was in the main derivative

[3] See chart 2.

from the deficiencies in personal consumption expenditures plus Government outlays for goods and services.[4]

The conclusion that the deficiencies in gross private business investments stemmed in the main from the deficiencies in personal consumption expenditures and Government outlays for goods and services is fortified by examining in some detail the relative trends in various types of economic activity, and spending during 1961–67 (analysis of the period 1953–60 would lead to the same conclusions). Each slowdown from a reasonably high though not optimum economic growth rate occurred when the ultimate demand for goods and services, in the form of private consumer spending plus Government outlays, became grossly inadequate to absorb the enlarged production capabilities resulting in the main from private investment in plant and equipment. Whenever this condition became sufficiently apparent, there were very sharp cutbacks in plans for investment in plant and equipment. And these cutbacks, combined with the more enduring deficiencies in private consumer spending plus Government outlays, led into the periods of economic stagnation (or recession).

Specifically, private consumer spending during the period 1961–67 as a whole rose only 33.4 percent, wages and salaries only 36.8 percent, labor income including fringe benefits only 41.9 percent, farm proprietors' net income only 2.1 percent, and Government outlays for goods and services only 41.5 percent. But private investment in plant and equipment rose 63.9 percent, corporate profits 45.1 percent, personal dividend income 52.7 percent, and personal interest income 72.4 percent.

From 1966 to 1967, the very slight downward trend in private investment in plant and equipment, and the substantial downward trend in corporate profits, were responsive to deficient growth rates of only 3 percent in private consumer spending and 4.6 percent in wages and salaries, and a 12.5-percent decline in farm proprietors' net income. These three adverse trends were insufficiently compensated for by a 10-percent increase in Government outlays for goods and services.[5]

Moreover, the downward trends in private investment and in profits during 1966–67 were from excessively high levels relative to other components of production and incomes, and equilibrium had not been reached even by the end of 1967. This explains the unsatisfactory outlook for 1968 as a whole. Yet, as of the time of this writing, profits in 1968 were in many key sectors rising and even recordbreaking.

The foregoing interpretation of these developments is still further fortified by looking at relative trends in prices, profits, investment, and wage rates during 1960–67. In five key industries examined and in total manufacturing, the wage-rate increases which augment consumption lagged egregiously behind the investment in plant and equipment which adds to production capabilities. Profits after taxes, in each instance save one, rose more rapidly than wage rates,[6] and in most cases immensely more rapidly. The relatively excessive advance in profits after taxes tended in general to keep pace with the relatively excessive advance in investment in plant and equipment, thus indicating that the price increases which occurred were, in the main, excessive and unnecessary.

[4] See chart 3.
[5] See chart 4.
[6] Also, more rapidly than total wages or labor payments including fringes.

These relative trends also explain why the massive tax cuts of 1964, and also other tax concessions during 1961–67, were very faulty in composition, in that they gave relatively too much stimulation to those sectors of the economy which were advancing relatively too rapidly, too little stimulation to consumer outlays which were lagging, and in addition estopped sufficient increases in public outlays both from the viewpoint of economic equilibrium at an optimum rate of growth and imperative domestic priorities.[7]

How these distortions in the economy were supplemented and aggravated by the prevalent monetary policy will be treated later on in my discussion.

Core importance of income distribution

It must be manifest from the foregoing discussion that failure to improve income distribution, through policies directed toward that end, has been one of the main causes of the economic disequilibrium and the deficient economic performance. In 1966 among multiple-person families, 41 percent of the money income accruing to multiple-person families flowed to the highest income fifth, while only 5 percent flowed to the lowest income fifth, and only 17 percent to the lowest income two-fifths. This represented no significant change from the distribution in 1960, 1953, or 1947. In 1966, among unattached individuals, 52 percent of the income accruing to unattached individuals flowed to the highest income fifth, contrasted with only 3 percent to the lowest fifth, only 11 percent to the lowest two-fifths, and only 24 percent to the lower three-fifths. This represented no significant change compared with 1960 or 1953, and the improvement compared with 1947 represented a shift mainly from the highest income fifth to the next to the highest income fifth.[8]

Here again, the horrendous impact of the prevalent monetary policy upon income distribution will be treated later on in my discussion.

Economic growth potentials, 1967–77, and balanced requirements for their translation into performance

To make clear how much we have at stake in reconsidering and reversing those policies, including monetary policy, which have held economic growth below the optimum and wrought so much collateral damage, it is desirable to examine our potentials during the decade ahead. If we should average annually during the decade 1967–77 the 5.3 percent rate of economic growth which earlier portions of my discussion have indicated to be needed and attainable, our total national production, measured in fiscal year 1969 dollars, would rise from $829 billion in 1967 to $1,390 billion in 1977. This progress would represent an "economic growth dividend" of $561 billion in 1977 alone, an average annual "economic growth dividend" of $296 billion over the decade (measured against output if the 1967 level of output persisted over the decade), and an aggregate "economic growth dividend" during the 10 years 1968–77 inclusive, of $2,960 billion. Even projecting at the very low and unacceptable average annual growth rate of 3.5 during 1953–67, the "economic growth dividend" would be $341 billion in 1977 alone, average annually $197 billion, and aggregate $1,971 billion for

[7] See chart 5.
[8] See chart 6.

the 10-year period. These measurements are set forth in fiscal year 1969 dollars to make them roughly compatible with the current price level, and with the subsequent discussion of the Federal budget.[9]

During the period 1967–77 as a whole, the difference between the higher and lower growth-rate projections, measured in billions of 1967 dollars, would aggregate $1,127.2 billion in total national production. As earlier indicated, the aggregate deficiency during 1953–67 was $836 billion.[10]

To achieve optimum economic performance in the years ahead, the various components of production and spending must be encouraged, through appropriate economic policies, to advance in balanced relationships. Measured in fiscal year 1969 dollars from the base year 1967, consumer spending should rise $163.2 billion by 1972, and $364.4 billion by 1977. Gross private business investment (including net foreign) should rise $51.5 billion by 1972, and $101.0 billion by 1977. Investment in residential structures, responsive to not only the great need for improved housing but also the prime role of house construction in promoting optimum economic growth and maximum employment, should rise 27.8 billion by 1972, and 49.2 billion by 1977. Government outlays at all levels for goods and services should rise $44.9 billion by 1972, and $95.6 billion by 1977, with the Federal share rising by $14.2 billion and $27.2 billion, respectively.[11] The significance of this on the domestic-priorities front will be dealt with later on in my discussion.

These respective rates of advance, conducive to economic equilibrium at optimum economic performance, would not change significantly the relationships among the components of total national production, and thus would not change appreciably the relative participation of private enterprise and public programs in the achievement of these balanced goals.[12]

The role of the Federal budget

Within this perspective, there would be room and to spare for a Federal budget serving adequately those great priorities of our international and domestic needs which call for Federal participation. Measured in fiscal 1969 dollars, the total Federal budget would rise from $186.062 billion as originally proposed in 1969 to $226.5 billion in calendar 1972, and $280 billion in calendar 1977. Even assuming (but not arguing for) substantially increased Federal outlays in the category of national defense, space technology, and all international, Federal outlays for all domestic programs would rise from $96.547 billion in fiscal 1969 to $136.5 billion in calendar 1972, and $186 billion in calendar 1977 (including the immense trust funds and some other items incorporated in the budget for the first time in fiscal 1969). Major accent would be placed upon such high domestic priorities as the economic opportunity program; housing and community development; agriculture; natural resources; education; health services and research; public assistance; labor, manpower, and other welfare services, and large Federal contributions to the OASDHI to help increase payments to the aged.

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[9] See chart 7.

[10] See chart 8. For a breakdown of the GNP deficiencies during 1968–77, including a deficiency of 33.9 million man-years of employment opportunity, see again chart 3.

[11] See chart 9.

[12] See chart 10.

Yet, while total Federal budget outlays on a *per capita* basis would increase from $907.62 in fiscal 1969 to $1,068.90 in calendar 1972 and $1,223.77 in calendar 1977, total Federal outlays, standing at 21.02 percent of estimated total national production in fiscal 1969, would stand at 20.97 percent in calendar 1972 and 20.29 percent in calendar 1977 in an economy growing at an optimum rate.[13]

Among manifold other benefits, these lines of progress could come close to eliminating poverty in the United States by 1975.[14]

The issue of inflation, both fact and fallacy

Let us start by accepting the proposition that any substantial rise in prices and especially in the cost of living—this being a workable general definition of inflation—is undesirable. We can accept this proposition, for the purposes of my discussion, even though it is true in general that a moderately falling or rising price level (as well as a stable price level) may be compatible under given other conditions with optimum economic growth and social justice, or with just the reverse. To explain in this discussion why this is true would be an unnecessary disgression.

But it is utterly fallacious to assert that the desire to stabilize prices and the cost of living, under current or foreseeable circumstances, should serve as a legitimate excuse for stunting economic growth, tolerating excessive unemployment, or shortchanging in any degree whatsoever the great priorities of our national needs. Such action costs tremendously more than it is worth at best, and in fact is self-defeating even in terms of the limited objective of restraining inflation, as will now be shown.

Optimum economic growth promotes price stability

The most prevalent argument advanced in support of the utterly fallacious assertion just referred to is that, in order to avoid inflation, we should adopt conscious policies to hold our real economic growth rate below the optimum. It is manifest, for reasons already developed fully, that holding our economic performance below the optimum adversely affects every aspect of economic performance and enjoyment of goods and services. Its impact upon essential public services is especially severe, because the lower rate of expansion of real economic activity injures the tax basis from which public revenues to support public programs are extracted at any given level of taxation.

Moreover, the truth is (although unfortunately it has not yet gained general public acceptance) that there has been a negative rather than a positive correlation during recent years between the rate of real economic growth and the amount of price inflation.

During 1955–58, when the real rate of economic growth averaged annually only 0.8 percent, the average annual rates of price increase were in the neighborhood of 2½ percent for consumer prices, wholesale prices, and industrial prices. During 1956–68, when the average annual rate of real economic growth was only 0.2 percent, the average annual rates of price increase were 3.1 percent for consumer prices, 2.2 percent for wholesale prices, and 1.5 percent for industrial prices. But during 1958–60, when the average annual rate of real economic growth rose to 4.3 percent, the average annual rates of price increase

[13] See chart 11.

[14] See chart 12.

were only 1.2 percent for consumer prices, 0.1 percent for wholesale prices, and 0.9 percent for industrial prices. And during 1960–67, when the average annual rate of real economic growth was 4.7 percent, the average annual rates of price increase were only 1.7 percent for consumer prices, 0.7 percent for wholesale prices, and 0.7 percent for industrial prices. Then, from 1966 to 1967, when the rate of real economic growth fell to 2.5 percent, consumer prices rose 2.8 percent and industrial prices 1.5 percent, with the increase in industrial prices being very slight.[15]

Reducing unemployment does not aggravate inflation

The notion that lower levels of unemployment induce price inflation is insupportable, or at least is so dubious that it cannot justify acceptance of the excessive levels of unemployment which exist even now. During 1955–58 or 1956–58, when the average annual rates of full-time unemployment were 4.9 percent and 5.1 percent, respectively, we experienced in general by far the most serious price inflation suffered at any time since the early stages of the Korean war. But during 1960–67 as a whole, when the average annual increases in prices were remarkably low, full-time unemployment, while averaging 5.1 percent for the period as a whole, was reduced from 5.5 percent in 1960 to 3.8 percent in both 1966 and 1967, and basically this reduction occurred before the new inflation set in. The new inflation during 1966–67 was thus accompanied by no reduction of full-time unemployment.[16]

Why a retarded economy evidences more price inflation

There are very rational explanations for the trends depicted above. In many important sectors of the economy, prices do not respond automatically to the so-called law of supply and demand. Instead, these prices are administered by conscious decisions. And when inadequate economic growth is accompanied by inadequate expansion of sales, the effort is made to compensate for inadequate volume through higher returns per unit by virtue of price increases. This conclusion is fortified by many specialized studies of various industries which do not require citation here. Thus, with respect to this very important segment of the problem of preventing inflation, it is self-defeating to try to combat inflation by stunting real economic growth.

Another reason why an inadequate rate of real economic growth generates inflationary tendencies involves the relationship between productivity and the rates of advance in wages and salaries. During periods when a reasonably high (even though less than optimum) rate of economic growth has encouraged high nationwide gains in productivity, the rates of increase in wages and salaries have tended to fall very substantially behind the gains in productivity. But during periods of very low economic growth, such as from 1966 to 1967, the productivity growth rate falls so sharply downward that the rates of increase in wages and salaries are much higher than the concurrent productivity gains. As this increases labor costs per unit of output, which is sometimes called cost-push inflation, the remedy is sought

[15] See chart 13.

[16] See again chart 13. The true level of unemployment, taking into account (1) full-time unemployment, (2) the full-time equivalent of part-time unemployment, and (3) the concealed unemployment due to nonparticipation in the civilian labor force due to scarcity of job opportunity was 9.9 percent in 1958 and 8 percent in 1960, but only 5.7 percent in 1966. and 5.6 percent in 1967.

in the form of increased prices. The more sensible remedy, of course, would be to reactivate the rate of economic growth and thus to expand productivity gains, rather than to use the so-called cost-push inflation as an excuse for aggravating the very conditions which have led to the low rate of real economic growth.

In the nonadministrated price areas, the advances in the cost of living in recent years have been especially serious with respect to medical care and housing. But the increased costs of medical care have not been due to an excessively growing economy, nor to too low a level of unemployment, nor to excessive purchasing power in the hand of the people directed toward obtaining medical services. Instead, one of the most important reasons for the rising costs of medical care, and the inability of at least a third of our citizens to obtain adequate medical care at costs within their means, is the nationwide shortage of medical facilities and personnel, aggravated by maldistribution of both throughout the Nation. And the very reason for these shortages is that, in the name of combating inflation, we have not spent enough to expand these medical facilities and services. Much the same comments apply to rising housing costs, further aggravated by the unconscionable upward spiral of interest rates, spuriously justified in the name of fighting inflation.

It thus becomes clear that attempts to fight inflation by stunting economic growth and shortchanging the great priorities of our national needs are economically unwise on all scores.

The moral aspects of the case

But even if the foregoing analysis were faulty, it is shamefully unjust for a nation to tell the poor and unemployed, the miserably housed and the undereducated, that they should pay the costs of protecting the affluent, and those even better off, against inflation. The social restiveness and resentment caused by this process enormously outweighs the alleged gains.

If our economy at any time finds itself in a situation where cutbacks or restraints at some point are needed to reduce overstrain and to prevent inflation, the cutbacks or restraints should be imposed at points which restrain superfluous or even excessive activities and enjoyments, not the points which sacrifice what we most need to do. This calls, as many have properly insisted, for a substantial reordering of our nationwide priorities and purposes, lest we become a nation where wealth accumulates and men decay.

Putting this in other terms, inflation is really *immoral prosperity*, and the whole inflationary problem is a moral problem—the problem of encouraging the flow of benefits to where they are most needed, and imposing burdens where they can best be borne.

THE PERNICIOUS MONETARY POLICY, 1952–67

Why discussion of monetary policy in 1968 is omitted

In the following phases of the discussion, I do not attempt to undertake evaluation of monetary policy thus far in 1968 (except to comment upon the significance of its relationship to the tax increases enacted in 1968). My reasons for omitting 1968 are (1) a review of the 15-year period 1952–67 covers a time period more than adequate to evaluate conclusively the prevalent monetary policy

which has not been fundamentally altered by developments during the first 8 months of 1968, (2) it is rather premature to attempt to interpret definitively the consequences of changes in monetary policy thus far in 1968, and (3) the undulations or shifts of direction in monetary policy thus far in 1968, like the undulations or shifts in direction during 1952–56 which I shall review, certainly have not altered significantly the general thrust and consequences of monetary policy from 1952 to date.

General conclusions about the prevalent monetary policy, 1952–67

The conclusions I derive from the ensuing discussion of monetary policy are these: The policies of the Federal Reserve System from 1952 to date have been irrational and inconsistent; by making price stability virtually the sole goal, they have, at the sacrifice of other more important economic and social objectives, degraded the sound goal of reasonable price stability into a foolish fetish; they have not even accomplished their main declared purpose; namely, to restrain inflation, but instead have inflated the fat and starved the lean, and even aggravated net long-run inflation; they have wrought huge damage to the housing industry and to inroads upon the urban crisis, frustrated the whole range of the Government's efforts in these related fields, and done incalculable damage to other vital programs and purposes; they have contributed mightily to the stunting of economic growth, and to such periods of stagnation or recession as have occurred; they have redistributed income in an unconscionably regressive direction; they have pressed a huge burden of additional costs upon State and local governments and upon the Federal Government, during a time when these public instrumentalities have been struggling with expanding international and domestic needs, while hampered by inadequate tax revenues caused in large measure by the antigrowth bias of the monetary policy itself; they have frequently been in conflict with, rather than complementary to, fiscal policies, thus erecting the so-called independence of the Federal Reserve System into a veritable travesty; and they have at times made the Federal Reserve System the ultimate arbiter of national economic policies, in defiance of the Congress and the President as the elected representatives of the people, thus doing gross violence to the very principles of democratic government.

The 1968 dictatorship by the Federal Reserve System

As I have indicated above, there is one aspect of developments within 1968 which I deem it essential to discuss. In 1968, the Congress and the President received divided counsel as to whether the condition of the economy made it desirable to impose even a temporary tax increase (or the combined restraint of higher taxes and less spending). Without attempting to weigh the merits or demerits of the tax-spending decision actually taken, on which time will render the ultimate judgment, it must be stated that the influence of the Federal Reserve System upon this decision as actually taken is of tremendously disturbing significance.

In view of the ambiguous economic situation during early 1968, and with the real economic growth rate from 1966 to 1967 having been at the distressingly low figure of only 2.5 percent, a major if not the major argument advanced by economists inside and outside the Government for the tax-spending restraint of 1968 was that the only alternative to this form of restraint would be a further tightening of

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monetary policy and still higher interest rates; that this alternative would further demoralize home construction; and that this alternative was, therefore, unquestionably unacceptable, while whether or not a tax-spending restraint would be damaging was not so clear.

What did this entire argument import? It could not have meant that, if the Congress and the President decided that a tax-spending restraint was undesirable in view of the danger of placing further restraints upon the economy, it would in that event be *desirable* to place those restraints upon the economy in the form of still tighter money and still higher interest rates. Thus, the argument could mean only that, if the Congress and the President decided not to impose a tax-spending restraint upon the economy, the Federal Reserve System would, in fact, *counteract and negate* this decision by its own independent action with respect to monetary policy. In fact, FRB Chairman Martin was one of the earliest and most ardent advocates of higher taxes and less Federal spending; and he made it clear again and again that the Federal Reserve would resort to more restrictive monetary policies if the Congress and the President did not do what the Federal Reserve told it to do about taxes and spending. This meant nothing less than that the Federal Reserve was pointing a pistol at the Congress and the President, thus making manifest its dictatorship over the position of the Government itself.

Another but related argument was made, early in 1968, to the effect that the Federal deficit which would result, in the absence of tax increases and/or reduced Federal spending, would be so large that the Government would have great difficulty in marketing its obligations; that this would drive interest rates still higher with dire consequences; and that impairment of the Federal credit would be serious at home, and play havoc with our gold and balance-of-payments problem by destroying overseas confidence in the American economy.

But this argument moves around in a circle and begs the question. For if the Congress and the President had decided to accept, or at least risk, a larger deficit rather than to impose additional fiscal restraints upon the economy, the unfortunate consequences mentioned in the preceding paragraph would have occurred only *if* the Federal Reserve System had failed to support the Federal bond market adequately. In short, these unfortunate consequences would have resulted only if the Federal Reserve System had refused to support the policies of the Government, but instead had run counter to them.

Once again in early 1968, the chronic animadversion of the Federal Reserve to adequate economic growth and maximum employment, its belief that only an inadequate rate of economic growth and excessive unemployment can encourage price stability, was made manifest with a vengeance.

Injurious aggregate impact of FRB policies upon economic growth

I shall herein limit my examination of the injurious aggregate impact of Federal Reserve policies upon economic growth to the period 1955–67. On earlier occasions before the Congress and elsewhere, I have examined in detail the damage done by Federal Reserve policies prior to 1955.[17]

[17] See, for example, my 2 book-length studies, *Tight Money and Rising Interest Rates* (July 1960) and *The Toll of Rising Interest Rates* (August 1964), published by the Conference on Economic Progress, 1001 Connecticut Avenue NW., Washington, D.C. 20036.

During 1955–67, the average annual rate of real economic growth was only 3.7 percent, or very substantially below the needed rate. Concurrently, the average annual rate of increase in the nonfederally held money supply was only 2.5 percent. Once an optimum rate of economic growth is defined, economists are not in agreement as to what ratio of the annual growth in the nonfederally held money supply to this desired rate of economic growth is essential to achieve it. But there would seem to be general agreement, and I certainly am convinced, that an average annual growth rate in the nonfederally held money supply of only 2.5 percent during 1955–67 was absolutely inconsistent with achievement of an optimum or even acceptable rate of real economic growth. This conclusion is favored by the fact that the very much higher average annual rate of real economic growth during 1961–67 than during 1955–61 was supported by a very much higher average annual rate of expansion of the nonfederally held money supply.

The point is driven home more conclusively by examination of relative trends from year to year. During 1955–56, the growth rate in the nonfederally held money supply was only 1.3 percent, even while the real economic growth rate was at the dismally low figure of 1.8 percent. Then, almost incredible to believe in the face of this economic stagnation, the growth rate in the money supply during 1956–57 was held down to the negative rate of minus 0.7 percent, even while the real economic growth rate fell further to 1.4 percent. During the recessionary period 1957–58, when the real economic growth rate was minus 1.1 percent, the Federal Reserve woke up and expanded the money supply 3.8 percent. This helped to reverse the course of the economy. But as the real economic growth rate during 1958–59 rose to 6.5 percent, the Federal Reserve became frightened again (even though we were nowhere nearly back to maximum employment or production, and even though the increase in consumer prices from 1958 to 1959 was only 0.8 percent). And so, the growth rate in the money supply was held to 0.6 percent during 1958–59, and was only 2.5 percent during 1959–60.

As the real economy was growing only 1.9 percent during 1960–61, the Federal Reserve woke up again, and the money supply during 1960–61 grew 3.1 percent. But as the real economy was growing 6.5 percent during 1961–62, the Federal Reserve put on the brakes again, and the money supply during that period grew only 1.4 percent. Partly due to this, the real economic growth rate was cut to 4.1 percent during 1962–63.

During 1962–65, the Federal Reserve gave signs of waking up more permanently, the growth rates in the nonfederally held money supply being 3.8 percent, 4.1 percent, and 4.7 percent, respectively; meanwhile, the real economic growth rates were 4.1 percent, 5.1 percent, and 6.6 percent, respectively. And a real economic growth rate of 6.5 percent occurred during 1965–66. But this led the Federal Reserve to sink back into its chronic illness, and during 1965–66 the money supply grew only 2.2 percent, followed by a real economic growth rate of only 2.5 percent during 1966–67.

During 1966–67, the Federal Reserve woke up again, and expanded the money supply 6.5 percent. But in view of the many other imbalances in the economy (earlier detailed), plus the fact that the expansion

of the money supply averaged annually only 4.3 percent during 1965–67, it appears that the real economic growth rate of 1967–68 will be very much too low.[18]

So much for the roller coaster performance of the Federal Reserve 1952–67, and the damaging effects of its policies in their aggregate aspects upon our total economic performance.

Failure of the monetary policy to help stabilize prices

The theory underlining the proposition that a highly restrictive monetary policy helps to stabilize prices is based fundamentally upon the theory that an inadequate rate of economic growth and excessive unemployment help to stabilize prices. I have earlier in this discussion exposed the errors in this theory, as tested by empirical observation. Nonetheless, a year-by-year look at the relative trends in the money supply and consumer prices indicates more fully the fatal errors in the theory.

During 1955–56, when the nonfederally held money supply grew 1.3 percent, consumer prices rose 1.5 percent. But during 1956–57, when the money supply grew at the negative rate of minus 0.7 percent, consumer prices rose 3.5 percent. This was much higher than the 2.8-percent rise in consumer prices during 1957–58, when the money supply grew 3.8 percent. During 1959–60, when the money supply grew at the negative rate of minus 0.6 percent, consumer prices rose 1.6 percent; but consumer prices rose only 1.1 percent during 1960-61 when the money supply grew 3.1 percent.

Viewing a longer period of years, during 1960–65, when the growth in the money supply was 1.4 percent in 1 year and ranged from 3.1 percent to 4.7 percent in the other 4 years, the upward movement in consumer prices was very moderate, being 1.3 percent or lower from 1960 to 1964, and only 1.7 percent during 1964–65. But from 1965 to 1966, when the growth in the money supply was reduced very drastically to 2.2 percent, the rate of increase in consumer prices rose dramatically to 2.9 percent. And from 1966 to 1967, while the rise in consumer prices was very slightly lower at 2.8 percent, the growth in the money supply was 6.5 percent.[19]

Regardless of quibbling about details of interpretation and so-called "time lags," it is abundantly apparent that the incontinent, irrational, and extreme swings from year to year in the growth of money supply did nothing on net balance to restrain inflation. Entirely to the contrary, these swings aggravated net inflation in the long run by militating against both stability and growth in our real economic performance.

Does the Federal Reserve Board even know what it is trying to do?

In the foregoing section, I said that the basic purpose of the Federal Reserve, in imposing tighter money and higher interest rates, has been to try to combat inflation by deliberately restraining economic growth and preventing adequate reduction of unemployment. This has, in recent years, been the main *rationale* for the prevalent monetary policy. But it would be unjust to attribute any high degree of consistency to the Federal Reserve, even when traveling along an erroneous road.

[18] See chart 14.
[19] See again chart 14.

In the years immediately following 1952, the Federal Reserve deliberately urged higher interest rates to stimulate saving and investment, arguing that a higher ratio of investment to gross national product would expedite economic growth and reduce unemployment. Thus, the tight money policy had the *avowed intent* of lifting interest rates, which it was claimed were so far below the level of the 1920's that savings and initiative and investment were being impaired.

Somewhat later, for example as late as mid-1957, the Federal Reserve Board abandoned this championship of rising interest rates *per se*, but said that these were the inevitable consequence of the need to tighten the money supply to slow down an overheated "inflationary" economy rather than to stimulate economic growth. By this time, it appeared that the Federal Reserve regarded tighter money and higher interest rates equally relevant to the task of speeding up or slowing down the economy. And it is particularly noteworthy that the Federal Reserve, in mid-1957, wanted to slow down the economy when the most substantial recession thus far since the Great Depression was just around the corner, and clearly visible to anyone whose eyes were open.

During the course of hearings in 1957, in the form of the extensive inquiry into financial conditions by the Senate Finance Committee under the chairmanship of Senator Harry F. Byrd, I contested both the economic analysis and the policy of the Federal Reserve Board, as enunciated in testimony by Chairman Martin.

And there were other inconsistencies in the position of the Federal Reserve during this period. In mid-1957, Mr. Martin testified that excessive consumer spending was the real culprit in the "inflationary" dangers which were still preoccupying him, and that tighter money and rising interest rates would slow down consumption. He was right about the consequence, but wrong in the diagnosis. Later on in 1967, Mr. Martin testified before the same committee that tighter money and higher interest rates were necessary to slow down investment rather than consumption, and conceded that the deficiency in consumption had been visible for quite a long time.

I have reluctantly become convinced over the years that the Federal Reserve has hardly exhibited any consistency whatsoever in its *rationale*, but that it has been almost consistently wrong in its remedies for one reason or another, and has almost always been committed against the maximum employment, production, and purchasing power objectives of the Employment Act of 1946.

Injurious distributives for selective impacts of FRB

The failure of the money supply to expand adequately over the years, and even the extreme swings from year to year, might not have had so injurious an impact upon economic growth and consequently upon social progress, if it were not for the fact that the wayward monetary policy has greatly aggravated the economic imbalances through the perverse influences upon the rationing and use of resources that is, upon the whole distributive progress. For it might be argued that a higher or lower rate of expansion of the money supply would have affected the price level, but not affected the real rate of economic growth. But as I have pointed out in detail earlier in the discussion, the imbalances inimical to economic growth, social progress, and satisfactory reduction of unemployment have resulted fundamentally from distributive distortions in *relative* levels of income and spending.

It is in these distributive ways that the prevalent monetary policy has been so extraordinarily damaging. The excessive tightening of credit has had relatively little restraining effect upon the recurrent relatively excessive investment booms, because most of the largest investors are relatively free from dependence upon borrowing, in that they are financing mainly from internal sources and through the price structure. Moreover, they are relatively slightly influenced by rising interest rates, as these are a negligible factor in their total business costs, and as they are able to transfer these costs to the consumer through the price structure. But small business is terribly hurt by excessively tight credit and rising interest rates. House construction is irreparably damaged, as we have seen, while its rapid expansion is essential on both economic and social grounds. The farmer, being the biggest investor and borrower relative to his resources and net income, is irreparably damaged.

Tight money and rising interest rates injure, most of all, middle- and low-income consumers, and thus combine social iniquity with the excessive restraint upon the expansion of real consumer buying power which as earlier indicated, has been at the very heart of the deficient economic performance and the excessive unemployment.

Tight money and rising interest rates impose an intolerable burden upon State and local governments, and even upon the Federal Government. In this aspect, rising interest rates *pro tanto* deprive these governments of spending capacity to meet essential social needs, rob them of public revenues by stunting economic growth, and add to a type of public spending (i.e., rising interest payments themselves) which tends to increase rather than to alleviate the economic disequilibrium.

In short, tight money and rising interest rates are most damaging in their perverse effects upon the distribution of income. And in the final analysis, the pattern of income distribution is at the core of our entire economic problem, including but not limited to its social aspects. It is unfortunate that even those economists deeply concerned about the prevalent monetary policy in its aggregate aspects have paid so little attention to its redistributional evils.

As I believe these redistributional evils represent the towering default of the prevalent monetary policy, the balance of my discussion will concentrate upon quantitative portrayal of these evils.

Adverse effects upon Federal financial capabilities

From 1952 to 1967, the interest rates on new Treasury borrowings rose 144.7 percent for 3-month bills, 167.4 percent for 9–12 month issues, 138 percent for 3–5-year issues, and 81 percent for long-term bonds. Concurrently, consumer prices rose only 25.7 percent, which demonstrates that the most monstrous inflation of all has been in the cost of money.[20]

In consequence of these rising interest rates on new Treasury borrowings, the computed average interest rate on the Federal public debt rose from 2.33 percent in 1952 to 4.154 percent in 1967, an increase of 78.3 percent. Coupling this with the increase in the total interest-bearing U.S. public debt from $259.8 billion in 1952 to $328.4 billion in

[20] See chart 15.

1967, the excess interest costs for the period as a whole, in consequence of the rising interest rates alone, came to $35.1 billion, and stood at about $6 billion in 1967 alone.

These indefensible trends have complicated Federal financing, deprived those dependent upon Federal programs while battening those who lend the Government money, and contributed to deficient economic growth and excessive unemployment by putting so much money in the wrong hands.[21]

Adverse effects upon State and local financial capabilities

From 1952 to 1967, the computed average interest rate on the total interest-bearing debts of State and local governments rose from 2.48 percent to 3.20 percent, an increase of 33.1 percent. With such debts rising from $29.6 billion to $117.5 billion, the excessive interest costs due to the rising interest rates alone have aggregated $5.2 billion for the period as a whole, and were about $1 billion in 1967 alone.

While we have continued to countenance the increase in this onerous and nonproductive burden upon the States and localities, we wring our hands about their increasing inability to meet their prime responsibilities, and we entertain proposals to hand out Federal money to the States and localities through new types of grants with no strings attached.[22]

Adverse effects upon private borrowers

Most tragic of all has been the impact of tight money and higher interest rates upon private borrowers—including the poor and deprived who spend more than they earn per year, and gradually increase their debts; the young couple buying or renting a home; the purchaser of durables on time for the home; the workingman buying a car on time to get to work, and being admonished not to ask for wage increases to cover the rising interest costs which enter into the rising cost of living; the families borrowing money to pay for medical care in the case of serious illness, or borrowing money to send or keep a child or children in college.

From 1952 to 1967, the computed average interest rate on the total interest-bearing private debt rose from 4.97 percent to 6.24 percent, a rise of 25.6 percent. With such debt rising from $225.5 billion to $852.9 billion, the excess interest costs due to the rising interest rates alone aggregated $66.4 billion for the period as a whole, and stood at almost $11 billion in 1967 alone.

In a nation committed to an all-out war against poverty, to social justice in general, and to maximum employment, production, and purchasing power, it seems unthinkable that we are permitting the foregoing to happen through the actions of a "public" body, the Federal Reserve System.[23]

Overall adverse effects

Viewing all types of interest-bearing debts, both public and private, the computed average interest rate rose from 3.5 percent in 1952 to 5.4 percent in 1967, a rise of 54.3 percent. With these total debts rising from $514.7 billion in 1952 to $1,298.8 billion in 1967, the excess interest

[21] See chart 16.
[22] See chart 17.
[23] See chart 18.

costs due to interest rates alone aggregated *$106.6 billion over this period, and $17.7 billion in 1967 alone.* The excess interest cost in 1967 alone was about 2½ times as high as the average annual excess interest cost of $7.1 billion during the 15 years 1953–67 inclusive.[24]

Comparing the size of our economy today with its prospective size 10 years hence, a continuation or accentuation of the long-term, trend toward higher interest rates, or even failure to resist this trend very drastically, might well lead to excess interest costs rising to $25 billion in 1977 alone, averaging annually well above $20 billion during 1969–77 inclusive, and aggregating about $180 billion over the 9-year period.

Impact of rising interest rates per capita, upon families, and upon the poor

The excess interest costs aggregating $106.6 billion during 1953–67 inclusive equate with an excess interest cost *per capita* for the entire U.S. population of $88.90 in 1967 alone, and $591.89 for the period as a whole. Thus, the excess interest costs per family of four came to $355.60 in 1967 alone, and $2,367.56 for the period as a whole.

It is no answer to say that these figures should be set aside on the ground that interest costs are merely transfer payments, with higher interest payments by some equating with higher interest receipts by others. The people who borrow heavily related to their incomes are not the same people who lend heavily related to their incomes. And in any event, sums equal to the total transfer payments in the form of excessive interest rates, damaging in all respects, could, if deployed in other ways through alternative policies, have served enormously important economic and social purposes.

To illustrate, let us assume that a wide variety of alternative policies, including a genuine *full-employment* environment, had been utilized to augment the incomes of the poor instead of the incomes of those who lend money to the poor and to others.

In 1967, the 7 million families in the United States with incomes of under $3,000 (the original poverty-income ceiling) had average annual incomes of $1,801. If instead of the average annual excess interest costs of $7.1 billion during 1953–67 inclusive, the incomes of these families had been augmented by a similar amount, they could have enjoyed on the average $1,014 more income during each of these 15 years. If the exercise is limited to the 3.8 million families with incomes under $2,000 in 1967, with average incomes of $1,189, their incomes could have been augmented on the average by $1,868 in each of the 15 years. And if the exercise is limited to 1.2 million families with incomes under $1,000 in 1967, with average incomes of $327, their incomes on the average could have been augmented by $5,917 in each of the 15 years.[25]

Even if the foregoing exercises were to imply that the governments at all levels which have been burdened with their share of the excess interest costs which they have paid had instead given an equal amount of money to the poor, and that, instead of the excess interest payments made by private borrowers, progressive tax policy had taken an equal amount of money from those well able to bear the burden and given the proceeds to the poor, such a procedure would have done the econ-

[24] See chart 19.
[25] See chart 20.

omy much good, while the rising interest rates did much damage, and would have been equitable rather than inequitable.

But the exercises do not by any means imply so simple a procedure. They imply instead that, through well-conceived nationwide policies both private and public, the incomes of the poor rather than of the moneylenders should have been augmented by the best means available for this purpose. The dominant portion of this augmentation would have come through creating jobs for the breadwinners of the poor, and training them for these jobs. And for those not within the employment stream, the proper method would have been some sort of guaranteed income or family-income payments, in substitution for the miserable rag-bag of inadequate, degrading and pauperizing so-called welfare payments to the poor, plus vast improvements in the inadequate social insurance systems.

Such a procedure, in lieu of rising interest rates, would have added to the national product, to the dignity and self-respect of the Nation to civil order, and to our national satisfaction in doing right instead of perpetuating wrong.

Of course, no one would have given any thought to augmenting by $5,917 the incomes of those families averaging $327. Nonetheless, the exercises reveal how ashamed we should be as a Nation and a people, to bewail what would be the costs of eliminating poverty in the United States, even while we countenance such atrocious giveaways as have been embodied in the prevalent monetary policy.

Impact upon domestic programs in the Federal budget

The excess interest costs imposed upon the Federal budget averaged annually $2.337 billion during 1953–67 inclusive (calendar years). Let us contrast this figure with the annual average outlays in the Federal budget for some high-priority domestic purposes during the fiscal years 1954–69: For housing and community development, $0.643 billion; for labor, manpower, and other welfare services, $1.093 billion; for education, $1.618 billion; for public assistance, $2.336 billion; and for health services and research, $2.494 billion. These comparisons speak for themselves.

In 1967 alone (calendar year), the excess interest costs in the Federal budget came to $5.999 billion. In comparing this figure with the outlays in the fiscal 1969 Federal budget for some high domestic priority programs, it must be noted that the Federal budget in fiscal 1969 included for the first time immense trust funds in some of the categories, and therefore in some instances greatly exaggerates some categories of outlays when used for comparison with the excess interest costs in the Federal budget for calendar 1967. Bearing this in mind, the figures are: Housing and community development, $2.784 billion; labor, manpower, and other welfare services, $2.671 billion; public assistance, $3.609 billion; education, $4.699 billion; and health services and research, $10.665 billion. Thus, the excess interest costs in the Federal budget in calendar 1967 alone were much more than twice the fiscal 1969 outlays for housing and community development (even though such outlays are tremendously exaggerated, in terms of the comparison, by inclusion of lending programs, etc.), despite all the talk about the urban crisis and the roles of the slums in that crisis; more than twice the outlays for labor, manpower, and other welfare services; two-thirds higher than the budget outlays for public assist-

ance; in the neighborhood of 30 percent higher than the budget outlays of education (exaggerated, for reasons stated), despite the shabby condition of our public schools; and almost three-fifths as high as the budget outlays for health services and research (exaggerated, for reasons stated).[26]

Why can we "afford" so much for what we need least, and so little of what we need most? This is a moral question, to be sure. But the whole issue of the prevalent monetary debate is a moral issue, and we cannot comfort with our sense of being a moral people until the monetary policy is drastically changed and brought under the control of the elected representatives of the people.

(The charts referred to in the footnotes follow:)

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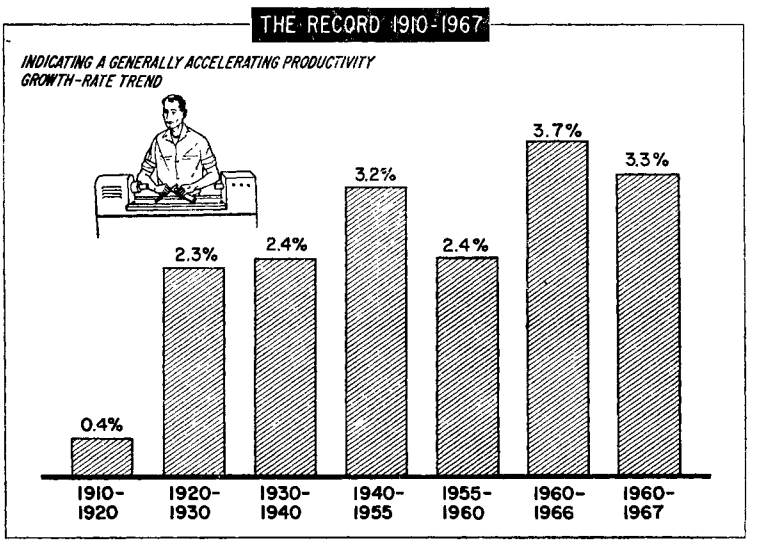
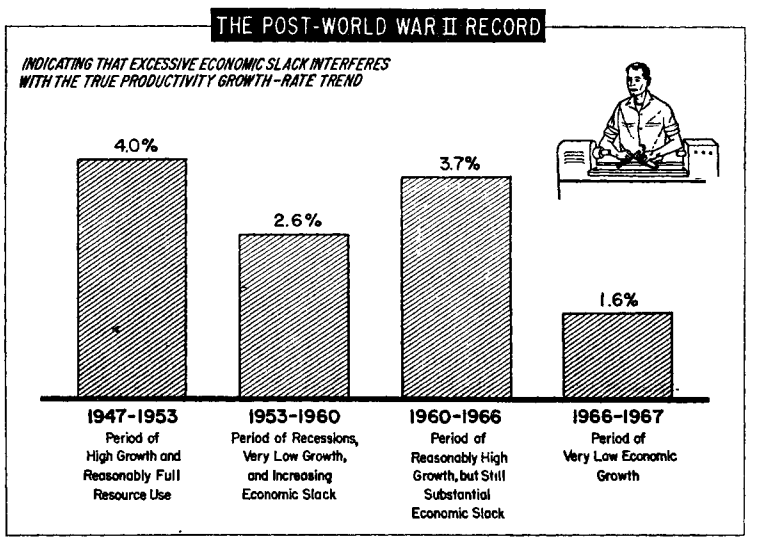
[26] See chart 21.

CHART 1

LONG-TERM TRENDS IN PRODUCTIVITY U.S. PRIVATE ECONOMY, 1910–1967

Average Annual Rate of Growth in Output per Man-hour for the Entire Private Economy

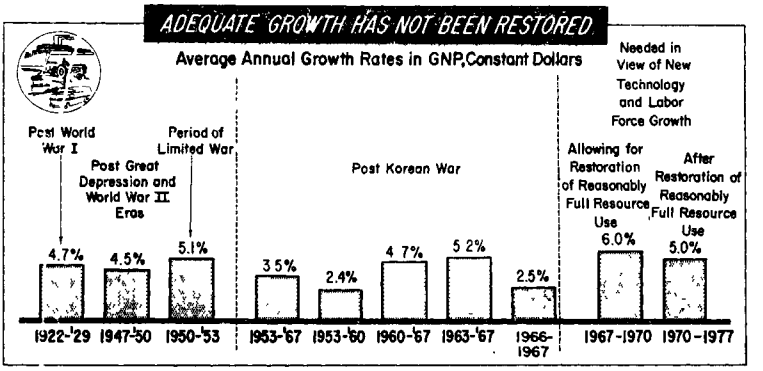


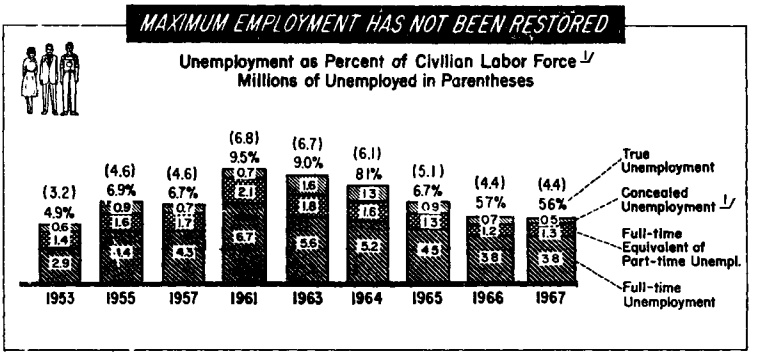


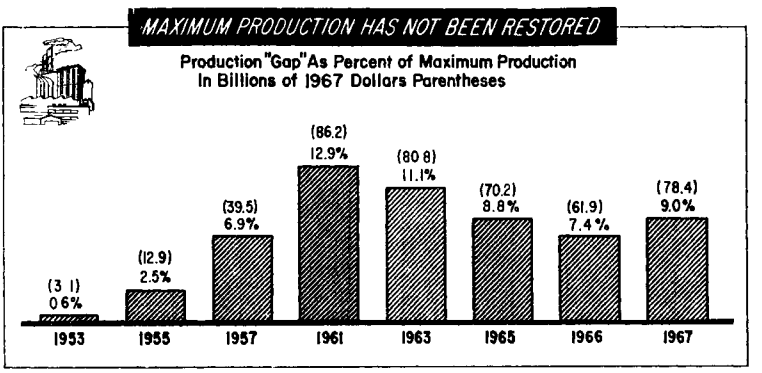
Source: Dept. of Labor estimates relating to man-hours worked (Establishment basis).

CHART 2

BASIC U.S. ECONOMIC TRENDS, 1953-1967







1/In deriving these percentages, the Civilian Labor Force is estimated as the officially reported Civilian Labor Force plus concealed unemployment. Full-time unemployment of 2.9% and true unemployment of 4.1 % would be consistent with maximum employment.

CHART 3

COSTS OF DEFICIENT ECONOMIC GROWTH U.S. ECONOMY, 1953-1967 AND 1968-1977

(dollar items in billions of 1967 dollars)

1953-1967

Total National Production (GNP)	Man-years of Employment[1]	Personal Consumption Expenditures	Gov't Outlay for Goods and Services
			
1953-1967: $836.0 1967: 78.4	1953-1967: 36.5 Million 1967: 1.4 Million	1953-1967: $619.7 1967: 58.9	1953-1967: $446 1967: -7.0
Private Business Investment (Incl. Net Foreign)	**Average Family Income**	**Wages and Salaries**	**Unincorporated Business and Professional Income**
			
1953-1967: $171.7 1967: 26.5	1953-1967: $10,250 1967: 974	1953-1967: $570.0 1967: 54.2	1953-1967: $71.0 1967. 67

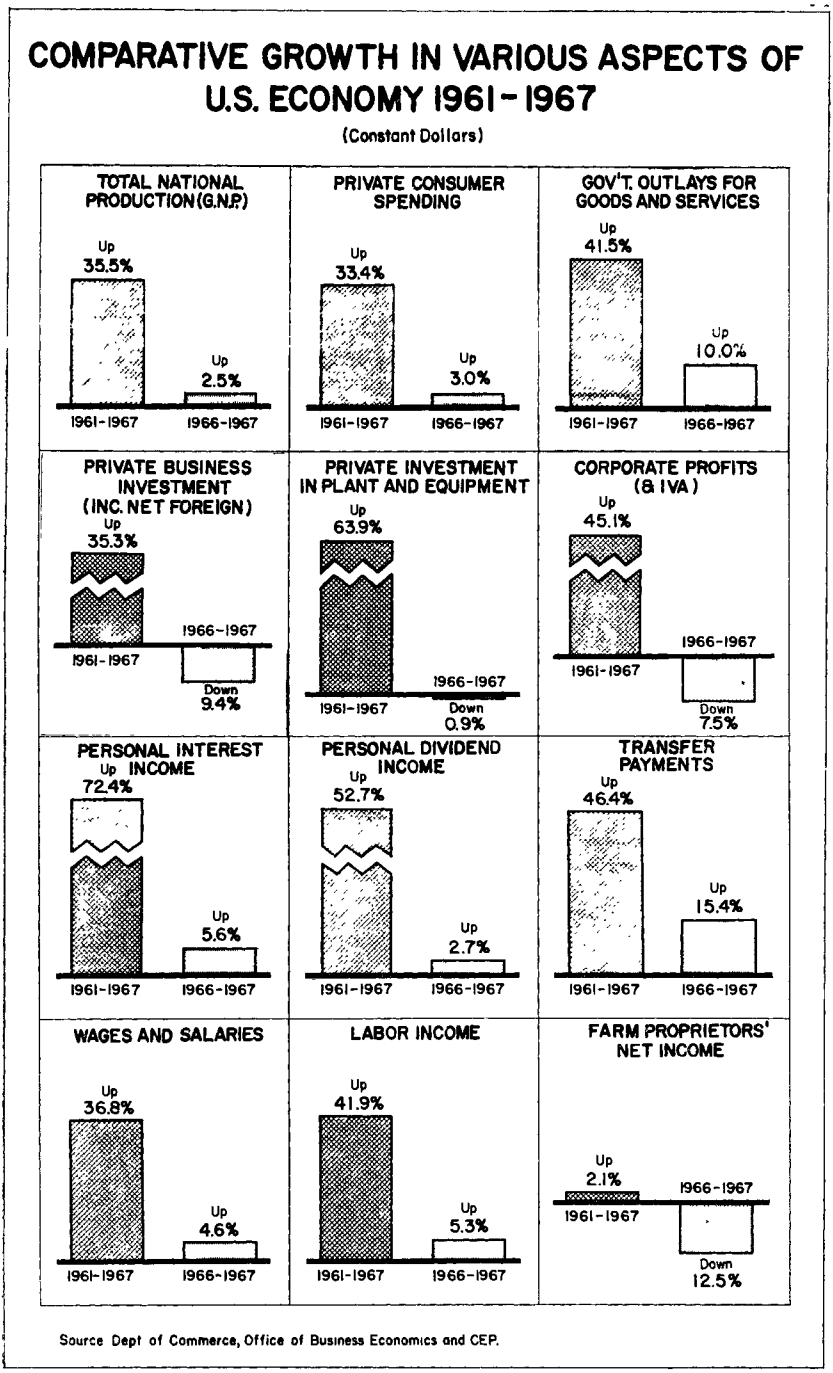
1968-1977

Total National Production (GNP)	Man-years of Employment[1]	Personal Consumption Expenditures	Gov't Outlay for Goods and Services
			
1968-1977: $1,127.2 1977: 210.0	1968-1977: 33.9 Million 1977: 5.4 Million	1968-1977: $735.8 1977: 142.1	1968-1977: $133.9 1977: 25.5
Private Business Investment (Incl. Net Foreign)	**Average Family Income**	**Wages and Salaries**	**Unincorporated Business and Professional Income**
			
1968-1977: $257.5 1977: 42.4	1968-1977: $12,170 1977: 2,349	1968-1977: $676.8 1977: 112.1	1968-1977: $84 3 1977: 15.9

[1] Based upon true level of unemployment concept, including full-time unemployment, full-time equivalent of part-time unemployment, and concealed unemployment (nonparticipation in civilian labor force) due to scarcity of job opportunity.

Basic Data Dept of Commerce, Dept. of Labor

CHART 4



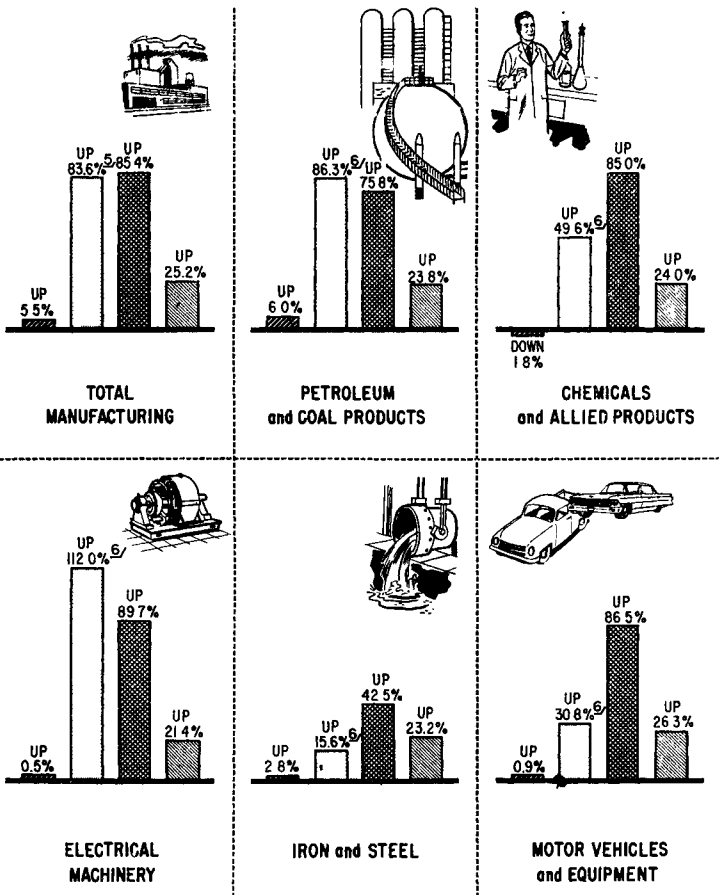
Source Dept of Commerce, Office of Business Economics and CEP.

CHART 5

PRICE, PROFIT, INVESTMENT, AND WAGE TRENDS DURING 1960–1967

Percentage Change, 1960-1967

Prices 1/ | Profits after Taxes 2/ | Investment in Plant and Equipment 3/ | Wage Rates 4/



1/ Data. U.S. Dept. of Labor, wholesale commodity price indexes.

2/ Data. Federal Trade Commission–Securities and Exchange Commission.

3/ Data: U.S. Dept. of Commerce and Securities and Exchange Commission.

4/ Data: U.S. Dept. of Labor, Bureau of Labor Statistics; Average hourly earnings of production workers

5/ Estimated for 1967

6/ Data for 1967 are for first three quarters at annual rate, not seasonally adjusted.

CHART 6

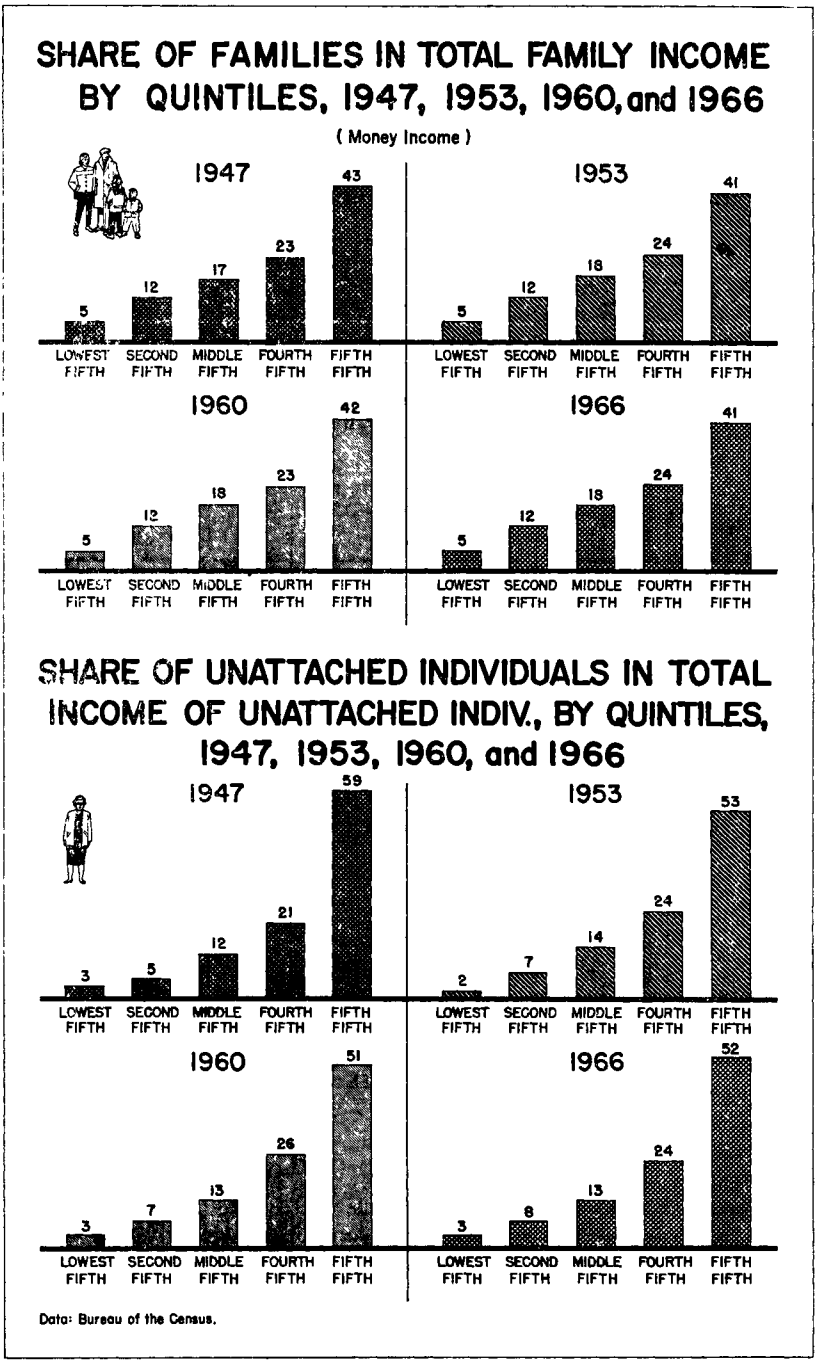
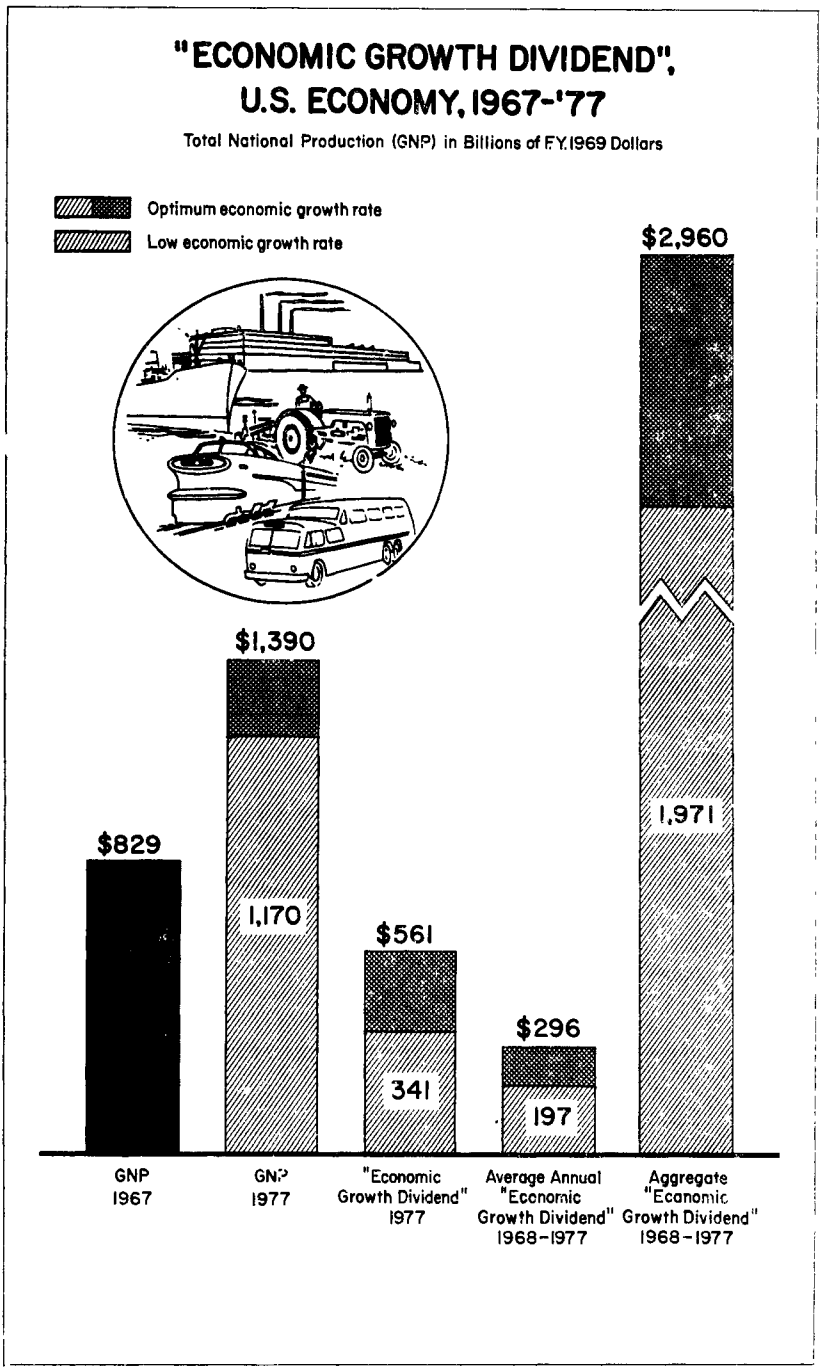


CHART 7

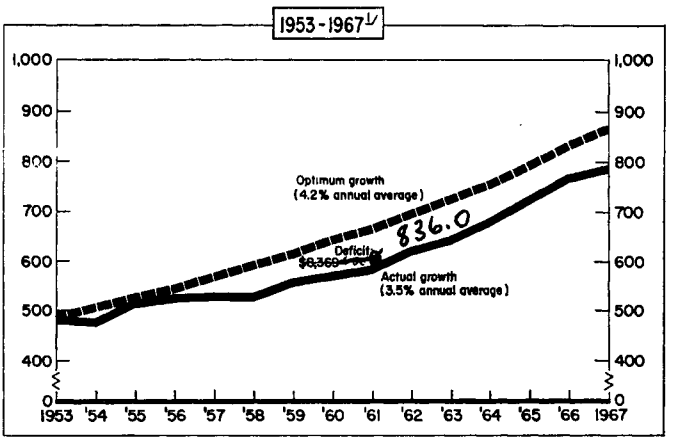


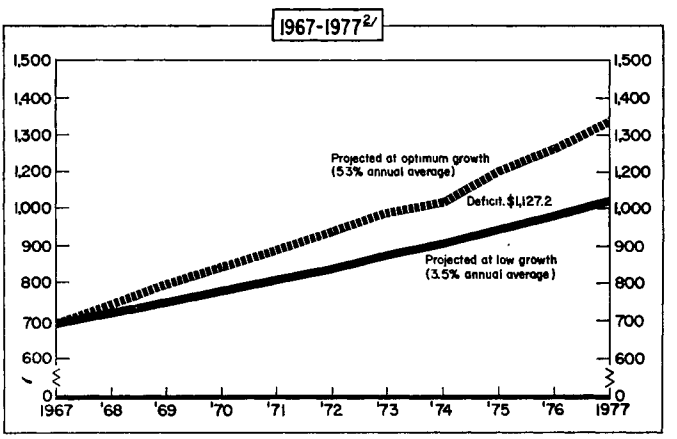
21-570—68——26

CHART 8

SIGNIFICANCE OF OPTIMUM ECONOMIC GROWTH U.S. ECONOMY, 1953-1967 AND 1967-1977

(billions of 1967 dollars)



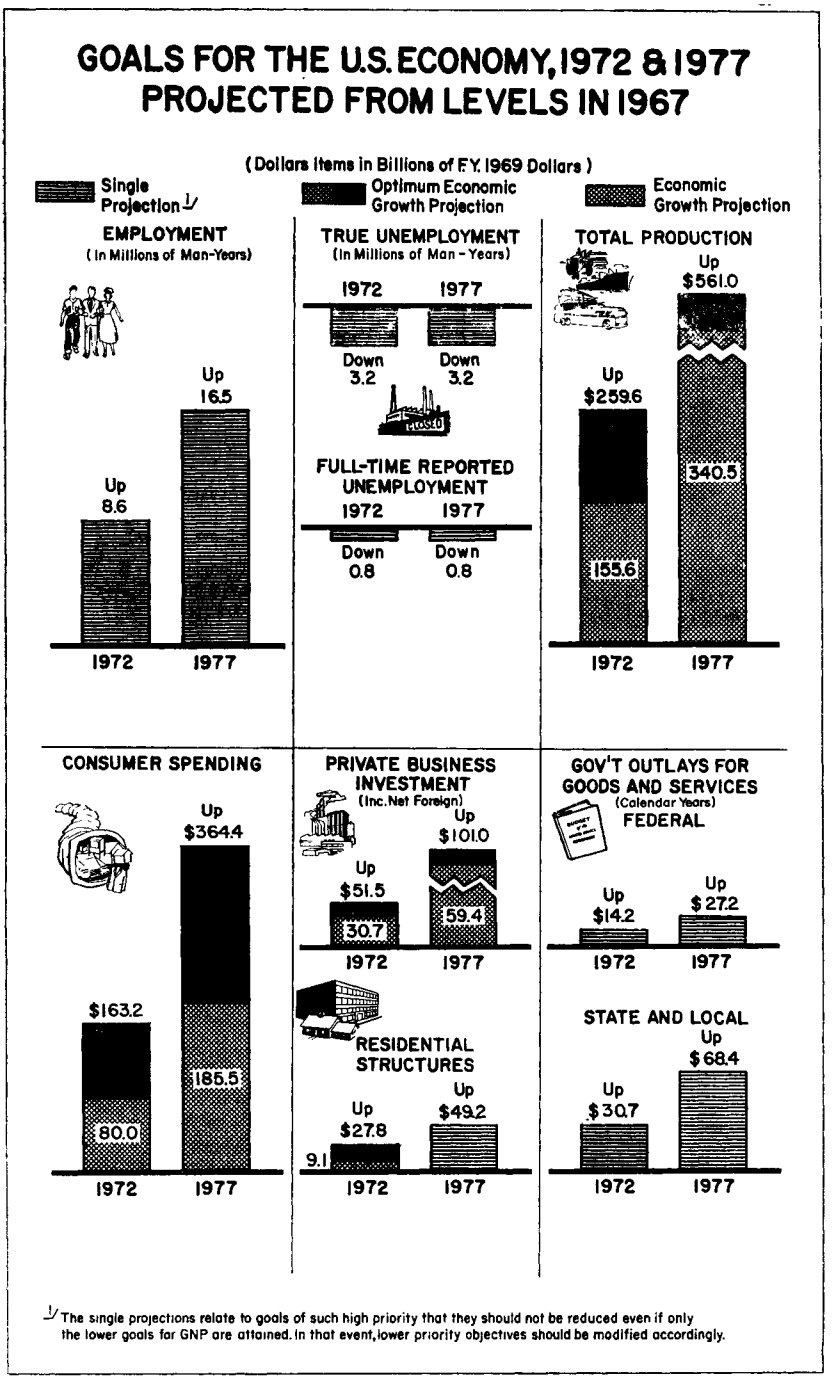


1/ Projected from base year 1947, Thus deficits shown are for 1953–1967 inclusive.

2/ Deficits shown are for 1968–1977 inclusive; 1967 deficit written off.

Basic Data Dept of Labor

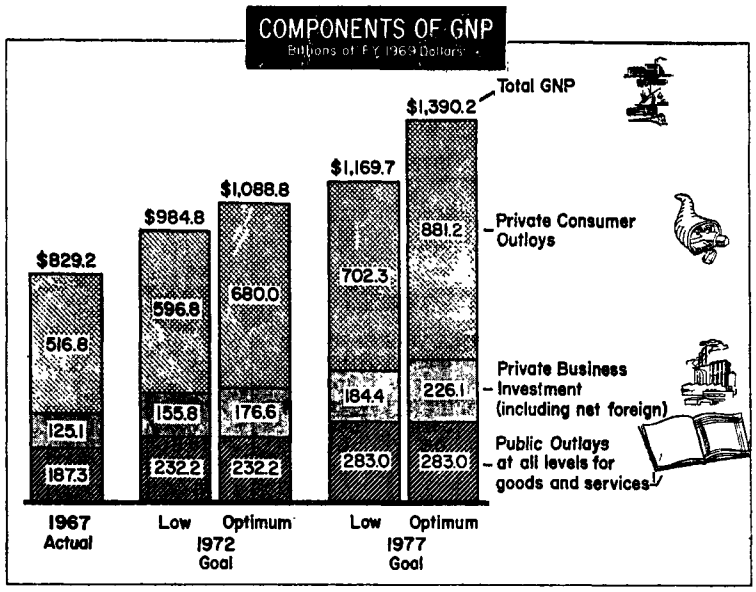
CHART 9

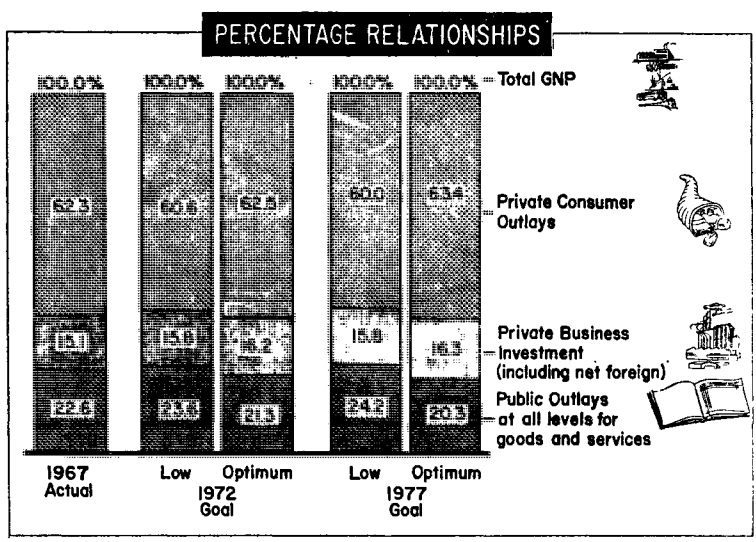


1/ The single projections relate to goals of such high priority that they should not be reduced even if only the lower goals for GNP are attained. In that event, lower priority objectives should be modified accordingly.

CHART 10

THE GOALS FOR 1972 AND 1977 MAINTAIN BALANCE OF PUBLIC AND PRIVATE RESPONSIBILITIES





1/ Public outlays are of such high priority that they are projected identically for the lower and higher GNP goals, with modifications of other goals accordingly.

CHART 11

GOALS FOR A FEDERAL BUDGET, 1972 AND 1977, GEARED TO ECONOMIC GROWTH & PRIORITY NEEDS

1969, fiscal year; goals for 1972 and 1977, calendar years

All figures in fiscal 1969 dollars [1]

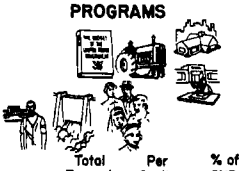
ALL FEDERAL OUTLAYS

Year	Total Expend. (Bil. $)	Per Capita ($)	% of GNP (%)
1969[2]	186.062	907.62	21.02
1972	226.500	1,068.90	20.97
1977	280.000	1,223.77	20.29

NATIONAL DEFENSE, SPACE TECHNOLOGY, & ALL INTERNATIONAL

Year	Total Expend. (Bil. $)	Per Capita ($)	% of GNP (%)
1969[2]	89.515	436.66	10.11
1972	90.000	424.73	8.33
1977	94.000	410.84	6.82

ALL DOMESTIC PROGRAMS



Year	Total Expend. (Bil. $)	Per Capita ($)	% of GNP (%)
1969[2]	96.547	470.96	10.91
1972	136.500	644.17	12.64
1977	186.000	812.93	13.47

ECONOMIC OPPORTUNITY PROGRAM

Year	Total Expend. (Bil. $)	Per Capita ($)	% of GNP (%)
1969[2]	2.000	9.76	0.23
1972	3.800	17.93	0.35
1977	5.500	24.04	0.40

HOUSING AND COMMUNITY DEVELOPMENT

Year	Total Expend. (Bil. $)	Per Capita ($)	% of GNP (%)
1969[2]	2.784	13.58	0.31
1972	5.500	25.96	0.51
1977	9.000	39.34	0.65

AGRICULTURE; AND NATURAL RESOURCES

Year	Total Expend. (Bil. $)	Per Capita ($)	% of GNP (%)
1969[2]	8.099	39.51	0.91
1972	12.000	56.63	1.11
1977	15.500	67.75	1.13

EDUCATION

Year	Total Expend. (Bil. $)	Per Capita ($)	% of GNP (%)
1969[2]	4.699	22.92	0.53
1972	16.200	76.45	1.50
1977	32.900	143.79	2.38

HEALTH SERVICES AND RESEARCH

Year	Total Expend. (Bil. $)	Per Capita ($)	% of GNP (%)
1969[2]	10.665	52.02	1.21
1972	14.000	66.07	1.30
1977	20.000	87.41	1.45

PUBLIC ASSISTANCE; LABOR, MANPOWER, AND OTHER WELFARE SERVICES

Year	Total Expend. (Bil. $)	Per Capita ($)	% of GNP (%)
1969[2]	6.280	30.64	0.69
1972	9.500	44.83	0.88
1977	15.100	66.00	1.09

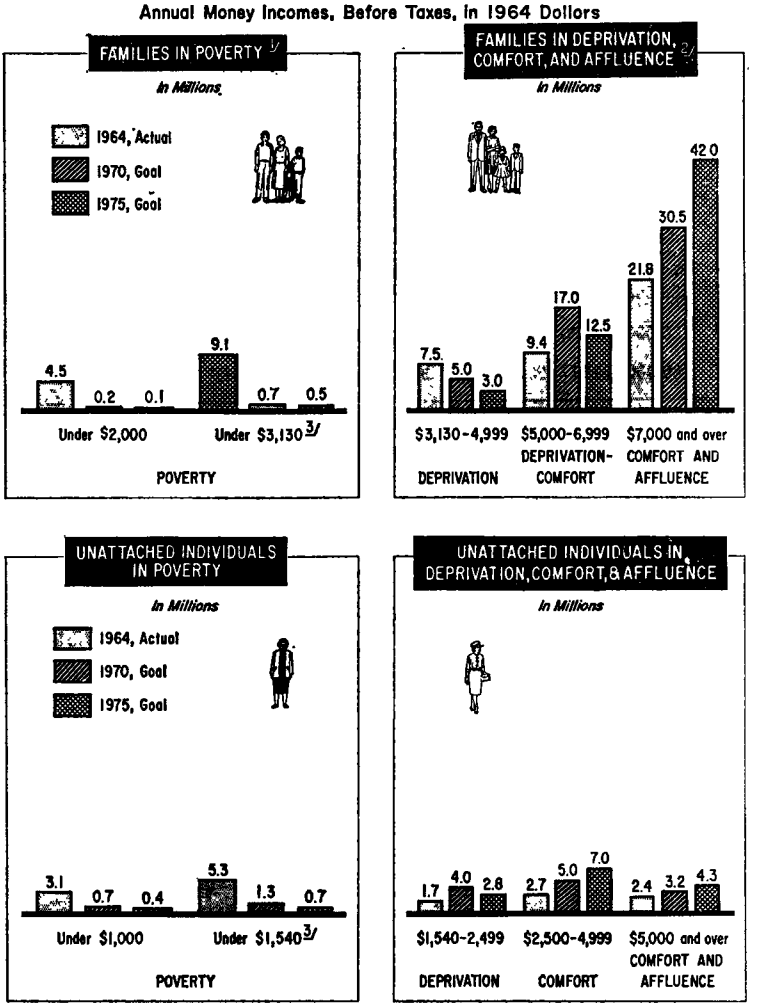
[1] Dollars of purchasing power apparently assumed in President's fiscal 1969 Budget.

[2] Administration's Proposed Budget as of Jan 29, 1968. Beginning with fiscal 1969, the Budget includes the immense trust funds, net lending, and other relatively minor new items. Note: Goals include Federal contributions of one b in 1970, and more than two b in 1977, to the OASDHI to help increase benefit payments to the aged.

CHART 12

NUMBER IN U.S. LIVING IN POVERTY, DEPRIVATION, COMFORT, & AFFLUENCE, 1964, & GOALS FOR 1970 & 1975

Annual Money Incomes, Before Taxes, in 1964 Dollars



1/ The average size of families living in poverty is 3.19, so 9.1 million families involve about 29.0 million people.

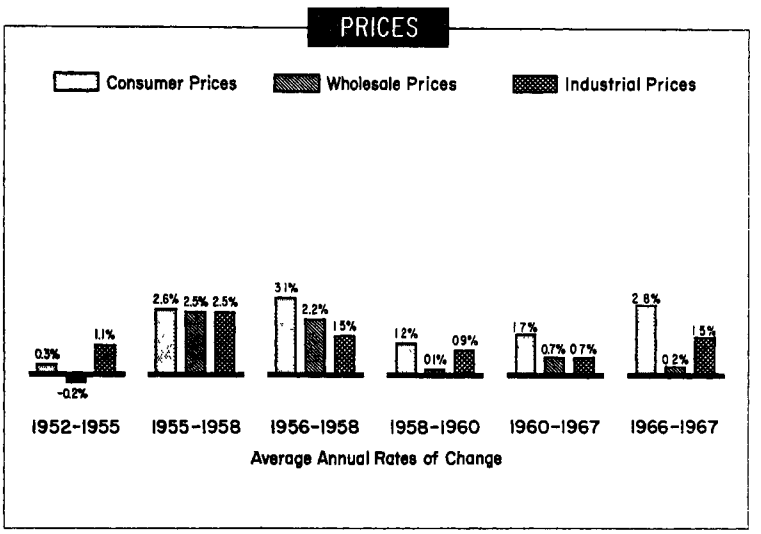
2/ The average size of families living above the poverty level is about 3.8.

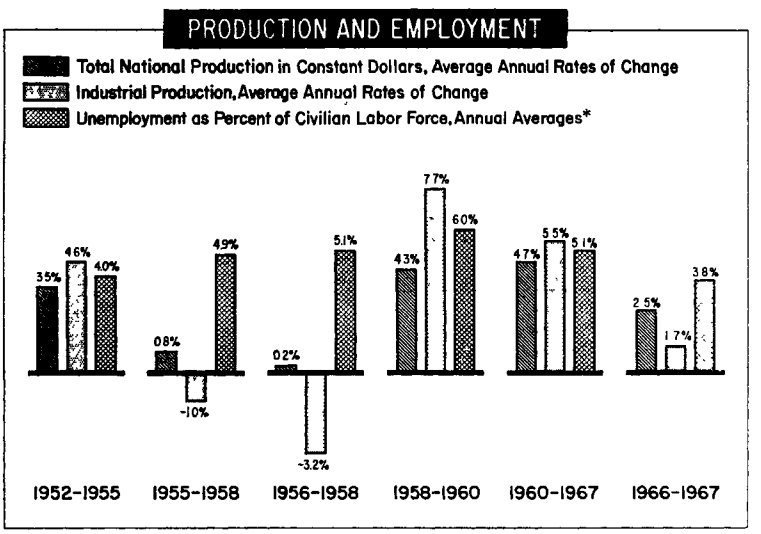
3/ The figures of $3,130 and $1,540 are the most recent estimates of the Office of Economic Opportunity with respect to the poverty-income ceiling.

Data: 1964: Office of Economic Opportunity and Bureau of the Census; Projections, "Freedom Budget".

CHART 13

RELATIVE TRENDS IN ECONOMIC GROWTH UNEMPLOYMENT, & PRICES, 1952-1967



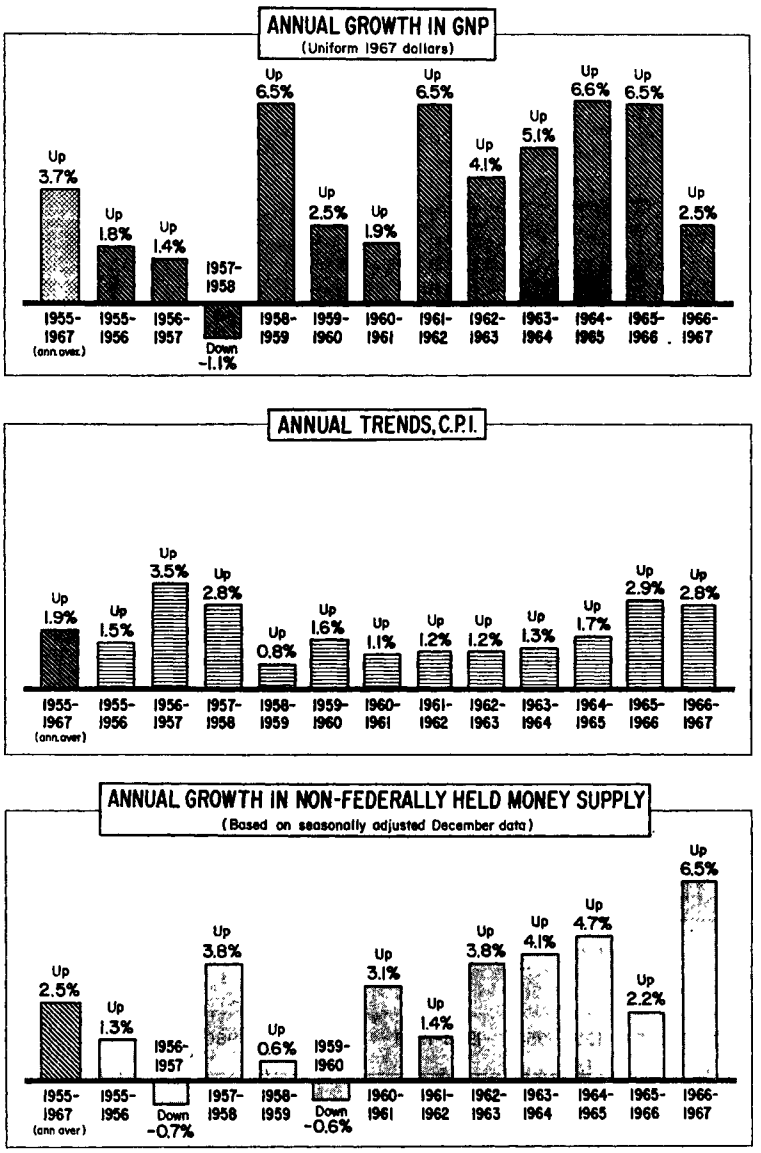


*These annual averages (as differentiated from the annual rates of change) are based on full-time officially reported unemployment measured against the officially reported Civilian Labor Force

Source. Dept. of Labor, Dept. of Commerce, & Federal Reserve System.

CHART 14

COMPARATIVE TRENDS IN GNP, PRICES, AND NON-FEDERALLY HELD MONEY SUPPLY, 1955-1967



Data: Economic Report of the President

CHART 15

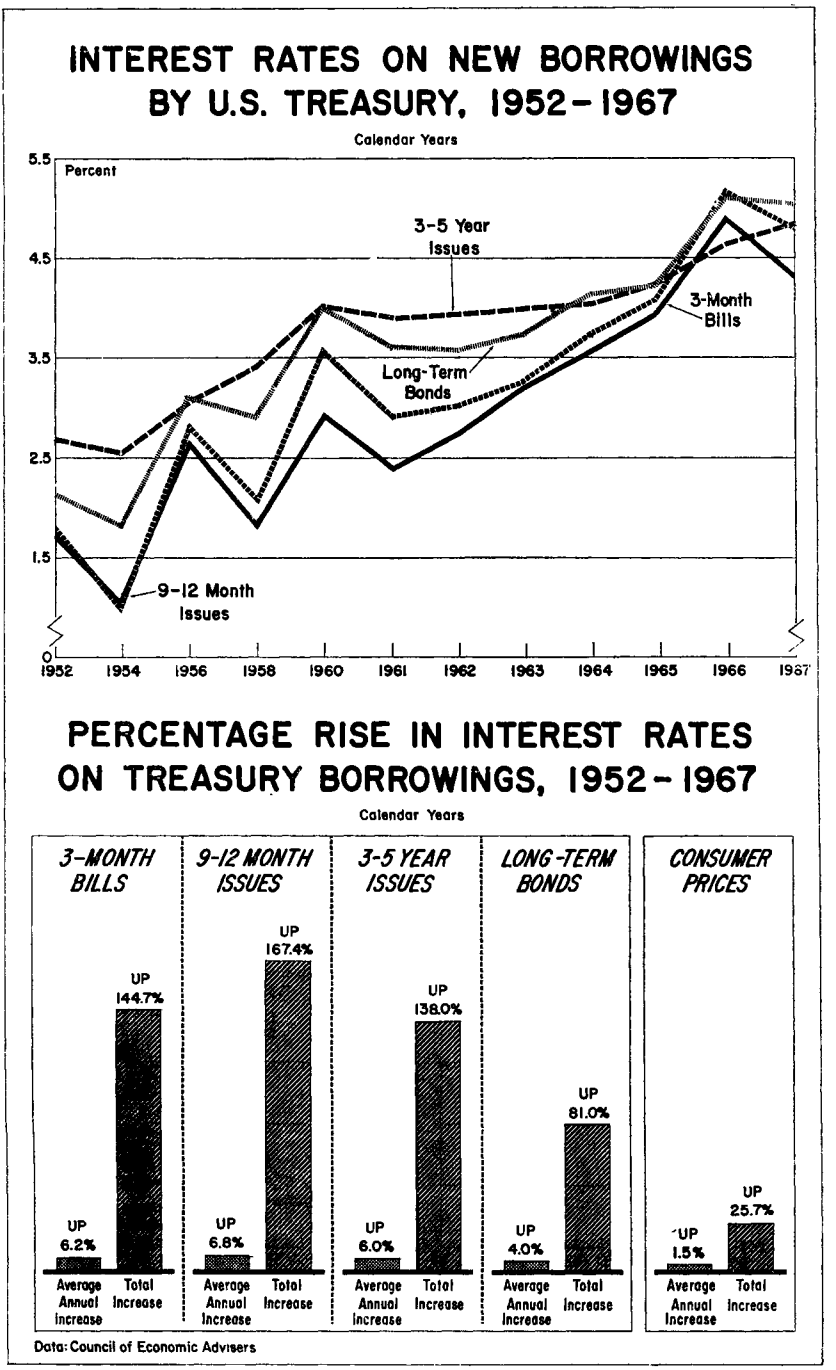
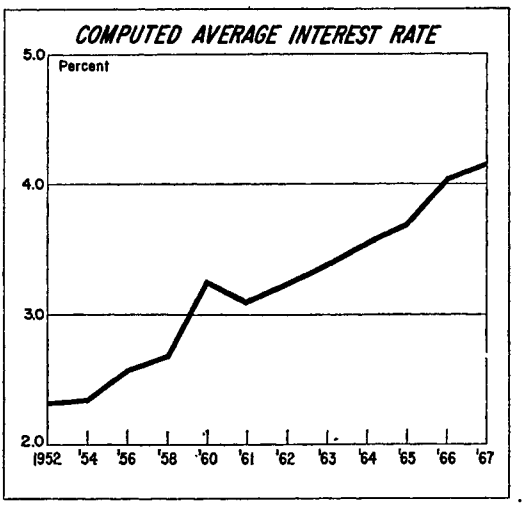
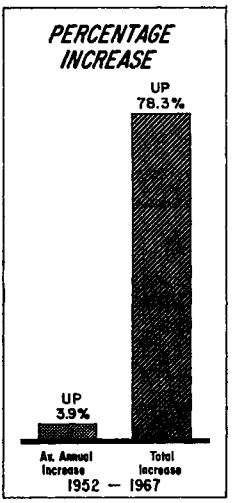


CHART 16

AVERAGE INTEREST RATES ON FEDERAL PUBLIC DEBT, 1952 – 1967

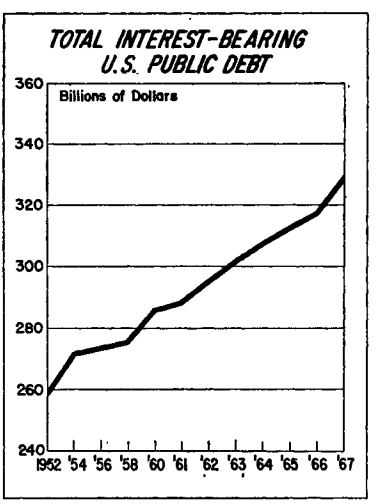
Calendar Years

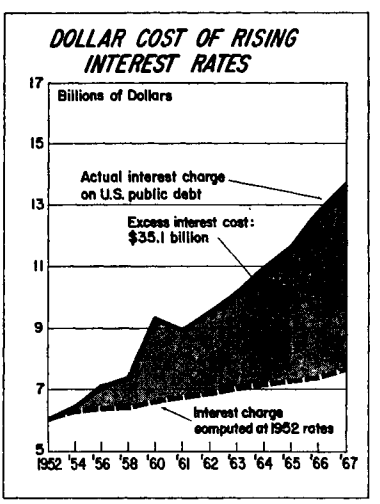




COST OF RISING INTEREST RATES TO U.S. GOVERNMENT, 1953 – 1967

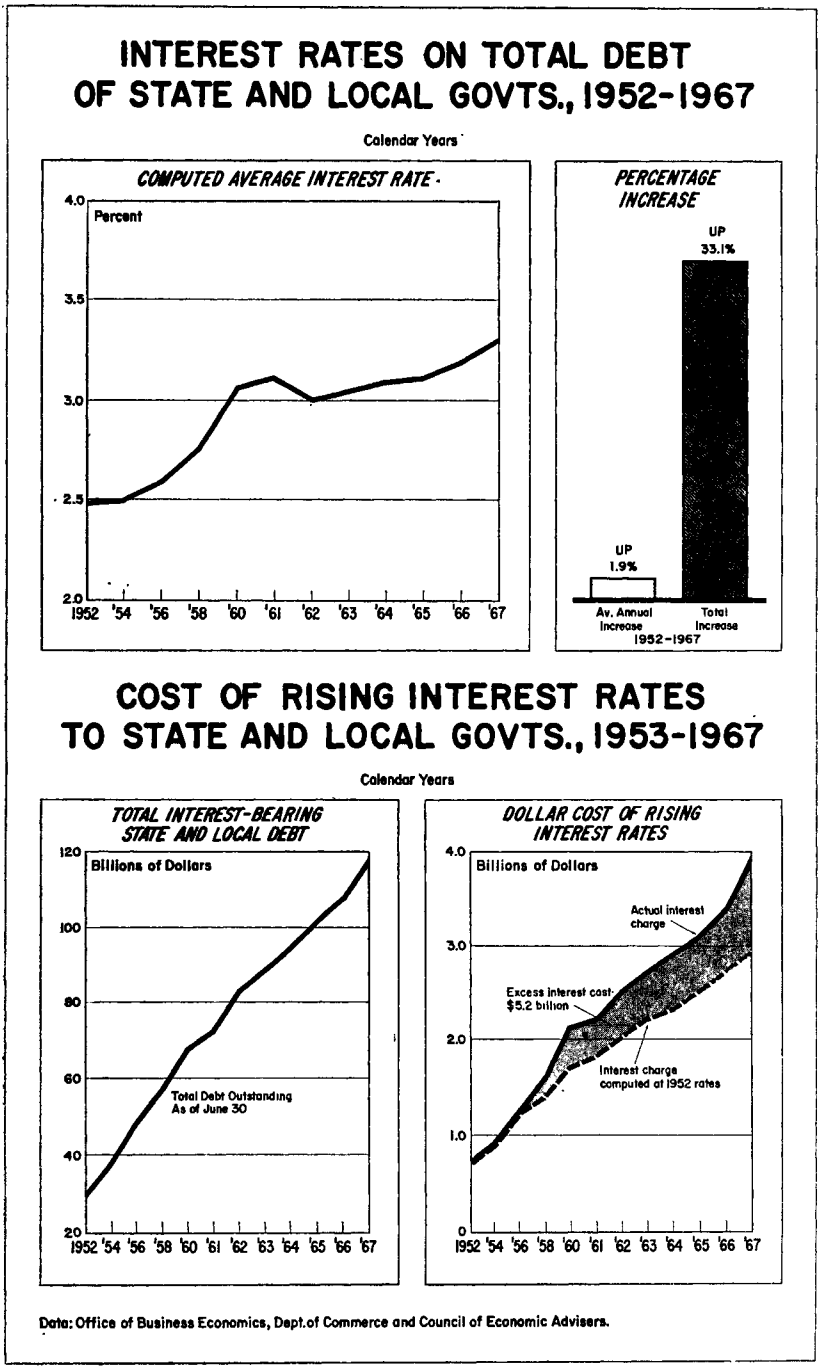
Calendar Years





NOTE: All figures relate to total amounts outstanding.
Data: U.S. Treasury

CHART 17

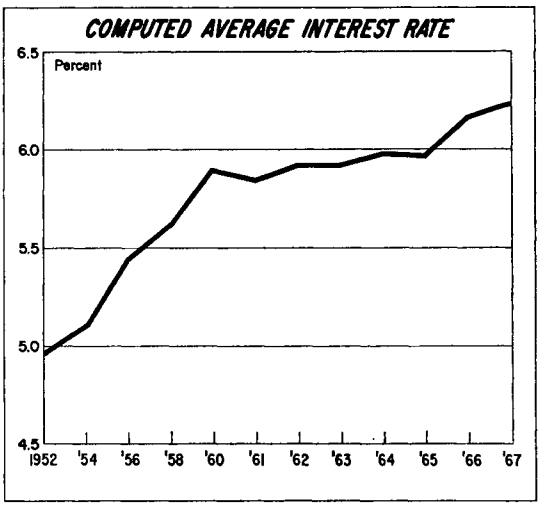


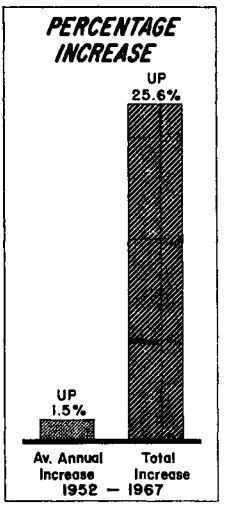
Data: Office of Business Economics, Dept.of Commerce and Council of Economic Advisers.

CHART 18

INTEREST RATES ON TOTAL INTEREST-BEARING PRIVATE DEBT, 1952 - 1967

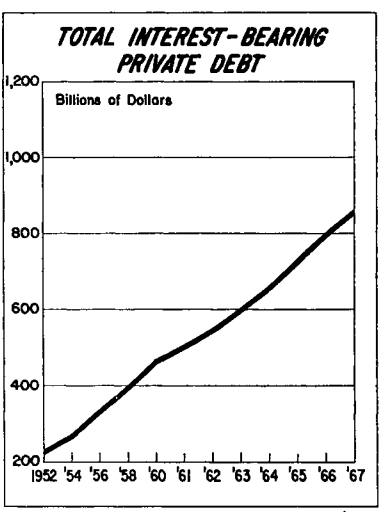
Calendar Years

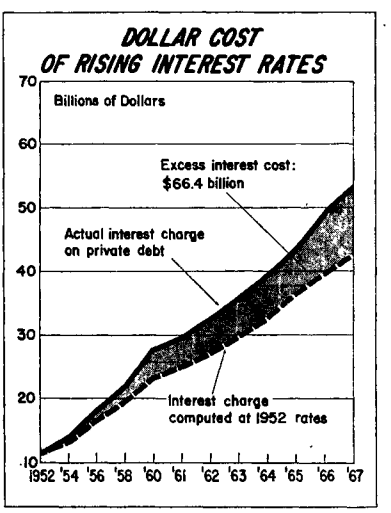




COST OF RISING INTEREST RATES TO ALL PRIVATE BORROWERS, 1953 - 1967

Calendar Years



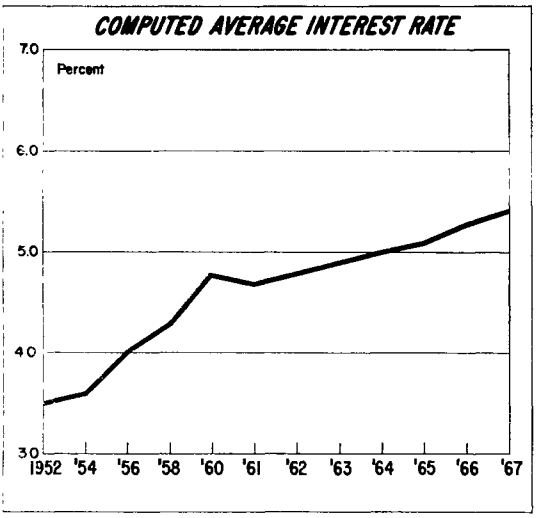


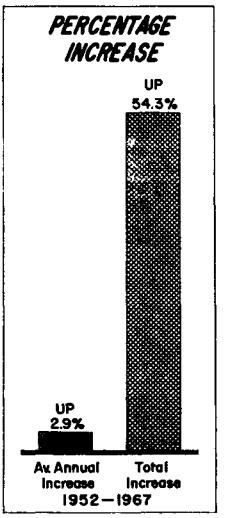
Data: Federal Res. & OBE, Dept. of Commerce

CHART 19

AVERAGE INTEREST RATES ON TOTAL PUBLIC AND PRIVATE DEBT, 1952–1967

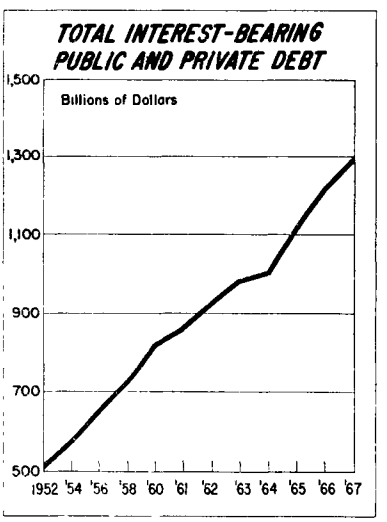
Calendar Years

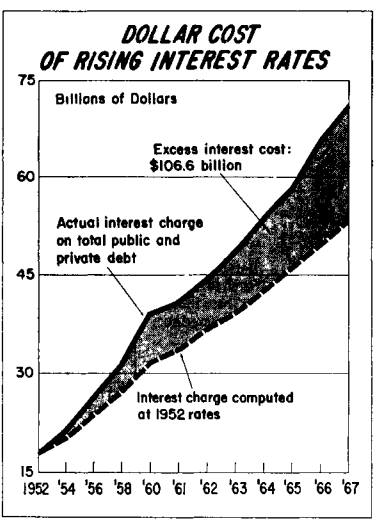




TOTAL PUBLIC AND PRIVATE COST OF RISING INTEREST RATES, 1953–1967

Calendar Years



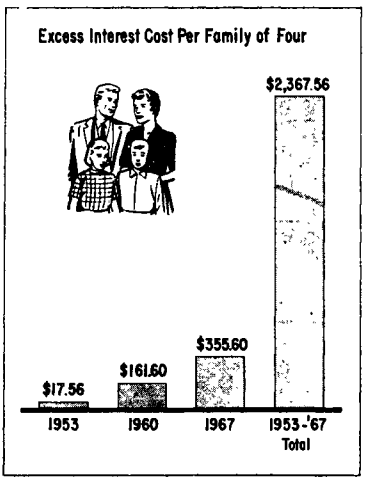


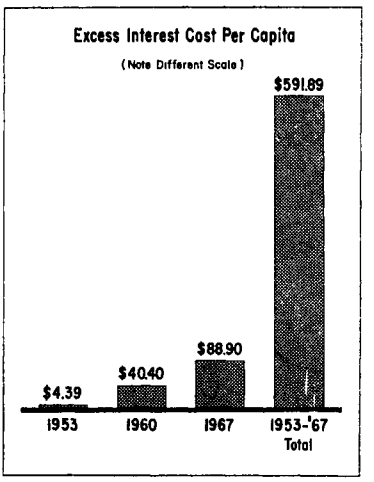
Data U.S. Treasury and Office of Business Economics, Department of Commerce

CHART 20

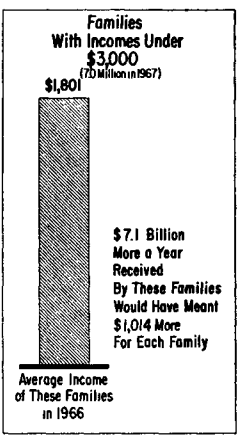
THE BURDEN OF $106.6 BILLION IN EXCESS INTEREST COSTS, 1953-1967 UPON THE AMERICAN PEOPLE

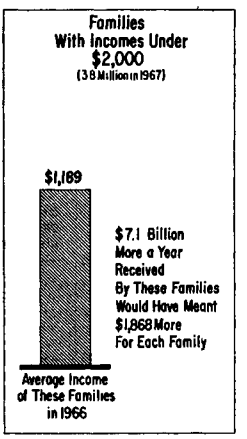
Calendar Years

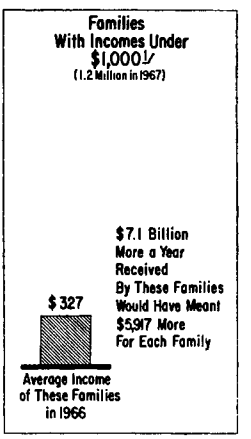




HOW $7.1 BILLION A YEAR, 1953-1967 -EQUAL TO ANNUAL EXCESS INTEREST- MIGHT HAVE RELIEVED POVERTY







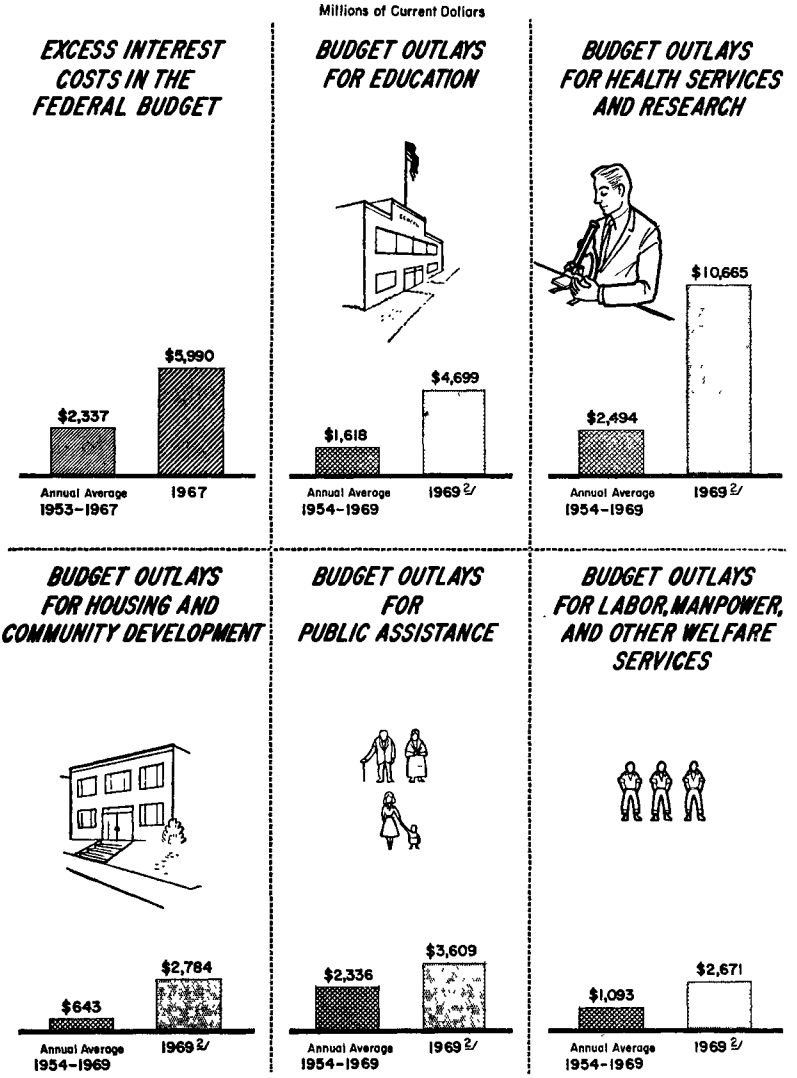
1/ Includes families with no income and income loss.

Note: Family and income data from Bureau of the Census.

CHART 21

EXCESS INTEREST COSTS IN THE FEDERAL BUDGET 1953-1967 CONTRASTED WITH OTHER COSTS RELEVANT TO THE WAR AGAINST POVERTY [1]

Millions of Current Dollars



[1] Interest costs, calendar years; budget outlays, fiscal years.

[2] Proposed in fiscal 1969 Budget As some of the categories for fiscal 1969 include immense trust funds and net lending, they greatly overstate for purposes of comparison with excess interest costs in calendar 1967.

STATEMENT OF HENRY A. LATANÉ, UNIVERSITY OF NORTH CAROLINA

INCOME VELOCITY AND INTEREST RATES: POLICY IMPLICATIONS

The November 1960 issue of RES (p. 445–449) included a short paper titled "Income Velocity and Interest Rates: A Pragmatic Approach." [1] This paper was a review of the relationship between income velocity (and its reciprocal-proportionate cash balances) and yields on long-term high-grade bonds, first stated in an article which appeared in 1954.[2] These papers have been widely discussed in the literature.[3]

Here I merely bring the 1960 paper up to date through chart 1 and point out that the data continues to support the hypothesis that income velocity continues to be closely related to interest rates. This is not surprising. Money is held largely to facilitate transactions. Its yield is imputed from the convenience and utility of holding cash balances. The yield from bonds, after administrative costs, is balanced at the margin with the imputed yield from money. When bond yields are high, wealth holders economize on their cash balances thus leading to increases in the turnover of money.

The policy implications of this relationship are obvious even though little noted in the literature. We now have high-interest rates built into our monetary economy. At present high-grade long-term corporate bonds yield around 6 percent and income velocity is over 4.5. If interest rates come down income velocity also can be expected to decline. Thus monetary policy must be adjusted to permit a rapid increase in money supply if and when interest rates come down. A decline in yields on high-grade bonds to say 4 percent would be associated with a decline in income velocity to under 3.5 if the relationship going back over the past 60 years is maintained. For velocity to decline to this rate within 3 years with gross national product growing at an annual rate of 5 percent per annum it would be necessary for the money supply to increase at a compound annual rate of nearly 15 percent per year. Only if the present structure of interest rates is accepted as permanent would it be advisable to tie in the growth of the money supply to growth in gross national product. Otherwise a much larger increase will be needed.

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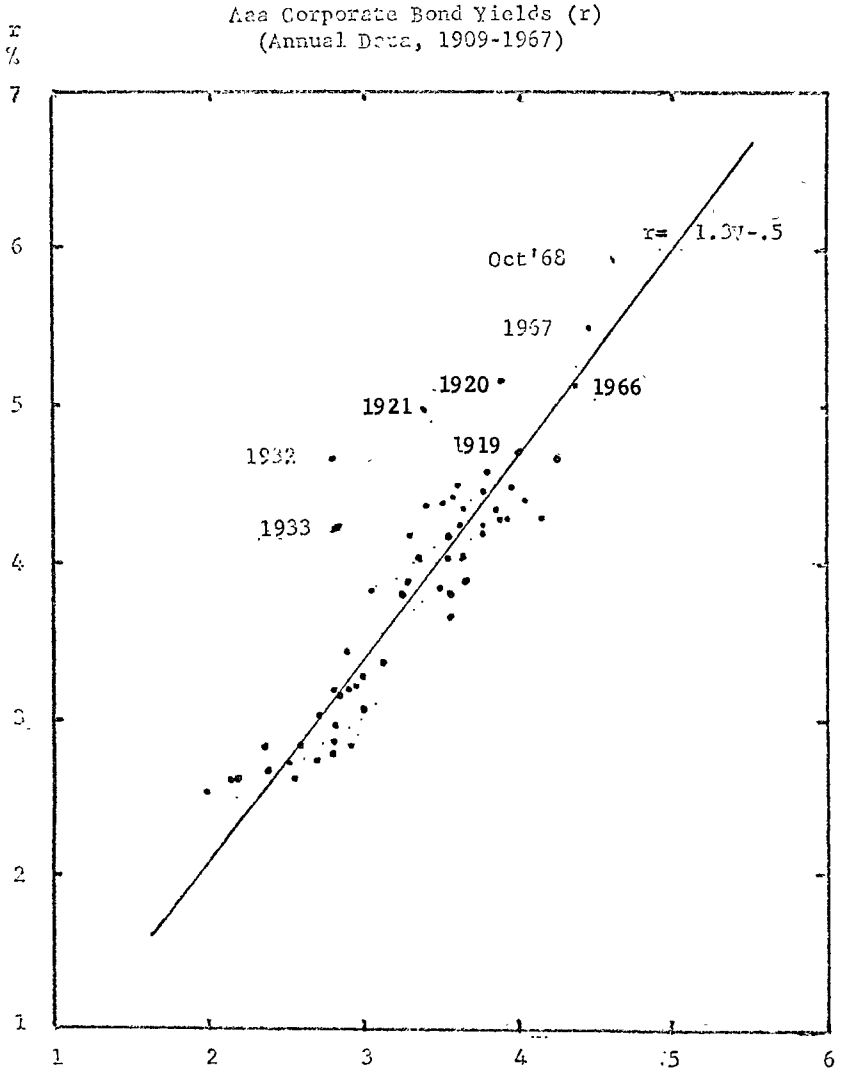
[1] This paper was published in slightly modified form in part 10 of the *Hearings on Employment Growth and Price Levels* before the Joint Economic Committee (Washington 1960), p. 3435–3443 and reprinted in Richard A. Ward, Editor, *Monetary Theory and Policy* (International Textbook Co. 1966), pp. 272–279.

[2] Henry A. Latané, "Cash Balances and the Interest Rate: A Pragmatic Approach," *Review of Economics & Statistics*, XXXVI (November 1954), pp. 456–460, reprinted in Ward S. Thorn, editor, *Monetary Theory and Policy* (Random House 1966), pp. 118–127.

[3] For references to the articles in question and for discussions of the findings see, for example, Hon. Wright Patman, *Employment, Growth, and Price Levels Hearings*, supra, pp. 3241–3242. Milton Friedman, *Dollars and Deficits* (Prentice-Hall 1968), p. 199; Milton Freidman and Anna Jacobson Schwartz, *A Monetary History of the United States*, 1867–1960 (Princeton, N.J.: Princeton University Press 1963), pp. 646–654; Milton Friedman and Anna Jacobson Schwartz, "Money and Business Cycles," *Review of Economics and Statistics*, 1963, *Supplement on the State of Monetary Economics*, pp. 44–45; Allan H. Meltzer, "The Demand for Money: The Evidence from the Time Series," *Journal of Political Economy*, June 1963, p. 221 and pp. 238–239; T. J. Courchene and H. T. Shapiro, "The Demand for Money: A Note from the Time Series," *Journal of Political Economy*, October 1964, p. 502: Carl F. Christ, "Interest Rates and 'Portfolio Selection' Among Liquid Assets in the United States," in *Measurement in Economics* (Stanford, Calif.: Stanford University Press 1963), pp. 201–217; L. R. Klein, "Stocks and Flows in the Theory of Interest," in *The Theory of Interest Rates*, eds.. F. H. Hahn and F. P. R. Brechling (London: Macmillan and Co., Ltd. 1965), pp. 147–151; William J. Frazer, Jr., "The Demand for Money, Statistical Results, and Monetary Policy," *Schweizerische Zeitschift Fur Volkswritschaft and Statistik*. March 1967 and *The Demand for Money* (Cleveland, Ohio: The World Publishing Co. 1967), p. 106 et seq. from which all except the first two entries in this bibliography is taken.

CHART 1

Income Velocity (V) Compared with
Aaa Corporate Bond Yields (r)
(Annual Data, 1909-1967)



STATEMENT OF AXEL LEIJONHUFVUD, UCLA

GENERAL REMARKS

The provisions of H.R. 11 deal with two major issues both of which have been the subject of considerable debate for some time. The first concerns the status of the Federal Reserve Board vis-a-vis the banking community, the administration, and Congress—but especially the extent of its formal independence of the administration in the formulation and execution of monetary policy. The second concerns the question of how monetary policy should be conducted, a question

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which may be and has generally been considered independently of where the ultimate authority to make the major decisions on monetary policy is, or should be, lodged. On this second issue, the bill specifically takes a position on the much-debated question of whether the performance of the economy, as judged by the goals of the Employment Act, would not be improved by following a monetary policy which adopts as its prime immediate target the stabilization of the rate of growth of the stock of "money."

Before turning to the list of specific questions distributed by the committee's staff, I would like to prepare the ground for my later answers with the following general remarks on each of the two major issues in turn:

1. Although one can hardly say that passions have ever flared very high, the first issue has been the subject of well-nigh continuous debate in academic circles at least since the Treasury-Federal Reserve "Accord" of 1951. The usual argument *for* a high degree of central bank independence runs in terms of the supposed dangers of giving the executive branch of Government direct access to the "inflationary engine." In the United States, this argument is usually supported by reference to the experience of the preaccord period—and the weight attached to it, one may add, seems to have decayed pretty much with our temporal distance from that experience. If a truly long view is taken, of course, there is hardly any limit to the number of historical illustrations of governments "debasing the coinage" that can be dug up to add color, if not weight, to this position.

Academic economists arguing *against* the degree of independence that the Federal Reserve authorities currently enjoy have been mainly concerned with the desideratum of achieving close coordination of fiscal and monetary policies. Some of us, at least, find the possibility that the fiscal policy of the administration could be thwarted by a contrary monetary policy pursued by nonelected officials to be a curious and disturbing anomaly from a broadly "constitutional" viewpoint. This position I share, so it may be understood that such a "bias" underlies my answers below.

The Commission on Money and Credit a few years ago also concerned itself in considerable detail with the status of the Federal Reserve authorities. In the main, the Commission systematically viewed the issue from the standpoint of the desirability of insuring consistency between the fiscal and monetary policies being pursued. Its deliberations issued in a series of recommendations. The provisions of H.R. 11 embody (with variations, to be sure) the substance of several of these recommendations.

The issue itself, however, long antedates the work of the Commission on Money and Credit and is far older also than the academic debate referred to above. The United States, in fact, has a very long, unbroken political tradition of strong and widespread opposition to concentration of "monetary power" whether in government or private hands, particularly when removed from the immediate influence of democratically elected representatives. The historical influence of this political tradition has left its rich sediment in current banking law and is reflected in the fragmentation of regulatory functions and corresponding structure of banking and financial intermediaries that is so peculiar to the United States. It is reflected also in the provisions of

H.R. 11, especially as they pertain to the relationship of the Federal Reserve to Congress.

It is pertinent to note that when measures such as reducing the number of members of the Federal Reserve Board, reducing the length of their terms, and letting the President appoint "his own" chairman at the beginning of each presidential term have been discussed previously, the discussion has generally presumed (*a*) that the formal autonomy of the Federal Reserve would be left otherwise untouched, and (*b*) that monetary policy would continue to be conducted with the same kind of short-run discretion as has traditionally been the case. In that context, the intent of these proposals has been to leave the ultimate decisions in each specific situation to the Federal Reserve Board while trying to insure that the administration's general views on the economic policies that are in the national interest would be strongly represented in the Board's and the Federal Open Market Committee's deliberations. The proponents of such reforms, then, have hoped that this would be sufficient to insure a satisfactory degree of overall consistency of monetary and fiscal policy.

In the context that I have indicated by "presumptions" (*a*) and (*b*) above, I would strongly favor measures, such as those contained in the bill, designed to increase presidential influence over the Board. But the bill also provides for the President to dictate the rate of growth of the money supply that the Federal Reserve authorities would be obliged to bring about. This provision implies such an *extraordinary curtailment* of the independent discretion of the Board that the context in which these other measures have to be considered is, in my opinion, drastically altered. I will elaborate on this below.

II. The second issue concerns the desirability of forcing the Federal Reserve Board to focus on (the rate of growth of) the money stock as the immediate target of monetary policy and of establishing, at least by implication, the strong presumption that whoever is ultimately responsible for the major monetary policy decisions is obliged, in the national interest, to assign a high priority to stabilizing (within fairly narrow bounds) the money stock growth rate and to permit sizable changes in the rate only when quite strong reasons can be adduced for so doing.

Here, again, I find myself in agreement with what I perceive to be the general intent of the bill. I have been much impressed and strongly influenced by the case made in the last decade or so by the group of economists of which Professors Friedman, Brunner, and Meltzer are the most well-known. In view of the impressive empirical case assembled by economists of this school of thought (a case which their opponents have sought to counter mostly by hypothetical suppositions), I find the belief reasonable that the *domestic* performance of the U.S. economy would have been "better" than what we have experienced had the past time-path of the money stock been less irregular.

Again, however, it is pertinent to note the context in which the proposals to have the monetary authority focus its efforts on the behavior of the money stock has been discussed. As already mentioned, it has been discussed independently of the question of where ultimate authority (and responsibility) for decisions on monetary policy would be lodged and, consequently, independently also of the subsidiary issue considered under *I.* above. Most importantly—and I know that this

point has been made before the committee several times before—the economists who have argued strongly for sticking to a fairly stable money stock growth rate have generally combined this proposal with an equally strong advocacy of a system of flexible exchange rates. Indeed, their almost exclusive concentration on the question of what the *domestic* performance of the economy would be, if their main proposal were followed, would be hard to justify were it not understood that they would leave the international position of the dollar to be "managed by the free market"—if such a contradiction in terms may be countenanced.

This point is very relevant to any attempt to appraise how monetary policy would be conducted within the framework that would result from the bill's passage. The bill obviously does not intend to commit, by indirection, the nation to any particular posture in international monetary affairs by assigning an *absolute* priority to a stable growth rate of money over balance of payment considerations. In the absence of such a commitment to totally subordinating our international monetary affairs to objectives of purely domestic economic performance, there is no point to even considering the question (3.D) whether it would be advisable to fix once and for all on a growth rate rule to "be used each year into the foreseeable future." We must envisage, instead, that the growth rate pursued by the authorities will be changed from time to time due to balance of payments considerations. Not only that—whereas the questions distributed by the committee's staff seem to indicate (Nos. 1 and 3.D) that a money stock growth rate would be announced "at the beginning of each year" and adhered to throughout the calendar year, I believe that it must be understood that, in the matter of balance of payments "crises" under present arrangements, the "foreseeable future" is hardly to be measured in years, but at best in months. The pattern of behavior likely to emerge, therefore, I see as one in which, in most years, the beginning of year announcement would be one of continuing the growth rate of the immediate past and in which, when changes are made, they may be announced at any time whatsoever. But the point goes even further than that. If, in times of balance of payments "crises," domestic objectives will be subordinated to international ones, this is likely, at least on some occasions, to be accompanied by a reassertion of interest rate targets and a relinquishing of money stock growth rate targets for the short-term conduct of monetary policy. In such situations, in other words, it may well be decided to attempt to bring about a certain level of the interest rate structure and to accept whatever time-path of the money stock that this turns out to imply. Quite possibly, then, we would be in for a "growth rate regime" interrupted at irregular and unpredictable intervals by relapses into an "interest rate regime."

This does not sound very appealing. I still think, however, that there is something to be gained by amending the Employment Act in the way the bill provides. The time-path of the money stock seems under present conditions to be, as it were, "residually determined" as the monetary authority pursues a whole range of objectives (while assigning priorities according to a conception of the "national interest" that need not conform closely to that of the administration of the majority in Congress) and reacts to the fiscal program of the administration and debt-management activities of the Treasury. The bill

should at least insure that the monetary authorities will normally assign a higher priority to the behavior of the money stock. The provision that the rate of growth aimed for should be publicly announced will mean less uncertainty in the private sector about the monetary policy actually being pursued; this is in itself desirable. While, as just noted, the bill can hardly constrain the decisionmaking authority from altering the money stock growth rate more or less whenever it deems that the situation so demands, such action would presumably require another official announcement. This would focus the critical attention of both Congress and the public at large on these decisions; large changes in the rate of monetary expansion, at least, or changes that bring the target rate of growth outside, say, the range of 2–7 percent per annum (several times suggested as "normal" in the May 1968 Joint Economic Committee hearings) could then hardly be made without informing the public of the reasons for them. The bill should thus serve to discourage both large changes and frequent changes (and particularly, perhaps, frequent changes in direction).

This I see as a potentially important gain. The question remains whether the decisionmaking authority is better lodged with the Federal Reserve Board or with the President. This is a question of what institutional framework one deems most likely to produce the best coordination of fiscal and monetary policies. As such it involves also the issues considered under *I.* above. Question No. 2 on the staff's questionnaire specifically concerns this problem so I will have to essay my opinion on it below. But a caveat is in order: It is obviously a question of a type on which the opinions of men with political experience or of political scientists should be given more weight and on which academic economists can not feign special competence.

Remarks on the questions

(1) Monetary and fiscal policies *cannot* be treated as "independent mutually exclusive stabilization policies." The answer to the second part of the question can only be: No. On the question's first part, it does seem appropriate that a coordinated program be proposed "at the beginning of each year." As already indicated, however, it is likely that this program will on occasion have to be revised in one or more respects later during the year.

The intent of the bill, presumably, is that the President's budget message should explicitly discuss the monetary policy which the authorities plan to accompany the proposed budget. It seems eminently desirable that, before acting on tax requests and appropriations, the Congress have as clear a picture as possible of the monetary implications of the budget as these are envisaged by the administration and the Federal Reserve Board. In order for these implications to be taken into account, the administration would have to supply not only expenditure proposals and a forecast of tax revenues but also a proposal on the combination of new debt-issues and money stock expansion with which it intends to finance an anticipated deficit. Given the anticipated deficit and the growth of the money supply proposed, moreover, the Congress would presumably wish to have a forecast of the probable consequences of the Government's borrowing program for interest rates.

(2) I believe it desirable to have the relevant decisionmaking powers and accompanying political responsibilities clearly focused. If a sys-

tem of dispersed responsibility combined with informal consulting arrangements is not to be continued, the Office of the President is clearly the only point at which responsibilities could be focused. The administration is more likely to work its budget and debt-management proposals into a coherent program if it is itself made responsible for defining the target-rate of money growth.

It should be realized, however, how drastic a realinement of decision-making authority and responsibility this would be. The Federal Reserve's discretion would be circumscribed to such a degree by being obliged to stick as closely as possible to a money stock growth rate dictated to it that it would henceforth be substantially free of either credit or blame for the outcome of national economic policy. Power to make the decisions is moved from the Federal Reserve to the President and indirectly to some extent also to Congress. Responsibility shifts with it and also becomes much more clearly defined. The responsibility will on occasion turn out to be a political liability. Dispersed responsibility makes for a "comfortable" arrangement for everyone involved. With the suggested arrangement, it is true, the President gets the power to make major decisions previously made by the Federal Reserve Board, and presidents, in the naive popular view, are supposed to "like" powers to act directly. But it is at least not self-evident that, after some experience with the proposed arrangement, the President will find it to be worth the candle. It would also seem, moreover, that within the new framework the President may on occasion find that it provides new opportunities for focusing political pressure on the Ways and Means and/or Appropriations Committees.

Any comments on the effect of the proposed framework on the coordination of policies must be rather speculative in nature. This is so because an academic economist without Washington experience—and especially one from the west coast—has next to no "inside" knowledge of how present informal consulting arrangements work. I trust that the following speculations will be appropriately discounted.

It has often been pointed out that, under the present system, it is possible for the Federal Reserve to pursue, for example, a restrictive monetary policy to offset an expansionary fiscal policy decided upon by the administration. But it is to be doubted that much should be made of this theoretical possibility as a practical probability. The Federal Reserve did of course ultimately assert its independence of the Treasury in 1951. But a central bank exerting itself against the President on a fiscal policy approved by Congress could not count on retaining its autonomy for long. The risk, I believe, is not so much that the present dispersion of decisionmaking authority will lead to directly conflicting policies being pursued as that the dispersion of responsibilities will lead to the responsibility for one or another consequence of the actual policy mix becoming "lost" between the various authorities involved. The following hypothetical case is illustrative:

Suppose that the administration were to pursue an expenditure program which at going tax rates implies a large deficit. Those economic resources desired for Government use that are not taxed away from private sector use, can be obtained either by borrowing or by money-creation. (If there is substantial resource unemployment, of course, we have no problem.) By the first method, Government demands on the credit-market would displace prospective private sector credit-financed resource absorption by raising interest rates and otherwise

affecting credit terms. By the second method, the Government would use newly created money to "price" the resources away from the private sector. Now, in the past, the administration has not been required to commit itself to any particular mix of these two methods to "cover" a deficit. With the new system, it would be obliged to and it might well be, on occasion, that no such mix is to be found that is also palatable to Congress in terms of the interest rate forecast and target rate of money stock growth that would have to go with it. In practice, the proposed arrangement may, in fact, turn out to harbor a "bias" toward fiscal conservatism.

With present arrangements and under the supposed circumstances, it has been possible for an administration tacitly to leave the decision—and the responsibility—on how much of the deficit that should be "monetized" to the Federal Reserve (and to do so with some confidence that the rates of interest at which new treasury issues can be floated would not be allowed to rise drastically). The Federal Reserve, in its turn, would in the supposed circumstances be able to defend itself against criticism of a high rate of monetary expansion by claiming *fait accompli:* that Treasury debt-operations had to be supported, that "orderly market conditions" had to be maintained, that the rise in interest rates that had taken place was evidence of its restrictive efforts, and that still higher rates would have been insufferable, for example, for the construction industry or State and local governments, and so forth.

Under the proposed arrangement, responsibility could not "become lost" in this manner but would have a defined focus. The administration would have to tell Congress, for example, "the target-rate of money growth for this year is 7 percent" or "the target is 3 percent but we forecast 8 percent long rates by the end of the year." As suggested above, the administration might also find the arrangement useful on occasion however. One can envisage the administration pressuring the Ways and Means Committee: "If there is no action on the proposed tax raise, the President will shortly have to announce a jump in the rate of growth of the money supply and the inflationary consequences will be laid at your door."

It is thus quite possible that the authorities involved will find that the old system was "nicer" to work with. But the lack of an explicit focus of decisionmaking in the present system is undesirable. It invites having the value of important policy-variables being set "by default"—that is, without all the pros and cons of the actual policy-mix being weighed systematically by any of the authorities involved.

(3) *A.* The target should be defined in terms of the money supply. As previously indicated, balance-of-payments considerations might on occasion lead to the reassertion of an "interest rate regime," but interest rates are otherwise an easily misleading indicator of the effect exerted by monetary policy on the domestic economy. The same is true of the various reserve variables, although the Board may no doubt still find it preferable to couch its week-to-week instructions to the manager of the System's trading desk in terms of free reserves, for example.

"Liquidity" is too amorphous a concept to be an at all serviceable "target." Writing it (somehow) into the law is, in fact, likely to leave present arrangements unaffected in practice. Bank credit—or rather the rate of change of bank credit—may be regarded here as one of

several possible operational proxies for "liquidity." It is possible in pure principle, of course, to have a period in which a substantial rise in aggregate demand is supported by an all-around expansion of credit while the money stock and even bank debits remain more or less constant. The rate of expansion of bank credit, however, has no special call on our attention over, say, the expansion of banks plus non-bank intermediaries, or banks plus intermediaries plus trade credit—and so forth. In trying to analyze "variable velocity" problems in this way, one is thus lead back to the vague notion of the state of "liquidity" in the system as a whole. With improved knowledge of the structure of the system, we may well one day be using such variables in "fine-tuning" the economy. I agree, however, with those who warn against ambitious attempts at fine tuning as our knowledge now stands.

There are obviously more links to the chain between high-powered or base money and aggregate demand in money terms than between the money supply and aggregate demand, and the association is correspondingly weaker. Of these two alternatives, therefore, the money supply is clearly preferable.

Open market operations should remain the main instrument used by the authorities to control the target variable. The Federal Reserve has other objectives than national income—for example, "industrial organization" objectives with respect to the structure of the banking system. Its other instruments—reserve requirements, regulation Q, and so forth—would leave it some latitude in also pursuing these objectives even while under the contraint of having to produce a target rate of money stock growth dictated to it.

My views of the links between the money stock and money income are so conventional that it is hardly worthwhile to elaborate on them. To what extent variations in "velocity" will be dampened if the variability in the growth rate of money stock is reduced, I don't think we know—maybe we'll find out. I have no illusions that velocity will turn out to be "approximately constant." The point, as said so many times before, is that our history of discretionary management has not shown a systematic cyclical pattern of higher money stock growth rates to offset declining velocity, etc.

It may be worthwhile to discuss briefly two (of the many) arguments that have been advanced against the use of a money stock target. The first is that the money stock is not determined just by factors on the supply side but also by factors on the demand side. The criticism is directed toward the oversimplified treatment common in our textbooks where the money stock is discussed as an "exogenous magnitude determined by the Central Bank." The criticism is valid, but I do not think it grounds for pessimism as to the Federal Reserve's ability to control the money stock within fairly narrow limits. The most common use made of this point, of course, is to argue that the historical association between movements in income levels and money stock growth rates does not reflect the direction of causation asserted by Professor Friedman and associates.

The second argument, of course, is that money income depends not only on the money stock but also on the entire range of factors that affect the demand for the stock ("velocity").

What I want to point out is that these two "objections" are not necessarily "additive" in the sense that adding the first to the second—which has always been recognized by everybody—*a fortiori* strength-

ens the case against a "quantity policy." Recognition of the fact that the money stock is determined by the interaction of the banking system and the nonbank public's portfolio preferences, and that it cannot therefore be treated as "exogenous" to the same degree as the stock of high-powered money, may indeed strengthen the case *for* such a policy. This possibility may be illustrated as follows: Suppose that the system is exposed to some "nonmonetary" disturbance which tends to depress money income. Let, for example, political events abroad lead businessmen to take a dimmer view of prospects so that investments and production in some sectors are cut back. This would be associated with a lessened demand for bank credit and, perhaps, by an increased demand for certain forms of time deposits and other liquid assets. Consequently, we would experience a downward pressure on interest rates.

Now, in the "crude" textbook model where the money stock is treated "as if" exogenous, i.e., as determined by the base, reserve requirements ratios, and the public's desired currency-deposit ratio (treated as a constant), this process would be seen not to affect the volume of money supplied by the banking system on any given base. If the system were like that, consequently, there would be no feedback to a central bank operating on a given growth rate rule that would induce it to take positive action, e.g., by starting to feed in base money at a higher rate. It would just continue as before. (On the other hand, of course, it would not be lured into decreasing the growth of the base by taking the decline in interest rates as evidence of "monetary ease.")

With the more sophisticated model, the commercial banks would respond to the decrease in credit demand and declining interest rates in part by increasing their demand for excess reserves. Here, consequently, the central bank would observe a decrease in the ratio of money stock to base and a corresponding slowdown in the rate of growth in the money stock (if not an actual decline in the money stock). In this case, therefore, the central bank would be led to take expansionary action in order to adhere to the target rate. This action, moreover, might well come before the central bank has sufficient evidence that a recession is in progress.

B. The guidelines handed down to the Federal Reserve Board should be specified in terms of the target rate of growth—plus/minus, say one-half of 1 percent per annum—as discussed above. Beyond that, I would leave the Federal Reserve alone to use whatever degrees of freedom remain to it in the pursuit of "tuning" or its other objectives.

As previously mentioned, we must expect the administration to revise the target value at intervals and this would be done, of course, in relation to the domestic goals of the Employment Act as well as because of balance-of-payments problems. In presenting his beginning-of-year program, the President would presumably be obliged to motivate the policy mix he proposes in terms of the goal-variables of the Employment Act. The program would have to contain explicit forecasts of the tax-take (and, therefore, national income), employment and price level developments, et cetera.

D. The target will have to be restated at intervals. These intervals need not be annual, however. Hopefully, the administration would find that to make changes on the order of magnitude, say, of 2 percent or more is to invite major political controversy.

The target rate of money stock growth may have to be revised for a variety of reasons: unfolding events may reveal serious forecasting errors affecting the President's program; taxes or appropriations sought by the President may fail to pass Congress so that the intended fiscal-monetary policy mix is altered; or, as previously mentioned, the balance of payments may suddenly become of urgent concern et cetera. Even apart from all these things, however, I believe it would still be inadvisable to fix on a given growth rate of money for several years ahead. There is ample reason to believe that we are now in the very beginning of a big wave of innovations in banking. The coming computerization of the payments mechanism might well turn out to be as significant a change in the structure of the banking-intermediary system as was, at one time, the development of fractional reserve banking and, later, the development of demand-deposit banking. To enter on this transitional period bound by a fixed rule would obviously—or so it seems to me—not be advisable. These coming developments may indeed force on us the necessity of trying to manage "liquidity," in its most amorphous and ill-defined sense, whether we like it or not.

F. Since the President is responsible for the overall policy program, the Federal Reserve should not be allowed to change the target value at its own discretion. The Federal Reserve will have to be allowed some leeway in its operations in the form of an admissible range of values around the target rate of growth set by the President. Consistency of the proposed institutional framework requires, however, that this "band" not be so wide as to permit the Federal Reserve to undertake a major policy change on its own. Within an appropriately narrow band, I would leave it to the Federal Reserve's discretion how to utilize it.

The President should be allowed to announce changes at his own discretion. Reasons for doing so have been indicated under *D* above.

(4) As a matter of pure theory, changes in the maturity structure of the public debt could be used by monetary authorities (constrained by an imposed target rate of monetary expansion) to affect private sector "liquidity" in order somewhat to offset changes in "velocity." For reasons already indicated, I believe it would be wise to refrain from such fine-tuning attempts, at least until some experience with the proposed arrangements has been accumulated. I would thus assign a passive role to debt management: drastic, rapid changes in the maturity composition of the debt should be avoided; refunding operations and new issues should be spread more evenly over the year since a Federal Reserve constrained by a money growth target will not be in a position to "clear roads" or "maintain orderly market conditions."

(5)*A.* As just indicated, I believe that the Treasury must revise its debt management practices so as to make unnecessary "defensive" operations against big Treasury issues. The risks and costs of having the Federal Reserve concern itself with shortrun market conditions, it is usually argued, are simply that the authorities may become so preoccupied with the weekly or seasonal "trees" as to lose sight of the cyclical "forest."

If the authorities are to operate under a "growth rate regime," however, I see no objection to their pursuing an appropriately "seasonally adjusted" pattern of growth, if that seasonal pattern is stable from year to year. Thus, if the President lays down a target rate of

4 percent in February, the Federal Reserve should set out on a time path designed to end up with a 4 percent larger money stock next February—but, in between, the growth rate would be higher in "seasons" of high money demand, et cetera.

B. Open market operations will no doubt remain the major instrument. I see no point in putting further constraints on the authorities than is already done by the major provisions of H.R. 11 by depriving them of the use of other instruments.

C. If the Federal Reserve is once under a "growth rate regime," I would leave the use of these instruments to their discretion. It does not seem advisable, in any case, to use the law to give them "instructions" in their use. Under the proposed system, there would hardly be occasion to use changes in discount rate for their "announcement effect," but a punitive rate or informal discount window rationing may sometimes be helpful in the Federal Reserve's pursuit of the target set by the President. The availability of rediscount facilities will, as before, be helpful to individual banks in adjusting their reserve positions gradually. Reserve requirement changes might on occasion be helpful in dealing with heavy international capital flows; but this instrument as well as regulation Q will presumably be used primarily for "industrial organization" objectives.

The proposed arrangements will leave less room for the Federal Reserve to take into account the effects of its policies on the incentives for banks to be or not to be members of the System. This adds another argument—if the case is not already persuasive—for having the reserve requirements set by the Federal Reserve apply to all commercial banks.

D. The bill shifts the responsibility for the main outlines of monetary policy from the Federal Reserve to the President. If the Federal Reserve is operating under the growth rate regime it seems doubtful that Congress would find much of interest in reports at such frequent intervals. It is possible, on the other hand, that the Federal Reserve on its side would be more interested than it now is in having regular access to Congress—that is, to argue that the administration was not giving sufficient weight to the financial consequences of balance-of-payments implications of its overall policy. There is a question, however, whether such "lobbying" for a change in the Presidential directives by which the Federal Reserve would be bound should be taken directly to Congress or whether it would not be more appropriate to follow the "chain of command" implicit in the proposed arrangements.

E. I can see no substantial benefits. I believe that the discussion on the technical execution of monetary policy is best carried out within the Federal Reserve in an atmosphere where it is not necessary to translate everything into a "politically guarded" language due to the presence of outside observers. Some of the information considered at FOMC meetings is of a nature which should not leak out and this, of course, is not changed by the abolition of the FOMC as presently constituted. The result of the proposal might well be only that the "real" Board meetings have to be held before the "official" ones. Liaison with Congress, the Treasury, and the CEA may be maintained in many other ways.

II. STRUCTURE OF THE FEDERAL RESERVE

(1) Retiring the Federal Reserve bank stock is merely a minor matter of cleaning up a feature of the present system that became

entirely archaic a long time ago. Such tidiness is probably desirable, but this is surely the least important of the bill's provisions. I do not think there is much doubt that opinions of the financial community have had more weight within the Federal Reserve than is generally appropriate in the relationship of an industry to the agency created to regulate it. But I do not think that anyone believes that the commercial banks' "ownership" of the Federal Reserve plays any role in this connection.

(2) and (3) If the Federal Reserve were to continue to make and not just to execute monetary policy, I would find all these provisions desirable. If the President sets targets for the Federal Reserve, however, this means—as already emphasized—such a curtailment of Federal Reserve discretion, that measures designed to increase his influence with individuals on the Board seem at least superfluous. They may indeed be undesirable—a good case can be made, I think, for sticking to the old image of the central banker as an independent-minded, experienced technical expert under these circumstances. I would see it as but a modest safety feature of the proposed arrangements to avoid giving Board members reason to hesitate to speak out strongly for the Federal Reserve's traditional concerns when the administration's "coordinated" policy program is being planned. Five-year terms seem short in this light. Since the present 14-year terms have apparently often not been served out in the past, a return to the 10-year terms of the original Federal Reserve Act might be appropriate. If this was the term chosen, the proposal to reduce the number of members from seven to five would be a natural adjunct; otherwise I can see no strong reasons either for or against it. Although without a strong opinion one way or another, I similarly tend to view the coterminous terms of the President and the Chairman of the Board as, on balance, undesirable. There is some point, I think, to avoid a measure that might lead foreign central banks to regard (and treat) the Chairman as a "political appointee."

(4)-(5) The current status of the Federal Reserve with regard to these provisions is indeed somewhat anomalous and I see little reason why it should not be treated basically as "any other Department" in these respects. One may note that, if the "growth rate regime" is put into effect, these provisions can hardly be regarded as measures designed to "make the Fed listen to Congress." The proposed arrangements would set up a structure under which Congress would have to address any complaints about monetary policy to the President.

III. RECENT MONETARY POLICY

Since my own work in the past few years has concerned what is, in relation to this question, ancient history at best, this question is best left to others. I do not feel that I have made the homework needed to essay reasonably responsible opinions. One very general remark would be pertinent to my discussion above. The "crunch" of 1966 and the very high money stock growth-rates of mid-1967 represents, as it were, textbook examples of the basic alternatives open to the discretion of a Central Bank when the Government is running a substantial deficit. If, as seems likely, Congress has become aware that the monetary policy alteratives were so unpalatable only ex post facto, then this period does illustrate the kind of "regrets" that the proposed

institutional framework should help to spare us—once we have learned to work it.

STATEMENT OF MICHAEL E. LEVY, THE NATIONAL INDUSTRIAL CONFERENCE BOARD

The enclosed memorandum is submitted in response to the compendium questions on H.R. 11. I hope that it will prove useful even though it addresses itself to but a few of the basic issues without answering specifically the many detailed questions mailed to me.

At the heart of the detailed "compendium questions on H.R. 11" appears to be a concern with basic issues of monetary policy and the impact of economic policy on economic performance. The present memorandum addresses itself to several aspects of these basic issues and supplies preliminary results from some relevant ongoing empirical research by the author in the hope that these results may prove useful.

USING A MONETARY PILOT

One question that has received increasing attention in recent years is the use of a "monetary pilot policy." In its simplest and strictest form, such a pilot policy consists of an attempt by the monetary authorities to achieve a stable and invariant rate of growth of a basic monetary "target series." The series most commonly mentioned in connection with this proposal are either (1) the money supply, or (2) the "expanded money supply," i.e., money plus time and savings deposits at commercial banks.

Less far-reaching proposals would permit some discretionary fluctuations of the rate of growth of the money supply, but only within a limited range with a specific, preset floor and a ceiling. The monetary authorities would be instructed to prevent any piercing of this range or (according to a less stringent set of rules) would be expected to provide a special accounting whenever the floor or ceiling of the preset range is pierced.

The justification for the strong, as well as the weaker, versions of a pilot-type monetary policy is derived from two basic premises which have been supported by a growing body of empirical evidence: (1) the rate of growth of the money supply (or some similar monetary "target variable") is related to changes in total economic activity in a significant and systematic way and may be a partial cause of these changes; (2) past discretionary monetary policy—when reviewed with hindsight—departed frequently enough, and by sufficiently large margins, from the basic requirements for economic stbilization, so that a significant improvement may be attainable, at least in principle.

Clearly, if the rate of growth of the money supply were in fact the only, or at least the single dominant, determinant of the real growth of GNP—moreover, if this causal relationship were well-established, predictable, and stable overtime—then the application of a strict monetary-pilot policy would be likely to produce a better economic performance than other alternatives. Whereas currently available empirical evidence indicates that money is importantly related to the level of economic activity, this relationship does not appear to be sufficiently dominant—to the extent of excluding other important in-

fluences—to warrant the adherence to a strict, virtually mechanical, pilot policy without recourse to any further considerations.

Granted that money may play an important, but by no means exclusive role, in relation to economic activity, then the case for a strict pilot policy, in preference to a more flexible discretionary monetary policy, depends on the potential superiority of performance which is difficult to test directly. High on the list of questions that have to be considered under any such performance test, are the following two: (1) How accurate and stable is the monetary relationship under cyclical conditions and in an economy subject to dynamic change. (2) How adequate has been the past performance of discretionary monetary policy, and to what extent can this performance be improved in the future.

In the view of this author, the answers currently available to these questions, and the existing body of empirical evidence, provides no conclusive support for the proposition that, at the present state of the arts, a strict monetary pilot is bound to outperform a carefully managed discretionary policy. But the very existence of an important relationship between money and economic growth, as well as empirical studies of the history of past recessions and severe depressions, strongly suggest that large and sudden fluctuations in the rate of growth of the money supply (or of other, closely related, monetary variables) are likely to be intrinsically detrimental to economic stability and orderly growth and should therefore be avoided.

The relatively weak versions of the monetary-pilot approach would appear to provide the safeguards against such erratic fluctuations by setting upper and lower limits to the rate at which the money supply may change, subject to discretionary variations—or by requiring special explanations from the monetary authorities whenever these limits are pierced. Yet it is by no means self-evident that such a set of rules is intrinsically superior to other formal or informal controls and review which may be devised. If the range between the floor and the ceiling rate is very narrow, this approach becomes basically a close approximation to the strict monetary-pilot policy. If, on the other hand, this range is fairly wide—for example, said 2 to 6 percent—then a sudden and large decline in the rate of monetary growth from the vicinity of its ceiling toward its floor—or an equivalent increase from its floor toward the ceiling—may still be drastic enough to impart a considerable short-term shock to the economic system. Clearly, any significant departure from a virtually mechanical pilot rule requires either an alternative set of operationally meaningful rules which can be applied more or less continuously, or else there is no satisfactory substitute for continuous application of discretion and judgment.

Regardless of whether the aim is to revise and tighten the rules, or to improve discretionary judgment, the essential requirement is better empirical knowledge of the relation between money, real economic performance, and prices. For this reason, a few preliminary results of this author's ongoing empirical work are presented in the remainder of this memorandum in the belief that they are relevant.

MONETARY GROWTH AND REAL ECONOMIC GROWTH

The relationship between the rate of growth of the money supply—or alternately, of the "monetary base"—and the rate of growth of real

GNP was explored in an extensive series of regression analyses which covered the post-Korean period—from the 1953 business cycle peak to the present. The most pertinent results of this investigation are summarized in table 1. (The quarterly lags of the variables, as shown there and in the following tables, were derived after extensive trial runs; they were chosen on the basis of best performance and least statistical problems of multicollinearity.)

In all equations summarized in the table, the rate of growth of the money supply—or its counterpart, the rate of growth of the monetary base—was significantly related to the real growth rate of GNY. Yet, taken by itself, monetary growth "accounted" for (in purely statistical terms) not quite half the variation of the rate of real economic growth ($R^2=0.47$ for equation 1*aa*); the growth rate of the monetary base—which many monetary economists consider a better measure of monetary *policy*—"accounted" for not quite 30% ($R^2=0.29$ in equation 1*ba*). The addition of another variable designed to measure the degree of resource utilization at the outset of the period (i.e., either the relative GNP gap or the unemployment rate) substantially improved the relationship (see equations 1*ab*, 1*ac*, 1*bb*, and 1*bc*). This suggests that the relationship between monetary growth and real economic growth varies to an important extent with the existing rate of resource utilization. A *given* nominal rate of monetary growth is associated with more real economic growth if underutilized resources can be absorbed than if these resources are already fully employed. Moreover, the level of long-term interest rates seems to have an additional bearing on real growth (see equations 1*bd* and 1*be*); i.e., high interest rates at the outset of the period appear to restrain real growth, whereas low interest rates tend to stimulate it.

The fact that in all directly comparable regressions the *monetary base* always performed less well than the *money supply* proper (compare equations 1*aa*, 1*ab*, 1*ac*, 1*ad* with equations 1*ba*, 1*bb*, 1*bc*, and 1*bd*, respectively) may be indicative of a circular relationship between monetary growth and real growth with one feeding back into the other. The growth of the money supply reflects not merely the effects of the Federal Reserve's monetary policy from the supply side, but also the pressures of economic expansion from the demand side. The monetary base comes closer to focussing on the supply side as reflected by Federal Reserve policy; this measure is therefore less influenced by the "casual feedback" from the demand side. Thus, many statistical relationships between the money supply proper and GNP are prone to give an exaggerated impression of the extent to which money "matters" in the causal sense.

In conclusion, the results summarized in table 1 suggest a systematic and significant relationship between the rate of growth of the money supply, or of the monetary base, on the one hand and the rate of growth of GNP on the other. But, by itself, this relationship appears far too limited, far too dependent on additional "determinants," in order to make a convincing case for a strict monetary-pilot policy. The findings are, however, consistent with the notion that large, erratic changes in the rate of growth of the basic monetary variables are likely to be a source of economic instability and should therefore be avoided or minimized.

In addition to the objectives of high and stable resource utilization and real growth, adequate price stability is also an important concern of monetary policy. For this reason, the relationship between the rate of growth of the monetary variables and the rate of inflation has been explored along the lines of the preceding section. Tables 2 and 3 summarize the preliminary results. In numerous multiple regressions which used as the dependent variable the rate of inflation of the implicit price deflator (IPD) of GNP, the independent variable that was consistently found to be statistically significant was some measure of the degree of unused resources—either the relative GNP gap or the unemployment rate (see table 2). This measure was always negatively correlated with IPD inflation and performed best with a considerable lag. This suggests that the higher the degree of resource utilization at the outset of a given period, the greater the subsequent rate of inflation. But even though this relationship was clearly significant by statistical standards, it accounted at best for less than one-quarter of the total variation in the rate of IPD inflation (see R^2 for equations 2*aa* and 2*ba*). Despite extensive experimentation with various lags, all attempts to introduce a current or lagged growth rate of the money supply with statistically significant results failed completely (equations 2*ab* and 2*bb* are shown as illustrations).

Moreover the growth rate of the money supply—even though nonsignificant by statistical standards—always entered with a *negative* sign which would imply that a more rapid rate of growth of the money supply during the preceding period would *reduce* the rate of price inflation during the ensuing period (a result which runs counter to most economic expectations). Similar experiments with the monetary base were only slightly more successful (e.g., see equations 2*ac*, 2*bc*, and 2*bd*). As a rule, the rate of growth of the monetary base was again negatively correlated and not significant by statistical standards.

When the same analysis was repeated with the rate of inflation measured by the Consumer Price Index (CPI), the results were equally disappointing as far as the rate of growth of the money supply was concerned, but the performance of the monetary base was somewhat improved (see table 3). When related to CPI inflation, the rate of growth of the monetary base entered usually with a shorter timelag and often had the expected *positive* sign which implies that a more expansionary monetary policy exerts an upward pressure on price inflation (e.g., equation 3*ab*, 3*ac*, 3*bb* and 3*bc* in table 3). Again the measure of the degree of unused resources performed far more consistently, exerted a far greater influence, and was statistically significant in every regression. Yet even the best relationships "accounted" for less than one-quarter of the total variation in the rate of CPI inflation.

In conclusion, so far the author's explorations have failed to uncover any pronounced systematic relationship betwen the rate of price inflation during the post-Korean period and the rate of monetary growth; it suggested instead that the degree of unused resources exerted a significant—but fairly limited—inverse influence on price inflation. These findings raise serious questions as to the *direct* effectiveness of monetary restraint (i.e., apart from any impact *via* resource utilization) in controlling relatively mild inflationary spurts of the

kind encountered by the U.S. economy during the post-Korean period. The findings are, however, consistent with the so-called Phillips curve analyses of the 1950's and 1960's which have relied extensively on measures of resource utilization for an explanation of the rate of wage increases (and, by inference, of the rate of inflation).

MONETARY GROWTH AND INTEREST RATES

The relationship between monetary growth and interest rates deserves special consideration because it helps illuminate the nature of monetary policy and its channels of transmission. At least some Neo-Keynesian economists have argued that monetary policy affects the real economy only (or mainly) through its impact on interest rates which, in turn, affect investment decisions and the rate of investment. This implies that accelerated monetary expansion will stimulate real growth largely to the extent to which it leads to reductions—or, at least, prevents advances—in interest rates. Other economists of various persuasions (Neo-Keynesians as well as monetarists) believe that monetary expansion may affect real demand more directly by increasing liquidity and changing the composition of assets. Moreover, the interest rate relationship may suggest some relevant inferences as to the nature of past Federal Reserve policy. In particular, it may give some indication whether and to what extent Federal Reserve policy was in fact mainly "accommodating" (as some of its critics have argued) rather than being vigorously countercyclical.

Rapid economic advances—especially when they coincide with price inflation—tend to be associated with a strong surge in the demand for funds which forces interest rates up. Conversely, a sluggish economy is usually associated with a relatively stagnant, or even declining, demand for funds which reduces the pressure on interest rates. Therefore, if the important changes in monetary growth are mainly triggered, or dominated, by changing *demand* pressures, then they should be fairly well synchronized with the more pronounced fluctuations in interest rates (possibly with a small lead). Yet a vigorous countercyclical monetary policy would aim at counteracting these swings in demand; that is, it would exert maximum restraint on the rate of growth of the money supply when demand is expanding too rapidly (and the pressures on interest rates are intensifying) and provide maximum stimulation when demand is faltering (and interest rates are therefore sagging). The more vigorous and successful such a countercyclical monetary policy, the greater the tendency to invert the positive relationship between monetary growth and interest rates which normally ensues from the demand side. A strong countercyclical monetary policy would therefore often *accentuate*, rather than mitigate, the cyclical fluctuations of the interest rates.

The preliminary results of the author's exploration of the relationship between monetary growth and interest rates are summarized in table 4. The following three variables were found to be related in a statistically significant way to short- and long-term interest rates: (1) the rate of growth of real GNP; (2) the rate of inflation; and (3) the rate of growth of the money supply. As expected, increases in real growth and in the rate of inflation were found to exert upward pressures on short- and long-term interest rates. But by far the most significant variable (in terms of the simple correlation coefficient, as well

as in terms of the Beta-coefficients) was the rate of growth of the money supply which entered *invariably* with a *positive* sign. Granted that monetary growth has been found to affect real economic growth, its positive relationship with interest rates tends not to support the hypothesis that interest rates serve as the major "transmission belt." Nor is this relationship consistent with the pattern which should emerge if monetary growth were dominated by *supply* conditions and if these supply conditions reflected mainly a vigorous countercyclical monetary policy.

SUMMARY

The preliminary results of current research by the author provide support for the following propositions based on the data and statistical tests used for the period studied:

(1) The rate of growth of the money supply (or of the monetary base) has been related significantly to the rate of real economic growth.

(2) However, by itself, this relationship has accounted for too limited a part of the variation in the real growth rate, and additional economic factors appeared to have been too important, to justify the inference that a strict monetary-pilot policy sought to perform better than the best feasible alternatives. But a good case can be made for avoiding drastic short-term fluctuations in the growth rate of the money supply (or of the monetary base).

(3) The degree of resource utilization has been related significantly to the rate of inflation; however, no significant relation between the rate of monetary growth and the rate of inflation could be uncovered. This raises doubts as to the *direct* effectiveness of "monetary restraint" (in terms of the slowing of monetary growth) for curbing mild inflationary spurts of the kind encountered by the U.S. economy during the post-Korean period.

(4) Monetary growth has been related significantly with both short and long-term interest rates. The fact that this relationship has been consistently *positive* provides some support for the contention that major changes in monetary growth have often been responsive to demand factors, and that the Federal Reserve may, on balance, have leaned more toward "accommodating" changing demand than toward vigorous countercyclical action.

STATISTICAL APPENDIX

General comments.—Growth rates of the money supply (M), the monetary base (MB), real GNP (Y), and the rates of price inflation (IPD or CPI), as used in the following regressions were all measured in terms of percentage changes from the same quarter of the preceding year. Thus whenever two growth-rate variables enter together, but with a difference in timing by, say, one, two or three quarters (e.g., Y_0, M_{-1}; Y_0, M_{-2}; Y_0, M_{-3}), their timing overlaps by three, two, or one quarters, respectively. On the other hand, the degree of resource utilization is measured by either the unemployment rate (U) or the relative GNP gap (GAP). Therefore, when one of these two variables enter alongside a growth-rate variable with a four-quarter lag difference (e.g., U_{-4}, M_0), the former represents resource utilization at the outset of the period.

The lags shown in the regression tables were chosen (after extensive experimentation with different lag structures) on the basis of providing a "best fit" without serious statistical problems, such as excessively high multicollinearity.

TABLE 1.—CORRELATION OF THE REAL GROWTH RATE OF GNP WITH THE RATES OF GROWTH OF THE MONEY SUPPLY (M) OR OF THE MONETARY BASE (MB), THE RELATIVE GNP GAP (GAP) OR THE UNEMPLOYMENT RATE (U), AND THE LONG-TERM INTEREST RATE ON GOVERNMENT BONDS (IL)

Designation	Constant term	Independent variables			R^2 (Standard error of estimate)
(laa)					
Equation	0.855	$1.175M_{-1}$**			0.472
Standard error		(0.162)			(2.306)
Beta coefficient		0.867			
(lab)					
Equation	−0.855	$1.240M_{-1}$**	$0.490GAP_{-4}$**		0.717
Standard error		(0.120)	(0.069)		(1.702)
Beta coefficient		0.725	0.497		
(lac)					
Equation	−5.669	$1-054M_{-1}$**	$1.395U_{-4}$**		0.737
Standard error		(0.116)	(0.183)		(1.642)
Beta coefficient		0.616	0.519		
(lad)					
Equation	1.186	$1.289M_{-1}$**	$0.506GAP_{-4}$**	$-0.607IL_{-4}$	0.732
Standard error		(0.121)	(0.069)	(0.341)	(1.671)
Beta coefficient		0.754	0.513	−0.126	
(lba)					
Equation	0.965	$0.975MP_{-1}$**			0.288
Standard error		(0.200)			(2.679)
Beta coefficient		0.537			
(lbb)					
Equation	−0.940	$1.085MB_{-1}$**	$0.505GAP_{-4}$**		0.546
Standard error		(0.162)	(0.088)		(2.158)
Beta coefficient		0.597	0.511		
(lbc)					
Equation	−6.476	$0.923MB_{-1}$**	$1.553U_{-4}$**		0.621
Standard error		(0.147)	(0.217)		(1.970)
Beta coefficient		0.508	0.578		
(lbd)					
Equation	5.793	$1.610MB_{-1}$**	$0.592GAP_{-4}$**	$-2.326IL_{-4}$**	0.694
Standard error		(0.167)	(0.075)	(0.442)	(1.786)
Beta coefficient		0.886	0.600	−0.483	
(lbe)					
Equation	−0.502	$1.413MB_{-1}$**	$1.753U_{-4}$**	$-2.283IL_{-4}$**	0.766
Standard error		(0.143)	(0.175)	(0.384)	(1.561)
Beta coefficient		0.777	0.653	−0.474	

**Significant at the 1 percent level.

Note: For underlying data, definition of variables, key to symbols, and sources, see table 5 at the end of this memorandum. Subscripts denote quarterly lags.

TABLE 2.—CORRELATION OF THE RATE OF INFLATION OF THE IMPLICIT PRICE DEFLATOR OF GNP WITH THE RELATIVE GNP GAP OR THE UNEMPLOYMENT RATE, AND THE RATES OF GROWTH OF THE MONEY SUPPLY OR OF THE MONETARY BASE

Designation	Constant term	Independent variables			R^2 (Standard error of estimate)
(2aa)					
Equation	2.493	$-0.144GAP_{-4}$**			0.226
Standard error		(0.035)			(0.858)
Beta coefficient		−0.475			
(2ab)					
Equation	2.921	$-0.184GAP_{-4}$**	$-0.129M_{-4}$		0.263
Standard error		(0.041)	(0.075)		(0.844)
Beta coefficient		−0.606	−0.235		
(2ac)					
Equation	3.134	$-0.189GAP_{-4}$**	$-0.182MB_{-4}$*		0.303
Standard error		(0.038)	(0.072)		(0.821)
Beta coefficient		−0.624	−0.315		
(2ba)					
Equation	3.702	$-0.340U_{-3}$**			0.165
Standard error		(0.100)			(0.891)
Beta coefficient		−0.406			
(2bb)					
Equation	4.310	$-0.419U_{-3}$**	$-0.094M_{-4}$		0.185
Standard error		(0.119)	(0.078)		(0.887)
Beta coefficient		−0.500	−0.171		
(2bc)					
Equation	4.530	$-0.430U_{-3}$**	$-0.142MB_{-4}$		0.213
Standard error		(0.109)	(0.075)		(0.872)
Beta coefficient		−0.513	−0.245		
(2bd)					
Equation	5.389	$-0.614U_{-3}$**	$0.331MB_{-1}$**	$-0.462MB_{-4}$**	0.318
Standard error		(0.120)	(0.112)	(0.129)	(0.819)
Beta coefficient		−0.733	0.593	−0.797	

*Significant at the 5 percent level.
**Significant at the 1 percent level.

Note: For underlying data, definition of variables, key to symbols, and sources, see table 5 at the end of this memorandum. Subscripts denote quarterly lags.

TABLE 3.—CORRELATION OF THE RATE OF INFLATION OF THE CONSUMER PRICE INDEX WITH THE RELATIVE GNP GAP OR THE UNEMPLOYMENT RATE, THE GROWTH RATES OF THE MONEY SUPPLY OR OF THE MONETARY BASE, AND THE GROWTH RATE OF REAL GNP

Designation	Constant term	Independent variables			R^2 (Standard error of estimate)
(3aa)					
Equation	2.039	$-0.128GAP_{-4}$**			0.130
Standard error		(0.043)			(1.065)
Beta coefficient		−0.360			
(3ab)					
Equation	1.604	$-0.119GAP_{-4}$**	$0.146MB_{-1}$		0.179
Standard error		(0.043)	(0.078)		(1.043)
Beta coefficient		−0.334	0.224		
(3ac)					
Equation	1.574	$-0.123GAP_{-4}$**	$0.160MB_0$*		0.193
Standard error		(0.042)	(0.075)		(1.035)
Beta coefficient		−0.345	0.251		
(3ba)					
Equation	3.541	$-0.389U_{-3}$**			0.157
Standard error		(0.117)			(1.048)
Beta coefficient		−0.397			
(3bb)					
Equation	3.045	$-0.380U_{-3}$**	$0.162MB_{-1}$*		0.219
Standard error		(0.114)	(0.076)		(1.018)
Beta coefficient		−0.387	0.248		
(3bc)					
Equation	1.610	$-0.087GAP_{-4}$*	$-0.104Y_{-1}$*	$0.246MB_{-1}$**	0.235
Standard error		(0.044)	(0.051)	(0.091)	(1.016)
Beta coefficient		−0.246	−0.289	0.376	

* Significant at the 5 percent level.
** Significant at the 1 percent level.

Note: For underlying data, definition of variables, key to symbols, and sources, see table 5 at the end of this memorandum. Subscripts denote quarterly lags.

TABLE 4.—CORRELATION OF THE SHORT-TERM, OR LONG-TERM INTEREST RATE ON GOVERNMENT ISSUES WITH THE RATES OF GROWTH OF THE MONEY SUPPLY AND OF REAL GNP AND THE RATE OF IPD INFLATION

Designation	Constant term	Independent variables			R^2 (Standard error of estimate)
Short-term interest rate:					
4aa					
Equation	2.108	$0.377M_{-1}$**			0.365
Standard error		(0.065)			(0.923)
Beta coefficient		0.605			
4ab					
Equation	1.113	$0.369M_{-1}$**	$0.499IPD_0$**		0.541
Standard error		(0.056)	(0.106)		(0.792)
Beta coefficient		0.590	0.420		
4ac					
Equation	0.845	$0.099Y_{-2}$**	$0.305M_{-1}$**	$0.527IPD_0$**	0.605
Standard error		(0.033)	(0.056)	(0.100)	(0.742)
Beta coefficient		0.272	0.488	0.443	
Long-term interest rate:					
4ba					
Equation	3.343	$0.187M_0$**			0.254
Standard error		(0.042)			(0.621)
Beta coefficient		0.504			
4bb					
Equation	2.952	$0.192M_0$**	$0.192IPD_{-2}$*		0.315
Standard error		(0.040)	(0.084)		0.600)
Beta coefficient		0.516	0.248		
4bc					
Equation	2.600	$0.065Y_{-2}$**	$0.184M_0$**	$0.258IPD_{-2}$**	0.391
Standard error		(0.025)	(0.039)	(0.084)	(0.571)
Beta coefficient		0.289	0.497	0.332	

*Significant at the 5-percent level.
**Significant at the 1-percent level.

Note: For underlying data, definition of variables, key to symbols, and sources, see table 5 at the end of this memorandum. Subscripts denote quarterly lags.

TABLE 5.—BASIC DATA SERIES USED FOR CORRELATION ANALYSIS UNDERLYING TABLES 1 TO 4

Date	Y	GAP	U	IPD	CPI	NFR	IS	IL	AA	M	MB
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1951:											
I	10.4	−1.5	3.5	8.3	9.0	461	1.400	2.42	2.78	4.6	2.4
II	9.5	−2.2	3.1	8.1	9.2	496	1.532	2.61	3.02	4.0	3.4
III	7.1	−3.0	3.2	5.9	7.2	452	1.628	2.59	3.03	4.1	4.3
IV	5.0	−1.9	3.4	5.3	6.5	460	1.649	2.66	3.13	5.2	5.3
1952:											
I	4.4	−1.6	3.1	2.2	2.8	544	1.640	2.72	3.15	5.5	5.6
II	2.1	.1	3.0	2.0	2.1	159	1.678	2.61	3.17	5.3	4.6
III	1.3	−.1	3.2	2.5	2.7	−252	1.829	2.67	3.19	5.1	5.2
IV	4.3	−1.9	2.8	1.8	1.4	−715	1.924	2.73	3.14	4.2	4.6
1953:											
I	5.3	−2.5	2.7	2.0	1.0	−642	2.047	2.84	3.31	3.3	4.0
II	6.9	−2.5	2.6	1.4	.9	−206	2.203	3.07	3.65	3.1	3.5
III	5.0	−.8	2.7	.8	.7	203	2.022	3.03	3.69	2.2	2.
IV	.9	1.6	3.7	.1	.7	280	1.486	2.84	3.39	1.3	1.5
1954:											
I	−2.2	3.7	5.3	1.2	1.2	559	1.084	2.61	3.11	1.2	1.3
II	−3.4	4.7	5.8	1.5	.7	633	.814	2.52	3.01	.7	1.1
III	−1.6	4.3	6.0	1.2	.0	734	.870	2.49	3.01	1.6	.3
IV	1.7	3.2	5.3	1.6	−.5	582	1.036	2.57	3.00	2.5	1.5
1955:											
I	6.2	1.2	4.7	.8	−.5	254	1.256	2.74	3.11	3.4	1.3
II	8.3	.4	4.4	1.1	−.5	158	1.514	2.82	3.18	3.8	1.9
III	8.6	−.4	4.1	1.7	−.2	−128	1.861	2.93	3.25	3.2	1.6
IV	7.4	−.4	4.2	2.0	.3	−365	2.349	2.89	3.23	2.4	.9
1956:											
I	3.6	1.1	4.0	2.7	.2	−310	2.379	2.89	3.19	1.6	1.4
II	2.3	1.5	4.1	3.1	1.1	−411	2.597	2.66	3.50	1.2	1.3
III	.5	2.5	4.1	4.0	2.0	−231	2.597	3.13	3.77	.8	1.1
IV	.9	2.1	4.1	4.1	2.6	−128	3.063	3.30	3.95	1.1	1.3
1957:											
I	2.2	2.3	3.9	4.1	3.4	−109	3.172	3.27	4.26	1.0	1.1
II	1.7	3.2	4.1	4.0	3.6	−485	3.157	3.43	4.43	.8	1.0
III	2.4	3.5	4.2	3.6	3.4	−440	3.382	3.63	4.75	.7	.9
IV	−.5	5.9	4.9	3.2	3.0	−257	3.343	3.53	4.65	−.3	.3

TABLE 5.—BASIC DATA SERIES USED FOR CORRELATION ANALYSIS UNDERLYING TABLES 1 TO 4—Continued

Date	Y	GAP	U	IPD	CPI	NFR	IS	IL	AA	M	MB
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1958:											
I	−3.5	8.8	6.3	3.0	3.5	314	1.838	3.25	4.04	−.6	.6
II	−3.0	9.2	7.4	2.7	3.3	508	1.018	3.15	3.88	.5	1.7
III	−1.0	7.7	7.3	2.1	2.3	341	1.711	3.57	4.17	1.5	2.1
IV	3.0	6.3	6.4	2.1	1.9	25	2.788	2.75	4.37	3.3	2.6
1959:											
I	7.1	5.7	5.8	1.8	.8	−82	2.800	3.91	4.46	4.4	2.9
II	9.2	4.3	5.1	1.8	.5	−364	3.019	4.06	4.63	4.0	2.2
III	5.4	6.1	5.3	1.8	1.0	−528	3.533	4.16	4.84	3.3	1.7
IV	4.1	5.8	5.6	1.5	1.5	−439	4.299	4.17	5.10	1.3	1.2
1960:											
I	4.6	4.7	5.1	1.5	1.5	−320	3.943	4.22	4.99	−.5	.6
II	2.0	5.6	5.2	1.6	1.8	−63	3.092	4.11	4.87	−1.9	−.1
III	2.6	6.9	5.5	1.6	1.4	260	2.390	3.82	4.65	−2.0	.1
IV	.7	8.3	6.3	1.9	1.5	588	2.361	3.91	4.70	−1.1	1.0
1961:											
I	−1.6	9.3	6.8	1.7	1.5	566	2.377	3.83	4.52	.2	1.6
II	.6	8.3	7.0	1.4	.9	518	2.325	3.80	4.57	1.6	1.8
III	2.9	7.4	6.8	1.0	1.2	538	2.325	3.97	4.66	1.9	2.2
IV	5.8	6.4	6.2	1.1	.8	459	2.475	4.01	4.53	2.8	2.9
1962:											
I	7.6	5.8	5.6	1.2	.9	457	2.739	4.06	4.47	2.9	3.0
II	7.1	5.1	5.5	1.1	1.3	424	2.716	3.89	4.29	2.5	3.8
III	6.4	4.8	5.6	1.2	1.2	418	2.858	3.98	4.33	1.8	3.7
IV	5.2	4.8	5.5	1.1	1.3	387	2.803	3.88	4.27	1.4	3.2
1963:											
I	4.2	5.2	5.8	1.1	1.2	315	2.909	3.91	4.25	1.8	3.5
II	3.5	5.2	5.7	1.3	1.1	233	2.941	3.98	4.33	2.5	3.6
III	4.0	4.5	5.5	1.3	1.3	128	3.281	4.01	4.33	3.6	4.3
IV	4.4	4.2	5.6	1.4	1.4	112	3.449	4.10	4.39	4.1	4.6
1964:											
I	5.5	3.6	5.4	1.4	1.5	121	3.538	4.16	4.42	3.6	4.7
II	6.0	3.1	5.2	1.4	1.4	123	3.481	4.16	4.45	3.5	4.8
III	5.6	3.0	5.0	1.8	1.1	102	3.504	4.14	4.46	4.0	4.9
IV	4.7	3.3	5.0	1.7	1.2	80	3.685	4.14	4.46	4.0	5.0
1965:											
I	5.3	2.1	4.8	1.8	1.2	22	3.900	4.15	4.44	4.0	4.9
II	5.5	1.5	4.7	2.0	1.7	−156	3.879	4.14	4.50	3.9	4.9
III	6.3	.5	4.4	1.7	1.7	−151	3.860	4.20	4.60	3.8	4.7
IV	8.2	.9	4.1	1.7	1.8	−77	4.159	4.35	4.75	4.3	5.1
1966:											
I	7.8	−1.7	3.8	1.9	2.4	−132	4.631	4.56	5.04	5.4	5.4
II	7.0	−1.4	3.8	2.3	2.7	−324	4.597	4.58	5.30	5.7	5.6
III	5.9	−1.3	3.8	2.9	3.3	−373	5.048	4.78	5.67	4.3	5.2
IV	4.8	−1.4	3.7	3.3	3.5	−273	5.246	4.70	5.72	2.6	3.8
1967:											
I	2.6	−.3	3.7	3.3	3.0	72	4.534	4.44	5.46	1.9	4.1
II	2.4	.2	3.8	2.9	2.6	247	3.657	4.71	5.67	2.3	4.0
III	2.4	.4	3.9	3.1	2.7	279	4.345	4.93	6.00	4.9	4.7
IV	2.2	.2	3.9	3.2	2.8	179	4.787	5.33	6.45	6.2	6.0
1968:											
I	4.1	−.4	3.6	3.4	3.7	−44	5.065	5.24	6.49	6.4	6.1
II	5.1	−.9	3.6	3.9	4.1	−360	5.510	5.30	6.74	6.7	6.2

KEY

(2) Y—real growth rate of GNP.
(3) GAP—"GNP gap" (i.e., potential minus actual GNP) measured as a percent of potential GNP.
(4) U—unemployment rate (quarterly average, percent).
(5) IPD—growth rate of the "implicit price deflator" of GNP.
(6) CPI—growth rate of the Consumer Price Index.
(7) NFR—"net free reserves" (+) or "net borrowed reserves" (—) (quarterly average, millions of dollars).
(8) IS—Treasury bill rate (quarterly average, percent).
(9) IL—long-term Government bond rate (quarterly average, percent).
(10) AA—corporate Aa bond rate (quarterly average, percent).
(11) M—growth rate of the nominal money supply.
(12) MB—growth rate of the monetary base.

Note: All growth rates are calculated quarterly at annual rates from the same quarter of the preceding year.

Sources: Department of Commerce; Federal Reserve Board; the Conference Board.

STATEMENT OF DUDLEY G. LUCKETT, IOWA STATE UNIVERSITY

I. MONETARY POLICY GUIDELINES AND OPEN MARKET OPERATIONS

1. There would seem to be very little question but that monetary policy and fiscal policy should be coordinated. Debt management policy, also mentioned in the question, probably has little or no role to play in economic stabilization. Not only is it apparently a very weak policy instrument in its own right, but it seems unlikely that it is capable of doing anything different than could be accomplished by a slightly stronger monetary policy. The researches of Modigliani and Sutch,[1] for example, indicate that recent attempts to "twist" the yield curve have not been successful. Further research may prove this conclusion false, of course, but the best evidence now available does not indicate a separate role for debt management. Moreover, as has been pointed out by both Smith [2] and Ross,[3] it is not clear that, even if it were possible to alter the term structure of interest rates by alerting the maturity structure of the public debt, this instrument could even so be used in a particularly meaningful way; the precise nature of the response mechanisms of the economy to different combinations of long- and short-term interest rates is still not understood with enough precision to use debt management as a selective stabilization control. Thus the role of debt management should be viewed as essentially passive, and coordination should consist simply of holding debt management interference with monetary policy to a minimum.

Turning next to the coordination of fiscal and monetary policy, it seems abundantly clear that these are not "mutually exclusive stabilization policies." Each operates in a different way to stabilize the economic system and, while the precise mechanics of each may not be fully understood, enough can now be shown empirically and theoretically so that the two methods should not be compartmentalized; the *attempt* should be made to coordinate them in a meaningful fashion, even though the complete accomplishment of this goal may not be feasible.[4]

The primary problem, it seems to me, is the excessive lack of flexibility in fiscal policy. Unlike monetary policy lags, the lag in fiscal policy is almost wholly due to an "action" lag [5]—witness the recent lengthy congressional debate over the passage of the 10-percent surcharge tax bill. If fiscal policy is as unwieldy a stabilization instrument as it appears to be, then the coordinaton of monetary and fiscal policy is largely a vain hope. About all monetary policy can do is to adjust to whatever fiscal policy is currently extant. From a strictly economic point of view—it may not be politically desirable—one of the most basic stabilization reforms which could be accomplished is

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[1] Franco Modigliani and Richard Sutch, "Innovations in Interest Rate Policy," *American Economic Review*, May 1965, pp. 178–197; also "Debt Management and the Term Structure of Interest Rates: An Empirical Analysis of Recent Experience," *Journal of Political Economy*, August 1967 (supplement), pp. 569–589.

[2] Warren L. Smith, *Debt Management in the United States*, Study Paper No. 10, Joint Economic Committee, Jan. 28, 1960.

[3] M. H. Ross, "Operation Twist: A Mistaken Policy?" *Journal of Political Economy*, April 1966.

[4] David Meiselman, however, seems to argue against coordination of monetary and fiscal policy on the grounds that we do not know enough about the "precise consequences of using any one of these instruments separately." See his "The New Economics and Monetary Policy," *Financial Analysts Journal*, November–December, 1967, pp. 1–6.

[5] See Mark H. Willes, "Lags in Monetary and Fiscal Policy," Federal Reserve Bank of Philadelphia, *Business Review*, March 1968, pp. 3–10.

to give some administrative agent—probably the President—authority to vary the basic tax rate within some specified limits. Then questions of the appropriate monetary-fiscal "mix" become sharply meaningful, and not simply the subject of interesting but empty academic debates.

I would like to make one final comment on this question. The question speaks of a program for the coordination of fiscal and monetary policy which would be set forth at the beginning of each year. As may be gathered from my previous comments, I have serious reservations about the efficacy of such a program; in the currently existing institutional framework, I suspect that such a program would be so hedged with qualifications, and so adrift in a sea of detail, that very little would come of it. Nevertheless, it would not be a meaningless exercise for two reasons: First, because it might still give the public some insight into official thinking on these matters; and second, and most important, it would provide the embryo for a program of economic planning which might ultimately become of immense importance.

2. The Council of Economic Advisers seems the most logical body to assign the formal task of drawing up the economic program. Minority views should be possible. I assume from the question that there would be nothing in the program which would be legally binding on the Federal Reserve.

3. The incorrectly styled "pegging" period of monetary policy between 1941 and 1951 has, of course, been properly condemned by virtually all students of monetary affairs, including Federal Reserve officials. Nevertheless, there is a sense in which this period can be regarded as sort of "golden age" of monetary policy, and it is instructive to consider it briefly.

The pegging episode had as its ultimate objective (at least at first) the financing of World War II as cheaply as possible. In practice, this meant maintaining, in the face of extraordinarily heavy wartime demands for funds, interest costs on Government debt at their very low prewar levels. This objective was accomplished by having the Federal Reserve stand ready to buy unlimited quantities of Government securities at par. Within the limited framework of the stated objective, the program was entirely successful.

It is worth asking why this program was so successful. The answer, I believe, is threefold: First, the Federal Reserve was given a single, quantifiable objective. It was told, essentially, to ignore all other considerations and to concentrate its attention exclusively on maintaining the term structure of interest rates at its prewar level. Second, the mechanism by which this goal could be achieved was completely understood,[6] and well within the capabilities of the System. Finally, there were no lags in the mechanism; the effect of a given Federal Reserve action on the rate structure was known immediately and precisely.

By contrast, the difficulties inherent in the role assigned monetary policy by the Employment Act are immense. Instead of a single goal, it is given multiple goals; rather than an objective which is embedded well within a clearly understood mechanism, it is asked to achieve goals beyond the periphery of our clear knowledge of the monetary

[6] This appears to contradict the statement made with respect to debt management in my answer to question No. 1 that debt management policy may not even be able to alter the term structure of interest rates. The contradiction is, in fact, in the literature. I now have a graduate student, Mr. Julian H. Taylor, working on this problem.

mechanism; and in lieu of an objective where the feedback on success or failure is clear-cut and immediate, it is given objectives where the best evidence available indicates that the consequences of an action taken now will not be known for several months, and even then not with certainty.

Viewed within this context, the desire for some sort of guideline for monetary policy is quite simply a desire to put monetary policy back on firmer footing—to give it once more a single, clear goal, one which it is unquestionably capable of achieving, and where the achievement of this goal will be signaled within a very short time. As such, a guideline for monetary policy is a rational policy which has my complete sympathy. Nevertheless, there are a number of problems inherent in such a policy. Which guideline to use is only the most obvious; there are others of equal severity.

(1) *Multiplicity of goals.*—One cannot choose a guideline for monetary policy without knowing in at least general terms what monetary policy should ultimately accomplish. For example, the appropriate guideline for the goal of balance-of-payments equilibrium may be interest rates, while that for full employment is the growth in the money stock. Under these circumstances to force the Federal Reserve to focus attention exclusively on a single indicator may imply that it loses all effective control over one or more goals. This would argue against permitting *no* exceptions to whatever guideline is adopted.

A related problem is the question of the appropriate mix of the ultimate goals of monetary policy. Even if the appropriate guideline is the same in all cases, the choice of a particular value for the guideline might predispose the economy to a unique combination of goals which is not socially acceptable at all times. Thus, for example, the choice of a steady 4-percent growth in the money supply might imply a 3-percent unemployment rate and a 6-percent annual price increase. Such a combination might be acceptable to one administration, but not to another. Thus the choice of a fixed guideline, one which would be adhered to year after year, should, in my opinion, be flatly rejected.

A *range* of permissible values for the guideline, on the other hand, also involves certain limitations. If the range is set too narrowly, then certain socially desirable choices may be automatically precluded; if the range is set too broadly, the whole exercise becomes meaningless. The optimal range, from this point of view, would be broad enough to permit all relevant social choices of trade-offs among goals, but narrow enough so that socially undesirable choices cannot be made. What this range is, practically speaking, I do not know. As an educated guess, I would suggest something like a 1- to 5-percent annual increase in the money supply.

(2) *The transmission mechanism.*—In general, the prevailing views concerning the way Federal Reserve actions are transmitted to their ultimate impacts on the economy may be grouped into three categories: (i) the quantity theory approach views the monetary process as running from open market operations to bank reserves to the money supply to income, employment, and prices. The distinguishing characteristic of this approach is that the quantity of money is assumed to operate directly on spending decisions. It is essentially a portfolio approach, in which changes in money upset the equilibrium portfolio, and ultimately lead to changed expenditures on the public's holdings of

real assets. If this view is accepted, the quantity of money is clearly the appropriate guideline to use as an indicator.

(ii) The Keynesian approach sees the monetary mechanism as following approximately the same path as the quantity theory approach, except that the rate of interest is interposed between the change in the quantity of money and its ultimate effect on aggregate economic activity. According to this view, that is, the quantity of money *per se* does not influence spending decisions directly, but rather works indirectly through its effect on interest rates, hence on investment spending decisions, hence on output.

If one accepts this approach, interest rates become the "natural" indicator of monetary policy. The difficulty is that the rate of interest is not only the result of supply factors, but also demand. This in turn means that there is no way to specify, empirically, the full employment equilibrium rate of interest. In a recession, interest rates may fall from their prerecession levels, but still be above the levels which would restore full employment. In this case, monetary policy could be judged as "tight," even though interest rates had fallen. While future empirical studies may provide reasonable estimates of appropriate interest rate levels under different circumstances, to the best of my knowledge no such estimates are currently extant. Thus interest rates, while they may in some abstract sense be the best guide to monetary policy when viewed through Keynesian glasses, are singlarly unappropriate as a practical indicator.

In the absence of a meaningful measure of the equilibrium interest rate as a guide for the conduct of monetary policy, the growth of the money stock is probably the best guide even within a Keynesian framework. Although it is not optimal in an abstract sense, it is centrally located, critical, and easily quantifiable.

(iii) *Bank credit approach.*—The "bank credit" approach to monetary policy is quite different from the two approaches previously discussed. Here it is held that the mechanism through which monetary policy operates is the expansion of bank loans, not the quantity of money. Since banks expand the money supply when they use excess reserves to acquire *any* asset, this view must hold that money created through bank loan expansion is somehow different than money created through bank acquisition of other assets, such as U.S. Government securities. For example, it might be held that money created through bank lending will surely be spent, while money created through bank purchases of governments will simply go into idle balances.

Clearly, if this view of the matter is held, then the total quantity of money is not an appropriate guideline for monetary policy. The critical element in the process is *how* the money is created, and not simply its total amount. There is, however, no evidence (so far as I am aware) which would support the bank credit view, nor is it really a very widely accepted view among academic economists.

(3) *Lags in monetary policy.*—I am sure that this aspect of the question will be treated in considerable detail by other writers, and only a very brief summary will be given here. The essence of the matter is that some studies indicate that the full impact of a given monetary policy will be felt only after a substantial lag. If this is true, it follows that actions taken by the monetary authorities today should be dependent on forecasts of future economic activity. Since such forecasts are not particularly accurate, the conclusion is that this is a very thin

reed upon which to hang monetary policy. Moreover, it is also held that the lag is variable and unpredictable. In this case, even accurate forecasts won't help, since the monetary authorities have no idea what period should be forecasted.

The result of these considerations is to argue for a constant guideline for monetary policy as the safest (not necessarily the best) way to conduct monetary policy. Wrong decisions are then muted; mistakes are apt to be less serious than if monetary policy were wholly discretionary.

Conclusion.—The preceding considerations lead, I believe, to the following conclusions:

A. The use of a guideline should have the effect of putting monetary policy onto a much firmer footing. As matters stand now, practically any action the Federal Reserve makes can somehow be justified in terms of *some* goal and *some* indicator.

B. Probably the best guideline for monetary policy would be the rate of increase in the money stock, since this indicator occupies a central position in most views of the monetary mechanism.

C. The normal limits of increase in the money stock should be specified within some range, and not as a fixed amount. Within this range, the authorities should be free to pursue a traditional, "discretionary" policy. This conclusion is admittedly a compromise. Consideration of lags in monetary policy would argue for a constant annual percentage increase in the money supply. Such a constant amount, on the other hand, would predispose the economy toward a particular combination of inflation and employment, and would leave no room for the adjustments necessary for fiscal policy and for changing social emphasis on particular goals. A range of permissible values would permit such changes, while still precluding extreme decisions.

D. Values outside the range should be permitted, but only as exceptions—i.e., the Federal Reserve should be required to explain and defend *immediately* any policy which resulted in a growth rate in the money stock not within the approved range.

E. I would recommend that the permissible range for the growth rate in the money stock be from 1 to 5 percent. This range is not analytically derived, and represents only an educated guess.

4. I have already commented on debt management in the first question.

5. A. I do not feel qualified to judge the value of defensive open-market operations.

B. Yes. Please note that the question is confined to monetary *policy;* i.e., the other instruments may have uses not directly related to policy.

C. (*a*) Rediscounting can be quite valuable as an emergency source of funds for individual banks, and should not be eliminated. I would favor Warren Smith's proposal [7] that each week the discount rate be posted some fixed percent above the Treasury bill rate. It would thus no longer be a *policy* instrument, but would still be available as a source of funds for individual banks.

(*b*) Changes in reserve requirements serve no very useful purpose, so far as I can see. I would recommend a low, uniform reserve requirement for all member banks.

[7] "The Discount Rate as Credit Control Weapon," *Journal of Political Economy,* April 1958.

(*c*) I am in principle opposed to the uses currently being made of regulation Q. However, I recognize that it is not easy for the Federal Reserve to get out of such a situation. Over the long run, I feel that regulation Q should either be done away with, or the ceiling rate raised so high that it becomes meaningless.

D. I see no harm in requiring detailed reports on past actions. The future intentions of the Federal Reserve, however, are in the nature of inside information. If the Fed's intent to reverse a policy in the future were to become known, it would almost certainly cause undesirable speculation in the Government securities market.

E. I will comment on this below.

II. APPRAISAL OF THE STRUCTURE OF THE FEDERAL RESERVE

The effect of the several provisions of H.R. 11 would be to do away with the traditional independence of the Federal Reserve System. Rather than commenting on each provision separately, I will address my remarks to this more general question.

The Federal Reserve was deliberately established as an independent agency to keep monetary policy out of the political arena. The reason for this is that there is a traditional "conflict of interest" between the executive branch of the Government and the central bank. The executive branch is, by its nature, inclned to debase the currency. The most notable example of this in modern times in the United States was the "pegging period" from 1941 to 1951. The interest of the Treasury lies in minimizing the service charges on the public debt. In practice, this means keeping interest rates at very low levels. Thus, in all disagreements between the Treasury and the Federal Reserve of which I am aware, it has always been the Treasury that wanted easier money, and the Federal Reserve that wanted tighter money.

The risk that would be run in doing away with the Federal Reserve's independence is thus that an inflationary bias would be introduced into the conduct of monetary policy. A central bank must at times be prepared to pursue a policy which is politically unpopular; its "independence" permits it to do this.

The obverse side of the coin is that the Government must, willy-nilly, bear the responsibility for the consequences of monetary policy. High-interest rates, unemployment, inflation—the administration is held accountable for such developments, even though it may lack the ability to do anything about them.

Moreover, and perhaps more importantly, monetary policy decisions are ultimately decisions about the social priorities of the appropriate "tradeoff" or "mix" among various public objectives. One administration may emphasize full employment at the expense of price-level stability, while another may be willing to accept substantial amounts of unemployment in order to eliminate all traces of inflation. The point is not that either of these positions is "better" than the other, but rather that such decisions are necessarily forced onto the administration, and that in a democratic society elected officials are the appropriate agency through which such decisions *should* be made. I would consider it intolerable if the Federal Reserve should force on the country a set of economic priorities contrary to that of popularly elected officials. Yet the independence of the Federal Reserve makes this a real possibility.

There are thus valid reasons both for retaining and doing away with the Federal Reserve's independence. Rather than the provisions of H.R. 11, I would suggest the following compromise—

1. That the Employment Act be amended to make clear that the administration has the ultimate responsibility for deciding social priorities among conflicting goals. Thus, absolute deference should be paid to the administrative spokesmen in resolving any conflict which arises among the goals of full employment, price stability, equilibrium in the balance of payments, and economic growth.

2. That the Secretary of the Treasury and the Chairman of the Council of Economic Advisers be made ex officio members of the Federal Open Market Committee, with full voting rights.

3. That the Federal Open Market Committee submit a quarterly report to Congress, explaining past actions. This report should contain provisions for minority views, in particular any dissenting opinions of the administration's representatives.

While the preceding recommendations would make the Federal Reserve only slightly less "independent," they should serve to highlight the specific nature of differences of opinion between the Treasury and the Federal Reserve. One difficulty with present arrangements is that no formal vehicle for airing such differences exists. Moreover, such differences usually come to the fore only in terms of changes in the discount rate—frequently quite an irrelevant issue. By putting representatives of the executive branch on the Open Market Committee, they would have a direct influence on the most critical decisionmaking apparatus of monetary policy.

STATEMENT BY GEORGE MACESICH, THE FLORIDA STATE UNIVERSITY

DEAR CONGRESSMAN PATMAN: As you requested I am sending along to you my contribution for your forthcoming compendium. The two manuscripts, "Central Banking, Monetary Policy and Economic Activity" and " 'Stock' and the Federal Reserve System," cover my views on H.R. 11 and on questions pertaining to (1) monetary policy guidelines and open market operations, (2) the structure of the Federal Reserve, and (3) recent monetary developments.

CENTRAL BANKING, MONETARY POLICY, AND ECONOMIC ACTIVITY

I. Instruments of monetary policy

Growing interest in monetary theory, monetary processes, and monetary policy is worldwide. The Radcliffe Commission in England, the Royal Canadian Commission in Canada, the Commission on Money and Credit, and the Committee on Financial Institutions in the United States, as well as the growing importance of money in such formerly rigidly controlled economies as Yugoslavia are but the more obvious examples. Reasons for this growing interest in monetary matters are numerous, but probably in the forefront is the lack of satisfaction with economic performance in general.

The term "monetary policy" as it is usually understood by economists focuses on the objectives, the tools, and the processes involved in the regulation of the supply of money and credit. Underlying this view

is the idea that the supply of money (currency and bank deposits adjusted) should be related secularly, if not cyclically, to the rate of growth in the economy and the level of economic activity.

In the United States, the Federal Reserve authorities (Fed) are charged with the responsibility of executing monetary policy. This is particularly true since 1951 and the now famous "accord" reached by the U.S. Treasury and the Federal Reserve Board, which provided, at least tacitly, as a matter of public policy that in case any open differences should arise between them, the Treasury would be expected to accommodate its policies, insofar as possible, to those of the monetary authorities.

It is instructive to look into the operations, actions, and accomplishments of the Fed's open market operations.[1] These operations are carried out by the staff of the New York Federal Bank under the directives of the Federal Open Market Committee (FOMC). Consider 1965, for example, FOMC policy during 1965 may be divided into five subperiods so as to take into account both the Fed's actions and changes in economic conditions.

Table 1 summarizes FOMC actions, intermediate objectives, and money market conditions. Open market transactions are summarized in the table by rates of change in the Fed's holdings of U.S. Government securities. Intermediate guides to policy stipulated throughout 1965 were the reserve base, bank credit, and the money stock. Policy called for moderate rates of expansion in these variables. Long-term interest rates are also presented in the table as an indication of money market conditions, although they are not specifically listed as an intermediate policy guide.

[1] For a more detailed description of these activities see Leonall C. Anderson and Elaine R. Goldstein, "Federal Reserve Open Market Operations in 1965," *Federal Reserve Bank of St. Louis Review*, June 1966.

TABLE 1.—MEASURES OF FEDERAL RESERVE OPEN MARKET ACTIONS, INTERMEDIATE OBJECTIVES, AND MONEY MARKET CONDITIONS

	Policy indicated		
	August through November 1964 (moving toward slightly firmer money market conditions)	December 1964 and January 1965 (facilitating money market adjustments to yearend uncertainties)	February 1964 and March 1965 (moving toward greater restrictions)
Pace of economic activity	Slower growth	Rapid growth at year's end	Marked increase in growth
	Annual rates of change, seasonally adjusted [1] (percent)		
Federal Reserve open market actions: Federal Reserve holdings of U.S. Government securities	10.8	16.8	14.2
Intermediate objectives:			
Total reserves of member banks	5.4	4.1	9.8
Bank credit, all commercial banks	9.6	12.2	12.7
Money supply	4.9	3.4	1.1
Money supply plus time deposits	9.2	10.1	7.7
	Monthly averages of daily figures, not seasonally adjusted [2] (percent)		
3- to 5-year U.S. Government security yield	4.04	4.06	4.12
Long-term U.S. Government security yield	4.12	4.14	4.15
Corporate Aaa bond yield	4.43	4.43	4.42
State and local Aaa bond yield	3.08	2.97	3.09
	Period average of daily figures, not seasonally adjusted [3] (millions of dollars)		
Money market conditions:			
Member bank borrowings from Federal Reserve banks	351	271	411
Net reserve position	61	137	−20
Basic reserve position:			
8 New York City banks	−280	−465	−585
38 other banks	−462	−501	−295
Dealer borrowings	3,801	3,877	3,338
	Period average of daily figures, not seasonally adjusted [3] (percent)		
3-month Treasury bill rate	3.56	3.83	3.93
Federal funds rate	3.46	3.88	4.01
Federal Reserve discount rate	3.50 / 4.00 [4]	4.00	4.00
Secondary market rate on negotiable certificates of deposit	3.89	4.14	4.24
Government security dealer financing costs (in New York)	3.84	4.28	4.45

See footnotes at end of table, p. 440.

TABLE 1.—MEASURES OF FEDERAL RESERVE OPEN MARKET ACTIONS, INTERMEDIATE OBJECTIVES, AND MONEY MARKET CONDITIONS—Continued

	Policy indicated			
	April through November 1965 (maintaining the more restrictive position achieved in February and March)		December 1965 and January 1966 (moderating market adjustments to changes in the discount rate and regulation Q)	1959–64 (not applicable)
	April through August 1965	September through November 1965		
Pace of economic activity	Slower expansion	Rapid growth	Rapid growth	High employment trend
	Annual rates of change, seasonally adjusted [1] (percent)			
Federal Reserve open market actions: Federal Reserve holdings of U.S. Government securities	10.1	8.5	11.6	5.7
Intermediate objectives:				
Total reserves of member banks	3.5	.2	13.2	2.7
Bank credit, all commercial banks	9.0	9.3	11.5	6.8
Money supply	3.6	7.6	10.2	1.8
Money supply plus time deposits	8.8	11.6	10.5	5.6
	Monthly averages of daily figures, not seasonally adjusted [2] (percent)			
3- to 5-year U.S. Government security yield	4.19	4.46	4.89	
Long-term U.S. Government security yield	4.19	4.34	4.43	
Corporate Aaa bond yield	4.49	4.60	4.74	
State and local Aaa bond yield	3.16	3.34	3.40	
	Period average of daily figures, not seasonally adjusted [3] (millions of dollars)			
Money market conditions:				
Member bank borrowings from Federal Reserve banks	518	490	428	
Net reserve position	−155	−124	−23	
Basic reserve position:				
8 New York City banks	−196	−232	−653	
38 other banks	−570	−848	−708	
Dealer borrowings	3,919	2,882	2,992	
	Period average of daily figures, not seasonally adjusted [3] (percent)			
3-month Treasury bill rate	3.86	4.01	4.48	
Federal Funds rate	4.09	4.06	4.37	
Federal Reserve discount rate	4.00	4.00	[5] 4.50	
Secondary market rate on negotiable certificates of deposits	4.30	4.42	4.87	
Government security dealer financing costs (in New York)	4.40	4.42	4.77	

[1] Change from end of preceding period to end of period considered.
[2] Monthly average of daily figures for last month in period, except State and local Aaa bond yields, which are monthly averages of Thursday figures for last month in period.
[3] Except secondary market rates on negotiable certificates of deposits, which are period average of Friday closing rates.
[4] Nov. 24, 1964, is date of discount rate increase at the Federal Reserve Bank of New York.
[5] Dec. 6, 1955, is date of discount rate increase at the Federal Reserve Bank of New York
Source: Leonall C. Anderson and Elaine R. Goldstein, "Federal Reserve Open Market Operations in 1965," Federal Reserve Bank of St. Louis Review, June 1966.

The evidence summarized in the table shows that during 1965 the FOMC adopted policy directives calling for some restraint. Early in the year it instructed the Federal Reserve Bank of New York to achieve firmer money market conditions and subsequently instructed it to conduct open market operations as a way designed to maintain these conditions. The evidence also indicates that money market conditions did in fact become somewhat firmed. Nevertheless, the rate of monetary expansion during 1965 was very rapid indeed. For the year as a whole, reserves, bank credit, and the money supply increased at rates significantly above those for the period 1959–64.

From June to November 1965 money supply (currency plus demand deposits) grew at a 6.9-percent annual rate. By comparison, the money supply increased at a 2.6-percent rate from 1960 to 1964 and at a 1.9-percent rate from 1951 to 1960. These rates suggest to many economists that it was an easy monetary policy, manifested through increases in the rate of growth of the money supply, which promoted the lifting of aggregate demand, rather than an easy fiscal policy, as some contend. Moreover, the quantity of money rose as rapidly as it did because the Fed chose to let it do so.

At first monetary growth stimulated production with little effect on prices. As 1965 and the fifth consecutive year of marked economic growth began there was a sizable discrepancy between the actual and potential output of the economy. In the fourth quarter 1965, with the economy operating at an estimated 96 percent of its potential, the "full employment gap" was considered to be $24 billion.[2] In addition there had been general price stability for several years. It appeared that 1965 would be an additional year of marked economic growth, with relative price stability.

As rapid monetary growth continued, the pressure of demand raised prices as well as production. From June 1965 to June 1966 the money supply (currency plus demand deposits) grew at a rate of 5.8 percent. Growth has not been so rapid for any other 12-month period since World War II. The next highest rate was 5.6 percent during the Korean war.

If the velocity of money were declining, i.e., if spending was declining and the demand for money to hold increasing, a rapid increase in the money might be justified. The evidence, however, indicates that the increase in monetary growth has been accompanied by an increase in the velocity of money. Thus between the last peak in economic activity in the spring of 1960 and the first quarter 1966 income velocity, defined as the ratio of gross national product to the money supply (currency plus demand deposits), has risen at a 3-percent average annual rate.

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[2] See *"Economic Report of the President,"* January 1965, pp. 81–85.

TABLE 2.—SELECTED MONETARY INDICATORS (COMPOUNDED ANNUAL RATES OF CHANGE) SEASONALLY ADJUSTED

[In percent]

	June 1965–June 1966	June 1966–September 1966 [1]
Money supply	5.8	−0.3
Demand deposit component	5.5	−3.5
Currency component	6.9	5.5
Time deposits	12.8	8.6
Money plus time deposits	9.0	3.2

[1] September estimated.

Source: Federal Reserve Bank of St. Louis Review, October 1966.

A substantial turnabout in the rates of change in the money supply occurred from June to September 1966. The evidence summarized in table 9.2 indicates that the money supply declined at a 1.4 percent annual rate from June to September. If the impact of variations in the stock of money on final aggregate demand occurs with a lag, as some economists believe, such a shrap contraction in the rates of change in the money supply may be significant for economic activity in 1967 and later. Similarly, monetary developments significant for economic activity in 1965 and 1966 may have been part of those of an earlier period. In a later section we shall discuss the issues of lags in monetary policy and monetary growth, together with additional empirical evidence relevant to both.

II. Experience in other countries

Experiences in other economically advanced countries suggest that the several instruments of monetary policy have received different degrees of emphasis.[3] In part, this may be due to the different sociopolitical environment in which they operate. As its principal instrument of monetary policy the National Bank of Belgium employs changes in the discount rate and moral suasion. Open market operations in Belgium are carried out in the Securities Stabilization Fund. Resources for these operations are obtained in part by advances from the national bank. In 1957 the scope and activities of the fund were greatly enlarged when it was permitted to issue its own certificates and to deal in short- and long-term Government securities. Reserve requirements for the country's banks are established by the banking commission. Since 1962 the commission has been empowered to impose compulsory cash reserve requirements for banks upon proposal of the national bank.

In Canada, on the other hand, reserve requirements imposed upon commercial banks are very important for the exercise of monetary policy. The law requires chartered banks to maintain cash reserves equal to 8 to 12 percent of a bank's Canadian-dollar obligations. Since 1956, and by agreement with the Bank of Canada, the chartered banks also maintain liquid assets at a ratio of 15 percent to their deposit liabilities. Prior to 1962 the discount rate instrument of monetary policy operated uniquely. The rate floated at one-fourth of 1 percent above the latest weekly average tender rate for 91-day treasury bills. Since

[3] "Comparative Features of Central Banks in Selected Foreign Countries," Joint Economic Committee, 88th Cong., first sess. (Washington, D.C.: U.S. Government Printing Office, 1963).

June 24, 1962, however, the treasury bill yield rate has ceased to be linked with the discount rate and the latter has assumed an independent role in monetary policy.

Principal monetary instruments in France are (1) the terms applied to rediscounts of short-term commercial paper, and (2) the minimum liquidity coefficient of the banks. Ceilings on rediscounts of short-term commercial paper other than for paper originating in export trade are imposed by the Bank of France. A penalty rate higher than the basic discount rate is applied to rediscounts in excess of the ceilings. Frequent changes occur in both the rates and ceilings. The liquidity coefficient, first introduced in 1961, is the relationship between deposit liabilities and such selected assets as cash, treasury bills, medium-term paper, and export paper. Since 1948, moreover, banks are required to maintain a minimum ratio of deposit holdings to holdings of treasury bills alone.

Open-market operations of the Bank of France are of very limited importance and completely different in character from those in the United States. Thus, for example, the Bank of France stands ready to buy from banks, up to given limits, treasury bills, bankers acceptance, as well as other types of paper in the money market.

By way of contrast in neighboring Germany, the Bundesbank conducts open-market operations in such securities as Treasury bills and Government bonds, as well as in other bonds admitted to the official stock exchange. It may establish minimum reserve requirements on credit institutions at any level up to a maximum of 30 percent for demand deposits, 20 percent for time deposits, and 10 percent for savings deposits. The Bundesbank may also change the discount rate and the rate it charges for advances on eligible paper.

In addition to these conventional instruments of monetary policy the Bundesbank has developed a technique for influencing the supply of funds on the domestic money market. The technique involves influencing the attractiveness of incentives to German commercial banks in making covered investments on the foreign exchange markets. By making it more expensive to banks to make such covered investments the supply of funds available to the domestic market is increased. And conversely.

In Italy open-market operations are not used to govern bank liquidity, owing to the lack of a developed money market. Compulsory reserve requirements were established in 1947, and their level remained unchanged until 1962. Changes in the Bank of Italy's rates on advances and rediscounts have been very infrequent.

The Bank of Italy's principal monetary instruments appear to be moral suasion and the determination every 4 months on the size of banks' lines of credit. Internal credit expansion is also influenced by the Bank by actions affecting the foreign borrowing and lending power of the country's banks. This is accomplished by (1) regulations concerning the amount of net foreign borrowing which banks are allowed to engage in, and (2) short-term swaps of Italian lire for dollars between the Bank of Italy and commercial banks.

A similar currency swap technique is also used by the Swiss National Bank in influencing the liquidity of Switzerland's banking system. The technique has been employed on several occasions since 1961. Its effectiveness, however, depends very much on the traditional susceptibility of the country's commercial banking system to moral suasion.

The use of more traditional instruments of monetary policy is severely restricted. Thus, though the Swiss National Bank is empowered to change the rates on discounts and advances, it has seldom done so. There are several reasons for this. First, banks rarely go to the National Bank to improve their liquidity positions, because of the substantial volume of funds available to them from foreign depositors and other interests. Second, the National Bank has no authority to adjust reserve ratios of commercial banks; indeed, such action is considered unconstitutional. Moreover, lack of a portfolio of appropriate securities prevents the National Bank from carrying out open-market operations.

In the Netherlands, on the other hand, the Governing Board of the Netherlands Bank has authority to set discount rates and conduct open market. In fact, since 1952, when open-market operations were first begun, the Netherlands Bank has made extensive use of this instrument of monetary policy. The maturities of the securities traded in open-market operations have been from 1 to 5 years and have consisted of Government securities and bonds quoted on the Amsterdam Stock Exchange.

Reserve requirements are also an important instrument for implementing the country's monetary policy. Under the terms of the "gentlemen's agreement" of March 1954, the Bank is empowered to raise the cash reserve requirements of commercial banks to 15 percent of total deposits. In the 1950's this ratio has been as high as 10 percent and as low as 4 percent.

The imposition in Sweden in 1952 of effective liquidity ratios on the commercial banks signaled a more active role for monetary policy in the country. Such a role has also brought about ingenious combinations of tax and fiscal policy measures and labor measures (including relocation measures discussed elsewhere) capable of rapid implementation to changing economic conditions. A case in point is the Swedish system of investment reserves. The idea is to spread private investment activity more evenly over the business cycle. Thus, during expansionary phases business is encouraged by tax incentives to deposit portions of its gross profits with the Bank of Sweden. If the economy should require stimulus, these deposit may be releaed to finance certain given types of investment.

The use of more traditional monetary instruments such as open-market operations has suffered owing to Government bond market pegging by the Bank. This was considered necessary in order to permit floatation of the large volume of bond issues necessary to finance the budget deficits and housing program. This practice continued until 1955.

British monetary policy is implemented by a combination of discount policy and open-market operations. Unlike the situation in the United States, for example, the Bank of England does not lend directly to commercial banks but only to discount houses whose main operations are to underwrite the weekly Treasury bill issue with call loans secured mostly in the London clearing banks. The Bank of England restricts credit by selling Treasury bills or Government bonds through its "special buyer" (a discount house) or the "Government broker" (a securities dealer), thus absorbing cash from the banking system. To restore their cash and liquidity positions, the banks can withdraw their call loans from the discount houses; the discount houses in turn may be

forced to borrow from the Bank of England at the bank rate which, in contrast to the Fed's discount rate, is a penalty rate.

The influence of money in the economies of the Socialist countries of Europe has increased. Yugoslavia is the pacesetter for these countries.[4] When it abandoned the Soviet type of planning apparatus, money began to play an important role in economic activity. The former concept of the money supply, defined in such a way as to include only coin and paper money, was inadequate in a country that considered decentralization seriously. By the beginning of 1952 a new definition more consistent with the new economic system was agreed upon. Since 1952 the money supply has been defined to include all monetary means that can be used directly as a means of payment, such as coin, paper money, transfer accounts of enterprises, liquid assets in investment funds, and other monetary assets such as savings deposits, that can be readily converted. Such a definition, however, does not establish a clear-cut division between liquid and nonliquid assets. The vast middle ground between these few types of assets is a growing source of concern for the country's money managers.

The characteristic that distinguishes the Yugoslav economy from other economies which place emphasis on a relatively free market or economic planning is that it maintains economic planning together with a considerable degree of freedom on the part of individual economic units. Consequently, its economy can best be described as a mixture of two apparently opposite elements. The far-reaching and liberalizing economic reforms of July 1965 served to continue this mixture, even though greater freedom was given individual economic units at the expense of the central authorities.

The combination of economic planning and a free market is indicated by the purposive roles played by money and credit in the economy. Monetary assets, whether liquid or nonliquid, and their sources of credit must be used for predetermined purposes such as investment and current operations. Even within such broad categories, the use of those resources is further restricted for specific activities such as, for example, the improvement of housing and the replacement or improvement of roads. These restrictions, which were imposed to meet the requirements of economic planning, resulted in situations in which an economic unit had a surplus in one account and a shortage in another, without any means of transferring surplus resources.

The purposive character of money and credit should be regarded as a transitional state in a process of giving money an increasing influence in the process which started when the fully centralized type of economic planning was abandoned. In the period 1956–61 the purposive division of monetary resources became less marked, and in 1961 many of the former restrictions were eliminated, especially as they pertained to the operation of economic enterprises, which are now free to spend their funds as they see fit.

An important distinguishing feature of the Yugoslav system, and indeed in all systems with elements of economic planning, is the requirement that every economic unit within the Socialist sector must

[4] See George Macesich, "Yugoslavia: Theory and Practice of Development Planning" (Charlottesville: The University Press of Virginia, 1964) ch. 9; George Macesich, "Major Trends in the Post-War Economy of Yugoslavia," in Wayne S. Vucinich, editor, "Yugoslavia: An Experiment of Socialism" (forthcoming University of California Press); D. Dimitrijević, "The Financial Structure of a Changing Economy: The Case of Yugoslavia," Florida State University Slavic Papers, vol. 2, 1968, pp. 1–30.

hold all of its monetary resources in appropriate accounts with a prescribed bank and perform all banking operations through that bank. Each economic enterprise is required to effect payments through accounts with that bank and to apply to it for all funds except investment funds, which are granted by investment loan funds. Such funds are to be used through accounts held with the bank administering the investment loan fund. The purpose of these restrictions is to make it possible to obtain a full record of the monetary transactions of economic units in the Socialist sector and to provide a means for checking their transactions against legal enactments. At the same time that this restriction provides a check on the legality of monetary transactions, it also provides a very powerful means for controlling the money supply and the volume of credit by the central bank.

This control measure is supplemented by the central bank's power to grant credit to other banks and to change the reserve ratio of these banks. For example, in 1961 the reserve ratio of communal banks was 30 percent. Changes in banking and credit laws in 1961, and the 1965 economic reforms, as well as subsequent events, envision that the discount rate and legal reserve requirements should be operated in a more flexible manner than before; that bills of exchange, promissory notes, obligations, and cashier's notes should be introduced; and that the policy of activating or neutralizing components of the money supply should be better coordinated with fluctuations in the demand and supply of commodities.

A decade or more behind development in Yugoslavia are the countries of Eastern Europe. By the spring of 1965 all countries of Eastern Europe, except Rumania, had announced their intention to undertake significant reforms in their economies.[5] Viewed broadly, the reforms represent an important departure from the centrally planned economies that emerged in the Soviet Union with the first 5-year plan and in the Eastern European countries after World War II. Before the advent of these reforms it was sufficient simply to refer to the Soviet model for the role that money and credit played in these economies. It is clear, however, that this can no longer be done except in very broad terms. These reforms did not originate in the Soviet Union but in the more advanced countries on its western frontier.

Hitherto, these countries tried to reduce the role of money to that of an accounting unit. They attempted to make the distribution of credit a byproduct of the administrative allocation of goods and services. They also attempted to make capital a free good. Neiether financial markets nor financial assets other than money, government bonds, and savings deposits existed in these countries. Currency and deposits were not interchangeable. Ownership of cash balances did not necessarily mean command over goods and services. Indeed, there was no recognition that monetary policy, as the term is usually understood, even existed.

Whether a "Socialist monetary policy" will emerge from these reforms is anyone's guess. Assuming that these countries continue to follow Yugoslavia's example, one would expect that money and credit

[5] For a more detailed discussion of the role of money and credit in these economies see George Garvy, "Money and Banking in Eastern Europe" (New York: Federal Reserve Bank of New York, 1966); ——— "Banking and Credit in the Framework of New Economic Policies in Eastern Europe," Banca Nazionale del Lavoro (Rome) *Quarterly Review* (forthcoming).

will play an increasingly important role. It is remarkable, however, that in these countries Yugoslavia is never given official credit for its innovating role.

Few will quibble with the idea that monetary policy ought to foster economic growth. The less developed countries in Africa, Asia, and Latin America have many characteristics in common, including a relatively undiversified and inelastic productive system which reponds only slowly to demand activated by an expansionary monetary policy. In these countries a very thin line indeed exists between inflation and the loss of international reserves on the one hand and a slow rate of growth on the other. Within these limits, however, monetary policy does play an important role.

In many developing countries, demand by borrowers for credit tends to be insensitive to small changes in interest rates. An alternative to pushing interest rates to exorbitant levels is, according to some, resort to direct allocation of credit. Unfortunately, such action typically implies the imposition of direct controls.

As an instrument of monetary policy, open market operation is not effective in developing countries owing to the absence of an adequate securities market. Rediscount policy may be effective in those countries where banks are accustomed to borrow from the central bank. It is also used in many countries to influence and guide the flow of credit to desired ends. A central bank may grant favorable treatment, or it may limit rediscounts to the refinancing of certain types of loans, encouraging banks to lend for these purposes.

Changes in reserve requirements may also prove effective. However, in many of the developing countries liquidity ratios tend to be stable, and in some the purpose of changes in reserve requirements appears to be to direct credit toward certain users by recognizing their debt instruments as liquid assets.

III. How effective?

It is argued that monetary policy influences primarily the value and composition of assets. As a consequence, it is more circuitous than, for example, fiscal policy, which directly influences income and therefore economic activity. A contrary position is the argument that decisions regarding the demand to hold money really involve a decision as to whether it is best to hold wealth in this form or in securities or physical assets. Against such a background asset holdings may be as significant as income in directly influencing economic activity. Monetary policy through its effect upon assets may theoretically have as direct an impact on economic activity as fiscal policy operating through income. The empirical evidence cited elsewhere also tends to support this view.

Prior to the 1930's, theoretical and empirical research in monetary theory focused on the institutional determinants of velocity. Since that time considerable attention has been given to the relation beween velocity, or its alternative formulation the demand for money, and interest rates. The possible existence of the Keynesian liquidity trap and the consequent ineffectiveness of monetary policy probably motivated much of this research. In themselves, many of these studies left much to be desired. To judge from results reported in this study the demand for cash balances does, in fact, depend partly on interest rates. A promising explanation seems also to be contained in the permanent income hypothesis discussed by Milton Friedman.

Another aspect deals with the effect of the discount rate on market rates of interest and thus on investment. The sensitivity of investment to interest rates has triggered much theoretical debate, with some empirical results.[6] These results do not strongly support what has come to be considered as the Keynesian view of monetary effects on investment expenditures. Canadian results, for example, contradict studies which claim to find no relation between interest rates and investment. One consequence of these results is that they cast doubt on the usefulness of a narrow and restrictive interpretation of changes in the money stock.

The length of time over which interest rate effects appear to be distributed in Canada should be cause for sober reflection on the part of those people who expect to observe a rapid response of investment to interest rate changes. It simply takes time to plan and execute investment projects. And, obviously, this lag may differ among industries and sectors of the economy. This is one important reason for the failure on the part of some empirical studies to find any relation between interest rates and investment. Existence of such lags, however, indicates that the effect of monetary changes may not be as quick acting as some would argue.

In a study published in 1958 for the U.S. economy Thomas Mayer takes the position that the lag between the taking of action and its effects on the economy can be divided into two distinctly separate lags: the credit market lag and the output lag.[7] The credit market lag refers to the time lapse from the application of a change in policy to changes in the availability of credit. The output lag refers to the time lapse between changes in the availability of credit to changes in GNP.

To determine the estimated effects on GNP, Mayer worked with a simple multiplier model in which he assumed a multiplier coefficient of 2.5 and a time period of 4 months. With this model he estimated that it would take 11 months for an increase in credit availability to offset the persistent effects of the previous restrictive policy and to begin to influence current GNP. If policy and credit market lags are included it would take even longer. Thus, if monetary policy is changed 2 months after the cyclical peak, and the monetary authority gradually intensifies the new policy over an 8-month period, the new policy would not begin to influence GNP until 17 months after the cyclical peak. The lag was the same for expansionary policies enacted after the trough. Comparing this with the NBER (National Bureau of Economic Research) average contraction and expansion periods of 23 months, anticyclical measures would begin to work only 6 months before the peak or trough of the cycle. Applying this to six NBER cycles, starting with the years 1919 through 1945, Mayer determined that only 5 to 10 percent of the cycle amplitude could have been expected to be canceled by anticyclical monetary policy. On the basis of this, Mayer concluded that while monetary policy itself may be changed quickly, its effects may not. Therefore, monetary policy, in Mayer's estimation, is a most inflexible tool.

[6] See Phillip Cagan, "A Commentary on Some Current Issues in the Theory of Monetary Policy," *Patterns of Market Behavior*, edited by Michael J. Brennan (Prividence: Brown University Press, 1965).

[7] Thomas Mayer, "The Inflexibility of Monetary Policy," *Review of Economics and Statistics*, 40 (1958).

In a subsequent article, W. H. White indicated a number of shortcomings in Mayer's study.[8] When these are corrected the effect would be presumably to shorten the estimate of the lag sufficiently to imply that anticyclical measures should be used aggressively. He indicates that a lag of roughly 12 months was probably more accurate.

Another study which reports on the lag in the effect of monetary policy was conducted by John Karaken and Robert Solow for the Commission on Money and Credit.[9] It constitutes a part of a larger study on lags in fiscal and monetary policy undertaken by the Commission.

Insofar as Karaken and Solow reach a conclusion in their study, they note that full results of policy changes on the flow of expenditures may be a long time coming.[10] The effects are spread out over a wide interval of time, however, so some effect comes fairly quickly. They build up over time, so that some substantial stabilizing power results after a lapse of approximately 6 to 9 months.

The principal criticism of the work turns on the statistical tool used throughout by the authors. They estimate an infinite distributed lag function by using multiple regression in which prior values of the independent variable enter as dependent variables, along with the current value of the variable suspected of having a lagged effect (the operational variable). Milton Friedman has noted that this procedure will yield a valid estimate of the lag, if such a lag exists.[11] However, by itself, it does not provide any evidence on the existence of a lag, since it cannot discriminate between serial correlation in the dependent variable which arises from other sources and that which arises from the distributed lag effect of the operational variable. As a result, doubt is cast on the validity of the results presented in the study.

Another statistical estimate of the lag has been made by Milton Friedman. This was an outgrowth of extensive empirical studies conducted on the relation between the stock of money and economic activity.[12] One principal empirical finding is the conclusion that monetary actions affect economic conditions only after a lag that is both long and variable. The technique employed in arriving at this conclusion is a comparison of the timing of peaks and troughs in the rate of change of the stock of money relative to peaks and troughs in general business.

This comparison, covering 20 business cycles from 1867 to 1960, disclosed that at upper turning points the lag ranged from 13 to 24 months for specific cycles and averaged 16 months. At lower turning points, the lag ranged from 5 to 21 months and averaged 12 months.

Friedman's measurement of the lag assumes that the primary direction of influence is from money to business rather than from business to money. Instead of interpreting the rate of change of the money stock

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[8] W. H. White, "The Flexibility of Anticyclical Monetary Policy," *Review of Economics and Statistics*, 43 (1961).

[9] Commission on Money and Credit, *"Stabilization Policies"* (Englewood Cliffs: Prentice-Hall, Inc., 1963).

[10] Ibid., p. 30.

[11] Milton Friedman, "Note on Lag in Effect of Monetary Policy," *American Economic Review*, September 1964, p. 760.

[12] See Milton Friedman, "The Supply of Money and Changes in Prices and Output," in U.S. Congress, Joint Economic Committee, "The Relation of Prices to Economic Stability and Growth: Compendium" (Doc. No. 23734) Washington, Government Printing Office, Mar. 31, 1958, pp. 241–256; ——— and Anna J. Schwartz, "Money and Business Cycles" *Review of Economics and Statistics*, vol. 45, No. 1, pt. 2, February 1963, pp. 32–75; ———, "The Lag Effect of Monetary Policy, *Journal of Political Economy*, 69 (1961), p. 452.

as conforming to the business cycle with a lead, it could be interpreted as conforming inversely with a lag. To test the assumption that the primary causal direction is from money to business, timing observations were computed both ways. The stability of timing observations was much greater when the monetary series led the output series. The amplitude of the cyclical movement in money was also found to be highly correlated with the amplitude of the cyclical movement in general business.

Friedman and Schwartz observe, moreover, that the relation between money and business has remained largely unchanged over a period that has seen substantial changes in the arrangements determining the quantity of money. Over the period 1867–1960 which they studied the United States was on, successively, a gold standard, an inconvertible paper standard with floating exchange rates, and a managed paper standard with fixed exchange rates. In addition, Government arrangements for monetary control altered. If the predominant direction of influence had been from business to money, these changes might have been expected to alter the relation between business changes and monetary changes, but the relation has remained fairly constant in both timing and amplitude. They admit to the existence of a significant feedback effect from business to money, but this is viewed as an important reason for the lags being both long and variable.[13]

Canadian experience is very similar to that of the United States reported on by Friedman and Schwartz. Tables 3 and 4 present from 1867 to 1965 and from 1868 through 1908, respectively, the specific cycles in the monthly rate of change in the Canadian stock of money and its relation to Canadian cycles.[14] The specific cycles are dated according to National Bureau criteria. These criteria include dating on the cycle by at least three judges. Five people (including Milton Friedman and Anna J. Schwartz for the period 1924–58) assisted me in dating the cycles. It is obvious from an examination of the evidence when plotted that the Canadian indicator falls short of satisfying criteria set out by the National Bureau for an "ideal" statistical indicator. It leads the cyclical revival center by variable amounts; it does not sweep smoothly up or down; its cyclical movements are not always prouounced.

By way of contrast, the indicator does seem to approximate closely the last "ideal" criterion that it be "so related to general business activity as to establish * * * confidence * * * that its future behavior in regard to business cycles will be like its past behavior." Moreover. the indicator does satisfy the Bureau's "two-thirds rule" for acceptable indicators. Table 3 indicates that between 1867 and 1900, the peak in

[13] Several criticisms have been presented against measurement of the lag by Friedman and Schwartz. In the main the criticisms have revolved around the accusation that the lag as measured by Friedman and Schwartz is "a statistical artifact," arising because they compare the rate of change of the money supply with the level of economic activity. Friedman deals with these criticisms in studies cited in footnote 10.

For all practical purposes much of this criticism may be semantic squabbling. After all, statistical considerations require separation of cyclical behavior from secular behavior. The two most common methods are either to express the data in terms of deviations from trend or to use first differences. Friedman chose the latter method for its simplicity. The comments of at least one critic imply that the former method would have met with wider acceptance largely, it seems, because that method yields an average lag of 5 months at peaks. (John M. Culbertson, "Reply," *Journal of Political Economy*, 69 (1961)). Friedman had already noted, however, that the two methods are simply two ways of presenting similar information. Neither method provides a full description of the behavior of the money stock. Rather, they are both summary measures.

[14] George Macesich, "Supply and Demand for Money in Canada," in Milton Friedman and David Meiselman (ed.), *"More Studies in the Quantity Theory of Money"* (Chicago: University of Chicago Press, forthcoming).

the rate of change of the money stock preceded the peaks in general business activity by an average of almost 7 months at peaks and almost 8 months at troughs. For the postwar period and six complete reference cycles between 1924 and 1964, peaks in money precede peaks in general business by an average lead of 15.5 months at peaks and about 7 months at troughs. These results are consistent in direction of and of roughly the same order of magnitude with the 15-month leads at peaks and 12-month leads at troughs for reference cycles since 1907, found for the United States.

TABLE 3.—SPECIFIC CYCLES IN CANADIAN "LEADING MONETARY INDICATOR" AND ITS RELATION TO CANADIAN CYCLES, 1867–1965

	Specific cycle date	Material reference date	Lead (−) or lag (+) of Canadian reference date	
			P	T
P	December 1868			
T	May 1869			
P	June 1870			
T	September 1871			
P	May 1874	October 1873	+7	
T	May 1875			
P	April 1876			
T	May 1879	May 1879	0	
P	December 1881	July 1882	−7	
T	September 1884	March 1885		−6
P	November 1886	February 1887	−3	
T	September 1887	February 1888		−5
P	June 1888	July 1890	−25	
T	September 1889	March 1891		−18
P	December 1892	February 1893	−2	
T	September 1893	March 1894		−6
P	April 1894	August 1895	−16	
T	April 1896	August 1896		−4
P	January 1899			
T	April 1900			
P	January 1906			
T	September 1907			
P	January 1913			
T				
P	July 1920	June 1920	+1	
T	October 1922	September 1921		+11
P	September 1925			
T	November 1926			
P	December 1927	April 1929	−16	
T	May 1930			
P	May 1931			
T	November 1931	March 1933		−16
P	September 1935	July 1937	−22	
T	October 1937	October 1938		−12
P	May 1942			
T	February 1947			
P	October 1948	October 1948	0	
T	January 1951	September 1949		+16
P	December 1951	May 1953	−17	
T	October 1953	June 1954		−8
P	December 1954	April 1954 [1]	−28	
T	March 1957	April 1958 [1]		−13
P	August 1958	March 1960	−19	
T	March 1960 [2]	April 1961		−13
P	June 1963 [2]	March 1964	−9	

[1] I am indebted to D. J. Daly for these tentative reference dates.
[2] These reference dates are very tentative.

Source: Material reference dates are from the studies of Edward J. Chambers, "Late Nineteenth Century Business Cycles in Canada," Canadian Journal of Economics and Political Science, August 1964, pp. 391–412 and "Canadian Business Cycles Since 1919: A Progress Report," Canadian Journal of Economics and Political Science, May 1958, p. 181. See also Canadian Statistical Review, January 1963 and January 1965 and Bank of Canada: Annual Report of the Governor to the Minister of Finance, 1959–65.

Evidence presented in table 4 indicates that peaks and troughs occurring in my monthly money series are clearly approximated by Chambers' quarterly money series. Indeed, in almost every instance, the turning points in both monthly and quarterly money series precede their counterpart cyclical reference dates. One exception is August 1874 when, according to Chambers, special circumstances were presented; namely, the transfer of Canadian bank deposits following the New York financial panic.

TABLE 4.—MONTHLY AND QUARTERLY TURNING POINTS IN RATE OF CHANGE IN THE CANADIAN MONEY STOCK, 1868–1908

	Monthly (Macesich)	Quarterly (Chambers)		Monthly (Macesich)	Quarterly (Chambers)
P	December 1868	November 1868	T	September 1887	November 1887.
T	May 1869	May 1869	P	June 1888	August 1888.
P	June 1870	May 1870	T	September 1889	August 1889.
T	September 1871	August 1871	P	December 1892	November 1892.
P	May 1874	August 1874	T	September 1893	August 1893.
T	May 1875	May 1875	P	April 1894	May 1894.
P	April 1876	May 1876.	T	April 1896	February 1896.
T	May 1879	May 1879.	P	January 1899	February 1899.
P	December 1881	November 1881.	T	April 1900	February 1900.
T	September 1884	August 1884.	P	January 1906	February 1906.
P	November 1886	November 1886.	T	September 1907	November 1907.

Source: Chambers' quarterly dates from personal correspondence with me dated Nov. 5, 1962.

In the post-World War I period there are several extra cycles in the Canadian money series. One is in 1925 to 1926. There is some uncertainty connected with the dating in Canada of a reference cycle in 1926–27.[15] The occurrence of an extra cycle in the money series in 1925 to 1926 corroborates the observed slowing down of economic activity in 1926–27.[16]

Another extra cycle occurs in 1930 and 1931. This is consistent with American experience where a similar but less obvious movement occurs. It may be that but for the departure of Canada and Great Britain from the gold standard in the fall of 1931, the 1930 trough would have corresponded to a reference trough in the summer of 1931. This was cut short because of the departure from the gold standard.

The other extra cycle occurs during the war period. Although these data are difficult to read when plotted because of the extraordinary gyrations, some of these of approximately 7 to 9 months, like corresponding movements in American figures, are associated with the bond drives; others, perhaps, with inadequate seasonal adjustment. Thus in the case of Government bond drives, the estimates exclude Government cash balances. During a war-bond campaign deposits were transferred from public to Government accounts. When the Government paid them out again they came back into the hands of the public and this accounts for the sharp gyrations in the figures.[17]

Although the "leading monetary indicator" roughly satisfies the National Bureau's criteria for an adequate indicator, its usefulness for accurately predicting turning points is very limited. For the several reference cycles the lead in months at peaks ranges from 0 to

[15] Edward J. Chambers, "Canadian Business Cycles Since 1919: A Progress Report," *The Canadian Journal of Economics and Political Science*, May 1958, p. 172.
[16] Ibid., p. 180.
[17] For a discussion of Canadian War Finance . . . R. Craig McIvor, *Canadian Monetary Banking and Fiscal Development* (Toronto: The Macmillan Co., of Canada, Ltd., 1958).

28 months. At the trough the lead of the indicator ranges from 4 to 18 months. The evidence, however, is consistent with American results, where similar difficulties occur in attempting to use this indicator alone to predict turning points in economic activity.

It is partly on the basis of such evidence for the United States that Milton Friedman and others argue against the use of discretionary monetary policies and for the pursuit of policies which would require that the money supply increase at a constant rate. The basic problem is that the effects of actions taken currently by the monetary authority may be felt at some variable future date;[18] thus the difficulty of knowing what measures the monetary authority ought to take at any given time. A possible consequence of this imperfect knowledge is that the policies of the monetary authority may contribute to the instability of the economy.

The behavior of the rate of change of the money supply in Canada during the period 1867–1958 tends to support Friedman's position. During periods when gyrations in the money series are very sharp great economic instability also occurs. When the data are relatively free of gyrations there is relative stability in economic activity.

Of course, it is not possible on the basis of evidence presented in this paper to argue unequivocally that money factors are the principal causal elements generating stability or instability in Canada. The evidence, however, is suggestive. Other factors undoubtedly also contributed to Canadian difficulties during the period 1867–1964.

If we restrict ourselves to the post-World War II period when quarterly data on variables other than money are available, lagged relations and relations between first differences may be tried as I have done elsewhere. (See footnote 14.) The evidence is that money is more highly correlated with consumption from one to four quarters later than with consumption in an earlier or later quarter. Autonomous expenditures are more highly correlated with consumption one quarter later than in the same or any later quarter. When first differences are considered money is more highly correlated with consumption one or two quarters later than in the same quarter. One implication of these results is that the argument that changes in induced expenditures brought about changes in money loses force. This does not mean, of course, that money causes induced expenditures just because it precedes it. It may be that both are responding to a third variable which lags neither. In any case such a third-variable argument can be made against any theory of causality. The point is that the evidence in its support should be presented.[19] Some evidence relating to what caused

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[18] See footnote 14.

[19] K. A. J. Hay, "Money and Cycles in Post Confederation Canada," *Journal of Political Economy*, June 1967, pp. 263–273 for example, argues that in Canada money is passive in the upswing of the cycle but an active agent in promulgating recessions in the country and that this is in keeping with Douglass North's suggestion in *Economic Growth of the United States, 1790–1860* (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1961) that money has had a role in curtailing long upswings in American growth. This may be a surface manifestation of even more fundamental forces which appear to a considerable extent to be monetary in nature. I have argued elsewhere that defunct ideas, including the Real Bills' Doctrine and the specie standard with its fixed exchange rates, operating through the monetary mechanism, have made significant contributions to the economic stagnation in the post-Civil War American South. See, George Macesich, *Commercial Banking and Regional Development in the United States, 1950–60* (Tallahassee: The Florida State University, 1965) and ——— ——— "A Monetary Hypothesis and Southern Development," *Rivista Internazionale di Scienze Economiche e Commerciali*, February 1966, pp. 128–147. I have also argued that the problems of the turbulent 1830's and early 1840's in the American economy in no small part derive from capital flows and the operation of the specie-flow mechanism under fixed exchange rates. ——— ——— "Sources of Monetary

changes in the money supply to come about is presented in the reference provided in footnote 14.

Another important implication of the results summarized is that they tend to provide an independing check on the observation that the timing and duration of Canadian and American reference cycles have been very similar.

"Stock" and the Federal Reserve System*

I. Introduction

There has been a misconception among some bankers, economists, and others that member banks own the Federal Reserve System.[1] This idea arises from the fact that the law requires the member banks to own "stock" in the System.

Thus L. V. Chandler alleges—

> * * * the Federal Reserve banks are *owned wholly* by their member banks, each member bank having paid in to its Federal Reserve bank an amount equal to 3 percent of its paid-up capital and surplus * * * [2]

He qualifies this statement, however, by noting that—

> * * * in this case ownership does not carry with it full control of the corporation and the enjoyment of all its earnings.[3]

R. W. Lindholm, J. J. Balles, and J. M. Hunter write:

> * * * This stock purchase is an inducement rather than a hindrance to membership. * * * The stock held by member banks is similar to nonvoting stock of an ordinary corporation * * *[4]

And A. G. Hart writes:

> * * * The stock of each Federal Reserve bank is owned by its own member banks; and the members elect six of the nine directors. * * * In legal form, the Federal Reserve System is still much what it was at the outset—a sort of bankers' cooperative society, with supervision from Washington * * *.[5]

Similar statements may be found in standard money and banking texts as well as throughout the literature.

It is the contention of this paper that the term "stock" is not accurately descriptive of the relationship between member banks and the System and may even be misleading. Thus there is a tendency to overlook the specifications of the law, which unfortunately uses the term "stock," and attribute ownership of the System to member banks. From this is derived the false conclusion that the Government has abdicated in large measure its sovereignty over the money supply, and,

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Disturbance in the United States, 1834–45," *Journal of Economic History,* September 1960, pp. 407–434. See also, Clark Warburton, "Variations in Economic Growth and Banking Development in the United States from 1835 to 1885," *Journal of Economic History,* September 1958, pp. 283–297; Milton Friedman and Anna J. Schwartz, *A Monetary History of the United States, 1867–1960* (Princeton: Princeton University Press for National Bureau of Economic Research, 1963); Phillip Cagan, *Determinants and Effects of Changes in the Stock of Money, 1875–1960* (New York: National Bureau of Economic Research, 1965) ——— ———, "The First Fifty Years of the National Banking System: A Historical Appraisal," Deane Carson (ed.), *Banking and Monetary Studies* (Homewood: Richard D. Irwin, 1963).

* I am indebted to Marshall R. Colberg for helpful comments and suggestions.

[1] Indeed, in the late 1930's it was proposed in Congress that a law be enacted to provide for the purchase and ownership by the Government of Federal Reserve banks. *Congressional Record,* June 2, 1959, p. 8677.

[2] L. V. Chandler, *The Economics of Money and Banking* (New York: Harper & Bros., 1959), p. 124. (My italics.)

[3] *Ibid.,* p. 124.

[4] R. W. Lindholm, J. J. Balles, and J. M. Hunter, *Principles of Money and Banking* (New York: W. W. Norton, 1954), pp. 195–196.

[5] A. G. Hart, *Money, Debt, and Economic Activity* (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1958), p. 98.

in effect, one form in which taxes are levied. It is for this reason that the issue of ownership of Federal Reserve banks is not a trivial one.

II. LEGITIMACY OF THE TERM "STOCK"

Let us turn to a brief examination of the important types of securities with a view toward ascertaining the legitimacy of the term "stock" in the specifications of the Federal Reserve Act as amended.

The major division of securities is between those which represent ownership and control and those which are contractual. Common stock represents control par excellence in that it generally has sole voting power. It is entitled to all earnings and assets of business after prior claims are satisfied. Preferred stock, on the other hand, usually does not carry voting control and the corporation does not contract to pay back the principal sum indicated on the certificate, nor promises or contract to pay a specified amount of dividend annually.

Although the task of classifying the contractual obligations of corporations is much more complex than that of classifying ownership securities, it is generally agreed that bonds do not represent ownership and hence control. They represent rather a contractual arrangement whereby the corporation promises to pay not only a specified annual return, but also the principal sum at a stated time.

Into which of these two classifications shall we place the "stock" of the Federal Reserve banks held by member banks? Does this "stock" represent ownership? Does it carry the rights and privileges normally attributed to stock? Or is it really a contractual arrangement analogous to a bond?

According to Congressman Patman it is not a stock and it lacks many of the characteristics normally attributed to a bond. Thus he states:

> * * * The law makes it abundantly clear * * * that this so-called stock is not ownership stock and carries none of the rights and privileges of stock. This "stock" cannot be sold, it cannot be voted, it cannot pay dividends, it does not entitle the stockholders to inspect the books, and it does not entitle the stockholders to a share in the assets. Further, the law plainly states that even if the Federal Reserve System were liquidated, the so-called stock would have no claim on the assets of the System, except to the extent of the principal actually paid in * * *.[6]

Additional light is shed on this subject in recent congressional hearings. Mr. Patman asked Chairman Martin of the Federal Reserve Board whether member banks have any proprietary interest in the Federal Reserve System. And the following exchange occurred:

> The CHAIRMAN (Mr. Patman). * * * [The proposition] is that the banks own the Federal Reserve Banking System, and it is run by the banks; it is operated for their benefit. That is a fallacy, is it not?
>
> Mr. MARTIN. That is a fallacy.
>
> The CHAIRMAN. That stock, or that word "stock" is a misnomer, is it not?
>
> Mr. MARTIN. If you are talking about stock in terms of proprietorship, ownership—yes.
>
> The CHAIRMAN. Well, of course, that is what stock is; yes. Normally that is what stock is; when you say "stock," you mean a proprietary interest of some kind, do you not?
>
> Mr. MARTIN. You and I are in agreement that it is not proprietary interest.
>
> The CHAIRMAN. Yes. Therefore the statement that the banks own the Federal Reserve System is not a correct statement, is it?
>
> Mr. MARTIN. The banks do not own the Federal Reserve System * * *.[7]

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[6] Congressional Record, *op. cit.*, p. 8677.

[7] U.S. Congress, Joint Economic Committee, Subcommittee on Economic Stabilization, hearings, 84th Cong., second sess., 1956, pp. 119–120. Also cited in *Congressional Record*, June 2, 1959, p. 8678.

III. "STOCK" AND REQUIRED RESERVES

What then does the "stock," which currently amounts to $373 million, held by member banks represent? According to Congressman Patman, it represents another required reserve. He states:

> * * * What this so-called stock actually amounts to, in effect, is another required reserve. It serves no purpose except as a safeguard to the solvency of member banks. The Federal Reserve does not invest the funds from this stock and has no use for these funds * * * [8]

In this assertion he receives ample support as judged by the statements made in the hearings before the Joint Economic Committee in 1952.

Is it accurately descriptive to assert that "stock" represents another reserve? Traditionally required reserves represent assurance of adequate liquidity in the banking system, even though there is now a growing awareness that they are more important as a credit control device.[9] "Stock," however, neither assures liquidity of the banking system nor is it a control device. It cannot be used in an emergency and in this sense it is not a reserve; although the actual degree of liquidity provided by required reserves is largely illusory owing to the fact that any substantial fall below statutory limits necessitates prompt action to replenish them, they nonetheless do provide a means for temporary respite. "Stock" does not. The amount of "stock" owned by individual member banks is not proportional to their respective deposit liabilities and in this sense it is not a required reserve. It does not vary as between the three categories of member banks and in this sense it is not a required reserve. A bank cannot borrow from the System in order to purchase the System's "stock" as it can in order to replenish its reserves. And, finally, the "stock" does not provide the System with an instrument with which to affect the money supply.

IV. "STOCK" AS A DETERRENT TO MEMBERSHIP IN THE SYSTEM

If "stock" is really not stock nor a bond nor required reserves in the accepted sense, then what is it? According to E. A. Goldenweiser, it is "* * * more in the nature of a compulsory participation in a public enterprise * * *." [10] And as such it may or may not be a deterrent to membership in the System depending on the amount of income forgone by the purchase of stock. Thus the Federal Reserve Act specifies that the yield to stockholders of the Federal Reserve banks shall be at the rate of 6 percent per annum on paid in stock and shall be cumulative. Furthermore, Congress may change the rate at any time. Purchase of the "stock" then will be a deterrent to membership if, other things equal, a bank can earn more than 6 percent by investing its funds elsewhere. Contrariwise, if the purchase of the System's "stock" is lucrative relative to other investment outlets, then other things equal, the required purchase of "stock" will not be a deterrent but rather an inducement to participate "in a public enterprise."

Consequently Chandler's statement that member banks own the Federal Reserve System is not accurate. Neither is the statement by

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[8] *Congressional Record, op. cit.*, p. 8677.

[9] A. J. R. Smith, "The Functions of Reserve Requirements," *Bank Reserves* (New York: Federal Reserve Bank of New York, November 1953), pp. 9–11.

[10] E. A. Goldenweiser, "Public Nature of the Reserve Bank," *Banking Studies*, prepared by members of the Staff Board of Governors (Baltimore: Waverly Press, 1941), p. 234.

Lindholm *et al.* that the "stock-purchase" is an inducement to membership in the System. Nor is Congressman Patman's assertion that it is really an additional required reserve accurate. And for that matter, neither is Hart's statement that the Federal Reserve is a "bankers' cooperative society." It is a public enterprise—albeit of a unique sort.

Instead of stock ownership what really exists is a contract under which the 6-percent return is a subsidy paid to member banks to participate in the public enterprise of money creation, or more accurately in taxation, under rules imposed by the Federal Government. The "stock" is subsidy in the sense that it is practically a high-yield Government bond. The amount of the subsidy depends on the difference between 6 percent return and the going rate on Government bonds. The true subsidy is somewhat less than this differential because the "stock" unlike the Government bond cannot be converted into reserves.

STATEMENT OF CARL H. MADDEN, CHAMBER OF COMMERCE OF THE UNITED STATES

REPLY TO QUESTIONNAIRE ON H.R. 11

I. 1. I agree that monetary and fiscal policies should be coordinated to help achieve the objectives of the Employment Act of 1946. General goal guidelines for sustainable economic growth, such as reducing the overall unemployment rate to an approximate level or achieving an approximate growth rate in GNP without inflation are highly desirable; but it is essential to distinguish between such *goal* guidelines and *method* guidelines. If adhered to rigidly, the latter, such as maintaining an approximate growth rate in the supply of money or bank credit or a given level or pattern of interest rates, are undesirable, because they impose harmful inflexibility on monetary and fiscal policymakers. These monetary indicators are necessary and useful to the monetary and fiscal authorities but they should not be used inflexibly.

2. Formal responsibility for drawing up a coordinated monetary-fiscal policy program should be divided between the Federal Reserve and the Treasury in order to remove the question as much as possible from the political arena. But it is not possible to keep politics out of the question altogether, since the real problem is the degree of harmonization that can be expected between fiscal policy—ultimately set by the Congress—and monetary policy set by the Federal Reserve.

It is always possible, of course, that the stated objectives of the Employment Act are, under certain conditions, mutually inconsistent. Efforts to drive the unemployment rate down too far or too fast may generate inflation and an unsustainable growth rate in current-dollar GNP with attendant adverse effects on both the domestic and international economies. Avoidance of such excesses should be the joint responsibility of the Treasury, the Federal Reserve and the President's Council of Economic Advisers.

3. (A) I do not believe that any financial variable or group of variables should be specified as immediate targets for monetary policy. All of the variables specified are important, but in different measure at different times. The present state of economic knowledge does not permit selecting any one magnitude—such as the conventionally defined money supply—as the sole or even principal indicator of correct monetary policy, especially in the long run. And even in the short run,

use of a money supply target is likely to generate instability in interest rates and economic activity as the demand for money fluctuates.

(B) The guidelines of monetary policy should not be specified in terms of some index of past, present, or future economic activity. I should like to repeat what I said in answer to question No. 2: The major problem is not which indicator to follow but of better fiscal-monetary coordination. Unless fiscal policy can be made more flexible, monetary policy will be forced either to tighten credit too much—as in mid-1966—or to validate the inflationary effects of heavy deficit financing—as in 1967–68.

4. Debt management can contribute importantly to the goals of the Employment Act by providing a more appropriate spacing of Federal debt maturities and in this way permit interest rates to adjust more freely to changes in the supply and demand for credit. In this way proper debt management can assist financial intermediaries to perform their essential functions rather than hinder them, as in the heavy short-term deficit financing of 1966–67, which pulled funds out of nonbank financial institutions into high-interest-bearing Treasury issues.

5. (A) Open market operations are especially well designed for defensive purposes, because they are flexible and "out of sight" and are not so susceptible to misinterpretation as are the more visible, less easily reversible monetary instruments—changes in reserve requirements and in the rate charged on discounts and advances. One risk of using open-market transactions to counteract transient influences is that credit policy objectives may be subverted—as, for example, when the "Fed" maintains an "even keel" during Treasury financings. A second risk is that of miscalculations in efforts to offset such transient influences. The cost of such risks is the resulting loss to the economy of income and employment.

(B) I do not believe that monetary policy can be effectively and efficiently implemented solely by open-market operations. Monetary policy needs to employ as many free-market devices as possible—as is recognized in the recent proposals of the Mitchell subcommittee of the Federal Reserve System established to consider possible broadening of the discount function. But open-market operations are still in principal and most effective monetary policy instrument because of their flexibility, impersonality and generalized effects. Changes in reserve requirements are best used for longer-term changes in reserves, because of their uneven size and timing impacts on different classes of banks.

(C) Rediscounting, as more broadly envisaged by the new Federal Reserve approach to this function, can supplement importantly the adjustment of credit flows now provided through open-market operations as between regions, banks, and different kinds of financial institutions. Federal Reserve sales to the open market might on occasion increase when the "Fed" has to offset extensive automatic borrowing under the proposed new discounting procedures. But liberalization of the rediscounting privilege should, overall, decrease the volume of open-market purchases of the "Fed." If the new discount mechanism is approved, the old-fashioned notion by "qualitative" control of credit through limiting the discount privilege based on the type of collateral offered will have finally disappeared—and rightly so.

Changes in reserve requirements are best limited to occasional reductions aimed at helping to provide a larger reserve base to permit long-term growth in the total amount of credit required by our expanding economy. Offsetting open-market operations may be needed to sop up any temporary excesses of reserves that may result from reductions in requirements.

Interest-rate control under regulation Q should be eliminated except in periods of great national emergency. The principal effect of interest-rate control is to adjust the relative attractiveness of different financial institutions as lodgings for the savings of the public. This is a process which should rely upon supply-demand forces and the competitive strength of these institutions. Insofar as credit markets are efficient, rate control interferes not only with the allocation of savings but also with freedom of action. Admittedly, there is a problem of bank supervision involved, but interest rate control is not a substitute for good bank supervision.

(D) There would be some merit in requiring the Federal Reserve Board to publish more detailed Open-Market Committee reports on past actions and policies of the Committee; but the Board should not be required to give a preview of contemplated actions of policies. The Federal Reserve should avoid any release of information that might discriminate in favor of some people in financial markets and not others. Moreover, such a forecast would place a constraint upon the monetary authorities in setting policy; and the forecast would be subject to reappraisal should some unforeseen event or events occur.

The Open-Market Committee reports that are currently released about 3 months after FOMC meetings could usefully be expanded to include interpretations of economic developments over a longer past time period than the 3 weeks intervening between FOMC meetings. Moreover, Committee comments on the roles played by monetary and fiscal policy during such a longer period would be useful.

(E) Attendance at entire Open Market Committee meetings by representatives from the Congress, the Treasury, and the CEA would be undesirable. This is because of the inhibiting effect upon Committee members during their discussions leading to decisions on the policy directive to be given to the manager of the System Open Market Account. Another reason is the necessity for secrecy to prevent leaks of information to the market. However, attendance at the Federal Reserve staff briefing on the economic situation that precedes the policy session would be both useful and desirable for the Government representatives mentioned.

II. One of the five structural changes in the Federal Reserve System provided in H.R. 11 is desirable: retirement of Federal Reserve bank stock. Member bank investment in Federal Reserve bank stock is an anachronism that serves no useful purpose and may act as a deterrent to membership.

The remaining proposed structural changes are undesirable. There are no apparent advantages to reducing the number of Board members by two and each member's term of office by 9 years. But there are disadvantages—reduction in the regional and specialized experience and training of the Board members and in the continuity of membership. In particular, length of tenure assures the freedom

from political pressure so necessary in the formation and execution of a sound monetary policy.

The proposals to bring the Federal Reserve within the Federal budgetary process and subject to audit by the Comptroller General would also expose the Fed to political pressures and for this reason are undesirable. The same observation applies to making the term of the Chairman of the Federal Reserve Board coterminous with that of the President.

III. Developments since 1964 clearly indicate the need for better monetary-fiscal policy coordination between the Federal Reserve, the Treasury, and the Congress. The attempt by the Fed in its December 1965 discount-rate hike to alert the Congress and the administration to the need for combined fiscal-monetary restraint was unsuccessful. In fact, at the time the administration criticized the Federal Reserve for its actions. The 1966 credit "crunch" was unduly severe because the Federal Reserve waited in vain for the administration to help fight inflation by adopting fiscal restraint. When the Fed finally acted to curb the growth of credit in midsummer, speculative demands were rising so rapidly that funds were wrenched from financial intermediaries, lured by the highest rates on Treasury securities in decades; and the housing industry bore the brunt of the restrictive credit policy.

Monetary actions for most of 1967 were quite stimulative in response to slackened economic activity in the first half; but policy gradually and appropriately became moderately restrictive after the British devaluation in mid-November. Here again, however, as in 1965 and 1966, the Fed's monetary policy was constrained by the need to accommodate the Treasury's frequent trips to the money market to finance the growing and inappropriate Federal deficit. Other important constraints were a fear of causing another credit "crunch"; waiting the outcome of the administration's tax bill; a concern over interest rates rising so high as to attract capital from the beleaguered United Kingdom, and imperfect knowledge about the exact state of the economy.

Itemizing these variables bearing upon monetary policy in late 1967 underscores the importance of dovetailing monetary and fiscal policy. It also emphasizes the importance of not relying on any automatic *operating* guidelines for monetary policy.

STATEMENT OF THOMAS MAYER, UNIVERSITY OF CALIFORNIA, DAVIS

REPLY TO QUESTIONS

Questions on monetary policy guidelines and open market operations [1]

Question 1. I strongly believe that monetary and fiscal policies should not be treated as "independent mutually exclusive stabilization policies." However, I am somewhat skeptical about setting out—"*and making public*"—at the beginning of each year a program coordinating monetary and fiscal policies. Since the case for coordinating monetary and fiscal policies is well established while the case against

[1] I am indebted for helpful comments to my colleagues Thomas Cargill and Daniel Vencill as well as to W. P. Strassmann.

setting out publicly a coordinated program is less well known I will confine my discussion to the latter.

One difficulty with the proposal to publish at the start of each year a program for monetary policy is that it might prove very difficult to enforce this requirement in a meaningful fashion. The Fed may respond by making a vague statement saying that it would try to achieve full employment, price stability, a high growth rate, and balance-of-payments equilibrium. This type of statement, which tries to be all things to all men, is not worth the energy involved in preparing, publishing, and for that matter, reading it.

But on the other hand, if the Fed would be willing to make a quite specific statement, this may create two problems. One is that the Fed may become locked in by such a statement. It is not unusual for government agencies, or for individuals, to follow a policy because it is embarrassing to change one's mind publicly. Consider, for example, what may happen if the Fed commits itself at the beginning of the year to work toward reducing the balance-of-payments deficit to, say $1 billion. Conditions may easily change during this year; there may be a major exogenous increase in imports, or decrease in capital inflows. The Fed then has a choice of failing to meet its publicly announced goal, or of adopting a strong deflationary policy. Assume that the Fed prefers the balance-of-payments disequilibrium to the deflation. Even so, it will naturally be reluctant to do the former, and will be tempted to adopt the strong deflationary policy instead. The cost, in terms of unemployment of such a policy, may well be more than the announced goal of reducing the balance-of-payments deficit is worth; but if the Fed is publicly committed to this goal, it may be unwilling to abandon it. One of the advantages of monetary policy is that policies (though not their effects) can be changed rapidly. This advantage would be lost if the Fed is committed to follow a certain policy for a year. Even allowing the Fed to change its policy publicly would not be sufficient, because the Fed is likely to delay doing so until it is sure the policy needs changing, and this may take too long. (Admittedly, if the effects of monetary policy are very slow to be felt, then an increase in the length of time it takes the Fed to change the policy may do little harm, since its actions take effect at the wrong time in any case.)

A second difficulty with the proposal is that formal coordination may be less efficient than informal coordination. Consider, for example, the situation at the beginning of 1968. The administration had asked the Congress for a tax hike, and, at least publicly, had to take the position that Congress would agree to this request soon. Formal coordination of monetary and fiscal policy would then have required that the Fed assume quick enactment of the tax bill, too. In the absence of a publicly announced program for monetary policy, the Fed did not have to accept the administration's assumption, and could, if it wanted, operate on the more realistic assumption that Congress would not pass the tax bill early in the year.

It *may*, therefore, be better to coordinate monetary and fiscal policies informally and not publicly. However, I very definitely believe in coordinating monetary and fiscal policy to the extent of treating monetary policy as an integral part of the administration's stabilization policy.

Question 2. If we do have a specific program, it should be the President's responsibility. (To say that one of the most important tools of Government policy should be wielded not by the President, but by people appointed by him and by his predecessors, introduces an indirectness into the democratic process for which I see little justification.) Giving the President this responsibility, without some limitation, would eliminate the Fed's independence. While I am in favor of greatly reducing the Fed's independence, I am not quite sure that I would want to go quite this far.

A possible compromise would be to leave monetary policy determination to the central bank subject to the proviso that the administration may issue formal, binding directives to the central bank. This would give the Presdent ultimate responsibility for monetary policy, but the Fed would maintain considerable independence. This is so because the issuance of such a directive would be rather costly for the President. The Fed has many friends in the financial community, and presumably among fixed income groups. If the President were to bully the Fed by issuing a directive to it, he would incur the wrath of powerful groups. He would normally be reluctant to do so, and hence, checks and balances would operate to insure considerable independence for the Fed. While the Fed's independence would not be absolute, its right to insist on a formal directive before changing its policy would alert the country to the dispute, and sometimes the President might be forced to change his policy.

Admittedly this type of speculation has its dangers. It is certainly conceivable that successive Presidents would issue so many directives that, after some time, the public would look at Presidential directives to the Fed as a perfectly normal thing. However, Presidential directives are less likely to become a normal and accepted matter if experience were to show that the Fed is normally right and the President usually wrong.

Question 3A.—The variables listed can be classified into the following four groups: (1) Interest rates, (2) money, (3) liquid assets and credit, and (4) intermediate variable. I will discuss the choices between these variables in the following way: (1) money against interest rates, (2) money against liquid assets and credit, (3) money against intermediate variables.

On a formal level, one can look at monetary policy as influencing the economy through its effects on portfolio choices. If monetary policy induces the public to desire more real assets in its portfolios, the production of real assets, i.e., "investment" increases and income rises. One can look at this process of changing the public's portfolios as operating either through interest rates or through changes in the quantity of money; on a formal level it is irrelevant which way one describes the process. The rate of interest is the price of money, and for money as for other items, there is a unique relationship between the quantity and the price. On an abstract level, there is no real choice to be made between the quantity of money and the rate of interest. The difference between the two policies arises on a more mundane level.

Suppose that the Federal Reserve wants to maintain stable monetary conditions, should it keep the interest rate stable, or should it stabilize the (trend adjusted) quantity of money? If the potential rate of return on physical assets increases—as it does during a business expansion, a policy of keeping the interest rate stable would

destabilize income. The increase in the rate of return on investment raises the rate of interest as investors borrow, and this serves as an automatic stabilizer—unless offset by a monetary policy which prevents the interest rate from rising. On the other hand, a policy which stabilized the (trend adjusted) quantity of money would not be destabilizing under these conditions. The opposite case is one where the public's desire to hold money balances increases.[2] In this case a policy of keeping the rate of interest constant would be stabilizing. An increase in the public's demand for money tends to raise the rate of interest, and if Federal Reserve stabilizes the rate of interest, it would increase the quantity of money to offset the increase in the desire to hold money. On the other hand, a policy of maintaining the money supply constant would not be stabilizing in this case where the desire to hold money changes. Thus, a policy of stabilizing the quantity of money is preferable if the economy faces a shift in the profitability of investment, and a policy of stabilizing the interest rate is preferable if the problem is a shift in the desire to hold money. Unfortunately, it is hard to determine which of these changes is the more frequent.[3]

There are, however, some other factors to be taken into consideration. One is the difficulty of measuring the rate of interest. So far, I have used the term "rate of interest" as though its meaning were obvious, but it is not. One problem is created by the fact that there are many different rates of interest depending upon the maturity of the debt instrument and the riskiness of the loan. If the Fed looks at only the short-term rate of interest, it may get a quite wrong impression. For example, in the early 1930s the Federal Reserve believed that the rate of interest was low—and indeed the Treasury bill rate was; but the rate on bonds was high.

A second problem is created by the distinction between nominal and (expected) real rates of interest. If prices are changing (and are expected to change) a policy of stabilizing the nominal rate of interest makes little sense. For example, in the 1930s the real rate of interest was substantially higher than the nominal rate of interest since prices were falling. Since a rational investor looks at the real rate of interest rather than the nominal rate, monetary policy in the 1930's was really much tighter than the usual charts of the nominal discount rate, Treasury bill rate, etc., suggest. Conversely, in 1968 the real rate of interest is not particularly high, though the high nominal rate is causing many people to claim that interest rates are excessive.

A third problem is created by the fact that though it is convenient in formal analysis to use the term "rate of interest" to mean the cost of borrowing, the rate of interest actually charged by lenders and observed by our statistics is only one of several dimensions of the monetary policy. The availability of loans, and the conditions imposed on the borrower are important determinants of the volume of borrowing, but our statistics do not measure these items. Hence, the observed rate of interest is not a good indicator of the financial condi-

[2] That is the demand for money to hold for each level of income and of interest rates.

[3] The fact that demand functions for money give good fits suggests that the demand for money may be the stabler variable. Investment functions, too, give stable fits, but since these functions often include income as one of the determinants of investment, and since income picks up some of the changes in the profitability of investment, one cannot argue that the stability of the investment functions means that monetary policy should operate on the assumption that the profitability of investment is stable.

tions which determine the purchase and production of physical assets.[4]

Because of these three problems, I believe that the stock of money is a better guide for monetary policy than is the rate of interest.

Turning to other liquid assets the empirical evidence suggests that the demand for money is probably stabler than the demand for liquid assets which suggests that you can change income more precisely by varying the stock of money than by changing the supply of total liquid assets.[5] While I would, therefore, prefer using the stock of money rather than liquid assets as the focus of monetary policy, I do not want to be dogmatic about it; it is certainly possible that new empirical studies will give strong support to the liquid assets view.

The next variable is bank credit. I see no reason for paying any serious attention to this variable. Important work has been done in economics in recent years showing a relationship between the stock of money and income, and between the stock of liquid assets and income. But I do not know of any empirical study which shows a relationship between bank credit and income. One might interpret a change of bank credit in a quantity theory framework as indicating a change in the stock of money. But the relationship between money and bank credit is *not* close,[6] and if one is interested in the stock of money, why not look at this variable directly? Similarly, one could interpret bank credit as a proxy for the total flow of credit, but anyone who thinks that the total supply of credit is the best variable for predicting income can look at the total supply of credit and not at bank credit alone. I suspect that the emphasis on bank credit is due to a concern about the *quality* of bank credit and that it is part and parcel of the old, discredited, "real bills" approach.

This leaves the intermediate variables. They are significant only insofar as they control some other variable, such as the stock of money or the rate of interest, et cetera. Since I believe that the stock of money is the best of these variables, I will discuss the intermediate variables in relation to the stock of money. One of them, free reserves can be dismissed quickly. Controlling the level of free reserves is an extremely poor way of controlling the quantity of money. Recent research has overwhelmingly, and rightly, condemned the use of free reserves as a target of monetary policy.[7] I have nothing to add to this condemnation. High-powered money (that is bank reserves plus currency held by the public) is a much better guide for monetary policy than either free reserves or excess reserves, but it too has a weakness. If the public decides to increase the proportion of its money stock which it holds in the form of currency, a constant stock of high-powered money would be associated with a smaller stock of money (currency plus demand

[4] To be sure one could argue that the quantity of money cannot be measured properly either since it is not clear where to draw the line between money and nonmoney liquid assets.

[5] It is, however, no more than a suggestion. Suppose that we have a demand function for money and a demand function for liquid assets both of which use as arguments of the function, income and interest rates. It is *possible* that the demand function for money is stabler with respect to both of the arguments jointly, and yet that the liquid assets demand function is stabler with respect to income. The relative stability of the two demand functions with respect to all the variables in the function does not really tell us enough.

[6] See Leonall Andersen and Elaine Goldstein, "Federal Reserve Open Market Operations in 1965," Federal Reserve Bank of St. Louis *Review*, vol. 48, June 1966, p. 12.

[7] To be sure, free reserves may have some use as an indicator of monetary conditions in the *very* short run, but certainly not as a target in the long or intermediate run. For a defense of free reserves as a very short run variable, see Jack Guttentag, "The Strategy of Open Market Operations," *Quarterly Journal of Economics*, vol. 80, February 1966, pp. 1–30.

deposits). I see no reason why changes in the public's preference for currency relative to demand deposits should be allowed to affect the stock of money—hence, I think that the stock of high-powered money is not the variable the Fed should aim at.

This leaves the choice between the total bank reserves and the stock of money. I think the choice between them is not very important, but since there is some variability in the linkage between total reserves and the stock of money, I believe that the Fed should use the money stock as its target. To be sure, if the Fed does a very bad job of predicting the changes in the money stock resulting from its operations, then it might be better for the Fed to focus its attention on total reserves rather than the stock of money.

The actions the Fed should take to control the recommended variable, the stock of money, are open market operations to change the reserve base by an amount consistent with the required change in the money stock.

The final part of the question asks about link between the suggested target and the goals of the Employment Act. I have alluded to this problem at the start of this question, but have really nothing to add to the masterly discussion of it given by Milton Friedman and Anna Schwartz.[8]

Question 3B.—There are several ways of interpreting this question since the term "guidelines" can be interpreted in different ways. One interpretation is the Presidential program specified in question 2, another is the range for policy actions set out in the Committee's Standards for Guiding Monetary Actions [9] and a third is a rigid rule, as for instance, Professor Friedman's proposed rule.

In reply to question 2, I stated my arguments against a guideline set out by the President at the start of each year. The second type of guideline strikes me as highly desirable. In recent years the Fed has introduced wild gyrations in the growth rate of the money stock, presumably motivated in large part by a desire to stabilize the money rate of interest. The growth rate of the money supply in recent years has been much too great. Morover, Professor Fridman has shown that, given the degree of accuracy in predicting income changes, the greater the magnitude of a stabilization policy, the greater is the danger that it will destabilize rather than stabilize the economy.[10] Since our ability to predict changes in income is still quite limited, large changes in the money growth rate are dangerous. My main concern with the committee's proposal is that it may not go far eonugh. Requiring only that the Federal Reserve explain its actions is not much of a restraint. The Federal Reserve has never been at a loss in finding high sounding words to explain its actions. Perhaps the proposal should be strength-

[8] Milton Friedman and Anna Schwartz, "Money and Business Cycles," *Review of Economics and Statistics,* vol. XLV, February 1963, pp. 59–62.

[9] "The committee estimated that * * * an appropriate normal range of increase in the money stock seasonally adjusted would be 2 to 6 percent per annum, and that, on occasions when the rate of increase was outside this range it would be wise for the Congress to take a prompt look at the Federal Reserve System's actions. Moreover, the Congress should have the benefit of periodic reports to review actions taken within the above range. There is no intention of making the 2 to 6 percent range a permanent and unchanging one * * *. In the meantime, however, the pragmatic choice of 2 to 6 percent requires the Federal Reserve System to explain only significant abnormalities in monetary developments." U.S. Congress Joint Economic Committee, *Standards for Guilding Monetary Actions,* 90th Cong., 2d sess., 1968.

[10] Milton Friedman, "The Effects of a Full-Employment Policy on Economic Stability: A Formal Analysis," in his *Essays in Positive Economics* (Chicago, University of Chicago Press, 1953, pp. 117–132).

ened by saying that any change in the money growth rate outside the range requires the approval of two-thirds (or three-quarters?) of the members of the FOMC (or Board of Governors?). In addition, I wonder if the range should not be narrowed, perhaps to 2.5 to 5 percent?

This leaves the third alternative a rigid monetary rule as advocated by Milton Friedman and others. I wish I could somehow avoid having to discuss this issue because I find it very difficult to make up my mind. There are two main justifications for such a rule. First, there is the argument that in the past the Fed has very frequently done the wrong thing, and is likely to continue to behave in this way in the future. However, many of the past mistakes are mistakes the Fed is not likely to commit nowadays.[11] On the other hand, the Fed may be led into making different types of mistakes in the future. Yet, hopefully, such mistakes will diminish as we learn more about monetary policy. The second justification for a strict rule is that there are long and presumably variable lags in the impact of monetary policy. This means that monetary policy may easily be destabilizing rather than stabilizing. It is hard to decide whether the existence of substantial and variable lags really prevents a countercyclical monetary policy from being, at least partly effective. Friedman's argument consists of two parts; first he shows that badly timed policies *can* be destabilizing, and second that there are long and variable lags in the effect of monetary policy. It follows from these two propositions that countercyclical monetary policy based on current or past conditions (or on a bad forecast) *may* very easily be destabilizing, but it does not follow that it will *necessarily* be destabilizing. Some evidence suggests that the actual policy followed by the Federal Reserve in the period 1947–62 was actually less efficient than a rule of a constant increase in the money stock if the lag in the effect of monetary policy is a year.[12] Whether or not the lag is greater or less than a year is, I think, still an unsettled issue. In any case, in view of the substantial advances which have been made in econometric model building, there is the possibility of basing monetary policy not on current or previous economic conditions, as the Fed appears to have done in the past, but on a forecast. Whether or not our econometric models are accurate enough to make a forward looking monetary policy an efficient stabilizer rather than a destabilizer is a question which should be investigated, probably by a simulation study.

A strict rule suffers from the fault that it makes no allowance for changes in velocity and in potential output. An interesting compromise has therefore been proposed: to adopt a rule which changes the money stock in accordance with *past* changes in velocity or potential output.[13] Another possibility would be to change the rule from time to time.[14]

Question 4.—Although debt management may have some potential as a countercyclical tool, I rather doubt that it can play a major role in contemporary stabilization policy, if only because it seems impossible to induce the Treasury to undertake countercyclical debt manage-

[11] See Abba Lerner's review of Milton Friedman, "A Program for Monetary Stability," Journal of the American Statistical Association, vol. 57, March 1962, pp. 211–220.

[12] See Thomas Mayer, "The Lag in the Effect of Monetary Policy: Some Criticisms," *Western Economic Journal*, vol. V, September 1967, pp. 324–342.

[13] See Martin Bronfenbrenner, "Statistical Tests of Rival Monetary Rules," *Journal of Political Economy*, vol. 69, February 1961, pp. 1–14 and "Statistical Tests of Rival Monetary Rules: Quarterly Data Supplement, *Journal of Political Economy*, vol. 69, Decmeber 1961, pp. 621–625; and "Monetary Rules: A New Look," *Journal of Law and Economics*, October 1965, pp. 173–194.

[14] See Richard Selden, "Stable Monetary Growth" in Leland Yeager (ed.) *In Search of a Monetary Constitution* (Cambridge, Harvard University Press, 1962), p. 339.

ment consistently. Countercyclical debt management *may* very well require—and in fact is usually held to require—that the Treasury sell long-term securities during the boom when interest rates are high, and Secretaries of the Treasury are not willing to do this.[15] (I said "may" because it is not really certain that this is so. If there are long lags in the effectiveness of debt policy then the proper policy *may* call for the Treasury to sell long-term securities before interest rates have risen substantially.)

There is considerable dispute among recent empirical studies about the effectiveness of countercyclical debt policy. However, I want to raise only two points which tend to be lost sight of in this discussion. First the question of whether changes in the composition of the debt can or cannot affect aggregate expenditures cannot be decided by seeing whether the expectations theory or the market segmentation theory is right. If long-term rates do depend upon expected short-term rates the adjustment may still be so slow that, for the relevant period, debt policy *can* effect the term structure.

Second, there is one difficulty with countercyclical debt-management policy which usually is ignored. This is the problem of lags. All discretionary stabilization policies face a serious lag problem, but in addition to the usual lags which bedevil monetary policy, debt management faces a special lag problem of its own. If the Treasury sells long-term securities during the boom these long-term securities are still in the debt structure during the following recession, when countercyclical policy calls for a short-term debt. To be sure, it is conceivable that the Treasury would eliminate these long-term securities during the recession by a *very* early advanced refunding, but it is not at all clear that the Treasury could be persuaded actually to do this. Similarly, the Fed could buy up long-term securities during a recession. But to the extent that the Fed is willing to deal in the long end of the market it could buy up long-term securities during a recession in any case even if the Treasury is not following a countercyclical debt-management policy.

For these reasons I think that the best one could expect from debt management is that it should not interfere with other stabilization policies. At present the Fed feels bound to maintain an even keel during the frequent periods of Treasury refinancing and this interferes with monetary policy. I wonder whether this interference could not be avoided by substituting for the episodic sales of Government securities a policy of spreading sales throughout the year, perhaps on a weekly basis.

Question 5A.—I believe that one could dispense with defensive operations as a normal policy, particularly if the reserve settlement period were lengthened. To be sure, special occurrences might make *occasional* defensive operations useful.

I think Cox and Leach have succeeded in demonstrating that defensive operations could be dispensed with if the reserve settlement period were lengthened, and I cannot see how their abolition could do any damage.[16] A more complicated question is whether defensive op-

[15] One of the arguments the Treasury has used against floating long-term securities must rank among the worst arguments ever used officially against a stabilization policy. This is the argument that by selling long-term securities in the boom the Treasury would bid funds away from private investors. Since the very purpose of selling long-term securities during the boom is to reduce private investment, the argument amounts to condemning a policy *because* it works.

[16] "Defensive Open Market Operations and the Reserve Settlement Periods of Member Banks," *Journal of Finance*, vol. XIX, March 1964, pp. 76–93. I do not find Peter Sternlight's reply to this article ("Reserve Settlement Periods of Member Banks Comment, *ibid.* pp. 94–98") convincing.

erations do any harm. Cox and Leach argue that defensive operations interfere with a free money market and that they impose unnecessary work on the Federal Reserve. Although I am a believer in free markets, I don't see defensive operations as creating any significant damage by interfering with the money market. (Admittedly, since I am not familiar with the details of the money market I may be failing to see some very real damage.) The argument that defensive operations create additional work for the Fed strikes me as rather weak, surely the cost of these operations is quite trivial compared to the issues involved.

Karl Brunner and Allan Meltzer have pointed to another disadvantage of defensive operations. They claim that defensive operations cause the Fed to focus its attention on short-run money market problems and to deemphasize its much more important long-run responsibilities.[17] This argument is difficult to evaluate since it deals with the question of the Fed's motivation and motivation is hard, if not impossible, to establish unequivocally. Yet, I believe that there is probably substantial truth to this charge; for institutions, as for individuals, means tend to become ends.

For this reason I am in favor of eliminating defensive operations. It is certainly *possible* that Brunner and Melzer are wrong, and that the Fed is *not* distracted by defensive operations, but since (if the reserve settlements period is lengthened) defensive operations have no significant advantage, the very possibility that they may have a serious disadvantage is sufficient to make them undesirable.

Question 5 B and C.—Open market operations are basically sufficient for the effective conduct of monetary policy. Whether or not they should be supplemented by discount rate changes and by reserve requirement changes can best be seen by looking at the advantages and disadvantages of each of these tools.

The rediscount mechanism has been criticized on several grounds. First, and foremost, it is a way in which the banking system can initially offset open market operations. If the Fed sells securities, commercial banks can obtain reserves by borrowing from the Fed; and if the Fed buys securities, banks can use the reserves they obtain to repay outstanding loans. (Since there is strong evidence that profitability is important in determining discounting one cannot rely on the argument that banks feel under pressure to repay, and, hence are unwilling to use borrowed reserves for credit expansion.) But, open market operations are a powerful tool; the Federal Reserve can simply offset changes in member bank indebtedness, so that discounting does not really create a serious hinderance for monetary policy.

Professor Friedman has also raised some other criticisms of the discount mechanism;[18] he thinks that allowing member banks to borrow from the Fed when others cannot, gives member banks unwarranted preferential treatment. As far as the treatment of member banks vis-a-vis other banks is concerned, there is, of course, an offsetting factor, the more onerous reserve requirements imposed on member banks. The preferential borrowing right can be looked upon as desirable since it keeps banks in the Federal Reserve. Turning to the comparison of

[17] *Some General Features of the Federal Reserve's Approach to Policy,* U.S. Congressional Committee on Banking and Currency, Subcommittee on Domestic Finance, 88th Cong., 2d sess. 1964, pp. 10–13.

[18] *"A Program for Monetary Stability"* (New York, Fordham University Press, 1960), pp. 40–43.

banks and nonbanks one finds that the issue is complex. But here again, a preferential borrowing right *could* be looked upon as an offset for reserve requirements and other burdens which are imposed on banks.

In addition, Professor Friedman has argued, quite rightly, that discounting has lost its original functions. With the demise of the real bills doctrine, the development of open market operations as *the* tool of monetary policy, and with deposit insurance, the functions for which the discount mechanism existed when the Fed was first organized, no longer provide a rationale for discounting. But even if discounting has lost those functions which previously made it *necessary*, it may still be worth keeping if it has some advantages left.[19]

One obvious advantage is that it provides a service, particularly for small banks, which induces them to put up with the more burdensome reserve requirements and other disadvantages of Federal Reserve membership. I hope that the Congress will act favorably on the Federal Reserve's proposal to impose its reserve requirements on all insured banks. If so, this reason for having a discount mechanism would largely disappear. But there is still another one. Professor Viner has pointed out that, in a system with many small banks, a method such as the discount mechanism, is needed to help banks not meeting their reserve requirements.[20] But instead of a formal discount mechanism a system of fining banks falling short of their reserve requirements, something already done by the Fed, would suffice. Unless the fines are reinforced by moral suasion, tradition, etc., they would have to be either quite large, or vary with open market rates, so that banks would not have an incentive to fall short of their reserve requirements at times of high interest rates. Hence, such a system of fines would be fairly similar to the discount mechanism. In any case, unless the Fed's reserve requirements are extended to all banks, the discount mechanism—or something like it, is desirable to prevent the erosion of Federal Reserve membership.

Turning to reserve requirement changs, it seemed at one time that they had a major advantage over open market operations as a countercyclical tool; namely, an immediate countrywide impact. But recent research has shown that reserve requirement changes are *not* superior on this score.[21] A second advantage of open market operations is a quite minor one, banks probably expand deposits more per dollar of excess reserves if these new excess reserves result from reserve requirement reductions than if they result from open market operations; but this is not important, the Fed can simply offset this by using larger open market operations than it otherwise would.

The Federal Reserve has used reserve requirement reductions not only for countercyclical policy, but also as a way of increasing the money stock secularly. But open market operations could do this job to, and are probably preferable since open market purchases increase Federal Reserve, and thus Treasury receipts.[22]

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[19] Friedman has also argued that giving the Fed more than one tool leads it into confusion.

[20] Jacob Viner, "The Necessity and Desirable of Range of Discretion To Be Allowed to a Monetary Authority," in L. Yeager (ed.), *In Search of a Monetary Constitution* (Cambridge, Harvard University Press, 1962), p. 260.

[21] See Roy Ruffin "An Econometric Model of the Impact of Open Market Operations on Various Bank Classes," *Journal of Finance*, vol. XXIII, September 1968, pp. 625–638; Samuel Peltzman, "The Banking Structure and the Transmission of Monetary Policy," (unpublished manuscript), as well as a paper by Charles Shotta and V. Bonomo forthcoming.

[22] The best argument ordinarily used against the proposition that the Fed should use open market operations rather than reserve requirement changes to increase the money stock is that if the Fed takes account of its earnings in choosing its policy in this case, it may get into the habit of paying attention to its earnings in other cases too. If reserve requirement changes are eliminated by legislation this argument does not apply.

Turning to regulation Q, I must confess to a general prejudice against such detailed regulation; I think it is an excessive interference with the market mechanism. The justification used for regulation Q is that, despite this disadvantage, it is needed to protect nonbank financial institutions and the housing sector from the discriminatory effect of tight money. Although, the argument has frequently been made that tight money has an excessive impact on residential construction, this view has recently been challenged in a remarkable article.[23] This article shows that if tight money is defined with reference to the growth rate of the money stock rather than with reference to the behavior of the interest rate, then, in past periods of tight money, residential construction has *not* been cut back more than many other types of investment, such as industrial plant and equipment or consumer durables. Similarly, it shows that nonbank financial intermediaries are not so vulnerable to tight money as is frequently claimed. Not only have savings and loan associations increased their share capital during past tight money periods, but, in addition, their undistributed profits are large enough so that they should be able to pay for a long time the higher rates resulting from tight money in an unprotected market. To be sure, some associations may be unable to do so, and presumably would fail were it not for regulation Q.

But failure is an essential part of a free enterprise system, and I think they should be allowed to fail. It is therefore highly questionable whether regulation Q is really needed.

In addition, it should be noted that, in the long run, regulation Q is not the only way, and probably not the best way, of protecting savings and loan associations, savings banks, and the housing sector. Another possibility would be to have a variable interest rate on mortgages so that savings and loan associations and savings banks would, in a period of tight money, have a higher income to balance higher expenses. However, I do not like this scheme since it protects the institution from uncertainty at the expense of creating greater uncertainty for the borrowing public.[24] It may be the case that such a distribution of uncertainty is optimal, and if so, a free market should eventually establsh it. Government intervention to shift the risk from the institution to the customer would be one more example of the Government's favoring the organized interests. Another problem is that if the variable interest rate is fixed as a given percentage over the dividend rate this would curb effective competition. Another scheme which seems greatly preferable to me would be to remove many of the restrictions on the portfolios of savings and loan associations and mutual savings banks so that they would be less specialized in the mortgage market. I would even allow them to make business loans. To be sure, it *may* be a case that a removal of restrictions would not change their actual portfolio practices, but I think it is worth trying.

Question E. This is more a question in political science than in economics and hence I do not really feel qualified to answer it. However, it seems to me that the main danger would be that there would be less of a frank interchange of opinions at Open Market Committee meetings. In this way the work of the committee would be inhibited to some

[23] Norman Bowsher, Lionel Kalich, "Does Slower Monetary Expansion Discriminate Against Housing?" Federal Reserve Bank of St. Louis *Review*, vol. 50, June 1968, pp. 5–12.

[24] What would create uncertainty for the public is not the cyclical movement of interest rates, but their secular movement.

extent. In particular, disagreements among committee members and qualifications of the majority view are likely to be supressed. The obvious advantage would, of course, be that Congress, the Treasury, and the CEA would be better informed about current monetary policy, and would perhaps be in a better position to argue with the Fed about it.

II. APPRAISAL OF THE STRUCTURE OF THE FEDERAL RESERVE

There is no valid reason why member banks should "own" stock in the Federal Reserve. Clearly, they do not have powers of ownership over the Fed, and the present arrangement has nothing to recommend it.[25] On the other hand, it is hard to see what harm it does. While it might confuse some people, most of the people who are unsophisticated enough to be confused by this probably do not know that member banks own Federal Reserve stock. While, on grounds of tidiness, there is something to be said for elminating the present arrangement, it is hardly the type of issue for which I would be willing to die at the barricades. The question of the optimal size of the Board is a question I feel incapable of answering. It is really a question in political science or organization theory, rather than in economics.

Reducing the terms of office of the members to 5 years (presumably with the possibility of reappointment) would give a President much more power over the Federal Reserve than he has now. Over a period of two terms he would be appointing all the members of the Board. This does not mean, however, that the President would necessarily have his own way with monetary policy. Once appointed, a member may defy the President. This is so particularly since the Board's constituency, the financial community, is powerful and hence likely to get the appointment of people it likes. The President may therefore have to reappoint a man who voted against his wishes. A short time ago when President Johnson reappointed Mr. Martin as Chairman it was not clear whether it was more of a case of the President showing his confidence in the Federal Reserve Chairman, or the latter showing his confidence in the President.

The present 14-year term is quite unrealistic since members generally retire much sooner. However, a 5-year term would create its own problem. This is that a man appointed to the Board more than 5 years before his contemplated retirement might, while serving on the Board, be concerned with finding a new position. Insofar as he considers a reappointment to the Board this would make him responsive to the President's wishes, but insofar as he does not expect (or want) a reappointment, he may be concerned with making a favorable impression on the financial community (or perhaps the academic community), his presumptive employers. This I would consider undesirable. In addition, a 5-year term may make it more difficult to obtain the services of able people. The third proposal, making the Chairman's term coterminous with the President's seems highly desirable. It is a proposal which has very widespread support from various groups. It seems that it would restore what the planners of the Federal Reserve system originally had in mind when they fixed the Chairman's term at 4 years.

[25] It is sometimes argued that the 6 percent dividend on the stock is an inducement of membership. But, particularly at current security yields, this is trivial.

I am instinctively opposed to the audit proposal because of my dislike of redtape in general. It is my impression—though I must admit to be nothing more than an *uninformed* outsider—that the Fed is not wasteful. Moreover, the Federal Reserve, due to its contacts with foreign central banks, is forced into certain necessary expenses which the Comptroller General's Office might not approve.

The final proposal, financing the Fed's operations through congressional appropriations raises a rather more serious issue. This would give the Congress a potential weapon to influence monetary policy in ways other than direct legislation on monetary policy. However, this weapon may be used rather infrequently. It is my general impression that Government agencies like the Fed usually are not punished for their policy through an appropriation cut. An agency with such a powerful constituency as the Federal Reserve should be able to resist such pressure in most cases.

But, although I generally favor reducing the Fed's independence, I am not in favor of doing so through the appropriations process even if this weapon is likely to be used only infrequently. Quite apart from the disadvantage of of a backdoor approach in general, pressure through appropriations would give power over monetary policy to the appropriations committees of the Congress rather than to those committees more directly concerned with monetary policy. In conclusion, it may be worth noting that the Federal Reserve is *not* the only agency of the Federal Government financed in ways other than congressional appropriations. Some other agencies, e.g., the Office of the Comptroller of the Currency, also finance themselves by their own earnings.

STATEMENT OF PAUL W. McCRACKEN, UNIVERSITY OF MICHIGAN

This is in response to your letter of July 9 inviting comments on certain aspects of H.R. 11.

I

I have come myself to the conclusion that the operation of monetary and fiscal policy needs to be within somewhat narrower tolerances, and according to a more explicit flight plan. The evidence is increasingly clear that monetary policy influences the economy only with a substantial lag. It is also evident that basic changes in fiscal policy cannot readily be made. The course of spending is not easily displaced, and our two major tax changes in the 1960's have also involved long lags. We find ourselves, therefore, having to make decisions about fiscal and monetary policy well before we can know much about the strength of the economy down the road when these decisions will begin to assert their effects.

What we need, therefore, is some concept of monetary and fiscal policy that will probably be reasonably consistent with the economy of the future at roughly full employment. For the budget, we should make our expenditure decisions so that Federal outlays will not substantially outpace the revenue-producing capability of the tax system at reasonably full employment. (Otherwise a bad budget will tend to draw monetary policy off course.) For monetary policy, the volume of bank credit and the money supply consistent with a full employment, GNP can be specified within reasonable tolerances. Certainly, the credit

crunch shrinkage of the money supply in 1966 followed by the clearly inflationary 12 percent per year rate of expansion in much of 1967 constitute excessively wide tolerances for monetary policies.

At the same time, I am firmly persuaded that the Federal Reserve must have some scope for judgment. There is no steady-state combination of price movements, employment, output, and external payments which will persist indefinitely. Within narrower tolerances, the Federal Reserve must, therefore, be able to adjust.

II

As for the structure of the Federal Reserve, some modifications are probably in order, but this is distinctly a secondary issue. A reduction in the number of Governors from 7 to 5 is probably desirable (but not urgent). The Chairman's term should be coterminal with that of the President. As I look at the history of monetary policy, however, I am impressed with two or three things. First, it is desirable to have our monetary authority have some degree of remoteness from immediate political pressures. Some of our problems in recent years may well have had their origin in an excessive tendency on the part of the Board to consider themselves an intimate part of the administration. Moreover, as I read the minutes of the Open Market Policy Committee, I am impressed by the extent to which history is apt to give the presidents of the Federal Reserve banks at least as high marks for their decisions as other members. Accordingly, I would strongly oppose such measures as retiring Federal Reserve bank stock, requiring the System to operate on appropriations, and generally to make the monetary authority simply another Government agency. The record of history both here and abroad lends little support to the hope that thereby monetary policy would be improved. Moreover, the broader System interfaced with grassroots sentiment provided by 12 strong Federal Reserve banks is itself a highly desirable and useful thing.

III

As for recent monetary developments, I can be very brief. Since the devaluation of sterling monetary policy has generally been good. The rate of monetary expansion has been roughly in line with the economy's capacity for growth, and the Federal Reserve seems to be continuing on this course. It is certainly to be hoped that the rate of monetary expansion will not be accelerated now that the surtax is finally the law of the land. This would vitiate the effectiveness of the surtax, and it would certainly break faith with those who (reluctantly and with grave and honest misgivings) finally supported or voted for the tax increase.

From mid–1965 to late 1967, however, the management of monetary policy was exceedingly poor. In mid-1965 as the economy was reentering the zone of full employment, the rate of monetary expansion should have decelerated. Unfortunately it was allowed to accelerate. Much of the erratic course of the economy has its origins at this point. In 1966, apparently fearful about the inflation that had been unleashed, the Federal Reserve threw the speeding car into reverse with outright monetary contraction. Apparently nervous about the results of this crunch, the Federal Reserve through most of 1967 pursued an inflationary rate of monetary expansion. (The 1968 inflation represents

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almost the classic lagged response to this overly expansionist monetary and credit policy in 1967.) With the devaluation of sterling the rate of monetary expansion was belatedly retarded to something like what would be consistent with ongoing economic growth.

IV

In summary, I would make three points. First, it would be possible to tidy up the Federal Reserve structure, but I consider these matters to be distinctly secondary in importance. Second, our experience in recent years certainly points to the desirability of having monetary and fiscal policy operate within a somewhat more explicit flight plan. The blunt fact is that monetary and fiscal policies have themselves become a major source of economic and financial uncertainty and instability. At the same time, there must be some room for maneuver and scope for the exercise of judgment since no steady-state combination of economic objectives can be operated indefinitely. Third, monetary policy since the devaluation of sterling has been good. For two and a half years prior to that, however, it injected instability and inflation into the domestic economy, and it was a major factor in bringing the dollar to the brink of the international abyss.

STATEMENT OF STEPHEN L. McDONALD,* UNIVERSITY OF TEXAS

I. ON MONETARY POLICY GUIDELINES AND OPEN MARKET OPERATIONS

Assuming agreement among policymaking bodies on present and desired economic conditions, it is always helpful to coordinate fiscal, debt management and monetary policies with a view to most efficiently achieving and maintaining the desired conditions. The logic of our governmental system suggests that the President should supervise such coordination, periodically reporting and making recommendations to the Congress. It therefore seems quite appropriate that at the beginning of each year the President should submit to the Congress an economic program, including a *general* monetary-fiscal plan, for the purpose of fulfilling the intent of the Employment Act of 1946. The President should have the responsibility for the program; but, under his supervision, the construction of its details should be shared among the Council of Economic Advisers, the Treasury and the Board of Governors of the Federal Reserve System, no one of these having supremacy over the others.

In referring to a monetary-fiscal plan, I use the word *general* for three reasons. First, it is impossible to forecast the details of economic conditions for a full year ahead. The plan of action should be flexible enough to cope with conditions as they evolve in unforeseen ways. Second, effective fiscal policy depends essentially on the Congress, and congressional action in response to Presidential recommendations is uncertain and time-consuming. Monetary and debt management policies should be flexible enough to deal with unwanted expectation effects during congressional debate and to adjust appropriately to whatever decision is finally made by the Congress in respect to taxes and expenditures. Third, the plan should not be so specific as to encourage

* Professor of economics, the University of Texas at Austin.

speculative activities, e.g., by Government security dealers, which activities may lessen the effectiveness of monetary or debt management policy.

I most emphatically reject the suggestion that as a part of his economic program for a year the President should specify a definite rate of increase in the money supply. It is the great virtue of monetary policy under present arrangements that it is in principle sensitive and flexible. A given policy of restraint or ease can be quickly intensified or reversed as required to pursue given objectives under changing circumstances. These qualities are all the more valuable in view of the fact that fiscal policy under present arrangements is rather insensitive and inflexible. What is required for more effective monetary-fiscal policy is not less flexibility on the monetary side, but more on the fiscal side. The imperfections of foresight and response in monetary management are so apparent and consequential because monetary policy must bear almost the entire burden of shortrun stabilization policy.

As for the target variables in monetary policy, it is not necessary or desirable for the Fed to confine itself to one, but the single most important one is the money supply (defined, preferably, as currency in circulation plus demand deposits at commercial banks). The immediate impact of policy actions is on excess reserves of banks or the cost of acquiring such through borrowing at the Fed. But the Fed's contact with productive activity in the economy is established through banks' response to change in excess reserves in altering the volume of their loans and investments, hence (given the public's relative demands for currency, demand deposits and time deposits) the size of the money supply. Since a change in the money supply is normally brought about by a similar change in the volume of bank credit, the cost and availability of loanable funds are directly affected as the money supply is changed. Beyond that, a change in the money supply alters private portfolios, inducing exchanges between money and other assets (including real assets) which affect yields on such assets and the cost and availability of loanable funds at nonbank financial intermediaries. Through this secondary process of portfolio adjustment, interest rates and credit availability are changed in all financial markets. Thus either through direct exchanges between money and real assets or by alteration of rates and availability in credit markets, changes in the money supply produce changes in the same direction in business, consumer and (possibly) state and local government expenditures on output. These in turn lead to changes in output, employment, and prices.

The money supply is the most important target variable of monetary policy because it is the link between the monetary-banking system and aggregate demand for output. But there is no simple, proportionate relationship between the money supply and aggregate demand. Autonomous changes in the demand for money to hold as an asset, due, e.g., to changes in the certainty with which the future is regarded, alter the velocity of money, hence the level of aggregate demand associated with a given money supply. Fiscal policy also affects velocity. A "loose" fiscal policy causes interest rates to rise, cash balances to be economized and the level of aggregate demand to rise relative to the money supply. A "tight" fiscal policy has the opposite effects. Thus the rate at which the money supply should grow to

achieve a given rate of growth of aggregate demand varies from one situation to another.

For these reasons, simple rules to govern the rate of increase in the money supply are highly questionable. If any rule has general validity, it is that the rate of increase in the money supply should be lower than average during expansion phases of the business cycle and higher than average during contraction phases. How much lower or higher than average depends on surrounding circumstances. The "Chicago" view that lags in effect of monetary policy are so long and variable that deliberate countercyclical policy may actually be destabilizing is based on an inappropriate comparison between the *rate of increase* of the money supply and the *level* of gross national product. When the rate of increase in the money supply is compared with the rate of increase in gross national product, the lags average only about one quarter year and are not highly variable. This latter suggests that skillfully applied countercyclical policy can be stabilizing. It argues also for flexibility in monetary management, and against rigid rules.

It should be clear now that in my view the guidelines of monetary policy should be specified in terms of a present (in relation to a desired future) index of economic activity, rather than in terms of the target variable's (money supplys) rate of growth. As for the index, gross national product, industrial production, employment (or unemployment), wholesale prices and others suggest themselves. Perhaps the best single guideline measure of economic activity is (inverted) unemployment. It is a good measure of slack and implicit waste in the economy, and it fits well with the spirit of the Employment Act. I think that a goal of 4 percent unemployment (as measured) is both attainable through monetary policy and reasonably consistent, given present structural characteristics of labor markets, with stable prices. Perhaps the goal can be advanced to 3 percent unemployment or less if stabilization policy is supplemented with a direct attack, through retraining and relocation assistance, on structural unemployment.

Turning now to debt management, I believe that it can help achieve the goals of the Employment Act in two ways. First, if the Treasury shortens the average maturity of the debt during contractions and lengthens it during expansions the liquidity effects in the private sector tend to buoy up expenditure during contractions and hold it down during expansions, thus helping stabilize aggregate demand. Second, if the Treasury follows the indicated policy long-term rates of interest, which are more important than short-term rates in influencing such rate-sensitive activities as home construction, utility expansion and some State and local spending, tend to be lowered further in contractions and elevated further in expansions than otherwise would be the case. These effects can be reinforced if in its open market operations the Fed makes purchases and sales in all maturities, not confining itelf to short-term securities. Although interest arbitrage limits the ability of the Treasury or the Fed to shape the term structure of interest rates, the experience with "operation twist" during the 1960–61 recession suggests that appropriately directed debt management and open market operations have some significant effect. This effect can be used constructively for stabilization purposes and may at the same time reduce the variability of international short-term capital flows.

On the questions concerning open-market operations, I believe, first, that such operations for "defensive" purposes are valid and desirable. Several important factors outside the direct control of the Fed influ-

ence commercial banks' reserves, the two largest (usually) being change in the monetary gold stock and change in currency in circulation. The latter has a strong seasonal pattern. Without defensive open-market operations there would be marked erratic and seasonal change in banks' reserve positions and corresponding changes in interest rates and credit availability. These fluctuations would serve no purpose and would increase uncertainty. Appropriate open-market operations to eliminate them are in no way inconsistent with simultaneous operations designed for stabilization effect.

Second, it is feasible to conduct monetary policy solely by means of open-market operations, provided the Fed is not unduly limited by salable assets or legal reserve requirements. It is not so limited at the present time. However, other policy instruments serve useful purposes. Changes in the rediscount rate have significant announcement effects, and rediscounting itself enables individual banks to make a smooth adjustment to loss of excess reserves as a result of open-market operations or increases in reserve requirements. Changes in reserve requirements have strong announcement effects and enable the Fed to make sharp alterations in bank reserve positions without purchases or sales in the market which might create marked price instability or congestion. Regulation Q can (and should) be used to restrain banks from lessening the effects of restrictive policy by attracting funds out of demand deposits into time deposits, which have lower reserve requirements. Regulation Q can also be used consistently to limit banks' ability to attract funds from more specialized savings institutions (e.g., savings and loan associations, specialized in mortgage lending) during tight money periods.

Third, since the Federal Reserve System is the creature of and is responsible to the Congress, it is reasonable to require its governing board to make periodic reports to the Congress. However, annual reports would seem to be sufficient and would permit a better perspective on policy actions taken between reports. Reports should contain at least a record of the Board's prospective appraisals of business conditions, a record of actions taken to achieve policy goals and an evaluation of results.

Fourth, I can see no benefits accruing from having representatives of Congress, the Treasury, and the Council of Economic Advisers sit in as observers at Open Market Committee meetings. The Committee undoubtedly should consult with other policymaking groups, but it should be allowed to do its specialized job without the suggestion that it must be watched. By the same token, it alone should be held responsible for actions taken.

II. ON THE STRUCTURE OF THE FEDERAL RESERVE SYSTEM

The proposed changes in the structure of the Federal Reserve System appear to be designed to eliminate the implied influence of the nominal owners of Federal Reserve banks, to make the Board more sensitive to the economic policies of the President and to give Congress the ultimate influence that goes with controlling the purse strings. In reaction I have mixed feelings. On the one hand, I view the control of the money supply as a governmental function. The agency performing that function should, therefore, be an integral part of the regular structure of government. On the other hand, I value highly the one policymaking agency that is sufficiently free of the formalities of Gov-

ernment operation to be able to conduct economic policy sensitively, flexibly, and without regard to immediate political trends. Perhaps it is possible to draw the Federal Reserve System more formally into the governmental structure without any sacrifice of flexibility. But if we must make a choice, on balance I favor the present arrangements.

As the System has evolved, its "cooperative" structure is no longer meaningful. The nominal owners of the Reserve banks do not in any substantial way control their operations. Therefore, retiring the Reserve banks' stock would have an almost trivial effect. Reducing the terms of office and the number of members of the Board would probably make the office less attractive to outstanding prospective appointees. Making the term of the Chairman of the Board coterminous with that of the President is perhaps desirable; it might facilitate the coordination of economic policies by the System and the Treasury. An annual audit of the System by the Comptroller General seems appropriate to the at least quasi-governmental status of the System. But making the System dependent on the Congress for operating funds is, I believe, quite undesirable. The delays and uncertainties of appropriations might at times jeopardize the continuity or flexibility of monetary policy. In addition, the Board mght be forced to defend recent unpopular policies before congressional committees without the benefit of sufficient passage of time to allow objective appraisal of those policies' results. It would be regretable indeed if the Congress allowed itself to become actively involved in the short-term, technical aspects of monetary management.

III. ON RECENT MONETARY POLICY

Except for a brief lull from the fourth quarter of 1966 to the second quarter of 1967, the period since 1964 has been characterized by rapid growth of gross national product, decreasing and then low levels of unemployment, and rising prices and interest rates. Coming on the heels of a tax reduction in 1964, the sharp rise in Government purchases for war and other purposes beginning in 1965 was a powerful expansive force; and the growth of aggregate demand for the period as a whole was excessive. In retrospect, it is clear that the situation demanded more restraint, both fiscal and monetary, than was applied.

Given the effective loose fiscal policy, particularly from the beginning of 1965 to the middle of 1968, the full burden of restraint fell on monetary policy. But except in the final three quarters of 1966, monetary policy was not highly restrictive. From the second quarter of 1965 to the first quarter of 1966 the money supply grew at an annual rate of approximately 8 percent; and from the first quarter of 1967 to the second quarter of 1968 it grew at an annual rate of approximately 7 percent. By historical standards and in view of the prevailing inflation, the monetary growth rate in these periods should have been closer to 2 or 3 percent per annum.

There are possibly three reasons why the Fed allowed the money supply to grow too rapidly during most of the period since 1964. The first is failure to anticipate fully the expansive consequences of effective fiscal policy. The second is failure to anticipate fully the shift out of demand deposits into time deposits as yields on the latter rose, such shift freeing reserves and allowing banks to expand credit out of proportion to their acquisition of new reserves from the Fed. And the third, and perhaps most important, is excessive reliance on interest

rates as indicators of monetary tightness or ease, all the more so as rates rose to new high levels. As an aspect of this last reason, the credit "crunch" of late 1966 seemed to imply an upper limit on tolerable monetary restraint.

These comments are made with the benefit of hindsight and should not be taken to imply incompetence or dereliction on the part of the Board of Governors or its staff. About all, they should not be taken to imply inefficacy of monetary policy. On the contrary, the association between the rate of growth of the money supply and the rate of growth of aggregate demand during the period, including notably the leveling off of the money supply in 1966 and the subsequent slowdown of GNP growth, supports the view that monetary policy is highly efficacious. The less-than-satisfactory experience of the past 4 years suggests only that we should try to improve the skill with which monetary policy is applied, while retaining the institutional features which allow it to be a sensitive, flexible instrument of stabilization policy.

STATEMENT OF JACQUES MELITZ, TULANE UNIVERSITY

I am generally sympathetic to the provisions of H.R. 11, but would prefer much more fundamental revisions of the Federal Reserve System. In reply to the subcommittee questions, first, I will comment on H.R. 11; second, I will state what further actions I would advocate in connection with the subcommittee question I.3; third, I will answer other subcommittee questions not treated in my earlier replies; and fourth, I will comment on an important recent Federal Reserve proposal for reform of discount desk operations.

I

In general, I agree with the intention of H.R. 11 to weaken the Federal Reserve's independence from other branches of Government; and to undercut private bankers' internal association with the central bank. The bill would remove the legal ownership of the Federal Reserve by member banks, which is evidently an anachronism. The idea of a five-man Board is sound. There is clearly no point in the present formal division between the Federal Reserve Open Market Committee and the Board of Governors. I broadly agree with provisions (a), (c), (d), (e), and (f) of the bill.

On the basic issue, I see no place for genuine central bank independence in a democracy. The central bank should be responsive to popular preferences, like any other department of the executive branch. Thus the bank belongs under the continuous surveillance and regulation of the elected representatives in Congress. Past academic support of Federal Reserve independence has been based, I think, on weak generalization. The support derives principally from the unfortunate experience after World War II when the wartime pegging of prices of Government securities endured well after all plausible argument for the action had ceased. Since this policy was attributable to Treasury pressures, much support arose in favor of Federal Reserve independence. But the argument was one for independence from the Treasury, not from popularly elected government in general.

Federal Reserve independence from the Treasury is important because control over the money supply is a national responsibility. The

Treasury does not represent a broader section of national interests than various other executive departments, like Labor or Commerce. Continuous Treasury involvement in Federal Reserve affairs mainly results from its debt management responsibilities, which I think should be entirely delegated to the Federal Reserve. It makes no sense for one department of Government to decide how to finance the Federal debt and current Federal deficits, while another department of Government decides what fraction of this financing should be offered to the public in the form of Government securities, and what fraction should appear as higher bank reserves and money. This subdivision of the job only can produce conflicts, inefficiencies, and occasional indirection in monetary policy.

With regard to provision (b) and the proposed amendment of the Employment Act of 1946 in H.R. 11, my reaction is mostly skeptical. It would be hardly advisable for the President to make any precise recommendations about monetary policy every January 20. The desirable rate of change of the money supply over the next 12 months always depends on a host of unforeseen variables, including expenditure appropriations by Congress, tax rate changes, the general behavior of the economy, the state of the Federal budget, and our international balance of payments. I also feel that H.R. 11 fails to take adequate account of the fact that the Employment Act of 1946 does not embody some of the principal aims of monetary policy during the 1960's: notably the defense of our international reserves, and, more recently, the prevention of increases in interest rates. Thus, the stress of the bill on achieving the ends of the 1946 legislation—"maximum employment, production, and purchasing power"—appears, on the surface, to tell the Federal Reserve never to sacrifice any employment and price level stability for any reason, including balance-of-payments deficits and high interest rates. But is this really intended? If not, as I suspect, H.R. 11 needs correction.

My objections to quarterly reports by the Federal Reserve to Congress are distinct. Three months is too short a time for basic reformulation of policy and clear assessments of past actions. I also fear the publicity attending congressional reports, and the Federal Reserve incentive for window dressing. The effect may be to muddy rather than to clear the waters. Worse, the Federal Reserve might vacillate in order to head off opposing criticisms from different sections of Congress. On the other hand, I much approve the proposal implicit in question I.5.E of the subcommittee questionnaire to represent Congress and the Council of Economic Advisers at Federal Reserve executive meetings. This would fill in some information gaps and provide extra variety of viewpoints in formulating monetary policy. Furthermore, judging from past behavior, high officials of the Federal Reserve appear to have a strong bias toward price level, balance of payments, and interest rate equilibrium as opposed to high employment. As for Treasury representation, I do not see the point.

II

The area where I believe that legislation about money could make the most contribution to the welfare of the country is that of monetary policy guidelines. In step with many professional colleagues, I think

that the money supply should be the target variable of monetary policy. With respect to policy, the most appropriate definition of money, I think, would be the sum of (adjusted) commercial bank deposits plus coin and currency. The reason for this inclusive definition is that under present institutional arrangements, the Federal Reserve cannot affect any particular component of bank deposits, but only the total thereof. Basically, the general public determines the proportion of saving and time to demand deposits. Since checking accounts circulate more rapidly than savings and time deposits, some attention also must be paid to the ratio of time and savings accounts to the money supply. Presumably the higher this ratio the lower the expansionary effect of any given percentage rise in the money supply. We still do not know enough on the subject to be specific about magnitudes.

The Federal Reserve itself admits that its primary target is not the money supply, but variables in more proximate control, like the reserve base, excess legal reserves, and so-called free reserves. This is a bad mistake. A constant level of bank excess legal reserves or "free reserves" is equally consistent with rapid growth or stagnancy of the money supply. It all depends on whether or not the reserve target must be met through continuous injections of excess legal or free reserves, which in turn depends on desired commercial bank asset expansion. No one inside or outside the Federal Reserve ever has offered the slightest reason to believe that the reserve base, free reserves, or excess legal reserves, rather than the money supply, is the basic variable through which monetary policy influences the level of aggregate spending, prices, output, and employment. There is also little doubt that the Federal Reserve has adequate power to control the money supply.

Still, the Federal Reserve's command over the money supply could be notably improved through various changes. Perhaps the most important is removal of the groundless differential between the legal reserve requirement on demand deposits, and that on time and saving deposits. Presently any switch of a dollar out of a checking account into a saving account automatically produces 9 or 14 cents in excess legal reserves (give or take half a cent), depending on the commercial bank's classification. This feature could be removed at once by setting a common legal reserve requirement (1) for all country banks and (2) for all reserve city banks, each at the prevailing ratio of legally required reserves to total deposits for banks in the particular classification. To prevent a sizable capital gains or losses from thus arising, some compensation scheme would be necessary. Otherwise those banks with higher than average ratios of saving plus time to total deposits would suffer and the rest would gain. Since the gains and losses among banks would be exactly offsetting, a compensating arrangement could be fairly easily contrived.

There are two basic troubles with the use of interest rates as target-variables. First, the general yield on assets is conditioned by major causes outside of Federal Reserve control, like productivity and tastes. *At most*, therefore, the central bank can control the yield on a few particular assets, such as member bank borrowings and Government securities. Second, insofar as the central bank seeks control over any interest rate, it can only retain command over the money supply through swap operations. Swap operations, however, ultimately are self-defeating. By driving apart—drawing together—two rates, they provoke market reactions tending to draw the two rates back together,

drive them again apart. Thus ever-larger swap operations become necessary in order to reconcile control over the target interest rate with control over the money stock. Eventually one of the two goals must be abandoned. There is overwhelming evidence that it is much more dangerous to give up control over the money supply than over any one or small group of related interest rates. The only interest rate central banks, in general, have managed to control without losing effective control over the money supply is their own discount rate, which constitutes the principal exception to the previous argument. But the fundamental reason lies in the accessibility of the central bank's discount window only to a few privileged borrowers, which central banks the world over can bully in various ways.

Turning to question I.3.B, I do not believe, as this question suggests, that we must choose between moving the target-variable in some unspecified way, depending on various guidelines; *for example*, unemployment rates, price level stability, *et cetera*, or the adoption of some rigid rate of growth of this target-variable. Both approaches contain something valuable. To adopt some fixed rate of growth for money supply clearly courts disaster. By thus tying our hands regarding monetary policy, we give impetus for frequent and strenuous use of fiscal policy, and probable resort to direct controls, in order to achieve national economic goals such as price level stability and the protection of our gold reserves. Our commitment to a variety of often conflicting ends pretty much ties us to flexible monetary policy. However, this is no reason for admitting complete central bank authority over the money supply even for short intervals.

There has been recently some congressional airing of the idea of maximum and minimum legal rates of change of money. The 2- to 6-percent annual limits under consideration are not entirely to my liking, but the general idea is extremely sound. The Federal Reserve Act of 1913 reveals serious congressional intention to maintain some effective reins over the monetary decisions of the Federal Reserve. Unfortunately, however, the particular constraints that this act imposed on the Federal Reserve were so radically misconceived that the majority have needed to be removed, and the remainder now are basically inoperative. I refer to eligibility rules for member bank borrowing, reserve requirements against Federal Reserve credit, and limits to Federal Reserve power to alter the reserve requirements of member banks, imposed by 1935 amendment. Upon examination, all of these regulations concern the manner in which the Federal Reserve can change the money supply, whereas the truly momentous question is by *how much* the Federal Reserve may change the money supply. Under our present system the Federal Reserve is legally empowered to cut the money supply by half or double it next year, which ought not even to be constitutional.

The proposed 2- to 6-percent annual limits, however, are overly narrow. The range I would suggest is zero to 10 percent. To explain, 6 percent rates of monetary expansion have frequently occurred in recent years without damaging consequences. The Federal Reserve raised the money supply by more than this percentage for the 4 consecutive years 1961–65, resulting in annual increases in the price level of only 1 to 1.8 percent. Looking back, had special congressional approval been necessary to implement these money changes, tighter money policy surely would have taken place, with possibly injurious effects, given

the prevailing unemployment rates of over 5 percent. However, I doubt that the Federal Reserve should have license for last year's 11 percent increase in the money supply. This expansion is clearly of inflationary proportions, as shown by the fact that the price level rose by 4 percent in 1967, as it had in 1966.

The obvious motivation for last year's whopping increase in money—highly untypical of pre-1961 *discretionary* Federal Reserve behavior—was a desire to end the upward course of interest rates since 1965. It is well to ask, though, how much further the interest rate would have risen last year if the money supply had been increased only, say, 6 to 8 percent. Obviousy the current 5½- to 6-percent nominal yields on Government securities do not rule because people require a 5½ percent or higher real return before investing in gilt-edged securities, but rather because they expect inflation to cut down the value of their interest receipts. Thus, by promoting inflationary expectations in the last 2 years, the Federal Reserve contributed to the rise in interest rates they were trying to stem. In fact, since concern about high interest rates grew intense in 1966, the *real* yield on Government and private securities markedly has fallen. This reinforces the previous argument against focus on interest rates in setting monetary policy. With less easy monetary policy in the last couple of years, note also that we might not have needed a surtax. Thus, operation of the 10-percent rule would have done no harm in 1967. The detailed rules I shall go on to advocate would have set a maximum monetary expansion of 8 percent in 1966 and 1967.

A limiting low of 2 percent for the annual rate of increase in the money stock is also too high. Even a 2-percent rise can be inflationary if the price level is rising sufficiently. Particularly is this so if the 2-percent minimum applies monthly. As said earlier, my vote is for a minimum zero percent rise annually. Yet I would permit cuts of money of 2 to 4 percent at an annual rate per month on a seasonably adjusted basis for a maximum of 3 consecutive months, as such cuts seem to me sometimes necessary to fight an inflationary tide. Since the zero percent annual minimum would stay in force, compensating increments in money would be necessary for the balance of the year if any monthly declines in money took place.

Even a zero to 10 percent legal interval for annual rates of change in money leaves the central bank too much discretion, however. If the unemployment rate exceeds 5 percent, for example, I doubt the wisdom of granting the Federal Reserve authority to keep the money supply constant. Under that circumstance, I would suggest requiring no less than a 2-percent increase in the money supply. An additional 1 percent minimum money rise could be prescribed for every additional percent of unemployment. Further, the ceiling of the minimum rate of monetary expansion could be set at 9 percent. This set of rules would have interfered with Federal Reserve action once in recent times; that is, in 1960, when the Federal Reserve held the money stock constant despite an average unemployment of 5½ percent.

It is also unreasonable to allow the Federal Reserve to increase the money supply by as much as 10 percent independently of price level behavior. As a concrete suggestion, I would urge than under 4 percent inflation, there be an upper limit of 8 percent for the rise in money. Under 5, 6, and 7 percent inflation, respectively, the corresponding

maxima for the monetary rise might be 6, 4, and 2 percent; above 7 percent, maximum monetary expansion might stay at 2 percent.

Of course, there is then a chance that the rules would come into conflict. Suppose, for example, an unemployment rate of 6 percent, calling for no less than 3 percent monetary expansion, together with inflation of 7 percent, proscribing a monetary expansion of over 2 percent. The risk of such an event is slight. On the basis of annual time series, only one such incident occurred in this century, in 1942. But in cases of this sort, we could provide that the conflicting rules are offsetting, thus giving the Federal Reserve authority to move money within the zero to 10-percent range.

The suggested rules still confer an awful lot of power to the central bank. However lamentable this may be, I consider it necessary on aforementioned grounds, relating to conflicting goals of national policy and problems of adaptation to the unforeseen. What the previous rules effectively do is to proscribe behavior which, so far as present knowledge goes—including the central banker's—would oppose popular priorities in the vast majority of cases. In the last decade alone, the Federal Reserve has acted contrary to the proposed limits on 2 different years; and if we scan the Federal Reserve's entire history, even excluding the two World Wars, we find a considerable record of transgressions.

The rules thus far have referred rather vaguely to annual rates, leaving open the possibility of a 12-month lag in legally compulsory responses. This is not what I have in mind. To be specific, I propose that the rules involve obligatory actions in the coming month in response to the latest monthly observation. In the case of money and unemployment, the seasonally adjusted data would be the relevant ones to follow, there is no seasonal adjustment for the price level series. Accordingly, if seasonally adjusted unemployment in February is recorded as over 5 percent in March, the rules would say that the seasonally adjusted money supply must rise no less than 2 percent annually in April. This admits a maximum 60-day lag in application, 30 days of which result from the impossibility of starting any month with last month's figures. Also, according to the rules, the seasonally adjusted money supply could never rise more than 10 percent annually in any month, but could fall 2 to 4 percent annually in a month for a consecutive 3-month stretch. The money supply, though, could never fall during any 12-month period, regardless of calendar time.

The proposed legal rules, or similar ones, if implemented of course, may need modification some time in the future because of institutional changes. They are not to be taken as Mosaic scriptures. For instance, a 5-percent rate of unemployment could become very impractical or very easy to avoid through monetary policy in the future, depending on changes in minimum wage laws, unemployment compensation arrangements, and so forth. This should not be viewed as a basic impediment to legislation.

One way to enhance the efficiency of the proposed system would be to plug up some of the existing loopholes in Federal Reserve monetary control. These loopholes undoubtedly would force the Federal Reserve to stay some safe distance away from the legal limits in order to avoid unintentionally overstepping. Also the loopholes could

become conscious or unconscious pretexts for certain discretionary behavior. One loophole in point is float. The most serious one, I believe, is the differential between the legal reserve requirement on the various types of deposits.

III

This section will deal with questions I.4 and I.5. A, B, and C. First, I would entirely disregard debt management in promoting the aims of the Employment Act of 1946 through monetary policy. Debt management policy may have some influence on total liquidity and the structure of interest rates, but no detectable impact on employment, output, and commodity and factor prices. In the past, the only notable role of debt management policy has been in defending our international reserves through support of our Treasury bill rate. I see no scope for energetic use of debt management policy for other purposes. In my view, as said earlier, debt management should be entirely entrusted to the Federal Reserve.

Defensive open market operations seem to me almost indispensable. There would be no point in the annual tightening of credit conditions during the tax season and Christmas holidays that would otherwise take place. Some concern with defensive aims, in fact, is implicit in the advocacy of regulation of the money supply on a daily basis rather than via monthly or bimonthly changes. Yet it is questionable whether concern with defensive goals should be carried as far as the Federal Reserve does by basing all daily decisions about open market operations largely on detailed projections of independent factors influencing member bank reserves on that day. While this degree of meticulous attention may contribute somewhat to the stability of money market yields, it is not clear that the advantages are worth the bother. If the Federal Reserve simply bought or sold based on recorded positions the previous day, I would think that all defensive aims could be adequately well served. Surely there would be an occasional day, here and there, when member bank reserves took a sharp unexpected bounce up or down, but these days take place anyhow, and only the frequency and amplitude would alter. If the Federal Reserve acted as suggested, ordinarily any sharp unintended move in reserves would be corrected in 24 hours. A succession of stormy days might require 48 or 72 hours to pass before the problem is corrected. But since the relevant disturbances impinge almost exclusively on the short-term securities markets, how much harm thereby could come about?

Some economists believe that monetary policy can be effectively and efficiently implemented solely through open market operations. Yet, even if they are right, I see no harm in maintaining the Federal Reserve's power to change legal reserve requirements. A change in legal reserve requirements has a more evenly distributed impact on member bank excess legal reserves than open market operations, and bears a less disproportionate effect on the Government securities market. Thus, in case of a sharp movement in monetary gears, this instrument may be appropriate. Besides, perhaps someday, before any provisional legislation is passed, the Federal Reserve will run out of Government securities or hold the entire national debt. Then changes in legal reserve requirements will be essential for monetary control. Further, Federal Reserve power to change these requirements may be needed, as it has recently, to induce banks to stay in the Federal Reserve Sys-

tem. I simply see no point in an unbending opposition to the legal reserve requirement instrument.

If it were not for the balance-of-payments problem, I would advocate elimination of the discount desk. However, as long as we continue our present system of a fixed exchange rate, some avenues of short-term influence on our international capital account are fairly essential. If we did not possess any, like the discount rate, I feel confident that we would employ more drastic controls. On a domestic basis, my conviction is that the discount rate and the discount desk are worse than useless. I shall return to this subject below.

As for regulation Q, I think it should be removed, and that we should also permit payment of interest on demand deposits. The only reason we imposed regulation Q and prohibited interest on demand deposits in the first place was to restrict competition among commercial banks, and thereby avoid the damaging effect of bank failures on depositors and the money supply. But now all commercial bank deposits are insured up to $15,000 by the Federal Deposit Insurance Corporation, and the money stock is under adequate control. Thus, there is no rationale for the aforesaid regulations except a pure and simple desire to prevent competition. It is difficult to see whose interests this objective serves. Certainly the commercial banks are not helped since they face competition from other financial businesses that are not subject to the same regulations. The general public plainly cannot prosper from inability to earn more than some legally stipulated yield on checking and saving deposits. The damaging effect of regulation Q on commercial banks was amply witnessed by the events leading to the lifting of the ceiling on interest rates under this regulation in 1962.

IV

I have no further comments regarding current monetary policy. However, I wish to express serious opposition to a recent Federal Reserve proposal to revamp discount desk operations. As reported in the recent August issue of the *Federal Reserve Bulletin*, the Federal Reserve plans to extend automatic lines of credit to member banks in order to induce sizable expansion of bank borrowing. According to recent dispatches in the New York Times, one principal reason is to encourage customer loans by banks in less populated areas. Moderate use of Federal Reserve discount facilities by these banks is believed to be a constraining influence on their lending activities. Yet it is difficult to avoid the suspicion that the basic motivation is to stem, and even reverse, the rapid recent outflow of State-chartered banks from the System. Federal Reserve attempts to obtain legislation compelling membership in the System thus far have failed. Obviously, there is a danger that soon only nationally chartered banks will remain in the System. Insofar as monetary control depends on open market operations, this situation is not worrisome. But the condition clearly interferes with the legal reserve requirement as a monetary tool. Matters could get worse if nationally chartered banks began to recharter in large numbers in order to lose their Federal Reserve membership. While favoring most Federal Reserve efforts to keep member banks inside the System (which I believe Congress should assist), the current proposal seems to me dangerous and ill conceived.

First, from the viewpoint of monetary control, any discount facili-

ties whatever are a chink in the central bank's armor. They enable the creation or destruction of reserves at the instigation of private bankers. Naturally, the discount rate provides some measure of central bank control over member bank borrowing. But the impact of any change in this rate is uncertain (and will become more so if the average volume of borrowing rises). Furthermore, any discount facilities mean that the effect, say, of a $1 billion sale by the central bank on member bank reserves cannot be forecast, since some fraction of the impending reduction in reserves will be averted through bank borrowing at the discount desk. The same is true in case of an open market purchase. The uncertainty in the latter case arises from the possible volume of private bank repayment of outstanding debt to the central bank. Much of the Federal Reserve's ability in the past to control the money supply *despite* the discount desk has hinged precisely on the smallness of the discount desk activity. In countries where discount desk activities are large, central banks typically rely heavily on strong direct (formal or informal) controls on the privileged borrowers. The meagerness of operations at the discount desk in the United States also accounts greatly for the past ability of the Federal Reserve to employ the discount rate as a tool of external control.

Specifically, the Federal Reserve has been able in recent years to raise the discount rate in order to keep short-term funds from flowing out of—and to draw short-term funds into—the country, while relying on open market purchases to prevent a concomitant fall in bank reserves. But the open market purchases involved tend to move interest rates down, thus going contrary to the rise in the discount rate. Nevertheless, through proper selection of the maturities purchased, it has been possible in the past to wield some influence on the balance of payments without losing monetary control. If member bank borrowing were to become large, however, and private banks should acquire unequivocal access to the discount desk up to high limits, the impact of rises in the discount rate will be many times higher than presently, necessitating larger open market purchases to keep excess legal reserves from falling. Then the pursuit of external policy aims through discount rate strategy will be immensely more difficult to reconcile with control over domestic monetary policy. This predicament already hounds us presently, but whatever maneuverability we still possess will be badly undercut by the proposal. The Federal Reserve Bank of New York, the seat of the System's open market and foreign operations, may have these problems in mind in objecting to the System's recommendation.

Finally, I wish to stress the inflationary consequences of the *transition* to the proposed system. There should be no delusion about our ability to absorb the projected expansion in member bank borrowing simply by restraining the growth of unborrowed reserves. Borrowed reserves are less profitable than unborrowed ones, and therefore if the former are to expand, it will be necessary to adopt easier monetary policy. Furthermore, there can be little doubt that the banks that will respond most, at first, to the proposed new discount desk facilities are those now most securely in the System, which the Federal Reserve is not trying to help. In other words, a sizable rise in member bank borrowing may be necessary to advance the Federal Reserve's objectives only moderately. The sort of question which arises is how large a dose of inflation will be necessary to attract as many, say, as 200 banks

in the System the first year of the plan's operation. I wonder whether the Federal Reserve has made any projections of this sort.

One reason, I suspect, for the advocacy of this proposal is that the Federal Reserve has a particularly strong sense of autonomy regarding discount desk operations. It is plain that the central bank is not turning to Congress to ratify this brainchild. But the structural change involved is more radical than any we had right to expect. Congress therefore has a strong duty to intrude into the discussion and to represent the country's vital interests. It is somewhat ironic that there should be need to twist the Federal Reserve's arm to press it not to divest itself of significant monetary control; yet such is the case. According to present indication, too, the Federal Reserve is not merely sending up a trial balloon, but may be acting immanently. It is thus high time to sound an alarm. Soon the swooning of private bankers over the proposal may drown out all other discussion.

STATEMENT OF ALLAN H. MELTZER, CARNEGIE-MELLON UNIVERSITY

I. 1. and 2.—While it is desirable to have the several agencies and departments that are concerned with economic policymaking pursue a common set of objectives, I do not believe that the economic policies pursued in the past would have been substantially different if formal responsibility for coordination had been assigned to the President. Informal arrangements are now well-established and appear to be adequate for resolving the main differences between agencies and departments. Our experience in the twenties and early thirties with arrangements more formal than the present arrangements for coordinating policy—the Secretary of the Treasury and the Comptroller were members of the Board at the time—does not suggest that better policy will result from assigning more responsibility for monetary policy or for coordination to the President or his advisers. Coordination of policies, subservience of the Federal Reserve to the policies desired by the Secretary of the Treasury, contributed to inflation in 1950–51. Many foreign countries have more formal arrangements for coordination than the United States. Their ability to achieve the goals generally referred to as full employment and price stability does not appear to have been increased by the increase in coordination. In my judgment, the main problems of monetary control are due not to lack of coordination but to the use of an inappropriate theory or theories and an unreliable indicator of monetary policy.

I. 3. A and B.—Since the term "target" and "guidelines" have a variety of different meanings, it is best to make clear the meanings I use. I use "target" to refer to the variable used by the Open Market Committee to state current operating decisions and to give instructions to the Manager of the System Open Market Account. My research with Karl Brunner suggests that the ability of the central bank to achieve goals such as those in the Employment Act is improved if appropriate targets are selected. More important than the choice of a target, however, is the choice of "indicator" or scale used to measure the current size and direction (or thrust) of monetary policy.

I believe that the use of inappropriate indicators and targets of monetary policy—particularly inappropriate indicators—has been one of the main causes of major errors in monetary policy. Our research

suggests that many of these errors and their consequences—inflation and unemployment—would have been much less serious if more reliable indicators had been used.

Research suggests also that the growth rate of the money supply, currency and demand deposits, is the least unreliable of the currently available indicators of monetary policy. The growth rate of the money supply is not an ideal indicator since it is affected by fiscal policies and by other changes that are not closely related to current monetary policies. However, all of the variables commonly used as indicators such as free reserves, market interest rates, bank credit, and the bank credit proxy suffer from the same defect to greater degree. The growth rate of the money supply provides a more reliable scale of the thrust of monetary policy than the alternatives mentioned.

The monetary base appears from our research to be the most reliable target. The base can be directly controlled by the System and relatively accurate data on the base and its main components are available at frequent intervals. (Weekly data are now published by the Federal Reserve Bank of St. Louis.) Moreover, the base is by far the most important influence on the money supply.

A brief statement of the actions that, I believe, the Federal Reserve should take are:

1. Prepare a forecast of the principal (goal) variables that it wishes to affect during the next 6 months or longer period, in keeping with its responsibilities under the Employment Act;
2. Translate the forecast into a growth rate of the money supply that is consistent with the goals it seeks to achieve;
3. Translate the forecast of the money supply into a desired rate of increase in the monetary base;
4. Instruct the Manager to maintain the desired growth rate of the base.

I favor a limited amount of variability. The reason is that the Federal Reserve's record at forecasting turning points in the postwar has been accurate enough, I believe, to suggest that monetary policy might have contributed to stability if the Federal Reserve (1) had used a more appropriate theory, (2) had selected a more reliable indicator, and (3) had been less concerned with stabilization of a narrow corner of the money market and more concerned with achieving the goals in the Employment Act.

Monetary policy works by changing relative prices, including interest rates, and real wealth. An increase in the stock of money raises the public's receipts relative to the amounts expected and on which expenditure plans were based. Some firms or individuals experience an increase in actual money balances relative to desired money balances, and the private sector experiences an increase in receipts relative to expenditures. The attempt to eliminate the excess stock of money leads to an increase in expenditures or acquisitions of assets or current output that changes relative prices. The rise in expenditures stimulates orders and generally leads to an increase in the amount of borrowing from the banking system. The public's desire to sell securities and to increase borrowing reverses the initial decline in money market rates. Banks respond to an increased demand for loans by selling existing marketable securities also. Since the change in relative prices and market interest rates is not anticipated, there is an increase in the de-

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mand for labor, additional expenditures, and additional increases in the demand for bank credit. Eventually, these changes in demands spread through various sectors of the economy, raise output and cause an increase in the general price level.

Often the monetary expansion continues because the Federal Reserve is misled by the rise in market interest rates induced by the public's increased demand for loans and reduced demand for securities. In this case, the rate of expansion in output and in demand increases and expectations of further price increases are generated.

The brief statement in the preceding paragraphs is a greatly simplified description of the link between monetary policy, money, relative prices, expenditures, and output. I will be happy to provide more detail if it is desired.

I. 3. D. and F.—The target should be selected so as to improve the chances of achieving the goals specified in the Employment Act, but the choice of broad goals should be left to Congress and the President. The variable selected as the most reliable measure of goal variables, for example, the most useful measure of the rate of inflation, is a technical matter that should receive continuing attention. The staff should conduct research to determine the most appropriate measures of inflation, full employment, and other goal variables and should make the results of the research known to economists outside the System.

Since I believe that inappropriate policy action has contributed to inflation and unemployment in both postwar and earlier periods, I do not favor unlimited discretion. On the other hand, I believe that until the Federal Reserve uses a better validated theory than they have used in the past, they will not have the technical competence to maintain a constant growth rate of money. The reason is that control of the money stock requires a knowledge of the determinants of money.

For the present state of knowledge, it seems desirable to maintain the growth rate of the monetary base at approximately 3 percent per year. I would prefer to see this rate deviate by approximately ½ percent to 1 percent on either side depending on the forecast of future economic activity. The growth rate should increase by ½ or 1 percent if the labor force is expected to grow more rapidly than employment, if unemployment is expected to rise, or business activity is expected to decline; and the growth rate should decrease if the expected rate of inflation is higher than the prevailing rate.

I. 4.—I interpret debt management policy to mean management of the maturity composition of the debt. Empirical studies have not shown any substantial effect of changes in the maturity structure. Moreover, I believe fewer and less frequent policy changes would contribute to employment and price stability. As I have suggested above, economic policy should be concerned with more than the manipulation of a few interest rates.

I. 5.—The Federal Reserve should indicate the rate of growth in the monetary base that it plans to maintain for the next 6 months or longer period. It should inform the Congress and interested citizens about the reasons for departing from the planned rate of increase in the previous period.

A.—Defensive operations should be abandoned. The reasons for abandoning such operations, and some suggestions for dealing with the problems arising because of changes in the distribution of reserves,

may be found on pages 83–93 of *An Alternative Approach to the Monetary Mechanism*, published by your committee in August 1964.

B. Yes.

C.—The Federal Reserve's power to change the reserve requirement ratios should be taken away, and the System's authority to specify ceiling rates of interest should be outlawed. Recent legislation authorizing the FDIC, the Federal Reserve, and other agencies to regulate rates by region and by size of deposit, or to fix reserve requirements by size of bank or size of deposit, should be repealed. See pp. 87–91 of *An Alternative Approach to the Monetary Mechanism*, published by the committee in 1964, for a more complete answer to the question.

D.—Yes, the Federal Reserve should make such reports. In addition, tion, the System should be required to report periodically on the progress that it is making toward development of improved understanding of the monetary process.

II.—Each of the proposals is a desirable step in that it makes the System more responsible to Congress and the President. Nevertheless, I do not regard these changes as the most important reforms for reasons mentioned in my answer to question I.

III.—The errors made during these years are the traditional errors. The System judged policy by the level or direction of change in market interest rates. As usual, money expanded more rapidly during periods of economic expansion than during periods of economic contraction. The size of policy changes were much too large. Pages 29–42 of the enclosed pamphlet contain a more detailed discussion.

STATEMENT OF HYMAN P. MINSKY, WASHINGTON UNIVERSITY

Reply to Questionnaire on H.R. 11

I

1. Obviously, monetary and fiscal policies are not independent, mutually exclusive, stabilization policies; they must be coordinated. However, the political process and the imprecision of economic forecasting determine how their coordination is executed. The facts of budgetary life dictate that the schedules that make up fiscal policy cannot be changed quickly; changes in tax and payment schedules have long gestation periods. Inasmuch as economic forecasting is not precise, we can only forecast the broad tendencies of the economy within any given fiscal setup. The lag between any fiscal change and its economic impact is variable. It is best for monetary policy to be free to vary within a broad range. Monetary policy will need to sometimes complement, sometimes offset the impact of fiscal policy. Thus, I do not believe that monetary policy should be set out in anything like the precision with which tax and spending policies are set out.

2. Economic growth without deflation requires either a growth in the money supply or in monetary velocity. Thus, even in the absence of a public document, the broad tendency that Federal Reserve policy will follow is known.

However, the Federal Reserve can not and should not be asked to predict the amount of reserve money it will emit and the rate of increase in demand deposits plus currency it will aim for. This is so because the rate of change of velocity reflects not only—say interest

costs of holding money—but also institutional changes. The precise nature and the monetary significance of next year's institutional changes cannot be known; thus, a serious forecast of the desired change in policy variables cannot be made.

3A. The issue of target variables for monetary policy is a red herring based upon an erroneous and narrow view of the monetary process and the responsibility of the Federal Reserve authorities. A major responsibility of the Federal Reserve System is to prevent a financial shock of the kind that was common in American financial history in the 19th century and the first third of the 20th century. In addition if a shock does occur, its first responsibility is to moderate its impact. These responsibilities to prevent or abort financial crises at times require actions that run counter to actions prescribed by narrower economic policy objectives.

In an advanced capitalist economy, financial market developments affect the demand for money. These financial market developments attenuate the relation between money and income. As financial market developments cannot readily be predicted, given the State of our knowledge, discretion in monetary policy remains necessary.

The link between the listed monetary variables and economic goals is variable. The impact of a change in the money supply upon economic activity varies with the context of the monetary change.

The meaning of the various items in the list of target variables changes over time as the financial system changes. For example the proliferation of ready credit (overdraft) and bank credit card schemes in the past year or two has changed the significance of the observed measured quantity of money owned by households. I suggest, that today's effective money supply includes some proportion of the unused but agreed-upon lines of credit, overdraft rights and bank credit card limits. Note that with such credit arrangements widespread the short period change in bank loans is independent of shortrun monetary policy actions.

3B. The goals of economic policy are economic variables: the monetary variables are not ends in themselves but they are instrumental variables. Of course, too great a variation in financial variables can have serious economic repercussions. Thus, as a proxy, monetary and financial variables might take on some aspects of a goal.

3C. The primary index of economic activity should be the level of employment. I would abandon any balance-of-payments constraint by abandoning gold.

Growth occurs naturally at full employment in the United States. The trade-off between price level changes and unemployment rates may need to be modified by adjusting tax and spending policies as well as experimenting with new types of direct controls.

4. The Federal debt is but a small portion of the assets available to household and business portfolios. (For debt management purposes the effective Federal debt is that debt outside U.S. trust accounts and the Federal Reserve System; in addition that portion of commercial bank holdings of Federal debt that is collateral for deposits may be excluded from the net debt.) Being a small part of the total for each maturity, varying the maturity of the Federal debt will have but a small impact on the term structure of interest rates. (Debt management is an issue of 1948, not 1968.)

On the other hand, Treasury ideas, that long-term debt is better than short-term debt, can lead to attempts to lengthen the maturity structure of debt when economic policy calls for lower long-term debt rates. These perverse debt management policies might delay the fall of long-term financing rates to business.

Because of potential Treasury perversity, I favor eliminating all ceilings on interest rates on U.S. Government debt.

5*b*. Perhaps, but it is best if the division of labor recommended in 5A exists.

5*c*. (*a*) Rediscounting should be used for transient and seasonal needs and as a device for signaling market pressures to the Federal Reserve authorities.

5*c*. (*b*) Reserve requirements should not be changed.

5*c*. (*c*) At present regulation Q makes sense because of the weaknesses of savings and loan associations and mutual savings banks. I suggest that action be taken to strengthen the savings institutions: enabling them to add short-term (3-year) consumer paper to their portfolios and making the interest rate on new long-term mortgages vary with market interest rates.

5*c*. (*d*) I believe it is desirable for the Federal Reserve to make detailed reports to Congress and the public on past activities; there are speculative dangers inherent in having the Central Bank make precise forecasts about its policy actions.

II

1. Not really important; a quibble.
2. Cannot get excited about this.
3. Good idea.
4. Cannot see why this is needed.
5. Not especially important, operating costs are a minor part of Federal Reserve income.

STATEMENT OF GEORGE R. MORRISON, UNIVERSITY OF CALIFORNIA AT SAN DIEGO

I. QUESTIONS ON MONETARY POLICY GUIDELINES AND OPEN MARKET OPERATIONS

1. I regard it as very desirable for the Federal Reserve Board to participate more fully in the beginning of the year economic planning of the President. The Board should be required to publish a monetary program for the year, indicating how it plans to coordinate monetary policy with the fiscal policy objectives of the administration. In like manner, those in charge of fiscal policy (Treasury, Budget Bureau, and Council of Economic Advisers) should be required to issue a report reconciling their planned fiscal targets with the monetary program of the Federal Reserve. The fiscal and monetary programs should not—and under this arrangement could not—be treated as separate, independently determined policies. Debt management as a matter of accounting arithmetic cannot under any circumstances be independent of monetary and fiscal policies.

2. If the above reporting arrangement were adopted, it would not matter very much whether or not the President is assigned formal responsibility for coordination. His office carries with it a clear responsibility for coordination of economic stabilization policies. The important feature of the suggested arrangement is that it would place all stabilization agencies on record at the beginning of the year as to their policy objectives for the year. A President would be forced to assume responsibility for making sure that the published fiscal and monetary plans are mutually consistent. One advantage of placing the agencies on record, rather than relying on a catchall Presidential report, is that Congress can effectively summon the heads of agencies to account for their specific actions, but it cannot reach the President in the same manner.

3. The problem of choosing among alternative guidelines resolves into two issues: (a) What are the variables that the Federal Reserve can control within predictably narrow limits, with no appreciable timelag between the controlling act and the response of the variable, and (b) among all such variables, which ones province the most reliable and powerful influence on aggregate expenditures?

Clearly the first criterion rules out bank credit (in the narrow sense of loans to commercial and industrial borrowers), excess reserves and free reserves. Empirical studies have demonstrated beyond any reasonable doubt that each of these is largely controlled either by the private banking system or by its customers. A thorough-going attempt to control (i.e., peg) interest rates can be successful only at the cost of relinquishing control over the course of aggregate expenditures, while less determined attempts at interest rate manipulation are likely to founder because equilibrium market interest rates tend to respond to monetary stimuli by moving, after a lag, in a direction opposite to that intended by policymakers. There remains to consider several closely related variables such as total bank credit, "bank credit proxy," money supply, total bank reserves adjusted for reserve requirement changes, high powered money, monetary base (extended or otherwise) and minor variations among these. Despite much product differentiation by proponents of one or another of these measures, nowadays there are few occasions when it really matters much from a control standpoint which of these measures is used. Interestingly, one such occasion arose last year, when money supply and total bank reserves moved somewhat differently, owing to unusually sharp fluctuations in Treasury deposits at commercial banks.

Strictly speaking the Federal Reserve has virtually perfect control over its portfolio of Government securities, somewhat less control over total unborrowed reserves, still less over total reserves adjusted for reserve requirements, and total high powered money, shading off into the least control over total bank credit, bank credit proxy, and the money supply (inclusive of time deposits). Nevertheless, under normal conditions, the main effect of Fed open market purchases or sales on bank credit or money supply is felt within a rather short time, surely not more than 2 or 3 months at the most. We are therefore free to choose among all such target variables the one that best satisfies the second criterion; namely, a variable that exercises a stable and strong influence on expenditures. Both monetary theory and a substantial body of empirical evidence suggest money supply to be preeminent

as a factor affecting spending, among all variables subject to Federal Reserve control.

Certain disadvantages of guidelines specified in terms of economic activity indexes tend to override the obvious appeal of dealing directly with ultimate goals instead of intermediate variables. One difficulty is that there are several such ulimate objectives—full employment, price stability, balance of payments equilibrium, rapid economic growth—each of which has certain claims to be assigned priority, but which if pursued above all other goals may be inconsistent with the attainment of these other goals within satisfactory tolerances. This is especially true if target values are set which differ markedly from the natural equilibrium values of the variables in question. For example, a policy goal of unemployment below the natural frictional unemployment level, or a planned rate of economic growth well above the longrun norm, could lead to an undesirably rapid rate of inflation and serious balance of payments problems while at the same time failing to attain the original objectives. Again, achieving balance of payments equilibrium at fixed exchange rates is likely to create difficulties in the maintenance of domestic full employment and price stability, when the fixed exchange rates differ markedly from equilibrium exchange rates.

It is fashionable to suggest that the monetary-fiscal authorities, given enough policy instruments, can achieve virtually any mixture of goals by manipulating instrument variables. This might be valid in a world in which all policy created disturbances have effects that quickly converge to steady state equilibrium, so that a trial-and-error process could readily arrive at the optimum instrumental values. But in a world in which the effects are distributed with lags that vary both over time for any given type of disturbance and among different disturbances at any given time, the trials in this experimentation process can be expected to produce some very costly errors before any useful operating rules for relating instrumental targets to final goals could be developed. In short, the monetary-fiscal authorities cannot control the economic activity indexes within very narrow ranges. The attempt to establish guidelines in terms of economic indexes (i.e., in terms of ultimate objectives) cannot, therefore, avoid the necessity of formulating operating guidelines in terms of intermediate instrumental variables which the monetary fiscal authorities can more nearly control within close limits.

Among the four ultimate goals of economic stabilization policy the least difficult to define unambiguously is domestic price stability. It is also the one goal which if pursued above all others is least likely to create policy dilemmas of the type mentioned above, provided that monetary-fiscal authorities do not overreact to variations in prices by attempting to counter month-to-month and quarter-to-quarter changes in price levels. There is evidence that the effect of money on prices is, in the long run, very strong and steady. But in the short run, disturbances to money supply have much quicker impact on interest rates, output, and employment. A sharp shift toward a policy of fighting an incipient inflation by slowing down monetary growth will cause interest rates to rise and then fall, and business activity to recede, long before it has any substantial influence in slowing down inflation. Single minded shortrun stabilization of a particular objective vari-

able—be it employment, interest rates, economic growth, balance-of-payments position or the like—is dangerous; it is doubly dangerous to attempt with prices because the long lags in response tend to encourage "overkill."

Paradoxically, the relative status of longrun price stabilization is just the reverse; it would be less dangerous to stabilize prices than to pursue single mindedly any of the other goals. The appropriate "full" employment rate, the rate of growth in the economy's capacity to produce, and the equilibrium levels of foreign exchange rates are all likely to vary in the long run in ways that are to a great extent beyond the control of the stabilization agencies. In contrast, the longrun rate of price change is very largely determined by monetary growth per unit of output which in turn is very much controllable by monetary authorities by means of the rate at which the money supply is allowed to expand.

Nevertheless, it would be undesirable, I think, to maintain fixed guidelines on money growth each year. Variations in long-term trends in the velocity of money and the rate of growth in potential real output at given high rates of employment of the labor force must be taken into account if policy is to adhere to the basic principle of longrun price stability. The planned percentage rate of growth in money should be adjusted at the beginning of each year (or perhaps each half year) to equal the sum of the projected longrun rates of growth in high employment potential output and velocity for the planning period. The Federal Reserve should be required to meet this target on a 3-month moving average basis with a control band of plus or minus 2 percentage points, except for the first quarter of the planning period, when the band should be plus or minus 3 percentage points. If the Federal Reserve deviates from the target rate of growth by more than the permissible variation, it should be required to publish an explanation of the considerations that led it to deviate from the control bands, and to indicate when it could be expected that money growth would be brought once again within the control bands.

4. Debt management, according to the "preferred habitat" and "liquidity premium" theories of interest rate structure, should be an effective method of altering the relation between long-term and short-term rates of interest: the larger the ratio of long-term to short-term Government securities in the hands of the public, the higher the long-term rate should be relative to the short-term rate. Unfortunately, there is little or no empirical evidence to support this thesis, and certainly no quantitative estimates of the impact of altering the maturity distribution of Government securities that could serve to guide debt management policy. While the issues are far from being settled, it would be beneficial, given the present state of ignorance, if debt management were relegated to a very secondary role, say, by adopting a rule of policy to maintain a fixed maturity distribution of Government debt at all times, or to issue only bills of some single maturity.

5. Monetary policy would be more effectively executed if the Federal Reserve were to rely exclusively on open-market operations which have the effect of changing the quantity of reserves available to the banking system. Interest rate controls, such as those involved in regulation or prohibition of interest paid on demand and time deposits and in the administration of the Federal Reserve discount window, tend to interfere with the smooth working of open-market operations

and, contrary to the received traditions of American central banking, are unnecessary to protect the safety of either the individual depositor or the banking system as a whole. The discounting function should be abolished, or rendered inoperative by imposing a very high discount rate.

The Federal Reserve System however is currently overhauling the discounting function with the intention of making it play a more important role in the execution of monetary policy. In my opinion, this represents a retrogressive step, one that is likely to aggravate the existing slippage between open-market operations and Federal Reserve control over bank reserves, by making it easier rather than harder for banks to offset the effect of open-market operations on their reserve positions. The history of the Federal Reserve includes a disastrous experiment with a liberal discount policy, which culminated in the depression of 1920–21. This lesson should not have to be relearned. One of the tie-in "advantages" to the proposed liberalization of discounting is that it would make membership in the Federal Reserve System more attractive to small country banks and help stem the attrition in Federal Reserve membership. But membership is chiefly unattractive because the reserve requirements imposed on member banks are higher and more stringent than those that the various States impose on nonmember State banks. As interest rate levels rise, the interest income sacrificed by being a member bank looms larger as a deterrent to membership. Access to the discount window has not in the past been much of a factor encouraging membership among small banks, and it would require a very liberal discounting policy indeed to convert it into an attraction.

A much more effective solution would be to encourage membership by lowering reserve requirements, since this is the direct cause of the aforementioned attrition. Lowering reserve requirements would be a desirable strategy on other grounds. Since it would be accompanied by offsetting open market sales of governments, it would tend to ease the problem that some proponents of the liberalized discount function anticipate; namely, a future dearth of Government securities in the hands of the banks and the public upon which to base open market operations. Moreover, lower effective reserve ratios woud mean that each dollar of reserves would have more leverage as a basis for creating money. Consequently, a given dollar impact on the money supply could be achieved with a smaller sized open market purchase or sale. Inasmuch as variation in reserve requirements are too crude a device to be relied on for making moderate sized adjustments in bank reserves, they are not needed for executing monetary policy. There would be little harm in proceeding at a steady pace toward complete removal of reserve requirements on all deposits and then keeping them there permanently. It is now realized by bankers and observers of banking that required reserves provide ony a trivial source of funds to meet deposit drains, so that banks would continue, as they do now, to hold reserve of cash and deposits with other banks, so as to meet deposit and currency withdrawals. Lowering of reserve requirements to zero does not imply that the effective deposit expansion multiplier of the system would be infinite, both because of the desire of banks to hold cash reserves, and the desire of the public to maintain a fraction of their cash balances in the form of hand-to-hand currency.

The questions regarding so-called defensive operations of the Fed, its proposed obligation to report to Congress quarterly, and the presence of congressional, Treasury, and CEA observers at FOMC meetings are less fundamental procedural issues. The preoccupation of the Federal Reserve with attempting to offset seasonal and other temporary factors affecting the money market could be a source of disturbance for two reasons. First, the Federal Reserve is powerful enough not only to remove whatever seasonal there might have been in its absence, but to impose a seasonal pattern of its own on money markets. It is something like the scientist, who by his very presence disturbs the natural state of the environment he is trying to observe. Secondly, it is difficult while they are both in progress, to distinguish between changing seasonal patterns and cyclical fluctuations. Yet the appropriate response of the Federal Reserve to the one should be virtually the opposite of its response to the other. A seasonal fall in economic activity should be accompanied by a decline in the money supply, while a cyclical fall should be accompanied by a rise in the money supply. Failure to take the appropriate countercyclical action could be attributable to a failure to recognize the cyclical movement within the seasonal fluctuation. I am inclined to believe, however that on neither account are the Federal Reserves' defensive actions of much consequence for economic stability. A policy of the sort that has been suggested earlier with respect to monetary growth could be conducted in the midst of defensive maneuvering by the trading desk of the New York Federal Reserve Bank, with only moderately greater confusion about whether or not the basic policy guideline was being fulfilled.

The submission by the Fed of detailed quarterly reports to Congress would serve mainly to expand the employment by the Federal Reserve Board of staff members whose forte is public relations, at the expense of the encouragement of staff research into monetary mechanisms. A quarterly report of the kind in question is hardly likely to add anything not contained in the minutes of the FOMC meetings, and the proposed submission of a program coordinating fiscal, debt management, and monetary policies by the President or executive agencies. It would, however, be desirable as suggested earlier to require a report from the Fed when it deviates from the money supply growth guideline I proposed in reply to question 3.

There can be little objection to having representatives of the Treasury, Congress, and the CEA attend Federal Open Market Committee meetings. But I am rather puzzled at why they should want to do so, since the FOMC is to be abolished by H.R. 11, section 10(b). Apparently the open market decisionmaking power is to be reconstituted in a new committee consisting only of the Board of Governors, excluding all Reserve banks from voting representation. The trading desk of the Federal Reserve Bank of New York would take its orders directly from the Board of Governors rather than from the FOMC. In the past there has been much criticism of the way the desk has been run. There are those who have felt that a good deal of the mystique surrounding the desk's conduct of trading has been conjured up to permit the desk more discretion in manipulating FOMC directives to suit its own primary policy objective of promoting greater stability in money market interest rates.

Will the proposed reconstitution of the open market decision process succeed in harnessing the desk completely to the dictates of the Board of Governors? I am inclined to doubt it. So long as trading operations are carried out on an hour-to-hour or even week-to-week basis by the New York Federal Reserve Bank, the discretionary power to tinker with rates will remain. Practically speaking, the only way to eliminate discretion is for the Board to couch its directives explicitly in terms of the amount of securities to be purchased or sold, or at the very outside, in terms of total reserves to be supplied to member banks. But this would probably require less continuous trading by the desk since the Board can hardly be expected to issue hourly or perhaps even weekly directives. It would also require of the Board that it assume a more uniform policy attitude, one that at least recognizes the primacy of total reserves as target variable. In the past, indecisiveness of the FOMC in stating its policy directives has frequently been tantamount to delegating its authority to the trading desk. How many times does the directive lapse into the New York Fed's own jargon, by suggesting that the desk continue to maintain the same tone in the money market as prevailed in the previous 3 weeks? Procedural devices alone cannot remove the obscurities from the Board's way of thinking.

II. APPRAISAL OF THE STRUCTURE OF THE FEDERAL RESERVE SYSTEM

The proposed structural changes evidently are thought to be valuable steps in breaking the supposed links of the Federal Reserve to commercial banks, to reinforce the links that bind the Federal Reserve to the President and his economic policies, and to make the Fed more responsive to congressional inquiry and criticism. These are desirable objectives, and the proposals are indeed steps in the right direction. I regard the reduction in the terms of office of Governors, and synchronization of the Chairman's term with that of the President as essential if the Fed is to become a fully cooperative agency of the executive branch. Sooner or later it will dawn on Presidents and presidential aspirants that their political fate rests very much on the satisfactory performance by the Federal Reserve of its stabilization responsibilities. There is no sound basis in the notion that the state of the economy is a proper subject for the exercise of power by public agency whose administrators are irremovable for very long stretches of time.

III. COMMENTS ON RECENT MONETARY POLICY

Since the middle 1960's, monetary rates of growth have become increasingly unstable. It is not surprising therefore that the economy has also exhibited greater instability than it did in the first few years of the decade. The mini-recession of early 1967 and the inflation now under way are products of a monetary policy that tended to overreact to the pressures brought on by the war in Vietnam. The monetary authorities were especially preoccupied with interest rate movements during this period, but the Federal Reserve's attempts to influence interest rates backfired more than once, to the detriment of price and output stability.

The Federal Reserve's present difficulties began in late 1965, when increasing credit demands from both private and public sectors began to force interest rates upward. Inflation was clearly accelerating, but

the Federal Reserve was reluctant to shift to a more restrictive policy owing to its unwillingness to permit a sharp rise in interest rates. The discount rate rise in December 1965 was followed by an interlude of very liberal expansion of bank reserves, so that intermediate and long-term Government bond yields actually declined in March 1966.

However, when the Fed concluded that growth in loan demand was not abating, it moved to retard business investment and inventory spending by severely restricting growth in bank reserves, raising reserve requirements on time deposits, holding the line on regulation Q interest ceilings, and exerting moral suasion on borrowing banks to restrain their lending to business. Pursuit of this policy implied abandonment of its earlier attempts to moderate interest rate movements, with the result that rates shot up in mid-1966, producing severe financial "disintermediation," reduced flow of mortgage credit, and the "money crunch" of August and September.

Business activity slowed to zero growth by the first quarter of 1967, in the aftermath of the monetary restriction of 1966, and despite a large increase in the Federal deficit during the year. In September, the investment tax credit was suspended in an ill-timed attempt to stem inflation and rising interest rates; by then the business boom had been broken. The rise in interest rates was reversed, but only because the business slowdown was accompanied by shrinking credit demands.

The year 1967 opened with the output advance brought to a halt (although prices continue to rise) and the Federal Reserve moving toward an easier monetary policy designed to lower interest rates. The policy met with little success because of the strength of market expectations of higher interest costs, fueled by high rates of price rise and by the huge Government deficit looming up for fiscal 1968. Corporations jumped at the chance to borrow before long-term rates rose to new highs. As the year advanced, the Federal Reserve's renewed attempts at preventing rates from rising sharply—this time it was justified in the name of preserving "even keel" during periods of heavy Treasury financing—led to extremely rapid rates of growth in the money supply and time deposits (14 percent annual rate on average in the months of May through August).

The rapid growth in money was also fostered by a very sharp transfer of bank deposits from the Treasury to the public during the second quarter, which the Federal Reserve failed to offset, because it had adopted "bank credit proxy" as a control variable. Stabilizing the growth in "bank credit proxy" is roughly equivalent to stabilizing growth in the sum of money supply, time deposits *and* Treasury deposits. Under a "bank credit proxy" guideline, when there are drastic variations in Treasury deposits at commercial banks, the rate of growth in money supply can fluctuate widely even though growth in bank reserves, monetary base, and "bank credit proxy" are all relatively steady.

In any event, the rapid rates of money growth in middle and late 1967 have added to the inflationary pressures that have built up since the beginning of the Vietnam escalation. Even so, a slowdown in real economic growth is now in prospect partly because of the more restrictive fiscal policy ushered in by the new 10-percent surtax, but mainly because rates of monetary growth have slowed considerably since last

year. They might conceivably decline further if reduced borrowing by the Treasury and corporations causes market interest rates to weaken, thereby permitting the Fed to achieve the lower interest levels it seeks with less rapid growth in bank reserves and money.

STATEMENT OF WALTER A. MORTON, UNIVERSITY OF WISCONSIN

1. Fiscal and monetary policy should be coordinated.

2. Formal responsibility should rest upon the President.

3*a*. I do not favor changes in the money supply as the sole method of attaining the ends of monetary policy. It should, however, be one of the most significant variables. The rate of expansion cannot be at a fixed rate under all conditions but must vary with conditions of unemployment, deflation, and hyperemployment and inflation. So long as it must vary there must be a range of variation. Within that range other factors, such as interest rates, bank credit, liquidity, and fiscal policy must determine the actual rate of change. Once these are considered any initial rate of change ceases to be a true guide to policy. It is not possible to disregard entirely the effect on monetary policy on liquidity or on interest rates as was shown in the summer of 1966 and since then. There must be several different targets based upon the predicted effect on prices and employment. What these effects will be cannot be predicted in advance, nor will they remain the same from year to year, or regardless of changes in conditions. It is futile to set up a single target and then modify it away until in effect it ceases to be a guide at all.

3*b*. Past, present, and future must be considered and policy modified as new information becomes available. There are no leads and lags calculable with certainty as is seen by the recent experience with the effect of the tax cut on consumption.

3*c*. No statement.

3*d*. The same guidelines should be used only so long as they appear to be relevant and effective. Generally, they should be modified constantly as judgment and experience dictates.

3*e*. No statement.

3*f*. A guide may be prepared at the beginning of each year to be modified month by month as experience requires.

4. Debt management has a minor role in satisfying the liquidity requirements of the community.

5. I believe this is an impossible requirement. I do not believe that the Federal Reserve should be obliged to tell all speculators in advance what its monetary policy will be. Their action may then offset its effects. Since it is assumed that the Federal Reserve aims to follow the objectives of high employment and stable prices, it is not proper to ask them continuously what they have done. To expect them to explain the causal connections between each monetary action and the state of the economy is to impose upon the Federal Reserve a needless if not impossible burden. The Board can publish its ideas monthly in the Bulletin and in the annual report and report to Congress when requested. This is sufficient, otherwise the reports become repetitious.

5*a*. Open market operations should be used, if necesary, to counteract "transient" influences, such as a liquidity crisis as in 1966 or a run on the banks, or dumping of securities as at the outbreak of a war, or an international crisis. The Federal Reserve cannot sit and fiddle

while Rome burns. However, it must see that a temporary action like increasing bank reserves does not become a permanent inflationary policy.

5*b*. No. There are occasions when the individual bank must have recourse to the Federal Reserve in order to replenish its reserves.

5*c*.A. Rediscounting should be used as hitherto to provide an emergency device to replenish reserves in order to avoid undesirable enforced liquidation on any bank, or on the other hand to enable it to meet the needs of its community if this can be done without creating an inflationary force.

5*c*.B. Changes in reserve requirements should be used sparingly and only when it is desired to greatly increase or diminish bank reserves.

5*c*.C. Regulation Q should be used to maintain the structure of interest rates until such a time as they can be left to their own forces without extensive damage to the various financial institutions and to sectors of the market immediately dependent upon them, such as housing. The long run, rather than the immediate, objective should be to let the competitive market determine the rates paid on savings and time deposits.

5*d*. I see no merit in requiring any additional reports. We have enough of them now. They get to be repetitious.

5*e*. The cost could be lack of candor and intrusion of political considerations accompanied by damaging publicity and misinformation. I do not see why the Congress, Treasury, CEA, etc., cannot learn of Federal Reserve action like any other person. Once Congress sat in on the Open Market Committee the question would always arise whether or not they or their friends benefitted by speculating in Government bonds on the basis of knowledge obtained at the meetings.

II. APPRAISAL OF THE STRUCTURE OF THE FEDERAL RESERVE

1. The Federal Reserve does not require the capital furnished by its stock and the banks do not need that investment. There is no objection to its retirement. If it has the psychological effect of making the public aware that the Federal Reserve is an institution operated for the benefit of all of the people of the country that would be wholesome.

2. There may be too much work on each member as the number is increased. The Federal Reserve has many functions in addition to regulation of monetary policy which must take up considerable time.

3. I doubt the desirability of this because it would in effect mean that the Chairman of the Federal Reserve might become a campaign issue and the President may feel that he must award it to a member of his party. Without this authority the President may find the existing Chairman congenial.

4. I do not think this audit necessary. It would be expensive.

5. Since the Federal Reserve is not a profitmaking agency, I can see no objection to having it get its funds from Congress though I also see no particular advantage or disadvantage in it.

STATEMENT OF GUY E. NOYES, MORGAN GUARANTY TRUST CO.

I. The Employment Act of 1946 provides that the President shall transmit to the Congress by January 20 of each year a program for achieving "maximum employment, production, and purchasing

power." As provided by H.R. 11, "Such program shall include the President's recommendations on fiscal and debt management policy and guidelines concerning monetary policy, domestic and foreign, including the growth of the money supply as defined by him." Thus, H.R. 11 brings monetary and debt management policies explicitly into the purview of the Employment Act for the first time. With the preceding in mind, please answer the following questions:

1. Do you believe that a program coordinating fiscal, debt management, and monetary policies should be set forth at the beginning of each year for the purpose of achieving the goals of the Employment Act, or alternatively should we treat monetary and fiscal policies as independent mutually exclusive stabilization policies?

The benefits to be derived from setting forth coordinated fiscal, debt management and monetary policy programs at the beginning of each calendar year can easily be overestimated. Such programs can be useful as a focus for discussion, but often the underlying economic models are constructed on very optimistic assumptions as to the price and employment developments that will result from the interplay between forces in the private sector and any particular policy mix. Hence, they tend to project the achievement of simultaneous full employment, reasonable price stability, and balance-of-payments equilibrium as a result of the programs recommended, whether the simultaneous achievement of these objectives is realistic or not. Despite this skepticism as to their effectiveness, I see no objection to the preparation and discussion of economic models which include the whole range of financial variables and monetary policy assumptions in connection with the consideration of the Economic Report.

2. If you believe a program should be specified, do you believe that the President should be responsible for drawing up this program, or alternatively should such responsibility be dispersed between the Federal Reserve System and agencies responsible to the President? (Please note that informal consulting arrangements can be made as desired whether responsibility is assigned to the President or divided between the President and the Federal Reserve. The concern here is with the assignment of formal responsibility for drawing up the economic program.)

In recent years it is my impression that the parts of the Economic Report dealing with monetary policy have been the product of close coordination between the Council of Economic Advisers and the Federal Reserve Board and its staff. This, together with the sort of presentation which the Federal Reserve Board has apparently agreed to provide the Joint Economic Committee in connection with the discussion of the Economic Report, would seem to me to be a constructive approach. Specifically, in response to the question of formal responsibility for drawing up the "economic program," it seems to me that this must rest with the President, recognizing of course that he is always free to call on either the Federal Reserve System or agencies responsible to him for such advice and assistance as he likes. It must be clear to all concerned, however, that even the President cannot forecast the future course of economic events with certainty—nor can he, or anyone, say precisely how the economy will be affected by proposed programs.

3. Concerning monetary policy guidelines:

A. Should monetary policy be used to try to achieve the goals of the Employment Act via intervention of money supply (defined as desired) as provided in H.R. 11, or alternatively should H.R. 11 be amended to make some other variable or variables the immediate target of monetary policy; for example, interest rates, bank credit, liquidity, high powered or base money, total bank reserves, excess reserves and free reserves? Please define the target variable or combination of variables recommended and state the reasons for your choice. (If desired, recommend a target variable or variables not listed here.) It would be most helpful if, in providing the reasons for your choice, you list the actions the Federal Reserve should take to control the target variable (or variables) and also explain the link between your recommended target of monetary policy and the goals of the economy as defined by the Employment Act.

The formal adoption of a specific target variable or rigidly defined group of variables in evaluating the impact of monetary policy does not appeal to me. Relationships, which often seem quite persuasive in the long run, do not always hold in particular circumstances. We know very little about the precise nature of the time lags involved. Much of the evidence thus far produced suggests that they are irregular and unstable. Certainly the recent record in forecasting the impact of policy changes on the course of events in the economy is not impressive. Therefore, I would not recommend any specific target for monetary policy.

B. Should the guidelines of monetary policy be specified in terms of some index of past, present, or future economic activity, or alternatively in terms of the target variable's value or growth? For example, should the President's 1969 program for achieving the goals of the Employment Act be formulated to require consistency with some set of overall indicators of economic activity, or alternatively so that your target variable attains a certain value or growth regardless of the economic winds? Please indicate the reasons for your preference.

It has always seemed to me that the specification of the progress toward the goals of the Employment Act to be attempted in a particular year should be formulated in the light of the conditions prevailing at the time. The "trade offs" can be very different in different situations. There always have been, and it almost is certain there always will be, legitimate differences of opinion among the various agencies who report to the President, the members of the Federal Reserve Board and their staff, and Members of the Congress and their staff as to just how much must be given up in terms of inflation or balance-of-payments disequilibrium, in order to achieve a higher rate of economic growth or a lower rate of unemployment. These are not things that anyone can calculate with certainty. The most one can hope for is that in a free and full discussion of these questions the best reasoned judgments, as to just how much progress, in which directions, should be sought in a particular timespan, will be persuasive.

C., D., E., and F. Since I have not recommended the use of any specific target variable, these questions do not apply.

4. Concerning debt management policy: Given the goals of the Employment Act, what can debt management do to help their implementations? (If you believe that debt management has no role to play in this matter, please explain why.)

Experience has demonstrated repeatedly that it is extremely difficult for debt management to play an independent role of major significance in stabilization policy. The so-called housekeeping problems of managing the huge Federal debt loom so large that it is rarely possible to make debt management decisions on other than market considerations. Perhaps the most that can be hoped for debt management is that it not exert a strong perverse influence.

5. Concerning open market operations, H.R. 11 requires that the FOMC conduct open market transactions in accordance with the programs and policies of the President pursuant to the Employment Act of 1946. And, in this connection, H.R. 11 provides that the Federal Reserve Board shall submit a quarterly report to the Congress, stating in comprehensive detail its past and prospective actions and policies under this section and otherwise with respect to monetary affairs, and indicating specifically how such actions and policies facilitate the economic program of the President.

The linkage between open market transactions and the broad programs and policies of the President pursuant to the Employment Act is so tenuous that I doubt that anyone can state with any assurance just how the past and prospective actions and policies of the Federal Reserve System facilitate the economic program of the President. At a time when the goals of the Employment Act are close to full realization, all of the instruments for policy are making their appropriate contribution to this happy state of affairs. When the goals of the Employment Act are not being satisfactorily achieved, the question of what the various instruments of policy can and should do to facilitate their achievement becomes an extremely complex one. A classic question which always arises in this situation is the extent to which monetary policy should move to offset the destabilizing influences not of its making, such as might flow from a perverse fiscal policy, for example. I cannot conceive of how the Federal Reserve Board could indicate specifically how its actions and policies are facilitating the economic program of the President in these circumstances.

A. H.R. 11 make no provision whatever for conducting open market operations for so-called defensive or road-clearing purposes; that is, to counteract seasonal and other transient factors affecting money market and credit conditions. Do you see any merit in using open market operations for defensive purposes or should they be used only to facilitate achievement of the President's economic program and the goals of the Employment Act? What risks and costs, if any, must be faced and paid if open market transactions are used to counteract transient influences?

It does not seem to me that a clear distinction can be drawn between "defensive purposes" and the facilitation of the achievement of the President's economic program and the goals of the Employment Act. While their role may be admittedly a minor one, defensive operations are undertaken to facilitate such programs and goals and, to the extent that they are skillfully carried out, they do, for example, not to offset with open market operations the upward pressure on interest rates each fall and early winter, when seasonal credit demands are relatively high, would certainly have no beneficial effect on the achievement of the President's economic program or the goals of the Employment Act, and it might have some adverse effect.

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B. Do you believe that monetary policy can be effectively and efficiently implemented solely by open market operations?

I believe that the discount mechanism serves a number of very useful functions, especially for small banks in agricultural areas, and that it would be most unfortunate to attempt to conduct monetary policy solely through open market operations. Quite apart from the normal implementation of monetary policy, access to the central bank in emergencies is important to the smooth functioning of the financial system.

C. For what purposes, if any, should (a) rediscounting, (b) changes in reserve requirements, and (c) regulation Q be used? How might H.R. 11 be amended to implement your recommendations?

It is impossible to enumerate briefly all of the purposes for which rediscount policy, changes in reserve requirements and Regulation Q might be used. The eventualities which might arise in the future are almost limitless. I do not feel that there is any urgent need for change in the basic legislative authority with regard to any of these matters, although there is no doubt that the situation could be improved in a number of ways by minor modifications in the law with respect to all of them. In general, it seems desirable to give the Federal Reserve rather broad flexible authority in these areas and to review their use of such authority from time to time.

Do you see any merit in requiring the Federal Reserve Board to make detailed quarterly reports to the Congress on past and prospective actions and policies? Are there any risks and costs in this procedure? In what ways, if any, would you modify the reporting provision? What information do you believe should be included in such reports as you recommend the Federal Reserve submit to the Congress?

The policy record of the Federal Open Market Committee is now being released with approximately a 90-day lag and the Board has also recently agreed to make regular quarterly reports to the Joint Economic Committee. I see no necessity for a legal requirement that the Federal Reserve continue these practices. In fact, it would seem to me that there is some advantage, from the committee's viewpoint, in retaining flexibility to ask for what it wants when it wants it.

I am not aware of an unwillingness on the part of the Federal Reserve to appear before congressional committees to discuss its policies whenever it is called upon to do so. On the contrary, there are a number of recent instances in which the Chairman and other members of the Board have appeared promptly to discuss policy changes in response to committee requests. This arrangement seems to me to be completely satisfactory.

E. What costs and benefits would accrue if representatives of the Congress, the Treasury, and the CEA were observers at Open Market Committee meetings?

I cannot see any benefit that would accrue from regular attendance by representatives of Congress, the Treasury, and the Council of Economic Advisers as observers at Open Market Committee meetings. It would almost certainly inhibit free, frank, and full discussion. From time to time, members of the Congress, the Treasury, and the CEA might benefit from the sort of thorough, painstaking, and elaborately prepared economic briefing which the Federal Open Market Committee receives at frequent and regular intervals. But this informa-

tion is now available to these people on request whenever they are able to take the time, in their busy schedules, to receive and fully comprehend it.

II. Appraisal of the structure of the Federal Reserve.—H.R. 11 provides for the following structural changes in the Federal Reserve System:

1. Retiring Federal Reserve bank stock;

2. Reducing the number of members of the Federal Reserve Board to five and their terms of office to no longer than 5 years;

3. Making the term of the Chairman of the Board coterminous with that of the President of the United States;

4. An audit for each fiscal year of the Federal Reserve Board and the Federal Reserve banks and their branches by the Comptroller General of the United States; and

5. Funds to operate the Federal Reserve System to be appropriated by the Congress of the United States.

Please comment freely on these several provisions. In particular, it would be most helpful if you would indicate any risks involved in adopting these provisions and discuss whether their adoption would facilitate the grand aim of H.R. 11, which is to provide for coordination by the President of monetary and fiscal policies.

I see no significant merit in any of the structural changes provided in H.R. 11.

A seven-member Board is somewhat unwieldy but a reduction to five creates problems at the particular point in time at which it is introduced and would not, in my judgment, accomplish enough to compensate for the problems it would create.

There is no magic in a 14-year term, in and of itself, but 5 years is certainly too short.

Frankly, I have never understood the importance attached by some to the fact that the term of Chairman of the Board is not coterminous with that of the President of the United States. I have no objection to the provision of H.R. 11 which makes the Chairman's term at the pleasure of the President. So far as I am aware, however, the present provisions have never been a serious embarrassment to either a President or a Board Chairman and I would hope that we would never have either a President or a Board Chairman to whom they would be.

I can see no benefit, and I can imagine that considerable mischief might flow, from the audit and appropriations provisions of H.R. 11. The Federal Reserve System is thoroughly audited at present and evidence produced from several intensive investigations by your committee does not suggest that the Federal Reserve has abused the arrangements under which it defrays its operating costs from its earnings.

The System's expenditures for other than purely routine operational functions, such as the clearing and collection of checks, are minuscule in comparison to those of almost any other Government agency. Therefore, the only function that the introduction of the appropriations procedure could serve would be to place in the hands of a relatively small number of Congressmen, in contrast to the Congress as a whole, the power to punish or reward the Federal Reserve System for actions which coincided or failed to coincide with their particular predilections. This would, in my judgment, be unfortunate.

III. Comments on recent monetary policy.—Your analysis of monetary developments, since 1964, including policy-induced changes and their effects on economic activity, is invited.

The record of the United States in the area of economic stabilization since 1964 is certainly not an impressive one. Particularly since the fall of 1965, the monetary authorities have been confronted with extremely difficult problems not of their making. In attempting to cope with them, they have unquestionably created some problems themselves. With the benefit of hindsight, it is possible to see how they might have coped better and thereby created fewer problems. But with both the budget and balance-of-payments deficits fluctuating erratically, often dramatically, outside of officially predicted ranges, it is doubtful that any other arrangement for the formulation of monetary policy would have served us better. In fact, we were fortunate that monetary policy in the period was in the hands of men of the experience and judgment which characterize the members of the Federal Reserve Board and the officers and directors of the Federal Reserve banks.

STATEMENT OF BORIS P. PESEK, UNIVERSITY OF WISCONSIN—MILWAUKEE

1. QUESTIONS ON MONETARY POLICY GUIDELINES

*Question 1a. "Do you believe that a program coordinating fiscal, debt management, area monetary policies should be set forth at the beginning of each year for the purpose of advancing the goals of the Employment Act * * *."*

Expenditure decisions are—or should be—based primarily on the intrinsic merits of the programs that they are to finance. By and large, to change them to fit the needs of an anticyclical policy involves waste, and is not practical to boot. An expenditure program which cannot justify itself on its own merits should not be accepted merely because the economy needs stimulation; a meritorious program should not be cut—and probably cannot be cut—merely because the economy is overheated. *Tax* decisions are more subject to manipulation guided by the needs of an anticyclical policy. Yet, the restraint provided by the acceptable size of, and changes in, national debt make it impossible to manipulate taxes as freely as an anticyclical policy might demand. Since the key consideration facing Congress in the case of fiscal policy is the difficult issue of the intrinsic merits of any specific action, there is a long lag between the time at which a fiscal policy is proposed and the time at which it becomes enacted.

The problem facing the Federal Reserve System that controls *monetary policy* is completely different. An action that expands or contracts the monetary base has no intrinsic merits of its own which would have to be carefully investigated. In the case of monetary policy, anticyclical effects of any action taken are the sole criterion. A counterpart of this fact is that monetary policy may be adopted and changed very rapidly, as the economic scene unfolds.

Thus, I would conclude that fiscal policy is—unfortunately but inevitably—quite rigid within any fiscal year and not very flexible even in the course of transition from one fiscal year to the next. To impose on the monetary policy the requirement that it be coordinated

with the fiscal policy at the beginning of each year would place monetary policy in the same straitjacket. Rather than to facilitate the achievement of the goals of the Employment Act, it would hamper it. It would tie the agile to the lame.

Question 1b. "*Alternatively, should we treat monetary and fiscal policies as independent mutually exclusive stabilization policies?*"

In the light of the foregoing, this does not appear to be a meaningful question. We have two levers which we may use to stabilize our economy: fiscal policy and monetary policy. One of the levers, controlling fiscal policy, must be frozen in any given position for the duration of 1 fiscal year. The other lever, controlling monetary policy, may be moved by the Federal Reserve Board as frequently as appears necessary. Thus, monetary measures can and should be used to overcome or to compensate for rigidities in fiscal policy, as the need to do so becomes apparent in the course of the fiscal year.

Question 2. "*If you believe a program should be specified.* * * *"

Since I do not believe so, it is not possible for me to answer this question.

Question 3–1. "*Should monetary policy be used to try to achieve the goals of the Employment Act via interventions of money supply (defined as desired) as provided in H.R. 11, or alternatively should H.R. 11 be amended to make some other variable or variables the immediate target of monetary policy; for example, interest rates, bank credit, liquidity, high-powered or base-money, total bank reserves, excess reserves, and free reserves?*"

(*a*) *High-powered money, base money, total reserves, excess reserves, free reserves*

There is a general agreement among economists that what codetermines spending by consumers and businesses is the stock of money in public hands; not any single component of it (such as high-powered money), nor any of the several Reserve concepts. Changes in the various Reserve concepts merely measure the looseness of the links between any policy action undertaken by the Federal Reserve System and its outcome, the stock of money in public hands. If the powers of the Federal Reserve System were inadequate, an increase (decrease) in the reserve base, excess reserves, or free reserves which is accompanied by no change in the money stock could be taken as evidence that the Federal Reserve System "meant well" but failed for reasons beyond its control. However, there is overwhelming evidence that the Federal Reserve System does have adequate powers to overcome any slippage that may occur within the banking system. Under these conditions, to focus attention on reserves rather than on the stock of money itself can only confuse our efforts to judge the wisdom of any policy followed by the Federal Reserve System. In public affairs, good intentions are unimportant; it is the results which count. Thus, H.R. 11 is entirely correct when it proposes to judge the actions of the Federal Reserve System on the basis of the level and changes in the stock of money in public hands.

(*b*) *Bank credit, liquidity*

"Bank credit" contains time deposit credit over which the Federal Reserve System has next to no control. "Liquidity" is an ill-defined term that contains, presumably, all short-term or marketable debt

certificates issued by banks, corporations, Federal, State, and local governments; again, the Federal Reserve System has no control over this item. To make the Federal Reserve System responsible for variables over which it has no control seems entirely inappropriate.

(*c*) *Interest rates*

Just as a driver of a car has a policy tool—the gas pedal—which he uses to achieve his purpose—the speed of his car—so the Federal Reserve System has a policy tool, the stock of money, which it uses to achieve the national purpose of high levels of income and employment. Interposed between the tools of control and results obtained there is a number of intermeidate indicators. In the case of a car, these are the various gages showing, e.g., oil pressure or temperature of the engine. In the case of national economy, these are items such as the total volume of credit or changes in it, or the interest rates. *If* we were sure that the initial impulse—money—becomes converted to its end product—income and employment level—only through lending and never through direct spending, and *if* we were sure that the lending rate (the interest rate) is determined solely by supply factors and is completely unaffected by demand factors, then it would make little difference whether we evaluate the activities of the Federal Reserve System on the basis of data on the money stock or on the basis of data on interest rates.

However, the two conditions stated above are not satisfied. Increased money supply may and does enter the spending stream not only through lending but also through direct spending. For instance it is perfectly possible than an open market purchase of my U.S. bond will cause me to buy a car with the proceeds. By observing an increase in the money stock, we shall conclude that the FRS engaged in an expansionary policy. In contrast, by looking at the constant level of interest rates we shall get the false impression that the FRS took no action. The second "if" listed above is not satisfied either. An expansionary monetary policy may be pushing interest rates down by making credit more easily available; however, it is perfectly possible that at the same time the demand function for loans will be shifting upward. In that case, the *net* change will be an increase in the rate of interest. By looking at the money stock, we will correctly conclude that the FRS is following an expansionary monetary policy; by looking at the level of the interest rates, we shall falsely conclude that the FRS is following a contractionary policy.

Just as I would advise a driver to concentrate on his gas pedal and speedometer and merely throw an occasional glance at the secondary gages on his instrument panel, so I would advise the FRS to concentrate on the money supply and on the rate of growth of income and employment while giving to the unreliable intermediate indicators only secondary attention. As long as the primary goal (full employment) is satisfied, the level of interest rates is—relatively—unimportant. In contrast, it will not help the Nation very much if the interest rates are moving in the "right" direction while income and employment are falling. Once again, I feel that H.R. 11 correctly focuses attention on the money stock and correctly relegates interest rates to a secondary position.

Question 3–2. "*Define, as desired, the money supply.*"

At the present time, there are two approaches to the task of defining the money supply. An extremely influential one is "*the empirical ap-*

proach" that denies that economic theory is able to provide a priori specifications for the item called "money." The necessary consequence of this denial is that empirical workers lack criteria that would enable them to look at the great variety of assets held by the public and separate those which qualify from those assets which do not so qualify. If the theoretical construct *money* cannot be expressed in operational terms, empirical research which would relate money to income, employment, and price level becomes impossible.

Unfortunately, those who deny economic theory the ability to work out operational specifications for the item called money refuse to draw this inescapable conclusion. Instead, they argue that one should (*a*) offer a theoretical hypothesis that money codetermines income, employment, and price level, (*b*) correlate all possible conglomerates of assets with income or prices, and (*c*) give, ex post, to that conglomerate that correlates best the honorific name "money."[1] This leads to two basic difficulties.

First, any and every monetary theory becomes incontrovertible. Suppose that one economist's monetary theory leads him to believe that money is *inversely related* to income. Surely, there must be some conglomerate of assets (i.e., inferior goods) which will show a strong inverse relationship with income. If this conglomerate is then defined, ex post, as "money," monetary theory of the first economists is confirmed. At the same time, a second economist's monetary theory may cause him to believe that there is *no relationship* between money and income. There must be some conglomerate of assets which will not correlate well with income; if this conglomerate is called, ex post, "money," monetary theory of the second economist will also rest on solid empirical evidence. Finally, a third economist may have a monetary theory telling him that there is a strong *positive relationship* between money and income. Once again, there must exist some conglomerate of assets held by the public which yields strong positive correlation with income. If this conglomerate is then, ex post, called "money," monetary theory of the third economist will be confirmed as well. As this discussion indicates, the empirical approach to defining money makes it possible for us to be faced by three, completely contradictory, monetary theories and forces us to agree that all three theories are correct and that none is false. Surely, this is an intolerable situation.

And yet, the above-described possibilities are not purely hypothetical; they give vent to a worry that is not an idle one. When economists evaluate, for instance, the period between 1929 and 1939 they do reach the conclusion that monetary policy did not matter if "money" is defined as currency and demand deposits and that monetary policy was highly effective when time deposits are added to these two items.[2] When the empirical approach to money denies that economic theory is able to provide us with an operational definition of money, it deprives us—simultaneously—of any possibility to decide whether an increase in money hinders, has no effect, or fosters economic growth. As Harry G. Johnson put it:

[1] Milton Friedman and Anna Jacobson Schwartz, *A Monetary History of the United States*. Princeton: Princeton University Press, 1963, p. 650.

[2] Milton Friedman and David Meiselman, "The Relative Stability of Monetary Velocity and the Investment Multiplier in the United States, 1897–1958," In B. Fox and E. Shapiro, *Stabilization Policies* (Englewood Cliffs, N.J.: Prentice-Hall, 1963), p. 244.

These issues as to what money is * * * is an important question both for theory and for policy. Obviously, there is no point in monetary theory if we cannot define what it is that we are theorizing about.[3]

There is a second difficulty with this "empirical approach" to the definition of money. Once we declare all assets eligible for the money club and leave it to a computer to decide which items do or do not qualify for membership (i.e., which items do or do not correlate well with income), the chosen total may or may not contain items that the public considers to be money and that the Federal Reserve System is able to control. This is not an idle worry either. A researcher of the Federal Reserve Bank of Chicago—who takes the empirical approach seriously—recently concluded that his statistical evidence "casts doubt on the conventional wisdom of automatically including currency and demand deposits in any definition of money supply." [4] Obviously, the "empirical approach" leads to, and permits, the absurd conclusion that a $5 bill in my pocket or a $5 demand deposit is not "money." Since it is the volume of these two items (currency and demand deposits) that the Federal Reserve System controls, it then follows that, whatever the FRS may be controlling, it is not money; that whatever policy the FRS may be pursuing, it is not monetary policy. And, finally, whatever the Committee on Banking and Currency may be concerned with is neither money nor monetary policy, since currency is not "money." Again, as Harry G. Johnson put it when completing the sentence just quoted:

There is no point in talking about monetary policy if whatever money is, is something the Central Bank cannot get a grip on. The issues here are therefore deeper than might appear at first sight.[5]

The second approach to the definition of money, which may be called "*the theoretical approach*," agrees that this issue is deep indeed. It insists that what is or is not money must be decided by economic theory and not by a computer spewing correlations between all sorts of ad hoc aggregates and income. A distinguished British economist, Sir John Hicks, recently concluded that an asset qualifies as "money" only if it performs the functions as a means of payment.[6] On this side of the Atlantic, this writer in association with T. R. Saving reached the same conclusion: "It is not an arbitrary decision whether we stress, to discover what is money, the role resources play as a medium of exchange or a store of value. Economic theory forces a decision, and forces it to be made in favor of the medium of exchange role." [7] From this, then, follows that any definition of money must not strive for consistency in *names* of items entering the money supply but for consistency in one specific *function* performed by various items. Even though the name "gold" is the same, gold coin serving as a medium of exchange is money and gold ornament is not; even though the name "time deposit" is the same, in the twenties time deposits served as a medium of exchange and thus were money and in the sixties they do not serve as a medium of exchange and thus are not money. On this

[3] Harry G. Johnson, *Essays in Monetary Economics*. London: George Allen & Unwin, Ltd., 1967, p. 95.
[4] George G. Kaufman, "A Staff Memorandum: More on Empirical Definition of Money," Research Department, Federal Reserve Bank of Chicago, April 1968, p. 6 (mimeo).
[5] Johnson, *op. cit.*, p. 95.
[6] Sir John Hicks, *Critical Essays in Monetary Theory*. Oxford: The Clarendon Press, 1967, pp. 18–37.
[7] Boris P. Pesek and Thomas R. Saving, *Money, Wealth, and Economic Theory*. New York: Macmillan Co., 1967, pp. 170–171.

basis I would suggest that the only theoretically defensible definition of money at the present time contains (1) currency in public hands, (2) demand deposits in public hands, and (3) travelers checks in public hands.

How does this theoretical concept of money relate to the definition of money used by the Federal Reserve System? In the period prior to 1933, not very well. Before the passage of the Banking Act of 1933, demand deposits served partly as a medium of exchange and partly only as a store of value, held because this asset paid interest. Similarly, time deposits and savings deposits were transferrable by check and thus served, partly, as a medium of exchange.[8] After 1933, Congress greatly simplified this situation and, since then, our theoretical concept of money coincides very closely with the concept of money used by the Federal Reserve System. At the present time, there are only two major shortcomings, one of which cannot be eliminated without congressional action.

(*a*) *Traveler's checks*

Indirect evidence indicates that since 1933 the significance of traveler's checks grew very rapidly. For the holders, traveler's checks are just as good as cash. When a consumer exchanges his currency or his demand deposit money for traveler's checks, surely he has not reduced his holdings of a medium of exchange. In essence, such transaction is no different from one in the course of which a consumer, prior to 1914, exchanged his demand deposit money for national banknotes. And, just as national banknotes were produced by commercial banks on the basis of fractional reserves and thus represented a net expansion of the money supply, so there is no doubt that traveler's checks are produced on the basis of fractional reserves and thus represent a net expansion of the Nation's money supply. The only difference is that our Congress did classify national banknotes as money and rigidly regulated their production while it does not classify traveler's checks as money and thus enables this money to escape any regulation whatever.

I respectfully submit that our Congress should acknowledge that traveler's checks represent a new type of money. Until abuses appear, there seems to be no need to introduce reserve requirements or to subject financial institutions producing traveler's checks to the same tight regulation to which commercial banks as producers of demand deposit money are subjected. However, the volume of money consisting of traveler's checks is treated, by the financial institutions producing this money, as a trade secret. This makes our data on the money supply incomplete, and perhaps seriously so. Surely, traveler's checks must be introducing a strong seasonal element into our money supply. Makers of monetary policy must rely on evidence which is incomplete and therefore their ability to follow a correct monetary policy is being hampered. In pursuance of its constitutional right and responsibility to regulate money, our Congress should pass legislation requiring full disclosure, at regular and frequent intervals, of the volume of traveler's checks held by the public.

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[8] For statistical method of allocating the total market value to components, see *ibid.*, pp. 188–197.

(*b*) *Demand deposits held by the U.S. Treasury*

Reserves which must be held to support moneys produced by U.S. Treasury, the Federal Reserve System, and commercial banks are—and properly so—excluded from our official measure of the quantity of money. They are viewed as "inputs" which make the final outputs of some other money possible. As immobilized inputs or "frozen assets" they cannot affect the spending decisions of our Government, consumers, and business enterprises. Federal Reserve statisticians extended this decision to exclude reserves to demand deposits held by U.S. Treasury. This, I submit, is an error. Demand deposit holdings of U.S. Treasury are not immobilized reserves. Their level is likely to affect spending and borrowing decisions of U.S. Treasury, just as the level of demand deposits held by, say, General Motors is likely to affect spending and borrowing decisions of this corporation. In a recently published book, I argued this case as follows:

Finally, the Government statisticians also subtract from the net U.S. money supply the Treasury holdings of demand deposit money produced by commercial banks. This subtraction appears to us to be on extremely weak footing. These holdings are clearly not (1) legally required reserves making the production of Treasury's money possible or (2) business-required reserves resulting from the Treasury's money-producing activity. They are *not* an input that is necessary to make the Treasury's money production possible. As table 16–2 shows, in some months they are much *bigger* than the total Treasury output of currency; is a mountain giving birth to a molehill? Clearly, these money holdings result solely from the fact that the U.S. Treasury is not just a money producer but also (actually, mainly) the financial agent for the huge economic operation of the U.S. Government. In other words, these holdings are no different from the holdings of, for instance, General Motors. They are here to finance expenditures on goods and services: If they grow, the U.S. Treasury will—just as will General Motors—surely take steps to draw them down, and if they fall off, the U.S. Treasury will surely take steps to replenish them. They will reduce them by additional spending, tax reductions (which General Motors cannot do), or debt reductions; they will replenish them by a reduction of spending, tax increases (which General Motors cannot do), or debt increases. In either case, economic variables are bound to be affected. In contrast, there are no such effects if the Treasury coins an extra billion dollars and then puts this money aside for emergency. *These* latter inventories are clearly the result of the fact that the Treasury, in addition to being the disbursing agent for the Government, is in the money-producing business.

TABLE 16–2.—*U.S. Government demand deposits, 1966*

[In millions of dollars]

Jan. 26	3,930
Feb. 23	5,440
Mar. 30	5,120
Apr. 27	5,030
May 25	7,780
June 30	11,005
July 27	6,180
Aug. 31	4,720
Sept. 28	6,000
Oct. 26	4,720
Nov. 30	3,810
Dec. 28	5,130

Source: *Federal Reserve Bulletin*, March 1967, p. 408.

This view of Treasury holdings of demand deposit money is, actually shared by the Treasury itself. It states:

"Every operating enterprise—governmental or private, corporate or individual—must maintain a cash balance. A basic common purpose of this cash is to provide a cushion for meeting current obligations because receipts never precisely match disbursements in timing and amount * * * The Federal Government is no

exception in this regard: The fixed policy is to maintain a cash operating balance no larger than required in its particular circumstances. Federal receipts do not come into the Treasury in an even flow."

Thus, as far as we can see, the reduction of the U.S. money supply by the size of the (working) balances of commercial bank money held by the Treasury is not warranted.[9]

Question 3–A. "*Should the guidelines of monetary policy be specified in terms of some index of * * * economic activity, or alternatively, in terms of the target variable's value or growth?*"

I do not see that it is possible to specify *one single* target variable as the question implies. The Federal Reserve System must control the quantity of money to achieve some acceptable compromise values for a *number* of variables. Income and employment are, obviously, crucial targets. Yet, price stability must be also strived for. Finally, the international balance of payments is surely a variable that may not be ignored without grave consequences. As long as nobody is able to agree on acceptable tradeoffs (how much unemployment for how much of price stability, how much of a loss of national income shall we tolerate in exchange for a smaller gold outflow, etc.), no sharply defined set of objectives can be imposed upon the Board of Governors of the Federal Reserve System.

Questions 3–C through 3–F.

Since I do not feel it possible to specify a single target variable or a defined mix of target variables to guide FRS decisions, I feel unable to answer these questions which are, explicitly, directed at those who do feel able to offer such a guide.

Question 4. "*Given the goals of the Employment Act, what can debt management do to help their implementation?*"

Since my work is concentrated on money, I hesitate to speak on debt management.

Question 5–A. "*Do you see any merit in using open market operations for defensive purposes. * * * What risks and costs, if any, must be faced and paid if open market operations are used to counteract transient factors?*"

A highly influential view has it that monetary policy is incapable of eliminating transient fluctuations in income and employment. When we try to discover the basis for this view, we face two issues:

(*a*) What is the lag between a Federal Reserve policy that makes an increase in money possible and actual increase in money?

(*b*) What is the lag between an actual increase in money and an increase in public's spending?

In a widely quoted study Thomas Mayer concluded that "an expansionary policy * * * takes 7 months to reach 50-percent level [of effectiveness] and 10 months to reach 75-percent level."[10] This study is a very convenient tool for illustrating empirical and theoretical difficulties that plague our efforts to quantify the effectiveness of monetary policy in the short run. I shall discuss it in some detail not because I would want to single out my good and respected friend, Thomas Mayer, for criticism, but because his article enables me to pinpoint some basic shortcomings that one may find in almost

[9] Boris P. Pesek and Thomas R. Saving, *The Foundations of Money and Banking.* New York: Macmillan Co., 1968, pp. 224–225.

[10] Thomas Mayer, "The Inflexibility of Monetary Policy," *The Review of Economics and Statistics*, vol. XL., November 1958, p. 370.

any study that attempts to explore this topic. What is the basic method used by Mayer to reach the melancholy conclusion that monetary policy is ineffective? The author, *first*, computes the shares of various assets that we find as an average bank's portfolio. *Second*, he estimates with great care the timelag that separates a policy of monetary ease from actual spending on goods and services. *Third* and finally, he calculates the average timelag by using, as weights, the portfolio shares calculated in step 1. If, for instance, 20 percent of bank's portfolio consists of mortgages and if residential construction involves a 9-month delay between easing of credit and construction starts, he concludes that 20 percent of monetary policy will become effective only after 9 months.

This method has numerous shortcomings which I consider to be very serious:

(1) The study implicitly assumes that the entire increase in money resulting from open market operations takes the form of demand deposits, which are the only item reflected in the banks' portfolio. Yet, the money expansion process contains the public's desired currency-demand deposit ratio as one of the key variables. Thus, if the FRS increase the size of its portfolio by, say, $1 billion, initially only $770 million of the new money produced should become demand deposits and $230 million should turn out to be currency. Since Mayer does not consider the effect of an increase in currency on output, Mayer's conclusion leaves the effect of some 23 percent of the actual increase in money unaccounted for.

(2) The study ignores the fact that the banks' total portfolio is composed of two subportfolios: the one based on demand deposits and the one based on time deposits. Banking laws and prudent business practices enable banks to hold the more long term assets (e.g., mortgages) the more time deposits they do hold. Thus, the average structure of the banks' portfolio—which forms the basis of Mayer's study—is *not* the structure that is based on demand deposits alone and thus cannot form the basis for our estimate of the consequences of an FRS action that enables the banks to produce more demand deposits.

(3) The study implicitly assumes that commercial banks' average and marginal portfolio purchases are identical. If, e.g., banks hold on the average 28 percent of their assets in residential construction portfolio, and if construction starts occur 6 to 8 months after easing of credit, Mayer assumes that the banks will hold $280 million out of $1 billion of potential credit idle until the residential-construction sector asks for these funds. This is in conflict with any rational business behavior. Banks surely should be expected to try to lend newly available loanable funds to those sectors able to make use of these funds immediately. This accomplished, they should be expected to start to readjust the structure of the increment to their total portfolio to the structure of their total portfolio. In other words, one would expect the increment to banks' lending power to be concentrated, at first, on sectors which are willing and able to make use of credit "at once" (according to Mayer, consumer credit). As time passes, some of these assets should become retired and be made available to the sector standing next on the list of agility of response; etc. This profit-maximizing bank behavior would completely destroy the validity of Mayer's estimates of the length of the lag between initiation of monetary policy and its effectiveness.

(4) But, it may be argued, how do we know that the bankers are trying to maximize profits? Perhaps they don't, and in that case it is perfectly possible that a banker discovers today that he is able to make additional loans but will wait for the next 6 or 12 months before doing so. However, there is empirical evidence that may be used to throw light on this problem. If bankers actually do behave in this irrational manner, we should see a reflection of this behavior in the behavior of excess reserves. If the estimated time lags are relevant, we should see that open market operations cause excess reserves to jump up almost by the same amount. Then, over a period of 21 months (at the end of which monetary policy according to Mayer becomes fully effective) these excess reserves should be falling until they become exhausted entirely. In reality, however, data on excess reserves show an extraordinary smooth series: the bankers seem to be able to convert an increase in their ability to lend into actual lending with an extraordinary speed.

(5) If so, then the only explanation that would support the frequently made claim that monetary policy works very slowly is that the consumers and business borrow today but spend the proceeds only 4, 9, or 20 months from now. Once again, this type of behavior cannot be reconciled with our standard assumption that consumers and business enterprises act in a rational manner. Why borrow today if the proceeds are to be spent only 6 or 21 months from today? I am not aware of any empirical evidence that would indicate that consumers and business enterprises actually do behave in this irrational manner. In the case of consumer expenditures, this is obvious: credit is arranged at the time of purchase. In the case of business enterprises, all available evidence indicates that while the issue of financing is discussed with the banks when a project starts to be considered, actual borrowing occurs at the time when funds are actually needed to pay suppliers.

If the currently fashionable view that monetary policy works extremely slowly is to be taken seriously, we need some analysis that would reconcile this view with the known behavior of excess reserves. And, in addition, we need much more evidence than is currently available about the time that elapses between *the moment* at which a consumer of a business firm borrows from a bank (and starts paying interest charges) and *the moment* at which the proceeds of borrowing are spent. Until then, our knowledge of the paths and of the speed of the money-propagation process will remain extremely rudimentary. So rudimentary that a confident answer to question 5–A simply cannot be given.

Question 5–B: "*Do you believe that monetary policy can be effectively and efficiently implemented solely by open market operations?*"

If we want the FRS to change the quantity of money and have no other effect on the economy, the answer surely must be an affirmative one.

Question 5–C: "*For what purposes, if any, should (a) rediscounting, (b) changes in reserve requirements, and (c) regulation Q be used?*"

(*a*) *Rediscounting*

The current practice seems to be to use rediscounting to aid banks which find themselves in difficulties. Vague information available indicates that supervision of credit extended is quite strict and becomes

more so after, say, 2 months. Such emergency aid to individual banks can do no overall harm and may do some good.

I am opposed, however, to the current tendency of the Board to make it much easier for commercial banks to make use of their rediscounting privileges. For reasons which have never been adequately explained, the Board seems to be anxious to borrow trouble. At the present time, there are several loose links in the chain that connects any action taken by the Board with the stock of money in public hands. Indeed, the Board frequently points out these loose links and argues that it should not be blamed if a specific policy—say, an open market operation—fails to change the money stock in the desired direction. If, henceforth, the right to rediscount is substantially strengthened, the Board will add *another* loose link to the chain that connects any action taken by the Board with the stock of money in public hands. Increased ability of the banks to borrow from the FRS will greatly increase the ability of commercial banks to neutralize policy measures taken by the Board. Should the Board persist in its new policy, which is bound to make it much more difficult for the Board to perform the task entrusted to it by Congress, serious consideration should be given to new legislation which would substantially tighten up the rules governing banks' ability to borrow from the Federal Reserve System.

(*b*) *Reserve requirements*

Changes in the reserve requirements are a blunt policy instrument which is being used by the Federal Reserve System only infrequently. It seems desirable, however, to keep this instrument in the FRS armory.

(*c*) *Regulation Q*

As most professional economists, I consider the law that enables the Federal Reserve System to fix the maximum rate of interest that our savers are able to obtain from commercial banks, savings and loan institutions, and other financial institutions as utterly inequitable. In a recently published book, I have argued this case as follows:

EXTRANEOUS RULE: MAXIMUM INTEREST RATE PAID

There is, however, one major rule for which there is no justification: It involves the legislation that fixes the maximum interest rate that the commercial bankers (and, since the fall of 1966, savings and loan associations and mutual savings banks) are permitted to pay to those who lend money to them. The alleged reason for the institution of the maximum is the necessity to control the volume of credit, protect the banks' profits, and thus protect them from the temptation to engage in unsound and risky high-yield investment. The argument about the volume of credit is irrelevant and discriminatory. If it is desirable to control the terms at which people rent their property to others, then equity requires that *all* such credit be regulated: money credit passing through financial intermediaries just as house credit passing through real estate firms, or car credit passing through car rental agencies, or money credit passing through the bond market. The argument that commercial banks must be protected from a competitive "profit squeeze" and the resulting recklessness through the control of prices they pay to savers is no more adequate. It can easily be shown to be logically inconsistent and in contradiction to a wealth of available empirical evidence.

(*a*) If it is desirable to control the small fraction of the bankers' costs consisting of interest payments to savers, it should be equally desirable to control the 60 to 70 percent of the bankers' costs consisting of wages, supplies of materials, rents, and so on. Because they *all* determine the extent of the profit

squeeze facing the banker, why single out the savers for discriminatory treatment?

(*b*) Until 1966 there existed a huge sector of financial institutions that prospered and that had a record of safety just as excellent as the commercial banking sector: the sector of financial intermediaries represented by savings and loan associations and mutual savings banks. Yet, this sector did not enjoy and, clearly, did not need the protection given to commercial banks against competition for the saver's dollars.

Unfortunately, however, the notion that all financial intermediaries should gain the advantage of not having to pay the competitive market rate of interest to savers gained the upper hand in the fall of 1966, and the interest-fixing legislation, instead of being scrapped as clearly superfluous, has been extended to all the above-named financial intermediaries. The only exception was granted to those who open a time deposit account of $100,000 or more (see table 10–7).[11]

There is no doubt that regulation Q should be scrapped. For obvious reasons, this cannot be done overnight. The best procedure would be to order the Federal Reserve System to increase the maximum permissible interest rate by one quarter of 1 percent annually until the maximum permissible rate reaches 10 percent per annum.

Question 5–D. "Is there any merit in requiring the Federal Reserve Board to make detailed quarterly reports?"

I believe that actions speak louder and clearer than words. Whatever the FRS does is easy to discover by anyone who cares to study the *Federal Reserve Bulletin.* I would expect that any explanation of the reasons for action would be so opaque as to be worthless.

Question 5–E. "What costs and benefits would accrue if representatives of the Congress, the Treasury, and the CEA were observers at Open Market Committee Meetings?"

In view of my answer to question 5–D, I can see no benefits. The cost would consist of the value of the time that the observers would spend in these meetings.

11. APPRAISAL OF THE STRUCTURE OF THE FEDERAL RESERVE

(1) There is great merit in the proposal that would require our Federal Reserve System to retire its debt to member banks. The present law forces the Federal Reserve System to borrow money from commercial banks and to pay to these banks interest in return. This is, clearly, wasteful since the FRS—as any other central bank—has the power to produce money at next to zero cost. Why, then, require it to borrow this money from commercial banks at the cost of 6 percent per annum? Also, why should the commercial banks be able to receive this income while the rest of the private sector is able to obtain from the Government interest rates, determined by market forces, which are frequently lower than is the rate paid by the Federal Reserve System?

(2)–(3) It appears desirable to give to the members of the Board long tenure. The problems that they are facing are complex ones and require, I believe, long apprenticeship. To remove members of the Board too frequently appears to be wasteful. Also, I believe that there is great merit in insulating the Federal Reserve System from short-term political influences. Short tenure would increase the danger that the members of the Board will tend to follow policy which is popular rather than "right."

[11] Pesek and Saving. *Foundations,* pp. 138–139.

(4) Unless positive evidence of wrongdoing is available (and I am not aware of any) there seems to be no justification for making our Federal Government even bigger than it is at the present time. Surely, to require the Comptroller General to audit the FRS would require that we devote additional resources to a superfluous task.

(5) The power of the purse string is the power of control. Since it appears highly desirable to insulate every central bank, including the Federal Reserve System, from shortrun political influences, I would consider it most undesirable to endow Congress with the power to appropriate funds needed for the operation of the Federal Reserve System.

STATEMENT OF HOWARD N. ROSS, CUNY, BERNARD M. BARUCH COLLEGE

I. MONETARY POLICY GUIDELINES AND OPEN MARKET OPERATIONS

1–2. Any proposal for the coordination of monetary and fiscal policies appeals initially to one's sense of virtue. Coordination like knowledge and love is something to be prized in itself. It will raise the efficiency of policies conceived, if not actually executed, as parts of a total design. It will reduce and more quickly resolve conflicts in judgment and objectives that arise between independent decisionmaking agencies. However, virtues can be acquired at a cost, and at times the cost will exceed the benefit. The provisions of H.R. 11 promise coordination through the elimination of the independence of one agency, The Federal Reserve System, and increasing the authority of the Executive and the Congress over monetary matters. The concentration of power in the two branches of Government could result in less coordination than more, and could alter the direction of stabilization policies in a manner inconsistent with the goals of the Full Employment Act. The reasoning is developed below.

Within the present structure of power dispersion over stabilization policies, there is obviously a degree of coordination between the President, the Congress, and the Fed. The visible and invisible political pressures between the President and the Congress, and between the Government and the Fed, simply do not allow for the treatment of monetary and fiscal policies as "independent mutually exclusive stabilization policies." The President does, as he should, make recommendations about monetary policy in his Economic Report. Sometimes the recommendations are very general, calling for the Fed to join the course of policy he has indicated (Economic Report, 1966, p. 11), but when legislative action is required, the recommendations are specific as in the case of altering the regulation of financial institutions (same report, pp. 18–19) and removing gold reserves from the dollar (Economic Report, 1968, pp. 16–17). The President could go further in specifying monetary action in light of the projections of aggregate demand by the Council of Economic Advisers as he could for debt management policy, although I am not persuaded about its real value. Monetary policy including the monetary effects of changing the composition of the Federal debt—the size of the debt belongs in the province of fiscal policy [1]—should be in their capacity as stabilizers as flexible as possible.

[1] For an illuminating analysis of debt management, see James Tobin "An Essay on Principles of Debt Management" in *Fiscal and Debt Management Policies,* Commission on Money and Credit, 1963.

Nobody could have predicted the events of 1966 when monetary restraint was the lonely moderator of excess demand or in 1966 when a recession failed to materialize, and when a tax increase was postponed long enough to force monetary policy into the position it was a year earlier. Concrete guidelines proposed at the begining of either of those years for a smooth growth in money supply would have been wrong as well as damaging. So long as fiscal rigidities remain and the challenge of stabilization falls on monetary response, a grand plan announced in January for debt management and monetary guidelines—provided they are not so elastic as to be meaningless—must contend with the possibility of formulating misleading policy and imposing by the very weight of its declaration an inflexibility on monetary policy. Once administrative guidelines are promulgated, the time it takes to stage a tactical retreat may be too long to correct efficiently a situation that requires sharp revision in monetary action. To the lag in perceiving a necessary policy change must be added a possible lag in making that change should it entail breaking with the guidelines. The logic of guidelines is essentially an approach to long run equilibrium, and deviations are not expected to be so important as to demand radical restructuring. Long run equilibrium is unknown to stabilization policy, and the critical time period for its adjustment has always been the short run or within a year.[2]

The issue it seems to me is not a choice between coordination of stabilization policies and no coordination but one of improved coordination. More formal arrangements should be made for allowing discussion between members of the Council, the Treasury, the Congress, and the Fed. I am sure that informal communication is now routine between the Council and the Fed. The suggestion of attendance by the Council at Open Market Committee meetings made in December, 1965, when the Fed raised the discount rate in what was regarded by the Council as a peremptory and premature move should be acted upon as well as a reciprocal invitation to the Fed to witness Council deliberations.

H.R. 11 provides for the strengthening of control of the executive and the Congress over the Fed by radically altering the size and tenure of the Board of Governors and by giving Congress possession of the purse strings. The danger of this new division of power seems twofold. The record of harmony between the President and the Congress on economic policy is scarcely impressive. To allow monetary policy to become frozen by the kind of bargaining and negotiating that has rigidified fiscal policy is a serious error. Instead of the desired coordination of stabilization policies, the very opposite could occur. This distinct possibility cannot be ignored, and as written, H.R. 11 provides no safeguard against it nor do I think any is intended. Second, is the specter of the pre-Treasury accord days when the Fed was bound

[2] The guidelines recommended by the Joint Economic Committee, *Standards for Guiding Monetary Action*, June 1968, call for a 2 to 6 percent annual growth rate in the money supply measured by quarters. On this criterion, the 1 percent increase in money between the first and fourth quarters of 1966 was too restrictive, at a time when the GNP implicit price deflator was rising by 3 percent. Comparing December figures (seasonally unadjusted) the money stock fell in 1948, and increased by 1 percent or less in 1956 and 1957; in all 3 years the implicit price deflator rose by more than 3 percent. The 2-percent lower limit of the prescribed range appears to bias monetary policy toward expansion and greatly limits its restrictiveness. Between 1948–67, the average annual increase in the money stock (December figures) was only 2.5 percent. In March 1968, the Joint Committee proposed narrower 3 to 5 percent boundaries for monetary growth. The basis for any range has not been sufficiently clarified.

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to the Treasury by low interests. A preference for low interest rates and intense economy mindedness over the cost of the public debt, this time either by the Treasury or the Congress or both, can work their pressures on the Fed to support Treasury issues more frequently than it does now. I am not suggesting this will happen; I am suggesting that the proximity of control does not rule out the possibility. The authors of H.R. 11 are obliged to deal with this contingency in a decisive way or else betray a bias that subverts the very concept of stabilization.

3. I have disqualified myself from choosing a target variable, a monetary target variable, for guidelines I believe are inappropriate for the conduct of monetary policy. Some reasons have already been advanced; I would like to mention a few others before passing on to other considerations. My preference for target variables for monetary policy are the real variables of employment and potential real GNP, targets which have been approached with varying degrees of success in the past 8 years. The general price increases of the past 2 years stemming from the Government war deficit and cost pressures in the factor and product markets and the continuing deficit in the balance of payments have been obstacles in the path of those targets. A growth in the money supply of between 2–6 percent would not have alleviated these matters any, and in fact an increase of 2 percent in 1966, just double the actual increase between the first and fourth quarters, would have added fuel to the fire. Steady growth in the money supply is desirable, but I am inclined to think that steady growth in employment and real income are more desirable, and that the former will not endow us with the latter. This defines my position as much as any brief statement could, and reveals the extent of my dissent with the aims and the economic doctrine that underlies H.R. 11. To buy steady monetary growth and nondiscretionary monetary policy,[3] one must also buy the doctrine that money is the prime mover of income, that cycles in money cause cycles in income, that growth in money causes growth in income.

What the empirical evidence indicates about this proposition is still *so* controversial that to construct public policy on it is to say the least premature. The high correlations between money and income, higher than between autonomous expenditure and income, found by Milton Friedman and David Meiselman, are derived from reduced form equations in which money and autonomous expenditure appear as the only exogenous variables. The problem of misspecification looms sufficiently large in these static unlagged models that the outcome cannot be accepted at face value.[4] Furthermore, it is difficult to reconcile these findings with the long lags that have been estimated in a number of studies between changes in monetary variables and the expenditure flows of fixed investment, residential construction, and even consump-

[3] These goals are doctrinally bound together. If a liberal dispersion of annual money growth rates such as the joint committee's 2–6 percent is adopted by law, this could result in more unsteady growth than we have had in the postwar years if the lower limit proves expansionary at the wrong times and consequently destablizing. And the allocation of power contemplated by H.R. 11 between the President and the Congress could also result in more discretionary monetary policy than with an independent Fed if monetary policy becomes the object of bargaining. It is also important to note that giving Congress additional monetary control will increase its leverage on all economic policy. As a result, Congress can more effectively bargain on budgetary and tax matters with a net loss to Presidential power and initiative.

[4] A convenient review of much of this literature is in Robert H. Strotz, "Empirical Evidence on the Impact of Monetary Variables on Aggregate Expenditure," and comments in George Horwich (ed.) *Monetary Process and Policy: A Symposium,* Richard D. Irwin, 1967.

tion.[5] Preliminary results of the Federal Reserve-MIT econometric model confirm this lagged behavior; aside from the strong and fast effects in the model of a change of unborrowed reserves on demand deposits, the bill rate and time deposits (although a peak in time deposits is reached more gradually), of particular interest to the guideline makers should be the substantial and quick impact of a change on GNP on these monetary variables if somewhat slower in the case of time deposits.[6]

The proper choice of a target variable for monetary policy depends closely on its relation to the goals of the Full Employment Act or in the semantics of optimal policy on the relation between the target variable and the goal function. In our present state of knowledge, it is still questionable whether any target variable will serve the purpose of an optimal monetary policy or, for that matter, H.R. 11. One of the requirements for the target variable is that it be "related to the goal variables in the sense that policies resulting in the target variable taking on certain values must in turn result in the goal variables taking on certain values." [7] If this is not true, and if the goal variables importantly affect the target variables, will the suboptimal policy that results be better or worse than the one we have now? Before replacing one regime with another, the advocates of change are obliged to make a more convincing case than they have so far.

4. The connection between debt mangament and overall stabilization policy is beautifully forged by James Tobin in "An Essay on Principles of Debt Management" that little can be added here. In effect he shows, "There is no neat way to distinguish monetary policy from debt management, the province of the Federal Reserve from that of the Treasury. Both agencies are engaged in debt management in the broadest sense, and both have powers to influence the whole spectrum of debt." In this view, the composition of the Federal debt includes short- and long-term marketable securities, nonmarketable securities, and what is entirely innovative, demand obligations or currency and Federal Reserve deposits. The magnitude and structure of the debt are further distinguished from the conventional concept by removing from consideration the obligations of the Treasury and the Fed held by each other. The debt is defined as claims of the public (banks and the nonbank public) on the Government without regard to the identity of the issuer of the claim. The stage is then set to show the monetary effects of debt management or in other words, how monetary policy manages the debt by altering its composition. The Treasury engages in monetary policy by the maturity and marketability of the debt it offers and the manner in which it refunds the debt. The Fed has even more maneuverability in changing the composition of the debt through open market operations, substituting demand obligations for securities or vice versa, and through the discount rate and reserve requirements. The link to stabilization is provided by the supply price of capital or the rate of return on real capital. Monetary policy and debt management will be effectively stabilizing to the degree that it can change the

[5] Reviewed by Michael J. Hamburger, *The Impact of Monetary Variables: A Selected Survey of the Recent Empirical Literature,* Staff Economic Studies, Board of Governors of the Federal Reserve System.

[6] Frank de Leeuw and Edward Gramlich, "The Federal Reserve—MIT Econometric Model," *Federal Reserve Bulletin,* January 1968.

[7] Thomas R. Saving "Monetary-Policy Targets and Indicators," *The Journal of Political Economy,* Supplement August 1967, p. 449.

supply price of capital by changing the yields on competing assets. Tobin's extension of the principles of portfolio selection eliminates the artificial distinction between monetary policy and debt management, hitherto thought of as largely the province of the Treasury, and by so doing adds, if not to the tools of stabilization, then certainly to their cutting edge.

5. A. Required reserves are subject to considerable seasonal variation due in large part to seasonal variations in Federal Reserve float and currency in circulation (outside the Treasury and Federal Reserve banks).[8] The cumulative seasonal changes in these factors causes required reserves to decline in the first half of the year and to rise in the last half of the year. To offset this pattern the Fed was required to supply and absorb between $1 to $ billion in reserves 10 years ago; I have not made nor been able to obtain more recent estimates, but surely the size of the offset has increased since then. Consider that the required reserves of all member banks are currently of the order of $25 billion, even the decade old adjustment appears as a significant percentage. The risk to the proposed guidelines would seem to lie in ignoring these transient but nevertheless substantial influences on the monetary base.

B–C. The implementation of monetary policy exclusively by open market operations is a familiar and persuasive argument. It is a simple and clean solution. The uncertainty produced by discount rate changes and the perverse effects of a discount rate floating below the bill rate in periods of monetary restraint are eliminated. Changes in reserve requirements behind demand and time deposits are lumpy, at least in the hands of the Fed, and its brute impact on reserve positions causes the Fed to shy away from its use as a tool of restraint. From 1951 until the present, the only changes in reserve requirements have been downward with the exception of a rise from 11 to 12 percent for country banks in 1960. Why do imperfectly with three tools a task that can be better accomplished by one, notwithstanding the alleged lag of open market operations conducted in New York on reserves of geographically distributed banks? Still, all banks cannot adjust deficient reserves as easily as Chase Manhattan, and the notion of imposing stiff fines on reserve deficiencies proposed by Friedman in order to abolish indirect borrowing from the Fed—direct borrowing is abolished by closing the discount window—will penalize mostly the smaller banks with probable ill effects on their growth. Leaving the discount window intact for the purposes of short-run reserve adjustments, and setting the discount rate at some fixed differential above the bill rate is another scheme that has been suggested. Here too the discount rate can become a discriminatory rate on borrowers for reasons that have nothing to do with equilibrium in the capital markets.

I am referring to any more attempts at Operation Twist to drive up the short-term rate in consideration of a balance-of-payments deficit. Also, this scheme may not curtail borrowing from the Fed for profit. As the yield curve shifts toward a positive slope, short rates fall below intermediate and long rates, banks will have the incentive to trade short for longer term securities and decrease their secondary reserves. With smaller secondary reserves, the ease with which banks can move

[8] Edwin J. Swindler, "Seasonal Factors Affecting Bank Reserves" *Federal Reserve Bulletin*, February 1968.

into a deficit reserve position increases. The net effect is banks can borrow at a lower discount rate to finance a previously arranged higher yield portfolio. I am impressed with Tobin's idea of having the Fed pay an interest rate equal to the discount rate on member bank excess reserves, allowing banks to pay interest on checking accounts, and removing ceilings on interest rates on time deposits; in effect, scuttling regulation Q.[9] The discount rate becomes a very discretionary instrument, a cost to the borrower of the central bank, an opportunity cost to banks with excess reserves. Changing the discount rate will have a much more direct effect on lending rates than it does now.

Interest payments on idle deposits will be tied to the discount rate which is the minimum rate that banks will choose to earn on their investments. Interest on all deposits will tend to reduce the ebb and flow of intermediation that we have experienced when regulation Q's ceilings are either above or below the rates paid by financial intermediaries. Of course, the regulated interest rates on deposits at mutual savings banks and shares of savings and loans associations must also be lifted if these institutions are to survive.

A final consideration is that if changes in the discount rate creates adverse psychological effects on the banks and the investing public, abandoning the discount mechanism altogether may create adverse psychological effects on the managers of the open-market account who may hesitate to move as decisively as they would with a "safety valve."

D. The Federal Reserve Board could make annual or at most semiannual reports to Congress reviewing past policies and forecasting future policies in a general way. This testimony should in no way be binding on the actual execution of policy. It should be informative of economic prospects, and would be more valuable if presented in conjunction with the report of the Council of Economic Advisers. Quarterly reports strike me as excessive, costly in time and energy for all concerned. The standards of disclosure for the Fed's operations should be no more stringent than Congress demands and gets from any executive agency.

E. I have already indicated that attendance at FOMC by members of the Council, the Treasury, and the Congress is likely to be beneficial.

II. APPRAISAL OF THE STRUCTURE OF THE FEDERAL RESERVE

There is no justification especially from the point of view of member banks to hold over a half billion dollars in paid-in capital stock of the Federal Reserve System on which they have received a fixed statutory dividend rate of 6 percent a year. The elimination of this requirement for membership is certainly reasonable. The proposed restriction of the Federal Reserve Board to five members with tenure of 5 years and a Chairman whose term of office is coterminous with the President's, converts the Board into a near perfect reflection of Presidential views, more perfect if it is a two-term President. I would prefer that coordination of policy should come about from a healthy exchange of opinion between the Government and the Fed rather than through a close, binding structure that homogenizes views and imposes a monolithic philosophy. I agree that the Chairman as major figure and

[9] James Tobin, "Toward Improving the Efficiency of the Monetary Mechanism," *Review of Economics and Statistics*, XLII, August 1960.

spokesman of the Board and the President ought to share a basic outlook. I could support the coterminous provision as a means of coordination but there must be checks to a coordination that could bring monetary policy into subservience to the debt management preferences of the Treasury. Therefore, the Board members ought to have longer terms, say 7 years, and should be expanded in number to seven or nine members. As I have commented before, I think congressional influence over the Fed should be restricted to the hearing room and decidedly not expanded to appropriations and supervision.

STATEMENT OF ROBERT HANEY SCOTT, UNIVERSITY OF WASHINGTON

Because the many questions warrant complete analysis, and because time is so short, I will offer a brief opinion on most questions and reserve more lengthy discussion for two of them only: question I–4 on debt management, and question IV on an appraisal of recent monetary policy.

I

1. Without coordination of fiscal, debt management, and monetary policies, policymakers will often be at odds. Pushing on the accelerator and brake at the same time makes friction and wastes fuel. Coordination of policies is highly desirable.

2. There is, unfortunately for an already overburdened office, only one logical place for direction of national economic policy, and that, of course, is in the Office of the President.

3. In spite of the impressive evidence and persuasive argument offered by Professor Friedman in support of a "monetary rule," I cannot agree that money is more important than interest rates. Interest rates are prices, and if you believe in the pricing system you believe that interest rates ration scarce purchasing power. This is the generally accepted opinion among economists; the only controversies that remain concern the observation, definition, and measurement of interest rates, and the short-run flexibility of wage rates and other prices. Given a lack of sufficient flexibility in wage rates, active interest rate policy is highly useful in helping to contribute to general economic stability. But interest rates must be flexible and *all* artificial legal ceilings should be removed in order to avoid their discriminatory effects.

4. I believe that debt management can be an important tool of stabilization policy, or if used improperly, it can thwart the attainment of accepted policy goals. The subject, however, is controversial, and many of my colleagues in economics would not agree with my position. I would like, therefore, to take advantage of this opportunity to devote the next several paragraphs to argue the case for a positive debt management policy. The bibliography below indicates the extent of concern on the part of professional economists.

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The controversy over debt management policy may have had its seed planted in the experience of financing the national debt during World War I. As the Treasury met its war financing requirements through periodic issues of bonds, interest rates began to rise. Successive issues were sold at lower prices so that investors were led to anticipate further price reductions. The market for the bonds "dried up." No one wishes to buy something now that can be bought next month at a lower price. At the outbreak of World War II Treasury and Federal Reserve officials decided to maintain roughly the existing term to maturity structure of interest rates in order to avoid a repetition of the experience of World War I. Short-term interest rates on Government bills were under 1 percent and long-term rates were 2½ percent for the duration of hostilities. There is some question about how long the Federal Reserve would have been able to maintain this *pattern* of yields because of the propensity of investors to "play the yield pattern." But no one ever questioned the ability of the Federal Reserve to maintain a given level of long-term yields by simply offering to purchase any unsold portion of a subscription at that yield.

The pegging of long-term interest rates was removed in March 1951 when the Treasury and Federal Reserve came to an "Accord" on the question of flexible interest rates.

In 1953 the Federal Open Market Committee adopted a policy under which open market operations were carried out exclusively in Treasury bills so that long-term interest rates would be free to fluctuate in response to market forces of supply and demand. This policy was obviously an over-reaction to the long period of pegged rates. When this policy became public information the academic community began a debate known as the "bills only" controversy. Some economists felt that long-term rates, if lowered, could stimulate domestic investment at the same time that short-term interest rates, if raised, could contribute to balance-of-payments stability. In order to raise short-term rates and lower long-term rates the Treasury (or Federal Reserve) should sell more short-term securities at a lower price (higher yield) and sell fewer long-term securities to permit the price to rise (lower yield). The debate over the feasibility of such maneuvers on the part of Treasury and Federal Reserve officials evolved around the *theory* of the term structure of interest rates.

Thus, from 1918 to 1968 the debt management issue developed into a major topic of interest, and at the present time the issue seems to be, on the surface, empirical rather more than theoretical. I believe that the issue is fundamentally theoretical.

On one side there is the "expectation" theory of the term structure. According to this view there are a sufficiently large number of investors (large in terms of market influence) who are interested in maximizing their income from investments over time. They push yields into a pattern such that the total income expected to be received by a series of several successive short-term investments equals the yield on a long-

term security with the same "final" maturity date as that of the series of short-term investments. If this theory is realistic, attempts by Treasury and Federal Reserve authorities to influence the term structure of interest rates will be thwarted, because expectations of these maximizing investors will determine the current pattern of yields to maturity.

The "expectations" approach, as articulated by Sir John Hicks, was amended to allow for a liquidity premium that permits short-term securities to sell for a slightly higher price on the average than long-term securities because short terms are more "liquid" than long terms.

On the other side there is the "segmented market" theory according to which the structure of yields to maturity depends upon the supply and demand conditions in each maturity range. Thus, long terms are held principally by insurance companies, trust funds, and so forth, because these institutions prefer them over short-terms which are held by banks and corporations with temporary excesses of cash. Of course, short-term securities are, to some extent, substitutes for long-term securities, and vice versa. Thus, to speak of a "segmented" market may be misleading. The market is "segmented" only in the sense that the two or three different types of securities, short, medium, long, are not *perfect* substitutes for each other.

The relative merit of two ways of explaining the maturity structure of yields depends, of course, on which mode of explanation does the best job. A good theory must be useful in prediction and to be useful it must retain simplicity. The research staff of the Federal Reserve Bank of St. Louis attempted to use both theories to explain the pattern of yields during the first half of 1967. The following quotations are from: "The Changing Structure of Interest Rates," in the *Review* for June, 1967, pp. 4 and 5. The first part of the lengthy quotation contains an analysis in terms of the segmented market approach, and the expectations approach is applied in the later part. The first shows very simple and straightforward use of demand and supply. The second is complicated, often confusing, and does not give a clear-cut answer. But the reader should judge for himself the effectiveness of the approach used:

I. THE SEGMENTED MARKET APPROACH

Corporate demands for credit have been large. Estimated long-term corporate security offerings and placements were at a $22.5 billion annual rate during the first 4 months of 1967, and the calendar of new offerings was heavy for May and June. By comparison, such offerings and placements were at a $19.6 billion rate in the first 4 months last year and at an $11.7 billion rate in the corresponding period of 1965. * * *

Municipal financing has also been large. From December to April estimated long-term security offerings and placements by State and local governments were at a $15 billion annual rate. Rates for comparable periods of 1966 and 1965 were $12 billion, and $10 billion, respectively.

The Federal Government has also provided a strong upward influence on interest rates. The high-employment budget deficit was estimated at an $8 billion annual rate in the first quarter of 1967, and there are indications that the deficit is remaining near this level in the second quarter. By contrast, this budget showed a surplus at a $2 billion rate in the first half of 1965, and at a $12 billion rate in the 3 years of 1961–63.

Interest rates have changed quite diversely since January. Long-term rates had declined late last year and early this year. In the past few months these rates have risen, reflecting current needs for new long-term funds and anticipations of higher rates to come. Short-term rates, on the other hand, have continued to decline. Bank credit expansion—by the Federal Reserve System purchasing securities thereby enabling commercial bank lending and investing—

has made more short-term funds available. In addition, some of the funds raised in the capital markets have been temporarily invested in short-term market instruments, tending to lower their yields.

The recent developments are consistent with the proposition that financial markets in the short run are largely segmented; that is, that short-term rates are the result of demand and supply conditions in the short-term markets, while long-term rates reflect conditions in capital markets, and the various lenders and borrowers have a limited degree of flexibility in moving from one maturity sector to another.

II. THE EXPECTATION APPROACH

The recent developments are also consistent with another view of yield structures which holds that lenders and borrowers have a relatively high degree of mobility, at least at the margin, in selecting maturities. This view explains the various yield structures in terms of expectations of lenders and investors, particularly those engaged in arbitrage operations.

The yield curve in mid-January was downward sloping; short-term rates on Government securities were over half of one percentage point higher than the longest term rates. Such a relationship is consistent with market expectations of an approaching decline in interest rates, *possibly* accompanying a slowdown in economic activity with lower demands for credit and expansionary monetary actions.

By late May, the slope of the yield curve had been reversed. Short-term interest rates on Government securities were 1¼ percentage points lower than long-term rates. Investors and borrowers *may be anticipating* a general rise of interest rates. * * *

Yield curves have taken various shapes in the past. For example, a year ago the curve had a marked hump in the intermediate-term range. Short-term yields were slightly above long-term rates but about one-half of a percentage point below the yield on 2-year issues * * * *Under* these conditions lenders and borrowers *might have expected* short-term rates to rise further in the near future. At the same time, they *might have believed* that short-term rates over a somewhat longer period would *most probably* average below their current level. Such expectations are consistent with the humped yield curve. [Italics mine.]

The rather confused interpretation of yield curves that flows from the attempt to use the expectations approach is no weakness of the analyst who wrote the material. He has done a fine job with the tool with which we works; it is the tool that is unsatisfactory.

Today's expectations supposedly lead investors to push the yield curve to today's pattern. Thus, for any pattern we observe today we can *infer* what investor's expectations might have been. There exists a set of expectations consistent with nearly *any* yield curve. If we ask investors to articulate their expectations, and if the yield curve does not conform to the dictates of the theory for their set of expectations, then we would be forced to assume that the expectations we were told about were not the "true" expectations. The theory would not be disproven by the observation of expectations, and therefore, should be called "operationally meaningless." This is even more particularly true when we realize if we want to *predict* with this theory we must not simply observe current expectations, which give us the current yield curve and which we can simply observe directly, but also we must be able to observe or predict *changes* in expectations in order to predict changes in the yield curve.

The introduction and concluding comments in S. A. Ozga, *Expectations in Economic Theory*, Weidenfeld & Nicolson, London, 1965, indicate that he grappled with this question. After his encounter he concluded that expectations were indeed nonoperational, but that they provide a medium for fruitful discussion.

In sharp contrast, supply and demand theory simply tells us that if the supply of long-term securities offered onto the market should

increase we can expect prices to fall and yields to rise. As prices fall there will be some substitution along the maturity range because intermediate-term securities are substitutes to some extent for long-term issues and short-term securities are to some extent substitutes for intermediates. "Segmented" markets does not mean "separated" markets.

The issue, then, is more theoretical than empirical at base. In its present form the expectations approach is inadequate as a proper scientific theory.

If we accept the more straightforward supply and demand approach then it is clear that debt management does have an important role to play in stabilization policy. Too much long-term debt offered by the Treasury will absorb funds that otherwise would have flowed into capital markets to finance long-term investment projects. Lack of funds in capital markets helps hold the reins on an overheated economy. Unfortunately, in too many instances in the past, Treasury officials have sold short-term securities in a booming economy because they wished to avoid paying high interest charges. They acted as if the Treasury were a business firm operating for the purpose of making profit. The supply of securities should be determined by its overall economic impact and not by fallacious arguments over tax burdens of the interest on the national debt.

There are, of course, limits to the extent to which the maturity structure of interest rates can be manipulated. Just as in the case of substitute commodities when oranges (say) get too expensive relative to lemons everyone shifts to lemons. Securities of different maturities are substitutes, and if prices diverge sufficiently there will be changes in amounts held. Aggressive action by either Federal Reserve or Treasury authorities can tilt the yield curve one way or the other, or put humps in it, and maintain desired shapes for a considerable period of time. Contracyclical debt management policy can be used effectively as a stabilization tool if the authorities wish to use it and are willing to use it aggressively. As in the case of all other policy tools, there is no such thing as "neutral" debt management.

5. A. Many factors affecting the reserve base of the Nation's banking system flip up and down from time to time. The "float," e.g., may increase greatly because a snowstorm in Cleveland upsets mail delivery schedules. If "defensive" open market operations can eliminate the influence of these vagaries on bank reserves with little cost then they should be used. However, it would be desirable to undertake substantial study and research to find ways to change the manner in which the reserve base is computed so as to mitigate the influence of eratic forces so that overt defensive operations would no longer be required. The historical type of reserve ratio may not be an optimal type of ratio. It would be better to attack the problem of "defensive" open market operations at its base, instead of merely doing our best to alleviate the symptoms as they arise.

B. No. It is useful to have other instruments of policy.

C. (*a*) Recently suggested changes in emphasis on rediscounting are welcome. The discount window should continue to be used as an "escape valve" for individual banks, especially because of our reliance on the unit banking system.

(*b*) Reserve requirements should be the *same* for *all* banks and for *all* amounts of deposits. Any other pattern is discriminatory. The

grounds for such discriminatory measures, as for example, that correspondent banks need larger reserves to protect other banks' deposits, are fallacious because reserves are the *least* liquid assets a bank has.

(*c*) Regulation Q should be abolished.

D. There is no great need for significantly more extensive reporting.

E. A committee must be allowed to operate. At some point we must place our trust in duly constituted authority. Perpetual watchdogging can destroy the system it is meant to improve.

II

Among the changes listed I favor 1 and 3, that Federal Reserve bank stock be retired and the term of the Chairman of the Board be coterminous with that of the President.

III

Federal Reserve bank stock should be retired. It does not represent "ownership" as other stock does, and Federal Reserve is obviously not in the business of making profits. Having such stock in no way contributes to the purpose for which a central bank is maintained.

The provision that the number of members of the Federal Reserve Board be reduced to five, and that 5 years be the term of office, is of little real importance.

However, that the Office of Chairman of the Board be made coterminous with that of the President is quite significant and this provision is a good one—a proper one for our democracy.

There is no good reason to have the Comptroller General audit the books of the Federal Reserve, nor to have Congress appropriate the funds to operate the Federal Reserve. It is said that power over the purse strings is the greatest power of all—but this is not so, for the power of trust is even greater.

COMMENTS ON RECENT MONETARY POLICY

Pictures of President Johnson and his economic advisers were printed on the front page of many of the country's national newspapers in December 1965. The occasion was a meeting to consider whether or not the rediscount rate, raised by the Federal Reserve, would be rolled back at the President's insistence. When the President simply announced his regrets about the move, it meant to everyone that Chairman Martin had convinced him that the threat of inflation was real, and therefore, the move was necessary. What kind of economic effect is this sort of announcement likely to have?

In the summer of 1967, the President announced that he would appeal to Congress to increase taxes. The extent of opposition to the move was not, at the time, foreseen at all clearly. Does an announcement of this sort affect, in any significant way, spending decisions in the community?

Very little has been said about these particular questions in professional economic journals. Of course, men on "the Street" have always heeded the effects on market psychology of "announcements" of all types. Announcements can cause "pips" in financial data, and speculators who play the margins very closely must call a portion of these

moves the right way if they are to remain in business. But, other than these more or less instantaneous effects, are there significant aggregative effects on the general spending level that might either offset or reinforce the initiated policies themselves? Casually collected evidence indicates that significant announcement effects may very well exist, and upon reflection a good theoretical case can be made to explain why they exist and why it will become increasingly important for policymakers to heed them in future years.

Consider first the case of a loudly announced shift to tighter money, as in December 1965. What kind of spending decisions might change when the public is led to expect inflation? First, borrowers will hurry to borrow, and lenders will hesitate; perhaps some will shift out of bonds into stocks. This will reinforce the interest rate increases in the bond market at least. But, at the same time there will be a concerted effort by managers of all businesses holding inventories to expand these before the prices in catalogs change. This leads manufacturers, already operating close to capacity, to expand output and employment, and perhaps even to raise prices that might not have been raised had no loud announcement of policy been made in the first place. Thus, the announcement effect of monetary policy may be to hasten the coming of precisely those events that the policy was designed to inhibit.

Long-term investment spending may also expand under the force of the newly generated expectations of inflation, first because signing contracts now for plant and equipment fixes the price before it can rise further, and second because belief in inflation in the future will reduce uncertainty about the profitability of the contemplated expansion in output by individual firms.

It is even possible that some consumers may hasten their purchases of durable goods, especially when they were actively contemplating the purchase anyway. They may, for example, have been postponing a purchase in hopes of finding a sale or special discount on an item. But, with the prospects of inflation heralded in the newspapers they might decide to wait no longer.

If these kinds of forces do arise in significant degree, then monetary managers may help create the very inflation they honestly sought to prevent, and if criticized for their policy of higher interest rates at the outset, when inflation comes about they can say "We told you so." Ironic!

A loud announcement of easier, as opposed to tighter, monetary policy may create expectations of recession and deflation as spenders decide to "wait and see." Again, policymakers might unintentionally create a partial offset to their policy maneuver. It is doubtful that monetary policy would be overwhelmed completely by the announcement effect, but the possibility is not ruled out, especially if the announcement is sufficiently "loud." In any case it is likely that monetary policy itself would have to be easier (or tighter) than would be necessary in the absence of a perverse announcement effect.

Lags in effect of monetary policy have been discussed at some length in professional literature. It could be that the perverse announcement effect of monetary policy is a principal culprit in helping to delay the impact of policy moves.

Announcement effects of fiscal policies, unlike those of monetary policies, tend to reinforce rather than offset achievement of the policy objectives. Consider President Johnson's appeal for a tax increase

in the summer of 1967. Some observers now believe that the boom of the fall was much more mild than it would have been simply because of the appeal, or, that the announcement effect of the appeal for taxes itself may have dampened the expansion by nearly as much as the actual tax increase would have, had it been enacted. As long as the threat of a tax increase is there, many investors may hesitate to spend because of uncertainty as to the likely effect the higher tax will have on their resources. Then, when the tax is imposed, the uncertainty created by the threat is removed, and spending may resume somewhat, partially denying effectiveness to the tax measure itself.

Announced cutbacks in Government spending would also be likely to dampen business enthusiasm for many investment programs even before the actual cuts are made. Again the announcement reinforces the impact of fiscal policy.

When it comes to expansionary fiscal policy consisting of tax cuts and spending increases, these should reinforce decisions to go ahead and spend. Thus, fiscal policies in both directions may have much less lag-in-effect than usually supposed.

If announcement effects are important today, what will happen as more and more citizens are made aware of national economic affairs through schools, newspapers, and TV, and more and more thousands of businessmen come from the country's business schools, sophisticated in the analysis of business conditions and the understanding of policy implications? Then, "loud" announcements by policymakers may create uniformity in business and consumer expectations, thus leading to greater economic instability. One could hardly expect that the Federal Reserve would at some time deliberately announce an easy money policy in order to fight an inflationary situation, but nevertheless, announcement effects are likely to become more and more important in the future. And, monetary policy, in particular, will have to become more "quiet" to mitigate undesirable aspects of "loud" announcements.

STATEMENT OF BERYL SPRENKEL, HARRIS TRUST & SAVINGS BANK

1. I believe monetary and fiscal policies should be coordinated at the beginning of the year through the procedure of presenting a consistent monetary-fiscal plan to a suitable congressional committee. Since the President's Economic Report is now presented to the Joint Economic Committee, followed by review and analysis, the presentation of an annual monetary plan at the same hearings would appear appropriate. Attached is a slightly revised version of an article I prepared last April which was subsequently privately circulated but not published. The paper presents my ideas concerning this important question and represents an elaboration of views I presented in a paper on April 2, 1968, at the American Bankers Association's symposium on "The Federal Budget in a Dynamic Economy."

2. Presently, the President is charged with presenting the fiscal plan for the Nation. Assuming appropriate informal consulting arrangements between the Council of Economic Advisers and the Federal Reserve Board, I would prefer the Federal Reserve Board present the annual monetary plan. The plan would of course be based on the

Economic Report of the President plus the views of the Federal Reserve Board as to prospects for the economy and the monetary action needed to achieve the objectives of the Employment Act of 1946.

3A. The selection of the proper variable to be influenced by the Federal Reserve Board in implementing the objectives of the Employment Act should turn on two empirical questions:

1. What variable can the Federal Reserve Board Control?
2. What monetary variable is most closely associated with trends in income, employment, and prices?

For good or bad the Federal Reserve cannot control such variables as interest rates, free reserves and excess reserves since the private sector of the economy can and frequently does take compensating actions. It is now generally agreed, based on extensive empirical analysis, that the Federal Reserve Board can, within very narrow limits, determine the money supply, the monetary base and total reserves of the banking system. All three of the latter series are highly correlated. It is indeed fortunate that changes in these three series are highly correlated with subsequent changes in aggregate spending which is a crucial variable influencing the maintenance of economic stability. Therefore I am largely indifferent as to whether the Federal Reserve attempts to influence the money supply, total reserves, or the reserve base since similar actions and results will be achieved. As explained in the attached reprint from the September–October 1967 *Financial Analysts Journal*, I have a slight preference for the money supply combined with a marked antipathy to attempts to control free reserves of interest rates. (See p. 542.)

3B. If we know enough about (1) the relation between policy variables and economic trends and (2) the future performance of economic variables, then present monetary policy should be variable depending on expected economic changes. Unfortunately our knowledge, though considerable, is far from complete on both scores. Although forecasting techniques have been much improved in the post-World War II period, unanticipated events frequently foil the expectation of even the most sophisticated observer. However, perhaps the greatest difficulty of adopting the above approach is the lack of knowledge about the lengths of the impact lag of monetary policy as well as the intensity of the impact. Therefore attempts to adjust current policy to anticipated economic events frequently results in destabilizing policy actions. Examples of volatile monetary growth which eventually contributed to destabilizing policy impacts abound in recent years. The most recent example occurred in 1967 and 1968 when monetary growth accelerated sharply in the midst of worsening inflation and a weak balance of payments.

Therefore it is my view that until our knowledge is much improved over the current state, economic performance would be much improved by great stabilizing monetary growth within a relatively narrow range much smaller than the −2 percent to +11 percent characterizing the recent past. Modest *fluctuation* of monetary growth within a narrow range might improve economic performance over results achieved with perfectly stable monetary growth but that remains to be proven. Unfortunately the gross variability in monetary growth in recent years has more often destabilized the economy. Certainly it is my view that performance of the economy would be much improved over the recent

past if fluctuations in the rate of growth in the money supply were greatly reduced in coming years and the average rate of growth was near a 3-percent annual rate rather than a level 2, 3, or 4 times that amount.

3C. If projections are to be used, primary reliance should be placed on leading variables. However, it is my view that only nominal attempts should be made to anticipate future events when formulating policy and that major attention should be placed on maintaining moderate and relatively stable monetary growth.

3D. In my opinion the guidelines established for monetary growth should be used in the "foreseeable future" but if they later become clearly inappropriate they should be adjusted. They could become inappropriate if velocity becomes much more volatile in the future, which is unlikely; if capacity for economic growth changes sharply; or if policymakers change their ideas as to the appropriate future changes in prices. Since any one of these three variables change but slowly, if at all, it is very likely that a monetary growth rate target range of about +2 to +5 percent would encompass the desired flexibility.

3E. I prefer a target band of growth in the money supply of approximately +2 to +5 percent with an attempt to achieve 3 percent monetary growth most of the time.

3F. I am doubtful that significant variation from the above stated band will be necessary so long as the objective is to promote economic stability. However, if variation outside the band occurs, as has been the case during most of 1968, I believe it would be desirable for the Federal Reserve Board to publicly explain and justify their action to some appropriate governmental body such as the Joint Economic Committee of Congress.

4. Theoretically, a case can be made for lengthening the maturity of the Federal debt in periods of excessive economic exhuberance and shortening during periods of recession in order to change liquidity in the appropriate direction. However, so far as I am aware, there has been no empirical work which validates the above theoretical proposition. Furthermore, there are overriding practical impediments which make the above approach impossible. The congressionally imposed ceiling interest rate of 4¼ percent on long-term bonds makes it impossible to sell long-term bonds during periods when restraint would be appropriate. This restriction should be eliminated, in my opinion.

Perhaps the greatest contribution that debt management can make to the achievement of economic stability is a negative one. Avoid encouraging the Federal Reserve to make the shortrun problem of Government financing easier by infusing large amounts of money into the economy. As has been amply demonstrated in recent years, such a practice shortly fosters not only serious inflation but also very high interest rates which makes subsequent financing even more difficult and costly.

5A. In my opinion, U.S. money markets are sufficiently flexible to adjust to seasonal and transient factors affecting money market and credit conditions without aid from the FOMC. The danger of giving undue attention to shortrun transient influences is that attention will be deflected from the basic objective of pursuing a monetary policy designed to promote economic stability. Recently efforts to aid Gov-

ernment financing of a large and growing deficit have, in my opinion, greatly reinforced existing inflationary pressures while also fostering higher interest rates.

5B. Open market operations can effectively and efficiently implement monetary policy if certain institutional changes were made.

5C. Rediscounting provides access to credit by individual banks which might, under certain circumstances, have difficulty in securing it otherwise. However, the discount window should not be administered as a direct control over the allocation of assets by individual banks. Nor should the incentive to borrow be varied over the business cycle. It certainly should not be used as a subsidy for individual banks by providing a cheap source of credit relative to the benefits derived from enhanced ability to expand bank loans and investment. The recent Federal Reserve proposal to establish lines of credit to individual banks without strings attached would greatly improve the present system. If this approach is adopted it would appear appropriate to tie the discount rate to an open market rate such as the Treasury bill rate so that changing incentives to borrow would be moderated.

I much prefer fixed reserve requirements with all classes of banks having the same requirements. Variation of reserve requirements changes the profitability of banking and results in varying incentives for resource allocation unrelated to the efficiency of the institution in meeting the changing needs and demands of its customers. Frequent reserve requirement changes furthermore inject an unproductive and unnecessary deterrent to efficient management of banking resources.

Application of regulation Q has particularly pernicious effects upon the economy and the management of banking assets and, in my opinion, should be rescinded. Regulation Q has been enforced in recent times in order to ostensibly protect the savings and loan industry and housing. It has unfortunately had the opposite effect. Preventing banks and savings and loans from offering competitive savings rates has induced serious disintermediation thereby reducing assets and liabilities of these institutions and hence reducing the availability of loan funds to housing and other borrowers. The clearest case occurred in 1966 when disintermediation was accompanied by a near domestic monetary panic and a sharp contraction in housing starts.

From the standpoint of bank management, the existence of regulation Q results in a necessarily overly conservative management of banking assets. This regulation increases the probability that banks will lose deposits at the very time loan demands are rising. The threat of a regulation-induced liquidity squeeze means that bank managements will be less responsive to the changing demands of their customers.

5D. There are distinct merits in requiring the Federal Reserve Board to outline its plans to the Congress on a quarterly basis. Such a procedure would enable Congress to better discharge its constitutional mandate to regulate the Nation's currency. This procedure would provide new information to the market economy and thereby make analysis and adjustment to Government monetary-fiscal policies more efficient. Finally, this practice might encourage the Federal Reserve

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Board to base its plans more consistently on the basic objectives of the Employment Act rather than shortrun transitional disturbances in the money market.

Any improvement in procedure is likely to be achieved at a cost. First, more Federal Reserve resources must be devoted to planning and reporting. But this may improve stabilization results as previously argued. Secondly, Members of Congress might well exert an additional destabilizing influence. The ability of the press to focus the power of publicity on such attempts limits this danger, however, since the public can eventually register its displeasure at the ballot box.

The reporting provision as proposed appears adequate for a beginning. Experience may dictate subsequent changes.

In my opinion the Federal Reserve should present its analysis of the major financial problems facing the Nation with particular emphasis on how their analysis agrees or disagrees with the Economic Report of the President. Plans for coping with the attainment and maintenance of economic stability should be specified in terms of how they plan to influence such monetary variables as bank reserves, monetary base and the money supply. If they choose to specify either the above variables, or alternatively, free reserves, interest rates, bank credit, the balance of payments, etc., the Board should explain how these contemplated actions will aid in achieving the objectives of the Employment Act.

5E. Since monetary data are available weekly and it is proposed that the Federal Reserve Board report to Congress quarterly, I see little advantage in Members of Congress, Treasury, and the CEA observing Open Market Committee hearings. There might be some danger of premature leaks to the money market of impending actions but I would not expect this to be of serious consequence since broad plans would already be known.

II. Most of the provisions for structural change of the Federal Reserve System are designed to reduce or even completely eliminate the "independence" of the central bank. Although, as previously indicated, I am completely sympathetic with the need for better coordination of monetary-fiscal policies, I am not sympathetic with the implicit objective of making the Federal Reserve Board completely subservient to the control of the existing administration. Although our form of government, with its built-in system of checks and balances, may appear unwieldly, it works reasonably well. During the period when the Federal Reserve System was completely subservient to the dictates of the U.S. Treasury, the resulting "interest rate peg" policy caused extensive inflationary damage. Close coordination of policy with some independence represents the political mix that I prefer.

I would strongly suggest that proposals for structural changes of the Federal Reserve System either be abandoned or removed from H.R. 11 Many responsible legislators have previously been strongly opposed to extensive changes in the structure of the Federal Reserve System who might well support a legislative effort to better coordinate monetary-fiscal policies. Hence, the attempt to accomplish both objectives in the same bill runs a serious danger of accomplishing neither. Since I believe the objectives of the Full Employment Act

can be more readily achieved by a closer coordination of monetary-fiscal policies as proposed in H.R. 11, I would prefer to concentrate congressional attention on this issue.

III. Preceding comments plus the two attached papers have adequately covered my views of monetary policy since 1964. In summary, it is my view that monetary policy has been too volatile and that on an average the money supply has risen too rapidly to foster price stability.

(The papers referred to follow:)

PROPOSAL FOR A FEDERAL RESERVE ANNUAL MONETARY PLAN

ECONOMIC POLICY AND GOVERNMENT RESPONSIBILITY

The Employment Act of 1946 charged the Federal Government with the responsibility for the promotion of maximum employment, production, and purchasing power. This act also created the Council of Economic Advisers and the Joint Economic Committee, new governmental units responsible for administration and review of economic policies. The Joint Economic Committee was to (1) make a continuing study of matters relating to the Economic Report of the President; (2) study means of coordinating programs in order to further the policy of the act; and (3) file an annual report with the Senate and the House.

The language of the act was sufficiently broad to permit each unit to develop over time in a way that would facilitate the attainment of the Employment Act objectives. The passage of the act implies that an early, and, incidentally, continuing, purpose was the development of a centralized focus of economic information and analysis. The passage and administration of the act implies the objective of developing and enunciating a coordinated program of policies to be taken by the many arms of Government in order to maintain economic stability.

There are many aspects of Government policies which directly or indirectly influence the attainment of the objectives of the Employment Act. However, most of them may be subsumed under the broad categories of monetary and fiscal policies. For purposes of this paper fiscal policies are concerned with the economic impact of Government spending, taxing, and debt management decisions. Monetary policies are concerned with the economic impact of Federal Reserve decisions influencing the quantity, cost, and availability of money. Current administration of the Employment Act results in an annual presentation of the economic policy plans of the President and their review by various congressional committees including the Joint Economic Committee, which conducts an annual critical review of the President's Economic Report. This report deals primarily with the fiscal plans of the administration. No similar monetary plan is presented by the Federal Reserve System and hence no congressional review is conducted of the plans and administration of monetary policy even though monetary change has a major impact on income, employment, and prices. It is the thesis of this paper that the objectives of the Employment Act of 1946 would be more readily achieved if machinery was devised under the broad authority of the Employment Act for the annual presentation by the Federal Reserve System of its monetary plan followed by a critical review by the Joint Economic Committee and other interested congressional committees.

FEDERAL RESERVE RESPONSIBILITY

The original purposes of the Federal Reserve System, as expressed by its founders, were to give the country an elastic currency, to provide facilities for discounting commercial paper, and to improve the supervision of banking. From the beginning, and especially since the Employment Act of 1946, it was recognized that the particular original purposes were in fact parts of a broader objective; namely, "to help counteract inflationary and deflationary movements, and to share in creating conditions favorable to sustained high employment, stable values, growth of the country, and a rising level of consumption."[1] In other words, it is now generally recognized and agreed that it is the major responsibility of the Federal Reserve System to contribute to the achievement of the Employment Act objectives.

[1] *The Federal Reserve System, Purposes and Functions*, 5th ed., ch. 1, p. 1.

Yet it is also argued that the Federal Reserve should remain independent of the existing administration. This concept represents a particular application of the practice of applying a system of checks and balances within the U.S. form of government. Independency means that the Federal Reserve System has some autonomy in formulating and executing monetary policy. It does not mean that the need for coordination of monetary policy with other economic policies is removed. And, in fact, an informal group of basic economic policymakers currently maintain close contact with each other and the President. This group includes the Chairman of the Federal Reserve Board, the Secretary of the Treasury, the Director of the Bureau of the Budget, and the Chairman of the Council of Economic Advisers. Although the latter three officials are forced by law to submit their plans for the ensuing year to public scrutiny and possible amendment, such public disclosure is not required of the Chairman of the Federal Reserve System.

Furthermore, there is little evidence that the advice of the Joint Economic Committee is even considered in the formulation of monetary policy. For each of the past 2 years both the majority and minority reports of the Joint Economic Committee asked for greater stability in monetary growth. This advice followed the development of a highly erratic and frequently destabilizing monetary policy and was, in turn, followed by the same policy. For example, following the excellent economic results dating from 1961 to mid-1965 when a fairly stable monetary growth of 3 percent was maintained, volatility has increasingly become the practice. By mid-1965 the economy had at long last achieved approximate full employment of labor and capital resources. If expansionary economic policies were appropriate for an underemployed economy, as is generally agreed, then less expansionary policies were appropriate for a period characterized by full employment of resources and developing inflationary pressures. Yet beginning mid-1965 the budget shifted to a larger deficit position as the Vietnam war accelerated and monetary growth also accelerated: During the ensuing 9 months the money supply grew at a 6-percent annual rate, double the prior rate of growth. However, from the spring of 1966 to the fall of that year, the money supply contracted at a 2-percent annual rate. Severe monetary restraint, accompanied by ceiling rates on savings institutions, resulted in serious "disintermediation," a collapsing housing market, and a near domestic monetary panic.

Beginning in the fall of 1966 and extending through 1967 the money supply grew at a 6.5-percent annual rate. In the first instance the move to an easier money policy was undoubtedly for the purpose of cushioning a weakening private economy brought on by the prior tight-money policy. But the policy of ease extended well past the point in time when a recession was a reasonable possibility. In fact the rate of monetary growth continues to rise even up to the present time, despite serious inflationary pressures. In the past year the money supply has increased 6.5 percent; the rate of growth rose to 7.6 percent in the past 6 months and accelerated to 10.8 percent in the last 3 months.

Although the Federal Reserve System is very reluctant to specify its guides to actions as well as its policy objectives, it appears fairly clear that the continued policy of excessive ease represented an attempt to prevent a sharp rise in interest rates. If so, the attempt was unsuccessful since interest rates were recently near the highest level since the Civil War. Many believe the present high level of interest rates is in fact due to the very easy money policy existing most of the time since mid-1965. These policies resulted in accelerating inflationary pressures and consequent discounting of inflationary fears in the level of interest rates.

MONETARY POLICY AND ECONOMIC PERFORMANCE

The evidence is becoming increasingly clear, as emphasized by the Joint Economic Committee, that volatile monetary growth inevitably results in volatile economic performance. Unfortunately, there are serious and largely unpredictable lags between monetary change and eventual economic change. Therefore, a growing number of observers argue that more stable monetary growth is desirable. Yet currently there is little evidence that the Federal Reserve System shares this objective.

Although in the early postwar period the economics profession generally argued that monetary change was a minor factor influencing economic activity, views have in recent years changed markedly. The prevailing view is now that monetary change is a dominant factor influencing subsequent economic per-

formance. This change in view is probably due to the voluminous research on money compiled by such careful students as Clark Warburton, Milton Friedman, Anna Schwartz. Karl Brunner, and Allan Meltzer, and most recently Frank de Leeuw and Edward Gramlich who prepared an econometric study under the sponsorship of the Federal Reserve System.

PROPOSAL FOR AN ANNUAL MONETARY PLAN

The submission of a carefully developed annual monetary plan by the Federal Reserve would offer many potential advantages to the various arms of Government as well as to interested private citizens. Perhaps the fundamental result would be the possibility of estimating the combined monetary-fiscal impact of planned economic policy. The new unified budget makes possible a a reasonable estimate of the effect of Government spending plans on the allocation of resources between the public and private sector of the economy. It is not possible to make a useful estimate of the fiscal impact of the budget unless you argue the method of financing is irrelevant, a position that appears indefensible. It is true that a method of financing section of the unified budget does make estimates of the portion of the projected deficit to be financed by changes in cash balances and the portion to be purchased by the public. commercial banks and Federal Reserve banks. It gives little insight into the critical question of whether the deficit will be financed by new money creation of savings. The method of financing will be greatly influenced by monetary policy. Knowing how much Government debt the Federal Reserve plans to purchase will not answer the question since other Federal Reserve actions could readily offset or augment the deficit financing impact. Although the maintenance of Federal Reserve "independence" may well be desirable, there can be no substitute for knowing Federal Reserve plans for money and credit expansion or contraction if a reasonable estimate of the monetary-fiscal impact of economic policy is to be achieved.

Furthermore, the submission of a monetary plan by the Federal Reserve open to public scrutiny and debate offers some hope of an improved monetary policy. Although much monetary expertise resides within the Federal Reserve System there is little evidence that other Government agencies and private analysts are devoid of appropriate knowledge. The reluctance of the Federal Reserve System to emphasize the importance of more stable monetary growth for the achievement of economic stability suggests, in the light of much evidence assimilated by private economists, that some improvement of Federal Reserve plans might well result from exposure and analysis.

Some private observers argue that the Federal Reserve System has demonstrated a pervasive tendency to react in an ad hoc manner to shortrun economic changes. Concentration upon somewhat longer range monetary objectives, at least once a year, might well reduce the erratic and volatile performance of monetary policy. If the above objectives could only partially be achieved it follows that such a monetary plan might well contribute significantly to the attainment of the objectives of the Employment Act.

Undoubtedly, there will be several objections raised to the above proposal. For example, Federal Reserve officials might complain that their independence of action would be severely restricted. Such a result appears unlikely since the Federal Reserve would be solely responsible for presenting their proposed plans. There would, of course, be the necessity of coordinating Federal Reserve plans with other economic policies, but such is desirable under present circumstances. Only through careful coordination can desirable overall results be achieved. Although the Federal Reserve System might be induced to modify plans as a result of public exposure and critical analysis, this would be done only if improvement was to be expected.

Some might argue that it would be difficult to specify with precision the variables to be manipulated and controlled. It is certainly true that monetary authorities now disagree as to the best measure of monetary policy change. Preferred measures now include such diverse variables as free reserves, interest rates, bank reserves, the money supply, the money supply plus time deposits, et cetera. Debate will undoubtedly continue until empirical evidence definitely establishes the best measure or measures. However, the plan submitted by the Federal Reserve System could emphasize whatever variable or variables they consider most appropriate. At a minimum, the public would be better informed as to what variables the Federal Reserve believes is most relevant. Outside research

might be of aid in perfecting the objectives of policy, if disagreement with stated objectives developed.

It might be argued that since the future cannot be known with certainty it would be impossible to make projections of relevant monetary variables. But the same objections apply to budget projections which must be based on what appears to be the most likely set of future events. Since the future will not be exactly as projected this means that a stabilizing monetary and fiscal policy must be appropriately adjusted. Contingent monetary plans could readily be prepared as must now be done with the Federal budget. There is no reason for believing that planning for future monetary contingencies would limit flexibility to change as the future unfolds.

MEANS OF IMPLEMENTATION

It would appear appropriate for the Federal Reserve to present its monetary plan subsequent to the presentation of the Federal budget and the President's Economic Report. Consequently, monetary policy could be formulated to provide the appropriate counter or reinforcing pressures needed to achieve economic stability. If there appeared to be inconsistency in the dual monetary-fiscal plan, congressional committees, especially the Joint Economic Committee, would have an opportunity to critically evaluate and offer suggested changes. Since it is contemplated that more frequent amendments of the Federal budget will be presented to congressional committees it might well prove desirable to also request more frequent adjustments of the monetary plan than once a year.

SUMMARY AND CONCLUSION

It has been argued that an annual monetary plan presented by the Federal Reserve System would enhance the performance of the U.S. economy and aid in achieving the objectives of the Employment Act. Presently, fiscal plans are submitted to public scrutiny and critical debate. But monetary policy is enshrouded in secrecy and plans are not available for critical debate until well after the event. It is to be hoped that open debate of the above proposal will result in its improvement and subsequent adoption.

TECHNIQUES FOR MEASURING THE IMPACT OF MONETARY POLICY*

I. INTRODUCTION

Despite considerable improvement in our economic knowledge concerning the impact of monetary and fiscal changes, we do not know enough to utilize these tools for fine tuning the economy after full employment has been achieved. The attempt to do so by frequent policy variations has, in the past 2 years, been the major source of instability in an otherwise stable economy. From second quarter 1965 to second quarter 1966, increased monetary-fiscal stimulus incited inflation. An extremely tight monetary policy for the ensuing two quarters, accompanied by rate ceilings and other direct controls and capped by a September 1966 request by the administration to suspend the investment tax credit, contributed significantly to the current economic slowdown. There is now danger of sowing the seeds of future economic troubles by too much stimulus, especially in the monetary area. Until our tested knowledge is greatly expanded, the unfortunate experiences of the past 2 years suggest policy changes should be more gradual and that their design should be more nearly consistent with the longer run needs of the economy.

But why isn't fine tuning feasible if monetary-fiscal policies exert the pervasive influence upon economic activity that most students assert? Unfortunately, there exists a wide gap between policy intent and policy result; that is, "there is many a slip twixt the cup and the lip." Let us review some of these slips.

Unfortunately, economists and policymakers cannot agree on how changes in these policies should be measured, much less when the economic impact will be felt, or the size of the impact. For example, we were assured for many years by congressional leaders and others that fiscal change should be measured by the administrative budget. The so-called new economics taught us that only the full

* Reprint from Financial Analysts Journal, September–October 1967.

employment budget mattered. Some of us have long thought that the cash budget provided the best measure, but recently the Council of Economic Advisers insisted that the national income budget is the proper budget to use in measuring fiscal impact. I know of no texted knowledge that enables us to isolate truth from fantasy. If we cannot even agree on how policy change should be measured, how can we possibly use policy tools to fine tune the economy? Experience of the past 2 years suggests we cannot, even with the best of intent and the highest dedication of professional effort.

II. VARIOUS MEASURES OF MONETARY POLICY CHANGE

In many ways the state of monetary theory is equally confused; i.e., professional economists and central bankers do not agree on how monetary change should be measured. Yet I will argue that empirical work does provide some guidance for discriminating between indicators. Monetary policy measurements proposed by various leading authorities include such diverse series as the change in free reserves, change in interest rates, change in bank credit, change in total reserves, and change in the money supply, both excluding and including time deposits. Since these series are not all closely correlated, they cannot be equally valid.

Let us consider first free reserves. Most casual observers of monetary trends assume that free reserves are the reserves that banks have free to loan and/or invest. But alas, nothing could be further from the truth. Free reserves are defined as excess reserves minus borrowings from the Federal Reserves. Neither excess reserves nor borrowings are directly under the control of the Federal Reserve. Although changes in free reserves are usually closely correlated with changes in short-term interest rates, this relation does not primarily reflect changing pressures from the Federal Reserve, but does reflect market decisions by commercial banks in response to changing demand-supply forces. Total reserves, total bank credit and the money supply can and frequently have risen at an accelerating rate while free reserves were declining. The most recent example occurred from mid-1965 to spring 1966. The decline in free reserves during that period was due to (1) more intensive use of total reserves by commercial banks as interest rates rose and it became more expensive to maintain idle funds, but primarily (2) greater borrowing by commercial banks as the rate of return on current loans and investments increased relative to the discount rate which was pegged at 4½ percent after December 1965. It must be remembered that borrowed reserves are just as effective in expanding loans, investments, and the money supply as nonborrowed reserves. The banking system is perfectly willing to step up borrowing from the Federal Reserve when it becomes increasingly profitable to do so. On other occasions, such as the recent past, the trend in free reserves was in line with the trend in other measures of monetary change. But from 1948 to 1962 the correlation between the monthly average of free reserves, monthly changes in the money supply, and member bank credit outstanding was positive but approached zero.[1] Since free reserves cannot be and are not controlled by the Federal Reserve but rather by commercial banking adjustments and since they are poorly correlated with other monetary measures, I reject them as a measure of monetary policy. Free reserves are a good proxy for short-term interest rates given the sluggishness of the discount rate, but we do not need such a proxy since short-term interest rates are available directly and far more frequently.

Some analysts prefer to measure changes in monetary policy by changes in interest rates. Interest rates are the price of money in various related markets. As with any other price, a particular interest rate is determined by both demand and supply forces. In the short run, Federal Reserve policy is capable of influencing only a portion of the available supply of money while savings flows determine the remainder. Furthermore, a change in demand for money can clearly either counter or augment the direction of change in interest rates initiated by Federal Reserve action. Therefore, since interest rates are influenced by forces other than current Federal Reserve action, interest rate changes are not a good measure of Federal Reserve policy changes. Nor is this potential ambiguity only theoretical. In the year ending May 1966, all market rates of interest rose sharply, yet bank reserves, total bank credit, and the money supply rose at accelerating and almost unprecedented rates of growth. Interest rates indicated a tighter monetary policy but other measures indicated increased ease.

[1] Karl Brunner and Allan H. Meltzer, *The Federal Reserve's Attachment to the Free Reserve Concept*, Subcommittee on Domestic Finance, Committee on Banking and Currency, House of Representatives, 88th Cong., 2d sess., May 7, 1964, p. 58.

Since Federal Reserve action is usually centered on bank reserves, a good case can be made for using changes in bank reserves as a useful measure of monetary policy change. Weekly seasonally adjusted data on total bank reserves and reserves available for private demand deposits are available from the Federal Reserve Bank of St. Louis. There are, however, some difficulties in using either of these series. Shifts of deposits between banks with different reserve requirements, shifts of deposits between demand and time categories, and changes in excess reserves in response to changing interest rates reduce the correlation of reserve changes with total bank credit and the money supply. Nor are changes in total commercial bank credit, i.e., loans and investments, perfectly related to either the narrow or broad definition of the money supply. Shifts between demand and time deposits and changes in excess reserves as well as other minor factors distort the relation. Karl Brunner and Allan Meltzer found the following relation between expansion in bank credit, the money supply, and money supply plus time deposits from November 1948 through February 1961.

AVERAGE RATES OF MONTHLY CHANGE IN MONEY AND "CREDIT" DURING POSTWAR CYCLES, NOVEMBER 1948 THROUGH FEBRUARY 1961

[In millions of dollars]

	Peaks to troughs	Troughs to peaks
Change in money supply	120	229
Change in money supply plus time deposits	533	457
Change in bank credit	714	491

Source: "Some General Features of the Federal Reserve's Approach to Policy," Subcommittee on Domestic Finance Committee on Banking and Currency, House of Representatives, 88th Cong. 2d sess, Feb. 10, 1964, p. 33.

III. RELATION BETWEEN MONETARY CHANGE AND INCOME

But ultimately a meaningful measure of monetary policy must be closely related to economic variables such as income, employment, and prices. The quantity theory of money argues that changes in the money supply initiate changes in total spending upon current production; that is, money income. The question as to which money supply is most closely correlated with income is essentially an empirical one since on a priori grounds a case can be made for any one of several series. In a recent issue of the American Economic Review[1] Richard H. Timberlake, Jr. and James Fortson report on some interesting and relevant research which relates changes in three different money supply series to changes in money income. Their three money supply series are M_1, demand deposits plus currency; M_2=M_1+time deposits in commercial banks and M_3=M_2+time deposits in savings banks. The test covered data from 1897 to 1965 in total and for subperiods. Their major conclusions were as follows: "First, the correlation coefficient for all money stocks in most of the subperiods covered shows extremely high degrees of association between changes in money and changes in income. Second, while the M_2 money stock has the highest correlation value over the entire period, the narrow money stock, M_1, has higher values in more of the years than either M_2 or M_3. Third, time deposits improve the correlation values only in the 1933–38 period." I would conclude from this and other data that the best money supply series to watch from the point of view of a private observer interested in future income changes is the narrow definition of the money supply but that broader series are nearly as good.

There is, however, a demonstable lag between monetary change and income change. Friedman-Meiselman indicate the best correlation is with a lag of two quarters.[2] However, once an economy is in a recession, the rise in monetary growth precedes a subsequent recovery in the economy by an average of about three quarters.[3]

[1] Richard H. Timberlake and James Fortson, "Time Deposits in the Definition of Money," *American Economic Review*, March 1967, pp. 190–193.

[2] Milton Friedman and David Meiselman, "The Relative Stability of Monetary Velocity and the Investment Multiplier in the United States, 1897–1958," *Stabilization Policies*, Commission on Money and Credit, Prentice-Hall, Inc., Englewood Cliffs, N.J., 1963, p. 209.

[3] Beryl W. Sprinkel, "Monetary Growth as a Cyclical Predictor," *The Journal of Finance*, September 1959, p. 338.

IV. IMPLICATION OF RECENT MONETARY CHANGES

What does recent monetary change suggest about the future trend in money income?

ANNUAL RATES OF CHANGE

[In percent]

	May 1965–May 1966	May–December 1966	December 1966–May 1967
Member bank reserves	7.3	−2.0	7.4
Bank credit	8.9	3.9	11.8
Money supply:			
M_1	5.9	.1	5.2
M_2	9.7	2.7	11.0

Source: St. Louis Federal Reserve Bank and Board of Governors.

Since December, most measures of monetary policy have shifted from severe restraint to substantial expansion. Past relations suggest that incomes are already being stimulated by the change. If the recent expansive policy is continued, these relations also suggest that the current economic showdown will be reversed no later than the third quarter of this year.

Despite growing empirical evidence of the close relation between money supply changes and income changes, many students remain unconvinced. Apparently more empirical work is needed and it will be forthcoming.

To return to my initial theme, there is little evidence that we know enough to finely tune the economy with sharp and frequent monetary changes. The unfortunate experience of 1965 and 1966 is but the most recent episode indicating that monetary instability is capable of inducing economic instability—first inflation and now an economic slowdown. Until our economic knowledge is augmented, many economists argue the major objective of monetary policy should be to stabilize growth in the money supply in line with the real growth of the economy This once "heretical" thinking is beginning to invade the provinces of Government. Both the 1967 majority and minority reports of the Joint Economic Committee recommended more stable monetary growth as a major objective of monetary policy. The only difference was a Democratic call for a growth rate in the money supply of 3 percent to 5 percent while the Republicans asked for a growth rate ranging from 2 percent to 4 percent. Empirical evidence suggests either would be a distinct improvement over the recent record.

V. SUMMARY

In summary, the reigning favorite measure of monetary policy, free reserves, is clearly inappropriate on either theoretical or empirical grounds. Despite the fact that careful students of money have been aware of this fact for many years, we continue to be treated weekly to the largely irrelevant ritual of recounting recent free reserve changes. Interest rates are equally inappropriate since demand changes destroy this indicator as a measure of monetary policy, although it is an excellent measure of monetary tightness including demand pressures. Frequently there is a close relation between changes in bank reserves, total bank credit and various measures of the money supply. When a significant departure occurs, the empirical evidence suggests major attention should be directed toward changes in demand deposits and currency, M_1. Unfortunately, lags between monetary change and income change are somewhat variable although the correlation is very high. In the past decade many useful studies have been directed at the relation between monetary change and changes in economic activity. Perhaps the most enlightening and economically rewarding experiment that I could suggest for the future would be the approximate stabilization of monetary growth by the Federal Reserve at near 3 percent per year, about half the recent rate of expansion. The evidence suggests the results would be much less destabilizing than what actually occurred in the past 2 years.

MEASURES OF MONETARY POLICY—ANNUAL RATES OF CHANGE

[In percent]

	May 1965 through May 1966	May 1966 through December 1966	December 1966–May 1967
Member bank reserves	7.3	−2.0	7.4
Bank credit	8.9	3.9	11.8
Money supply:			
M_1	5.9	.1	5.2
M_2	9.7	2.7	11.0

Source: Board of Governors, Federal Reserve System, and St. Louis Federal Reserve Bank.

STATEMENT OF ROLAND STUCKI, UNIVERSITY OF UTAH

1. It is my opinion "that a program coordinating fiscal, debt management, and monetary policies should be set forth at the beginning of each year for the purpose of achieving the goals of the Employment Act." Without such coordination, the actions of any of the supervisory participants, whether initiated by the Congress, the Treasury Department, or the Federal Reserve, might serve to negate the impact of the actions taken by another agency.

While advance planning is most desirable, it must be recognized that the trend of events will require constant review and even changes in such plans as the occasion demands.

2. I would recommend that primary responsibility for drawing up the economic control plans be centered with the Federal Reserve, under the general guidance of the President. The Federal Reserve is better prepared to undertake this task than is the President. This conclusion is based on the premise that the Fed has the research staff and facilities, along with a wide range of experience, that qualifies it best for this assignment.

3. *Monetary policy guidelines.*—

(*a*) Monetary policy definitely should be used in attempting to achieve the goals of the Employment Act. Personally, I should like to see Friedman's theory given a try; that is, have the Fed follow a policy of gradually adding to the Nation's money supply an amount sufficient to accommodate the needs of a growing population and economy plus an added amount designed to stimulate a price increase of 1 to 2 percent each year. This increase in the money supply would be accomplished principally through open-market operations and the resulting impact on member bank reserves.

(*b*) The guidelines for monetary policy definitely should be specified in terms of some index of past and present trends, coupled with hoped-for goals for future achievement. A gradual and constantly increasing money supply at least would let everyone know in which direction the Fed intends to move and would eliminate some of the serious problems involved in respect to the proper timing of action taken by the Fed.

(*c*) In using any type of economic indicator it would be foolish to disregard past trends as well as to ignore future prospects. The two must be coordinated.

If the program suggested above were followed, an index of the total money supply would be necessary. This should be supple-

mented with indices of industrial production, employment, and costs of living.

(*d*) The same guidelines should be used each year so long as they are helpful in achieving the overall goal of full employment. If they fail in this respect, they should then be abandoned.

(*e*) My recommendation is for a gradual and consistent growth in the Nation's money supply.

(*f*) Monetary authorities should be permitted to adjust the target variable only if and when the indexes of production or employment tend to lag or slow down their rate of growth.

4. *Debt management.*—Debt management can be used quite effectively to influence the quantity of a nation's money. Sale of Government securities directly to the Federal Reserve and the commercial banks generally increases the money supply, whereas sales to individuals or institutions other than the Fed or commercial banks have little impact in this respect. Also, the shifting of debt instruments from private holders to the Fed enlarges the money stream.

5. *Open-market operations.*—

(*a*) In general, open market operations should be used to facilitate achievement of the President's economic program and goals of the Employment Act. They should be used to counter seasonal or transient factors only on rare or exceptional occasions where other methods have failed. The discounting window should be used mostly to accommodate seasonal needs.

(*b*) For the most part, open-market operations can be effective in implementing monetary policy. However, the door should not be closed to the use of other controls—particularly the option to change reserve requirements.

(*c*) Rediscounting, changes in reserve requirements, and regulation Q should be used mostly to counter seasonal and other transient factors.

(*d*) The Federal Reserve should make an annual report to Congress rather than quarterly reports. If quarterly reports were required, there is the danger that Congressmen would try to dictate policy decisions to the Board and the efficiency of the Fed's operations would be hampered.

In reporting to Congress, the Fed should outline only its broad goals and objectives. Details regarding the factors entering into their day-to-day decisions should not be included.

(*e*) To permit representatives of Congress, the Treasury, and the CEA to be observers at Open Market Committee meetings would be inadvisable in my opinion. It would add to confusion, delay decisionmaking, and open the gate to "leaks" which may benefit certain interests or individuals.

APPRAISAL OF THE STRUCTURE OF THE FEDERAL RESERVE

1. *Retirement of Federal Reserve stock.*—

Little would be gained or lost if the Federal Reserve bank stock were retired. The dividends currently being paid to stockholders account for only a small percentage of the Fed's total earnings. Already, the Government gets most of these earnings.

In favor of the retirement plan, it can be said that the Fed does not need the stockholder's investment and a plan to license banks would

work just as effectively as the present plan. On the other hand, there is some advantage in letting the banks feel that they are an integral part of the Fed system, that as stockholders they do have the right to elect a majority of the directors of their regional bank. At least they have some part in selecting management, and critics of the system cannot brand it as State owned or an entirely nationalized system.

2. I am opposed to reducing the members of the Federal Reserve Board to five rather than seven. I would, however, favor a reduction in their term of office from 14 to 7 years.

3. The President already has the right to designate the Chairman of the Board. This privilege should be continued. If an incoming President wishes to retain as Chairman an appointee of a previous administration, that should be (and is) his right. Similarly, he should be able to make a new appointment if he so chooses.

4. It is my opinion that one unannounced audit of the Federal Reserve Board, banks, and branches about every 3 years should be adequate. This conclusion is based on the belief: (*a*) that the Fed already is doing a good job in examining the 12 banks and branches and (*b*) that too frequent examinations will impede the operating efficiency of the Fed.

5. I am definitely opposed to the proposal that funds to operate the Federal Reserve System must be appropriated by Congress. It has been my observation that the Fed has been very careful in the handling of its financial affairs and I think its officials can do a better job in this respect than can Congress.

STATEMENT OF RONALD L. TEIGEN, THE UNIVERSITY OF MICHIGAN

THE COORDINATION OF MONETARY AND FISCAL POLICIES

Monetary policy and fiscal policy must be coordinated in order to pursue the goals of stabilization policy effectively. In principle, any given goal, such as full employment, could be achieved by countless configurations of monetary policy (as expressed in, say, the amount of "high powered money," or bank reserves plus currency in circulation) and fiscal policy (as expressed by a given level of Government spending, presumably fixed by social priorities, and an average tax rate on GNP or some other measure of income). However, there may be several important policy goals, not just one; furthermore, there are constraints on the use of policy instruments. For example, the balance-of-payments situation may require that interest rates be kept at or above a certain minimal level to ameliorate capital outflows, implying a certain degree of monetary "tightness" so that monetary policy would have to be conducted in a *particular* way rather than being a freely variable instrument.

If the conduct of monetary policy is constrained in some way, then, for a given level of Government expenditure, fiscal policy (that is, tax rates) may no longer be a matter of free choice if full employment is indeed to be obtained. This is a situation in which there is no alternative to a certain type of coordination: fiscal policy must take monetary policy as a datum. Second, even if such constraints do not exist, the coordination of policy is important for two reasons: first, to insure that goals which are attainable, such as full employment, will in fact

be reached; second, because the choice of any given monetary-fiscal configuration consistent with full employment is related to other goals; that is, it decides the mix between consumption and investment in the current period, and therefore the rate at which the economy will grow in the future, and hence is not a matter of indifference.

However, the obvious need for coordination of monetary and fiscal policy does not necessarily imply that a formal program should be drawn up and adopted at the beginning of each year, spelling out in detail the manner in which the various stabilization instruments are to be managed throughout the ensuing year. Such a formal program might, in my opinion, actually be undesirable for the following reasons, among others. First, having to put itself on record at the beginning of the year, the Federal Government might be reluctant to abandon a particular monetary-fiscal program which has become unsuitable in the light of unforeseen circumstances. Second, the announcement of specific plans for open-market policy might have very undesirable repercussions in the Government securities markets.

The anonymity of open-market policy has generally been viewed as one of its most desirable characteristics. In general, it would be preferable to allow for flexibility of policy while specifying quite clearly the goals which are to be pursued during any period (including the relative weights which are assigned to the different goals and the "tradeoffs" between goals which are viewed as inherent in the structure of the economy).

It is possible that the desired degree of policy coordination could be achieved with only minor alterations in the present setup, while preserving the desired anonymity and flexibility of action, by making the chairman of the Board of Governors of the Federal Reserve System more directly responsible and more responsive to the policy decisions of the incumbent administration. One way to achieve this end would be to implement the recommendation of the Commission on Money and Credit to the effect that the terms of the Chairman and Vice Chairman should be 4 years, coterminous with the President's term of office. I would view this as the minimal step necessary to supplement the extensive informal cooperation which already exists among the staffs of the Board of Governors, the Treasury, and the Council of Economic Advisers. It might be better if the Chairman of the Board of Governors were made an appointed official of the administration, possibly in the Treasury Department.

Monetary policy targets and indicators

Although two seemingly separate questions are being raised by the Subcommittee on Domestic Finance concerning targets and indicators —the question of which proximate variable (if any) should be made the immediate target of monetary policy, and the question of whether a "rule" regarding the value or growth rate of some monetary variable should be imposed as the ultimate goal of policy or whether such a goal should rather be specified in terms of some more general economic indicator—these appear on closer examination to be much the same question in light of the fact that H.R. 11 already contains a section defining the growth of the money supply as both the proximate and ultimate goal of policy. For this reason, I shall make some comments on the usefulness of the targets-indicators discussion as a whole after I have answered the questions posed by the subcommittee.

I believe, first of all, that the role of monetary policy in stabilization is too complex to be captured in any single variable, and if any strictures are imposed upon the monetary authorities in this respect, their essence should be that the authorities are enjoined from focusing on any one variable as an indicator. In fact, I feel that some of the past problems with monetary policy have arisen precisely *because* the Federal Reserve System has depended so heavily on a single variable, free reserves, as a policy indicator (see below for a more detailed discussion). The System now seems to realize that it must look seriously at many other variables, and I doubt that policy decisions will be faulty in the future to the same degree as in the past, at least on this account. Those who advocate the use of simplistic single indicators, however, apparently believe (without solid empirical evidence) that we cannot learn, either from careful empirical study or even from past policy mistakes, and now wish to perpetuate the kind of approach to policy which has proven to be so inadequate in the past.

Turning from indicators to targets and guidelines, I believe that monetary policy must be related to indexes of general economic activity rather than variables such as the money stock, and in general I would simply recommend that, given the posture of fiscal policy, the Federal Reserve authorities should attempt to anticipate changes in income and its divergence from its full-employment potential, unemployment, prices, the status of the balance of payments, and other key variables, and should take whatever action directed at bank reserves, bank credit, the money stock, interest rates, etc., as seems appropriate in any given set of circumstances. This, of course, is what the System is doing already, at least to a very great extent; any remaining problems (such as goals which diverge from those of the administration, as discussed below) could very likely be cleared up by organizational changes of the type discussed previously. As was implied above, it would be most desirable if policy decisions were based on short-term forecasts of variables representing the goals of policy; however, they must also be modified as necessary by estimates of the lagged effects of past policy actions. In acting upon these forecasts and estimates, the authorities should specify clearly the relative weights they are assigning to the realization of the various, and sometimes conflicting, policy goals.

While I think that it is useful to discuss the questions relating to the proper indicators and guidelines for monetary policy, I am concerned that these discussions may obscure and draw attention away from issues of considerably greater importance related to the attainment of policy goals. Much of the discussion is based on the premise that, since past monetary policy actions, initiated behind closed doors and based on wide discretion, have occasionally been perverse, better results can only be obtained by legislating the proper indicator, imposing some sort of "rule," requiring the authorities to state more or less exactly what they intend to do *ex ante* and to defend what they have done *ex post*, etc.

This line of thought is not as persuasive as it might appear. In the first place, some empirical work which has been done indicates that while discretionary monetary policy during the postwar period may not have had a perfect record in terms of the achievement of generally accepted policy goals, it did better in this respect than various mone-

tary "rules" would likely have done.[1] This is not a surprising result, because freedom of action in response to particular circumstances should generally yield better results than the application of a mechanical rule. Exceptions to this general conclusion might occur if monetary policy were unsuitable for use as a stabilization instrument; if the way in which monetary policy exerts its influence on the economy is generally misunderstood by the monetary authorities, as the "rule" viewpoint implies (or, more particularly, if the authorities consistently make use of a misleading indicator); if, as the "rule" viewpoint also suggests, the authorities always receive unreliable information concerning the structure of the system and economic developments, or if the structure is unstable over time; or if the montary authorities, under discretion, pursue goals which are at variance with those desired by the rest of society (or assign to generally accepted goals weights which are substantially at variance with the relative importance attributed to the various goals by the public). To the extent that discretionary policy has performed imperfectly, I believe that the causes can be attributed to specific instances of some, but not all, of these general factors.

First, monetary policy has been carrying the main burden of stabilizing the economy, a task for which is it unsuited. It is quite widely agreed that fiscal policy must perform this function, and it is no wonder that monetary policy generates some undesirable results when it attempts to do the entire job. These discussions of targets and indicators implicitly suggest that everything would be all right if only the proper monetary indicator were identified and the correct rule installed. This viewpoint obscures and diverts attention away from the basic problem, which is to make fiscal policy more flexible and more usable as a stabilization policy tool.

Second, the monetary authorities in the past have had to operate without very exact knowledge of the structure of the economy or the nature of its response to monetary manipulation: such knowledge was simply not available. As a result, they appear to have depended heavily for guidance on the free reserves indicator, an indicator which is now generally viewed as being likely to give misleading signals concerning the nature of policy, particularly at cyclical turning points. However, it cannot be concluded from this that the authorities cannot now get and use better information, or that the system is inherently unstable over time. The advocates of monetary rules are suggesting, for example, that if the Federal Reserve were required to increase the money stock by some given percentage per period, perversities which have occurred in the past—such as the money stock actually declining at the onset of recessions because the authorities were led to infer that monetary policy was easier than was actually the case—would more likely be avoided, since the rule would minimize undesirable disturbances due to monetary changes. This viewpoint is based on very questionable premises.

It implies, first of all, that the Federal Reserve System has learned nothing from its postwar experiences, and that it can do no better today than in 1953, when moneary policy began to be truly independent of the Treasury. In fact, there is little doubt, as noted previously, that

[1] Franco Modigliani, "Some Empirical Tests of Monetary Management and of Rules versus Discretion," *Journal of Political Economy*, LXXII (June 1964), pp. 211–245.

the System now places much less reliance on free reserves as an indicator than was once the case. Not only has the System modified its dependence on net free reserves; it is presently devoting an impressive amount of its resources to a very careful study of the structure of the economy with particular emphasis on the role of monetary variables. As yet, no indication that the structure is unstable over time has been found. In short, it is indefensible to assume that the System acts in the same way and with the same amount of knowledge today as it did at any point in the past, just as it is indefensible to assume that the interrelationships, lag structures, and other complexities of the economy are not amenable to study and to usable approximation. The indicator-rules discussion, however, effectively implies these assumptions.

Third, monetary policy decisions, and hence the outcomes of policy actions, depend to some degree on the weights which the monetary authorities attach to various goals. If a particular outcome appears to have been undesirable, it may have been due to the fact that the authorities attached great importance to a particular goal and acted accordingly, while the public would have preferred to have had emphasis placed on a different goal. This situation would be less likely if the Board of Governors were more directly responsible to the President, as discussed above. In any case, the present discussion of the proper monetary rule completely overlooks and diverts attention from the need for agreement on the proper weights to be given to the various goals of policy.

In summary, then, I would recommend that the most important changes in the present monetary policy arrangements which could be made would be: First, making the monetary authority more directly responsible to the President; second, constraining the monetary authority, if at all, only to the extent of neutralizing net-free or net-borrowed reserves as a usable guide to monetary policy. Requiring the Federal Reserve to act in some minimally restrictive way with respect to some other indicator (such as requiring that the money stock never be allowed to decline without acceptable justification, for instance) might be the only feasible way to accomplish this end; however, the System should be given the chance to demonstrate that it has profited by past errors. I do not believe that it makes sense to require that the money stock or some similar variable be made to grow at a given rate, partly because I feel that the authorities have learned a great deal from their mistakes and from the studies they are sponsoring, and that the gross errors of the past will not be repeated. If such a requirement were enacted, however, a wide range of values, within which the authorities can operate on a discretionary basis, would be the most acceptable form, since it is closest to full discretion.

The role of debt management policy in stabilization

Debt management is not a particularly useful countercyclical tool in a direct sense. Whether countercyclical debt management operations are viewed as exerting their effect primarily through changes in liquidity, or changes in interest rates, or both, these changes tend to generate offsetting forces. For instance, if long-term debt is sold and short-term debt is bought simultaneously, the long rate will tend to rise and the short rate to fall, thus depressing those expenditures which are influenced by the long rate and stimulating those influenced by the short rate. Very little empirical information is available to enable us to

make usable estimates of the net impact of debt management operations on expenditures and hence on income, employment, growth, and so forth. The best approach would be to keep the interest burden of the publicly held debt as low as possible. Other things being equal, this would result in lower tax rates and less distortion of choices by the public. Also, the danger that other important items of Government expenditure might be eliminated from the budget because of a large interest cost item would be minimized. The lengthening of the average maturity of the debt should be an additional goal, because a highly liquid debt can be used by the banks as a device for activating idle deposits, increasing the income velocity of the money stock, and avoiding the effects of restrictive monetary policy to some extent.

Other questions

While some argue that the Federal Reserve System devotes too much effort to defensive open-market operations, there is no doubt that such operations are very useful in smoothing the effect of exogenous shocks on banks reserves and the monetary system. While it is possible that discount window reform might lead to discounting acting as a partial shock absorber in these situations, open-market operations should also be used—precisely because of their anonymity, their lack of announcement effects, and their relatively subtle effects on individual bank reserve positions. For these same reasons, monetary policy can indeed be effectively and efficiently implemented solely by open-market operations. This point has been argued very persuasively in the economics literature, and these arguments need not be repeated here. I have already alluded to the undesirable effects which might ensue if current and prospective Federal Reserve actions were made a subject of public discussion, and for this reason I do not believe that it would be wise to include Members of Congress in Open Market Committee discussions.

However, if the Federal Reserve were placed more directly under the President, presumably stabilization policy decisions would be made jointly by representatives of the System, the Treasury, the CEA, and so forth. Finally, as to the proposed structural changes in the Federal Reserve System included in H.R. 11, they appear relatively innocuous and generally consistent with the above discussion and the recommendations of the Commission on Money and Credit, and my only minor reservation would concern the proposal that operating funds for the Federal Reserve System be appropriated by Congress. I fear that this change could result in substantial cutbacks in the System's very important research program, and I suggest that H.R. 11 be amended somehow to eliminate this possibility.

STATEMENT OF EARL A. THOMPSON, UCLA

1. I am opposed to all Federal Reserve open market operations and cyclical debt management policies. I am in favor of money creation (or destruction) *only* through cash subsidies (or taxes) by way of changes in taxes, preferably income taxes. An annual statement of what monetary policies will *actually* occur over the coming year would not be useful, as this information is generally unknown. But there would be substantial value in an annual statement describing how monetary policy (that is, the control of the supply of governmental currency via

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the manipulation of tax rates) would be *expected* to achieve its stated, ultimate target during the year, for *given* expenditure and debt-financing policies of the Government.

2. I think that the President should be responsible for drawing up this program in his budget proposal. This is so that Congress and the public can be provided a responsible estimate of what tax and money supply changes will be employed in order to satisfy the ultimate target of monetary policy.

3. I believe that Federal Reserve operations should be limited to clearinghouse operations and see much wisdom in closer governmental control of the operations along the lines suggested in H.R. 11. Closer control is well achieved by having fewer and less politically independent managers under the control of both an annual audit of the system and a congressionally determined budget. It is only because of potential cartelization through the clearinghouse that I favor keeping the Federal Reserve banks under Federal control at this time.

The single, *immediate* target, or policy instrument, of monetary policy should be the supply of Government-produced money.

The single, *ultimate*, stated target of monetary policy should be the creation of a privately predictable price level of those commodities comprising the net national product. This predictability should extend to an indefinitely long horizon. The President should manipulate the income tax with a surcharge (or its opposite) during the year in order to keep the price level at its historically decided trend level. First, the annual budget should be submitted with the planned general tax level and the change in currency supply computed so as to generate an *estimated* average annual price level at the historically given trend level. Second, the President should have the power to vary the then effective tax rate, and thus the currency supply, in any year by any amount which will produce a no more than 1-percent deviation of the price level from the historically decided trend level. Monetary policies moving the price level away from the historically decided trend level when there is already a larger than 1-percent price level variation from the historically decided trend level would require the approval of Congress. Thus, if the price level should ever go beyond plus or minus 1 percent of the announced trend value, the President would lose his autonomy over the currency supply and income tax levels.

Once monetary policy is substantially committed to a single and specific, ultimate target, no monetary *authority*, including the President, would be expected to perform the mind-defeating task of computing and efficiently balancing the desirabilities of short term effects of monetary policy on economic growth, mortgage rates, the balance of payments, income distribution, and so forth. The multiplicity of goals of the monetary authority would substantially end. There is little doubt that our most severe recessions have been created by a monetary policy which came close to completely ignoring the unemployment problem in active pursuit of vaguely reasoned "economic necessities" which, in historical perspective, were either of little importance or insoluble with money supply policy.

The policy of manipulating the currency supply so as to create a privately predictable price level is not qualitatively new. It is a straightforward generalization of the familiar "price stability" policy, which maintains a predictable—and constant—price level over time.

I cannot now reasonably estimate the numerical value of an optimal

price trend. If, however, we were to adopt what I consider to be a wholly optimal monetary system, which includes a privately determined, nominal interest return paid on money,[1] I would argue strongly for price stability. For with a *constant* price trend (relative to other, fully anticipated price trends) calculation is easier and the denominational structure of the initial currency stock does not become obsolete in a few years via deflation or inflation. No such simple argument is sufficient in the current, nonoptimal system, where there is no privately determined, nominal interest return paid on money. For then the currency supply trend—and hence the price level trend—affects the money rate of interest on nonmonetary assets relative to that on money and, hence, affects the amount of real balances in an equilibrium generated by the free market. Therefore, the money supply trend affects the simple economic efficiency of the free market equilibrium. In contrast, when competitively determined interest is paid on money, the rate of interest paid on money will rise with the rate of inflation so that the *difference* between the money rate of interest on nonmonetary assets and that on money is not affected by the price trend (ignoring wealth effects). In addition, when interest is not paid on money, the economy is susceptible to much larger fluctuations in unemployment, fluctuations which decrease with increases in the secular rate of inflation because for any given drop in aggregate demand for real assets, the steeper demand for money at high rates of interest induces larger drops in interest rates.

Therefore, the specific, numerical value of the optimal rate of inflation in the current system, in contrast to the situation in an optimal system, would hinge largely on the difficult problem of balancing the losses in the services of real cash balances induced by a higher rate of inflation with the gains, in terms of the reduction in the expected magnitude of aggregate economic fluctuations induced by the higher rate of inflation.[2]

Modern arguments in favor of price stability (all of which seem badly stated in terms of basic price theory) run in terms of secular price stability, while nothing of relevance is said about price stability as a special goal over an ordinary business cycle. My argument, however, is meant to apply to the ordinary business cycle as well. That is, I believe that a successfully executed policy of month-to-month price stability (whether or not the prices are seasonally adjusted) will substantially wipe out ordinary business fluctuations. The reason is basic-

[1] A fairly complete development of a Pareto optimal monetary system is contained in my recent manuscript entitled "An Optimal System of Property Rights for a Money Economy." There, is it shown that a statically optimal system could be attained by allowing for a free market determination of interest on all bank deposits—with the Government following this with a "stamped money" system of paying interest on its currency at a rate *equal to* the free market rate on demand deposits—and by completely removing: the reserve requirement on bank asset purchases, Federal Reserve rediscounting, and restrictions on bank-location decisions. The application of these measures would complete the shrinkage of the Federal Reserve System to a mere clearinghouse. This System is not only statically efficient—in "full employment" economies a conservative estimate of the aggregate wealth increase in the United States resulting from this policy (disregarding the cost of the Government's paying interest on currency) is around $100 billion—it is uniformly dynamically superior to a system like the current U.S. system.

[2] Estimating the demand for money and the effect of inflation on the severity of recessions from an international cross section, a recent UCLA Ph. D. dissertation by Prakash Lohani has presented evidence that the optimal rate of inflation when these two factors are considered is arbitrarily large for the representative country. But, the statistical evidence is far from absolutely convincing, the United States may not be representative, the anticyclical policy that I propose may itself cut down on the magnitude of these fluctuations, or, who knows, the optimal financial system may be the actual one in a few years.

ally simple but ignored in the post-Keynesian discussions with which I am familiar. It is that if ordinary business fluctuations are, as most students of these fluctuations agree, caused by variations in aggregate demand, then producers of final goods adjust their production only because of changes in product prices. Hence, if monetary policy keeps these prices constant, there is no ordinary business cycle.

The cycle is still substantially eliminated even if prices are erroneously allowed to remain below trend for a long while (say a year), because the knowledge that prices will go back up to the trend level will generate a speculative commodity demand which precludes price drops of any significance. Certain shifts in supply, such as increases in the labor force, may, by lowering money wages, generate involuntary unemployment, but these shifts are not regarded as empirically important. Still, it indicates that the purest price index to use as the stated target in terms of preventing involuntary unemployment is not our suggested output-price index but a wage index. This is clearly implied by the Alchian and Allen theory of involuntary unemployment [3]—viz that involuntary unemployment is the continued searching for jobs, rather than acecpting existing offers, in the false hope that *market wages* exceed those indicated by the existing offers. The major problem with using this conceptually pure index is that cyclical wage variation is smaller than price variation, so that random errors of observations will cause more policy errors with wage level predictability than they will with price level predictability. (Another important, more basic, problem is stated below.)

Hence, in attempting to satisfy the conditions of the Employment Act of 1946 *without relying on measures of involuntary and frictional unemployment*, which are meaningless in the relevant range, I propose price level predictability as the goal of monetary, that is, money supply, policy. Using unemployment statistics or NBER indicators as targets for the kinds of decisions which have faced economic advisers over the past 10 to 15 years has been close to useless, for these statistics have not permitted us to confidently say, in a given year, even whether there is actually over- or under-full employment.

There are deeper economic arguments for price trend predictability than those relating to the Employment Act of 1946. I think these explain the ubiquitous popular pressure for a policy of price stability never heretofore, to my mind, satisfactorily rationalized by economists. One is that an economy is generally in a Pareto nonoptimal situation whenever different people have different expectations of future prices. The fact that informational differences with respect to future prices make general Arrow-Debreu proofs of the Pareto optimality of competition under uncertainty formally inapplicable has been pointed out by Professor Radner.[4] I have pointed out that social wastes in terms of deadweight transaction costs generally appear when differences in information between people exist with respect to future asset prices.[5] [6] With respect to the problem at hand, the wasted transactions costs are all those costs incurred in borrowing and buying real assets or equities

[3] A. A. Alchian and W. R. Allen, *University Economics*, 2nd ed., ch. 25.
[4] R. Radner, "Competitive Equilibrium Under Uncertainty," *Econometrica*, January 1968.
[5] E. A. Thompson, "A Pareto Optimal Group Decision Process," *Papers on Non Market Decision Making*, vol. 1, 1966, footnote 5.
[6] ———, "Do Freely Competitive Markets Misallocate Charity? A Comment on Tullock's Analysis," *Public Choice*, vol. IV, 1968.

by bulls regarding the price level trend *and* those costs incurred in selling such assets and buying bonds by the bears. The size of the organized markets in previously issued financial markets plus a little introspection indicates that the social losses of differences in price level expectations run in the billions of dollars annually. A policy of wage level predictability, while *possibly* reducing fluctuations as noted above, does not permit an analogous argument simply because exchanges in human capital are illegal.

Price level predictability also adds substantial information to *all* decisionmakers in an economy. Without it, each rational individual devotes some resources to estimating future price levels in making decisions involving the discounting of future real income or expenses. Nowhere in the current economy can an individual who does not want to bother producing his own price level predictions go to discover what the rest of the market actually believes the price trend will be. When future price levels are predictable, however, market determined discount rates on real income streams in the form of *observed* market rates of interest in the term structure of interest rates, are directly available to each individual.

The most popular simple hypothesis concerning monetary targets these days is probably Prof. Milton Friedman's suggestion that we merely expand the money supply at a constant rate. Besides generally failing to produce the substantial informational economies described above and forcing us to rely on a conjecture that without changes in the rate of change of the money supply, economic fluctuations would not exist to a degree worth controlling, Professor Friedman's target is implied by our policy of price level predictability if Friedman's basic descriptive argument is correct. If certain money supply changes are the sole source of ordinary business fluctuations, the latter fluctuations are aggregate demand fluctuations and therefore imply output-price level fluctuations. Hence, if price fluctuations are eliminated with money supply policy, the money supply changes which cause the cycle are eliminated. Therefore, our policy of price level predictability will be Friedman's type of money supply policy, if his argument is correct. But price level predictability is a policy which is appropriate to many alternative demand theories of the cycle, not just a very particular monetary theory of the cycle. Of course, it may be costlier for future Presidents and their economists to administer price level predictability than Friedman's policy of a constant growth of the money supply, but it is also very unlikely that all reasonably near future price fluctuations of some significance will have been the result of non-constant percentage changes in the money supply. In the face of this, and for reasons I have stated above, I think we should adopt the more general policy framework even though it *may* be somewhat costlier to follow.

Professor Friedman has recently argued [7] that his forerunner on monetary reforms, Henry Simons, who advocated price stability over the cycle for reasons he never made explicit other than that it represented a concrete guide for otherwise undisciplined authorities to follow, would have dropped his advocacy of price stability in favor of money-growth-constancy had he known what we know now (that is, if he had accepted Friedman's view of the cycle). Friedman thus in-

[7] M. Friedman, "The Monetary Theory and Policy of Henry Simons," *Journal of Law and Economics*, October 1967.

correctly regards price level predictability as being inappropriate when a constant growth of the money supply would eliminate the business cycle. Furthermore, Friedman regards price stability as a "compromise" between what he considers to be a "rules" allocation (e.g., constant-money-growth) and an "authorities" allocation (e.g., current, discretionary monetary policy). I believe that Simons, the originator of this largely misunderstood and unappreciated gem of a distinction, regarded price level constancy as being as much a "rules" policy as money supply constancy. Friedman's concept of a rule is apparently a rule of thumb prescribing one's behavior. Simons' concept of a rule is a system of rights and thus incentives in which rational behavior will generate relatively easily predictable results (e.g., price stability). Both Simons' concept of rule and the Simons policy of price stability are more general than those of Professor Friedman. (For an argument for the meaning and advantage of rules over authorities allocations see [8].)

4. I believe that debt management policy should not be used for the purposes of the Employment Act. I think that the administration should be given stricter congressional guidelines for debt financing policies and, as indicated above, that debt financing policies should be fixed at the outset of each year. I think that the maturity of the debt has an uninterestingly little immediate effect on employment, as I (*a*) am basically of the expectations hypothesis school that believes there is but little effect of the maturity structure of the debt on the structure of interest rates, and (*b*) believe that the redistributional effects of switching debt maturities are dynamically unimportant. My opposition to discretionary changes in the privately held money supply via changes in the *total* national debt by managers of the national debt is the same as my general opposition to open-market operations.

5. My opposition to policies which change the Government-produced currency supply by trading it for debt instruments rather than for explicit and current tax liabilities is based upon two independent factors. Before stating them, it must be recognized that the two policies differ in terms of their "true" effects on individuals only in that a national debt reduction is a reduction in *future* tax liabilities while the tax reduction is a reduction in *current* tax liabilities. The first problem is that it costs people much more to see the true effects of the former policy. Debt changes not only waste current information costs, but they also lead many people, who do not take the trouble to observe changes in the national debt's size and composition and to estimate the implications for their future taxes, to make personal planning mistakes. People adjust to the mistakes at widely differing rates, and this has unsettling effects upon employment in the future. Second, different debt changes will have substantially different effects upon the intergenerational distribution of wealth. The buildup of a substantial net increase in long-term national debt rather than a current tax increase will, for example, substantially redistribute from young to old and, hence, tend to alienate the young from the political system. Such redistributions are difficult to see and thus are easily slipped through the political mechanism. But they are soon expensive in terms of the real costs involved in revolutions or in a painful reestablishment of the

[8] M. Friedman, "The Perfectly Competitive Allocation of Collective Goods," pt. IV, 1965, Monograph of the Institute of Government and Public Affairs at UCLA.

politically optimal distribution of wealth. The point is that we should not suggest highly redistributional policies which the public does not immediately recognize as redistributional.

It is clear that surcharges (and their opposite) on income taxes are less redistributional given the benefits of these policies than equivalent changes in long term national debt. Perhaps, on benefit-taxation principles, the young and unborn should help pay for our wars; but there is little reason for them to pay for our full-employment policies. Even if open-market operations were restricted to short-term debt, which would be a substantive improvement over the current, non-bills-only policies, there is no assurance that the debt would not be refinanced, perhaps with long-term debt, and, in any case, there is still the cost of making wrong decisions to the confused public. Assurances to the public that sooner or later an opposite cyclical movement will occur which will produce opposite redistributional effects, as suggested by Prof. James Buchanan, are both misleading and not generally worth much to individuals who are either going to be in an older interest group or dead when the opposite policy finally occurs.

6. My position regarding the current U.S. balance of payments is that a U.S. commitment to price stability would result in a much wider use of dollars in place of gold as an international store of value. I believe that the resulting growing strength of the dollar would end our balance-of-payments worries for so long that by the time they might again arise, we would find a new set of international monetary arrangements.

7. If, in 1964, the United States had adopted a price-stability policy of the type that I am suggesting, the initially painful, but eventually gratifying, establishment of the expectation of stable prices during the 1957–64 period would not have been tossed aside by the President and the cooperating Federal Reserve System. The Federal Reserve System could not have increased the currency supply by purchasing the bonds from the Treasury of the deficit-ridden administration. Instead, the President would have had to either sell the bonds to the public (with congressional approval), and thereby force a rise in interest rates, or raise taxes to approximately match the increase in budgeted expenditures. Besides keeping prices stable and preventing the overheating of our economy, either policy would have given the administration a truer picture of what working Americans were willing to pay for its various wars.

STATEMENT OF RICHARD S. THORN, UNIVERSITY OF PITTSBURGH

Monetary policy is capable of pursuing several alternative objectives. The particular objectives that are established for monetary policy depend, in large part, on the manner in which we employ our other instruments of economic policy, particularly fiscal policy. If fiscal policy is assigned a major role in maintaining a high level of effective demand consistent with the objectives of the Employment Act of 1946, monetary policy will be able to focus more on the problem of maintaining a stable price level and providing financial conditions suitable for promoting economic growth. It is doubtful whether monetary policy will be able to make a major contribution to reestablishing balance-of-payments equilibrium, although once a better equilibrium is achieved in the balance of payments through other policies, monetary policy

may play an important role in preserving this equilibrium. H.R. 11 insofar as it has as its objective to place monetary policy in the context of a comprehensive economic policy, represents a major step forward in the achievement of the goals of the Employment Act of 1946.

Our judgment of the effectiveness of our past economic policy is influenced by what we originally expected it to accomplish. If it is judged by the rate of growth of income and employment, it has generally been successful. The country has just witnessed the longest peacetime economic expansion in its history and experienced one of the lowest rates of unemployment since the end of World War II. If it is also considered important to maintain balance in our external payments and to maintain a stable price level, it has been less successful particularly with respect to prices in recent months. The adequacy of our instruments of economic policy, including monetary policy, must be judged in light of the number and type of objectives we hope our economic policy will achieve.

THE OBJECTIVES OF AMERICAN ECONOMIC POLICY

The economic goals that we as a nation wish to achieve are determined by the elected officials of the Government in response to the desires of the electorate. It is the job of Congress and the President to formulate these objectives clearly and precisely. The determination of national economic objectives pose basically social and political questions, rather than technical, economic questions. Technicians, including economists, can only offer information and alternatives to be considered in making a final judgment on these questions.

The basic responsibility for setting the objectives of national economic policy lie with Congress and the President. Once these objectives have been set and relative priorities assigned to them, the choice of the means by which they can be achieved involves complex, interrelated, technical questions upon which the Congress and the public can offer information and criticism, to be considered in putting together a comprehensive, economic program. As long as the economic objectives of the country remain numerous, the entire resources of Government and all its agencies will be required for their achievement and even this may not suffice to accomplish everything orginally planned. It is obvious that the achievement of the diverse economic goals of the American people requires the total commitment of the resources of the Government. It therefore immediately follows of necessity that the President of the United States, as the Chief Executive, must have primary responsibility for coordinating the economic, fiscal, and monetary policies of the Nation. In practice, all recent Presidents have assumed this responsibility to a greater or lesser degree. The intent of H.R. 11, to make the President's responsibility even more explicit by having the President include in his Economic Report to Congress his recommendation on fiscal and debt management policies, as well as the guidelines to be followed by monetary policy, is the formal recognition of present trends and should help improve the understanding of Congress and the public of the Government's policies. It would clearly express the reality that the President is the only one with sufficient authority to direct and coordinate the economic, fiscal, and monetary policies of the country. The failure, however, to distinguish clearly between the

establishment of national economic objectives and their execution has led to some past misunderstanding.

The President has the responsibility and authority to carry out the economic objectives set for the Nation by its citizens, and formalized by their elected representatives. The proper grounds for criticizing the Executive is the priorities which it attaches to different, often competing objectives, and the success which it has in accomplishing the national goals. The President within the restriction of the democratic process must be given wide latitude in the choice policy instruments and the methods of their employment in implementing the Nation's economic goals. This does not mean there can be no discussion of the way economic policy is conducted. However, fundamentally, the responsibility and authorty for accomplishing the economic objectives determined jointly by Congress and the President ultimately lie with the President. This is the implication of the directive to the President contained in H.R. 11 if it is to have any substantive meaning. However, the full implications of H.R. 11 that the President assume formal responsibility for the coordination of economic policy is not always fully appreciated and this is the subject which I would like to turn to now.

RELATIONSHIP OF ECONOMIC OBJECTIVES AND POLICY INSTRUMENT

The more economic objectives we wish to achieve simultaneously, the more instruments we must have at our disposal. It is something like a large family which has only one car and three children, all of whom attend different schools and have to be there at 9 o'clock. Obviously, the only way they all could get to school at the same time was if there were three cars. Given only one car, the family has to make some collective decision about who is going to go earlier and who will go a bit later. Perhaps it will even be decided that the one who goes earliest will be rotated each day, or perhaps the order they are taken to school will be decided on the convenience of taking one route over another.

Our economic policy problems are of a similar nature. We have more economic objectives (children) than we have instruments (cars) and we have to choose which objectives we must give priority to. Rather than achieve one or two objectives in our recent economic policy, however, to the exclusion of the rest, we have adopted what might be called a policy of a *shifting hierarchy of objectives*. As soon as we see that our progress toward one objective is going well, say employment, then we turn our attention to the balance of payments, growth, or prices. While we do this, the employment rate might slip, and we return and give employment our primary attention. It is the same policy followed by the circus juggler, who has only two hands but successfully keeps a great many balls in the air. The fact that we do not have enough policy instruments to achieve our economic objectives is not necessarily an impossible situation, that is, as long as we do not experience prolonged periods of high unemployment, low growth rates inflation, or balance-of-payments disequilibrium. It may be possible to keep all the balls in the air although some are going up and some are going down.

However, there are limits to this policy of the shifting hierarchy of objectives. We cannot simply increase without limit the economic objectives we wish to achieve without increasing the number of policy

instruments. Throw the best juggler in the world enough balls and he will drop one. Worse yet, we have not been able fully to employ all the policy instruments at our disposal, particularly fiscal policy, the single most potent instrument of economic policy at the disposal of the Government.

The weak link in the implementation of economic policy in the United States has not been monetary policy and Executive-Federal Reserve relationship. It has been fiscal policy and the Executive-congressional relationship. While fiscal policy is the most potent instrument in our economic policy arsenal, it is not under the control of the Chief Executive but primarily under the control of Congress which determines the size of the economic deficit, or surplus, through its decisions on public expenditure and taxation. These decisions are of social and political significance as well as of economic significance and that is why the Founding Fathers, in their wisdom, gave Congress, as the representatives of the people, final responsibility for deciding how the use of national resources is to be divided between public and private uses. And, similarly, since "the power to tax is the power to destroy," the Founding Fathers also wisely invested this authority in the Congress. However, the Founding Fathers were not aware of the importance that the Government was to attain in our economic life, nor did they expect the Government to accept as broad economic responsibilities as those contained in the Employment Act of 1946. Indeed, given the small size of the Government sector in the 18th and 19th centuries, it is doubtful if fiscal policy, even if actively pursued for economic ends, could have achieved very much in the way of concrete results.

Today the situation is vastly different. The Federal Government sector accounts for one-fifth of the total annual expenditure of the Nation and the Government is asked explicitly to accomplish at least five major goals:

1. High level employment.
2. An adequate rate of growth in GNP.
3. Balance in external payments.
4. Price stability.
5. A more equitable distribution of income particularly with respect to raising the income levels of the lower fifth of income receivers.

While the fifth objective is not mentioned explicitly in the Employment Act of 1946, it is widely accepted and has been supported by both major political parties, as well as all candidates for the Presidency.

The five objectives are to be accomplished with basically only two policy instruments: fiscal and monetary policy. It is scarcely surprising that the instruments are not sufficient to achieve the five goals. The situation is even more difficult than it at first appears since there are implicit objectives which are not listed, which are, in fact, taken into account in making policy decisions such as the maintenance of economic freedom and the efficient allocation of resources. Furthermore, the full use of monetary policy has been restricted by an unwillingness on the part of the public, the Treasury, and Congress to have the rate of interest exceed certain limits.

The result of these interest-rate limitations is that, as they are being approached, monetary policy no longer is a fully independent policy

instrument. The further issues of debt as the consequence of a government deficit either directly, or indirectly, must be acquired by the Federal Reserve System if interest rates are not to be permitted to rise and represent an indirect issue of money by the fiscal authorities. The result of this is that the number of economic objectives that can be attained simultaneously is further reduced.

SOLUTION TO THE DILEMMA

The formal solution to the dilemma of economic policy is simple. Increase the number of policy instruments, or reduce the number of economic objectives that economy wishes to achieve simultaneously. This solution may be neither practically or politically feasible, nevertheless it provides a starting point for a search for a solution which is both feasible and politically acceptable.

Two instruments could conceivably be added to our arsenal of economic policy instruments, (1) greater foreign exchange flexibility could be introduced to achieve balance-of-payments equilibrium, and (2) the structure or composition of government expenditure and taxation could be employed to achieve a more suitable distribution of income. The *level* of Government expenditure would be determined by Congress to achieve a proper balance between public and private resources in accordance with national priorities. The determination of the level of public expenditures on this basis need not restrict the effectiveness of fiscal policy, since aggregate demand can be regulated as well by varying the level of taxes, as by changing the level of public expenditures. Fiscal and monetary policy would then be free to pursue the objectives of full employment, economic growth, and price stability.

Flexible exchange rates even in the milder form of wider fluctuations of the dollar about its par value have been ruled out as unacceptable, for the moment, on political grounds. An alternative to some form of flexible exchange rates is a coordinated policy of international monetary cooperation which 10 years of international negotiations has thus far been unable to achieve. Without either of these policy instruments available, monetary policy in this country has become increasingly torn between domestic objectives of maintaining price stability and an adequate rate of economic growth and attempting to maintain a rate of interest sufficiently high to attract and retain foreign funds in this country. At the present moment—July 1968—these objectives are not necessarily in conflict but slowing down of economic activity would again confront the monetary authorities with a conflict between their domestic and foreign responsibilities.

In a rough and ready sort of way, the available economic policy instruments—making allowances for the absence of exchange rate flexibility—have been generally used in the manner suggested. However, because the assignment of various goals of economic policy to various agencies of the Government which exercise independent control over these instruments, occasional lapses have occurred in their anticipated use deviating from the informal distribution of responsibility which is substantially in accord with that suggested above. The reasons for these deviations are extremely varied and little is to be gained by analyzing them here. However, the most obvious example was the recent rise in public expenditure associated with the war in

Vietnam without accommodating these expenditures, either in a revised list of economic priorities or a comprehensive economic policy.

H.R. 11 can make a substantial contribution to the effectiveness of our economic policy by requiring the President to present in his Economic Report to Congress a statement of the economic goals of the Nation, both for the coming year, and in the longer run, along with a comprehensive economic program including specific recommendations on fiscal and monetary policy including debt management policy and the growth of the money supply. This program, it is assumed, will be arrived at in consultation with the relevant officials of the Government, including the Chairman of the Federal Reserve Board. The President's report, by presenting a comprehensive program, will clarify the role of each branch and agency of the Government in carrying out this program. The acceptance of the President's economic program by Congress should signify an acceptance by Congress of its fiscal implications. If the Congress chooses to modify the program, *the entire economic program* should be returned to the President for modification, since the modification of one target, or the change in the use of one policy instrument; e.g., the change in public debt, requires the adjustment of several, or all, of the other instruments and targets of the economic program. Once accepted by the Congress, the President will have the responsibility for implementing the program. It would be also desirable if a brief semiannual progress report were issued to Congress by the President to keep Congress informed and alerted to the possible need for revision of the program and any impending need for new legislation. If the comprehensive economic program outlined in H.R. 11 were accepted, the questions still remain on how responsibility would be assigned for its implementation and how enough flexibility could be built into the program to allow it to adjust for unforeseen developments. This is the next question we shall turn to.

THE IMPLEMENTATION OF THE ECONOMIC PROGRAM

The content and division of responsibility of the President in his economic message to Congress should present a consistent set of economic targets and policies to achieve these targets. Obviously, however, many factors both of internal and external origin cannot always be foreseen accurately and there must be sufficient flexibility in the available economic policy instruments to permit the national economic program to be adapted to new circumstances.

The content of the President's economic program and the division of responsibility within the Government for its implementation outlined above reflects in effect the general tenor of the present manner in which the Nation's annual economic program is formulated and implemented. What H.R. 11 attempts to do is to formalize these procedures in order to maintain the internal consistency and feasibility of the program. Adoption of this part of H.R. 11 would represent a notable step forward in increasing the efficiency of our economic policy which can command broad support.

However, H.R. 11's advocacy of a comprehensive economic program being presented by the President has certain implications which must be clearly understood if it is to be successfully implemented.

FISCAL POLICY AND CONGRESSIONAL RESPONSIBILITY

The weak point in our economic policy has been our failure to employ fiscal policy fully to regulate aggregate demand and this is partly responsible for the ambivalence of monetary policy which must often decide on running after rabbits moving in opposite directions. Congress, for reasons mentioned earlier, was given the responsibility for determining aggregate Government expenditures and revenues. If Congress controls both revenues and expenditures, it also determines the size of the annual budget deficit or surplus and, in effect, is responsible for determining the fiscal policy of the Nation. However, H.R. 11 gives the President primary responsibility for implementing the economic program of the country and recognizes that fiscal policy is one of the most powerful instruments at the disposal of the President for implementing this program. It would not be an exaggeration to say that fiscal policy is *essential* to the successful implementation of the Nation's economic programs. Even full access to the fiscal policy instrument may not be sufficient to attain all our economic goals, but its absence makes the task hopeless and increases the magnitude of our shortfalls. How then are we to resolve this conflict without having Congress abdicate its constitutional responsibility.

The answer to this question lies first in the fact mentioned earlier that the principal aspect of the use of fiscal policy to help determine aggregate demand is the size of the budget deficit or surplus. Any deficit, or surplus, is consistent with any level of total public spending. So Congress need not relinquish its control over the balance between private and public use of the Nation's resources nor need it relinquish its control over the composition of Government expenditure. However, if it wishes to determine the level of public expenditure and its composition which seems essential to the democratic process, it must relinquish a part of its control over the level of public revenue. It seems obvious that if there is a choice of relinquishing part of its control over expenditures, or part of its control over revenues that the choice is overwhelmingly in favor of the latter. Nor need this loss of control be very great. If the President were allowed to vary Government revenues within 1 year by an amount equal to 5 percent of the approved level of budget expenditures, enough flexibility would be introduced into our fiscal system to restore fiscal policy as an active instrument of economic policy in service of the Government and would make larger changes unnecessary.[1] Congress would still retain its right to approve the budget annually.

As a further constitutional safeguard, the Presidents should be required to give Congress 60 days notice of any such change and Congress should be able to overrule the President's decision in that period by a majority or two-thirds vote. Congress may wish further to restrict the discretion of the President to vary only certain taxes such as personal and corporate income taxes but these are technical matters not suitable for discussion here. Such a measure would permit a greatly more effective economic policy to be pursued and still preserve Congress's prerogative and duty to oversee the revenue system.

[1] This proposal is similar to the one made by the Commission on Money and Credit, *Money and Credit* (Englewood Cliffs, N.J., 1961), p. 137.

Restoring fiscal policy to the arsenal of economic policy instruments will permit the Federal Reserve to limit its objectives and adhere to a more precisely defined policy which should be reflected in the content of the President's economic message outlined in H.R. 11. There is a considerable amount of academic debate as to whether the immediate policy indicator should be defined in terms of the money supply, total credit, total bank reserves or some other variables. My own preference is total bank reserves or bank reserves plus currency—so called high-powered money—since this is the only variable directly dependent on the behavior of the monetary authorities—the Federal Reserve System and the Treasury. However, all three variables as well as other candidates not specified are closely related. It would be useful as well as specifying a *target* in terms of "high-powered money," if the Federal Reserve System gave its forecast of these related magnitudes, it being understood that their exact values depend not only on the decisions of the monetary authorities but also on the behavior of banks and the public which may not always be accurately forecast.

The linkage between bank reserves and currency and the money supply is a flexible one. It is something like tying two dogs together and leading them by a leash. While first one dog may get out ahead and then another, fundamentally they are walking together. While changes in bank reserves and currency may go in opposite direction from total bank credit and the money supply for one or even two quarters, eventually they must march in step. In some cases the Federal Reserve System may actually anticipate the deviation in direction and attempt to compensate for it, but this is, in general, a precarious procedure with our present state of economic knowledge, since it may misjudge the degree of deviation and overcompensate. In general until our ability to predict the shortrun factors determining bank credit, it is best to set the target on the medium-run objective and endure one or two quarters lag in the response of bank credit and the money supply. The systematic application of this type of policy would result in a smaller variation in the rate of change of bank reserves than has been experienced in the past.

The limitations of monetary policy must also be taken into account, especially with respect to its ability to influence aggregate demand. Monetary policy is something like the staff of the tightrope walker, which is effective in offsetting small deviations in his equilibrium, keeping him in equilibrium but utterly useless if he gets far enough out of equilibrium. Monetary policy may be used successfully to make minor adjustments in aggregate demand to keep the economy in equilibrium at high levels of economic activity but once major departures from the high employment growth path have occurred its effectiveness is greatly diminished and major reliance must be placed on other instruments of economic policy.

Interest rates should be relegated to a secondary position as an indicator of monetary policy allowing them to assume whatever value necessary to attain our general monetary objectives. Any dislocation that they may cause, as in the case of the housing market, should be dealt with by special measures such as more liberal policies of the FHA and FHMA.

The entire Federal debt bearing some fixed interest rate (perhaps an average of past market rates) should be sold to the Federal Reserve System and the Federal Reserve should be given responsibility for marketing it to the public in accordance with the general objectives established in the President's economic message proposed in H.R. 11. The cost of the debt will then become the cost of running an efficient fiscal and monetary policy. The Federal Reserve may offset any losses that may occur with its current earnings. If the cost of the debt exceeds the fixed interest on the debt and earnings of the Federal Reserve System, the differences should be appropriated by Congress and at this point the Congress may exercise its surveillance over the Federal Reserve's stewardship.

STRUCTURAL CHANGES TO THE FEDERAL RESERVE SYSTEM IN H.R. 11

Most of the structural changes in H.R. 11 are based on the premise that the Federal Reserve System is not responsive to implementing the general policies of the Government. As I have indicated earlier, one of the reasons that the Federal Reserve at times has not acted as decisively as it might, is because of the large number of objectives it has felt that monetary policy must serve, leading it to follow a policy of a constantly shifting of hierarchy of objectives which occasionally has resulted in the Federal Reserve falling considerably short of achieving one or more of its objectives. The activation of fiscal policy coupled with a more precise definition of the objectives that the Federal Reserve should give priority to, in the management of monetary policy will make it possible for the Federal Reserve to act more decisively.

One, of course, may still criticize the judgment of the Federal Reserve Board in the manner in which it has employed existing instruments of monetary policy but the structural changes in H.R. 11 do nothing to remedy this type of shortcoming.

The provision of H.R. 11 for the Federal Reserve Board to submit a quarterly report to Congress listing its past actions and prospective actions and how these relate to the economic program of the President is an excellent proposal provided that in discussing its future action in certain areas it is realized the Board may have to be less precise in certain areas to avoid speculative repercussions which may make its policies less effective. It will also give the Federal Reserve Board an opportunity to indicate to Congress when monetary policies are diverted from their primary objectives because of inadequate economic policies in other areas and subject its use of existing monetary instruments to independent scrutiny.

It might be desirable to have the Federal Reserve Board Chairman serve at the pleasure of the President and to shorten the terms of Federal Reserve Board members to 7 years rather than 14. To have them coterminous, or almost so, with that of the President would make the Board too responsive to transitory political influences and reluctant to undertake, what it must often do, decisions which are politically unpopular often simply because they are not well understood. The quarterly reports mentioned in H.R. 11 would lead to a better understanding of the Federal Reserve's actions in the future.

The level of administration and efficiency of the Federal Reserve System is generally above that of the rest of the Federal Government and compares favorably to that of our best run private banks. To

have its funds appropriated annually by Congress and have it audited by the Comptroller of the Currency will probably have the effect of lowering the standard of administration and efficiency to that of the general government rather than the reverse.

The retirement of Federal Reserve bank stock is of little consequence and is probably desirable in that the capital provided by the stock is not needed now or under any foreseeable circumstances by the Federal Reserve System.

RECENT MONETARY DEVELOPMENTS

In recent years the average rate of growth of GNP has been 4 to 5 percent in constant prices depending on the period selected. Historically the money supply has on the average grown slightly faster than GNP. If we somewhat arbitrarily say this higher rate of growth of the money supply is 1 percent more the average rate of growth of GNP at constant prices in recent years would be consistent with a growth of the money supply of between 5 and 6 percent. In fact, the actual quarter-to-quarter changes in the money supply have varied considerably about this range (see chart 1). In the last three quarters of 1966, the quarterly changes in the monetary base (which eventually determines the increase in the supply of money and bank credit) were in the vicinity of only 2 percent as seen in chart 1. This was followed by a sharp fall in output in the first quarter of 1967. While it is too simple an explanation to place the blame for the sharp fall in output in the first quarter of 1967 or changes in the monetary base, it certainly was consistent with the contraction in the rate of expansion in the monetary base and must be listed as a contributing factor. While restraint was called for in the early part of 1967, a change from an increase in the monetary base from an annual rate of 6 percent to 2 percent in one quarter appears in retrospect to have overshot the degree of restraint desired.

Similarly the sharp increase in the rate of expansion in the monetary base from a rate of increase of a little over 1 percent in the last quarter of 1966 to more than 10 percent in 1967 in response to the sharp fall in output seems to have overcompensated in the opposite direction. The maintenance of quarterly rates of change of the money supply in the vicinity of 7 percent through 1967 appears in retrospect to be inconsistent with our long-run rate of growth and contributed strongly to the high rate of inflation experienced in the same period.

The volume of bank credit and money are fundamentally determined by the amount of bank reserves and currency which is commonly called the monetary base provided by the monetary authorities. The quarter-to-quarter linkage however, as mentioned earlier, is a loose one and although over any extended period, say a year, it is the principal determining factor. Comparing the quarter-to-quarter percentage changes in the monetary base with either the Federal Reserve Board's index of industrial production or GNP in constant prices (chart 1) one is generally struck by the fact that the rate of increase of monetary base has moved parallel to the growth in economic activity expanding when activity picks up and reducing its rate of growh when economic activity slows down. This procyclical behavior tends to accelerate both the rate of business expansion and contractions.

Quarterly Changes At Annual Rates of Banks Reserves and Currency
and the Index of Industrial Production

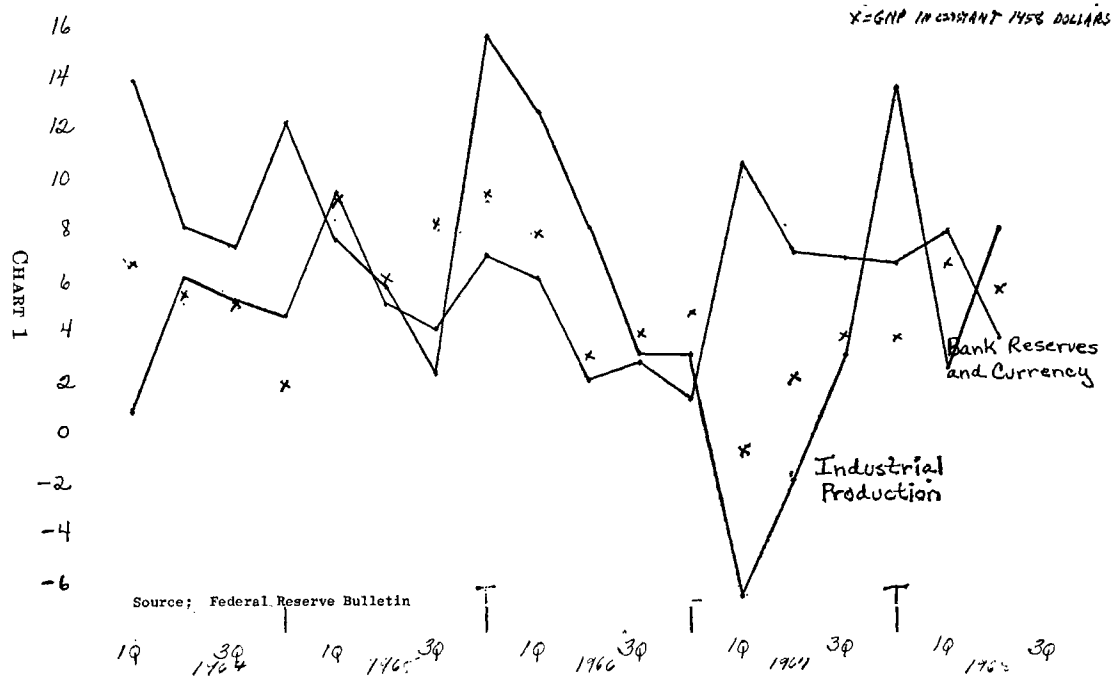


CHART 1

Source; Federal Reserve Bulletin

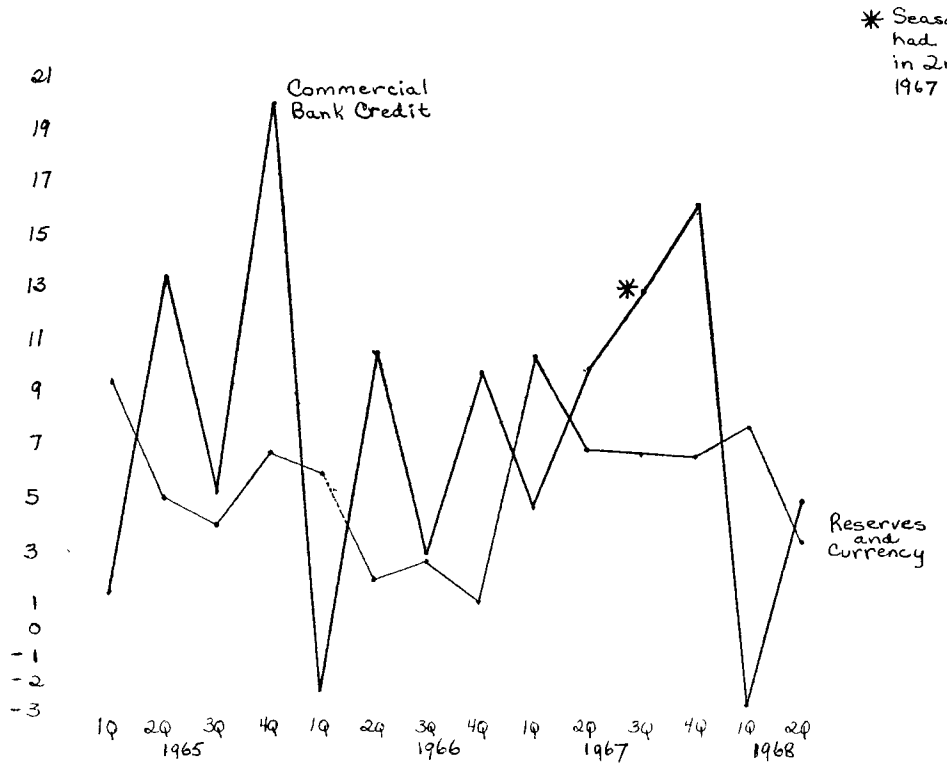
A notable exception to this pattern was in the first quarter of 1967 when after four quarters of contraction of both the monetary base and ouput, output nosedived and he Federal Reserve sharply increased bank reserves. One cannot help speculating that if the Federal Reserve had followed a less procyclical policy in changing the quarterly rate of growth of the monetary base that the quarterly fluctuations in output would have been in some degree moderated. This would not preclude the Federal Reserve taking a strong initiative, as it did in the first quarter of 1967, to offset an exceptionally steep fall in the level of activity. This type of policy would be facilitated by placing more emphasis on the monetary base or less on bank credit as a major indicator of monetary policy. The principal fault with the bank credit variable, or the proxy that is employed for it, is its highly varying amplitude around the trend in bank credit which can make it difficult to interpret (chart 2).

A second interesting facet of recent monetary experience is the close parallel movements in the quarter-to-quarter percentage changes in the monetary base and the consumer price index (chart 3) which suggests that prices in the high level employment situation of recent years are highly responsive to monetary policy. It seems likely that a lower rate of growth in the monetary base leading to a lower rate of growth in bank credit and the supply of money would produce greater price stability which would not only offer some support to domestic stability but also to our balance of payments.

Without entering into a discussion of how important monetary policy is in exerting effective control over the economy, it would seem that the available evidence suports the general conclusion that smaller quarter-to-quarter variations in the monetary base about its long-run trend would be helpful in reducing the fluctuations in output and that a rate of growth of the monetary base somewhat less than that experienced in recent years would retard the rate of inflation without damaging our rate of economic growth and would offer support for the balance of payments.

A lower and less variable rate of growth in the monetary base combined with a more flexible fiscal policy would go a long way to providing us the policy instruments and mix to deal with the problems of the next decade.

CHART 2



* Seasonal pattern had been down in 2nd Q, but in 1967 it went up.

Chart 3)

Quarterly Percentage Changes in Bank Reserves and Currency and the Consumer Price Index 1964-1968
(percentage changes at annual rates)

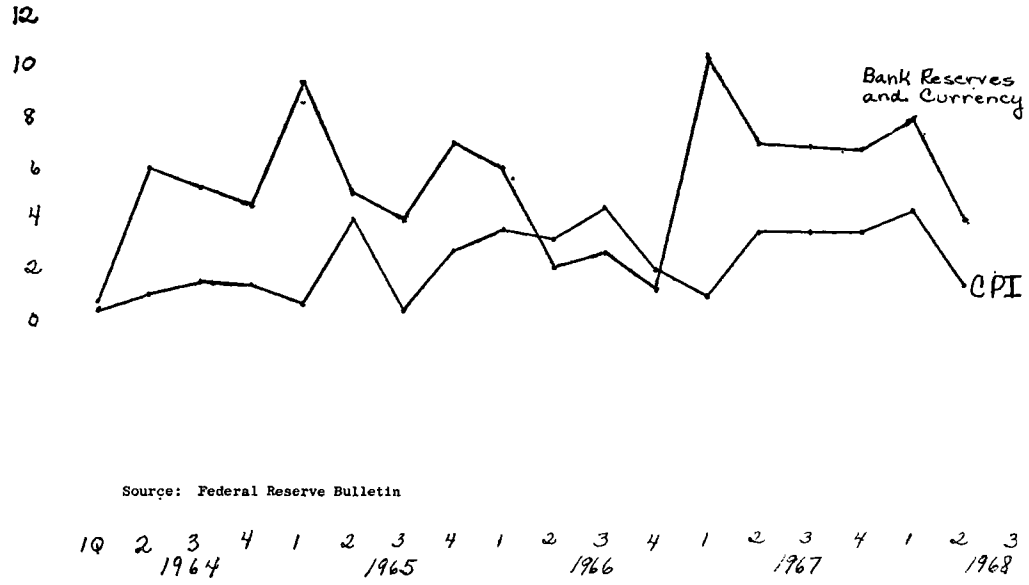


CHART 3

Source: Federal Reserve Bulletin

STATEMENT OF JERRY VOORHIS, CHICAGO, ILL.

Since it is my strong opinion held throughout my lifetime that monetary policy should be completely coordinated with fiscal and economic policy, and should have as its target aim the maintenance of reasonably full employment and constant economic growth, I therefore believe that the provisions of H.R. 11 are extremely well conceived and should be promptly enacted by the Congress.

The effect of H.R. 11 would be to make of the Federal Reserve System what it should always have been; that is, a national bank of issue for the United States and an instrument of sound economic policy geared to constant steady growth of the economy of the United States.

It has always been ridiculous to have the Federal Reserve System, which effectively controls the money supply of the Nation and which creates a considerable portion of the money supply, owned by private banks. The natural interest of the banking system is to keep the supply of money scarce enough so that high rates of interest can be maintained and so that money can continue to be a commodity to be marketed by the banks for their private advantage.

However, money should not be a commodity. It should be what Walter Lippmann has wisely called "a neutral factor" in the economy accommodating the commerce of the country and the needs of the people, but never controlling or restricting them.

With the passage of H.R. 11 it would be possible for the President each year to deliver his message, pursuant to the Employment Act of 1946 in such form as to outline monetary policy appropriate to the achievement of the "maximum employment, production, and purchasing power." In that message the President should estimate the rate of economic growth which his administration deems achievable, desirable, and calculated to achieve the purposes of the Employment Act of 1946.

Since constant economic growth is necessary for the achievement of that goal, the President's message would necessarily call for an increase in the money supply which was calculated to be necessary in order to accommodate the stipulated rate of economic growth with reasonable stability in the price level.

As long as the national debt remains at a high figure, it is probable that the most desirable way of achieving expansion of the money supply would be for the Federal Reserve to purchase from the commercial banks outstanding obligations of the Federal Government beginning with those drawing the highest rate of interest. Under the terms of H.R. 11, whenever this was done, the bonds so purchased would automatically be retired and the national debt correspondingly reduced.

Since interest on the national debt is now the second largest item in the Federal budget this in itself would be a highly desirable operation from the point of view of the American people. Indeed it would be desirable to retire debt by Federal Reserve purchases at a faster rate than required to achieve the desired increase in money supply. In this event, in order to prevent an inflation of bank credit, reserve requirements for the commercial banks might be, and probably should be, increased as outstanding Government obligations were purchased from them. Thus gradually and painlessly it would be possible through

simple monetization to pay off the national debt and to establish a sound monetary system based ultimately upon 100 percent reserve system for demand deposits in the commercial banks.

With such a program in effect all American business, including agriculture, would know from year to year that reasonable and steady economic growth was going to take place, that rates of interest would not rise because of the expansion of the money supply, and that that money supply would be sufficeint to accommodate the needs of an expanding commerce.

Furthermore, the entire Nation would know that it could achieve expansion of its money supply to accommodate desirable economic growth and at the same time time to decrease the national debt over the long term and in most years without the necessity of any deficit financing.

STATEMENT OF CHARLS E. WALKER, THE AMERICAN BANKERS ASSOCIATION

I. QUESTIONS ON MONETARY POLICY GUIDELINES AND OPEN MARKET OPERATIONS

The Employment Act of 1946 provides that the President shall transmit to the Congress by January 20 of each year a program for achieving "maximum employment, production and purchasing power." As provided by H.R. 11, "Such program shall include the President's recommendations on fiscal and debt management policy and guidelines concerning monetary policy, domestic and foreign, including the growth of the money supply as defined by him." Thus, H.R. 11 brings monetary and debt management policies explicitly into the purview of the Employment Act for the first time. With the preceding in mind, please answer the following questions:

1. Do you believe that a program coordinating fiscal, debt management and monetary policies should be set forth at the beginning of each year for the purpose of achieving the goals of the Employment Act, or alternatively should we treat monetary and fiscal policies as independent mutually exclusive stabilization policies?

2. If you believe a program should be specified, do you believe that the President should be responsible for drawing up this program, or alternatively should such responsibility be dispersed between the Federal Reserve System and agencies responsible to the President? (Please note that informal consulting arrangements can be made as desired whether responsibility is assigned to the President or divided between the President and the Federal Reserve. The concern here is with the assignment of formal responsibility for drawing up the economic program.)

Comments on questions I.1 and I.2

As I made clear in remarks before the Southwestern Graduate School of Banking in the summer of 1966, monetary and fiscal policies are to a significant degree substitutable one for the other and therefore their use should be coordinated. A copy of these remarks is enclosed for the record. (See p. 580.)

These views do not imply, however, that "a program coordinating fiscal, debt management and monetary policies should be set forth at the beginning of each year." Such "planned coordination," especially if drawn up by the President, could easily lead to diminished independence of the Federal Reserve within Government and greater influence over monetary policy by the executive branch of the Government. The probably result is that political considerations would come to bear heavily on monetary policy actions.

Indeed, one cannot study H.R. 11 without concluding that its underlying but unstated purpose is to increase the influence of the executive branch over Federal Reserve policy actions. So-called coordination, if implemented formally through the Office of the President, could only lead in such a direction. In my judgment, greater intrusion of political considerations into monetary policy formulation would have resulted in poorer policies in the past and would hinder the application of appropriate policies in the future. (This matter is discussed more fully in my response to question II.)

Consequently, I should not at this time favor any significant changes in the economic planning and policy process. However, I see no harm in Federal Reserve officials commenting on the financial implications of the President's economic program as reflected in his budget and economic messages. Such comments should be especially useful when, as in early 1966, political considerations resulted in an overly expansive fiscal policy which forced monetary policy to bear too much of the stabilization burden.

I.3. Concerning monetary policy guidelines:

A. Should monetary policy be used to try to achieve the goals of the Employment Act via intervention of money supply (defined as desired) as provided in H.R. 11, or alternatively should H.R. 11 be amended to make some other variable or variables the immediate target of monetary policy; for example, interest rates, bank credit, liquidity, high-powered or base-money, total bank reserves, excess reserves and free reserves? Please define the target variable or combination of variables recommended and state the reasons for your choice. (If desired, recommend a target variable or variables not listed here.) It would be most helpful if, in providing the reasons for your choice, you list the actions the Federal Reserve should take to control the target variable (or variables) and also explain the link between your recommended target of monetary policy and the goals of the economy as defined by the Employment Act.

B. Should the guidelines of monetary policy be specified in terms of some index of past, present, or future economic activity, or alternatively in terms of the target variable's value or growth? For example, should the President's 1969 program for achieving the goals of the Employment Act be formulated to require consistency with some set of overall indicators of economic activity, or alternatively so that your target variable attains a certain value or growth regardless of the economic winds? Please indicate the reasons for your preference.

C. For only those persons who recommend that some index of economic activity be used to guide the monetary authorities in controlling the target variables Should we use a leading (forward looking), lagging (backward looking) or coincident indicator of economic activity? It would be most helpful also if you would identify the index you

would like to see used and specify how the target variable should be related to this index.

D. For only those persons who recommend that the guidelines be put in terms of the target variable's value or growth: Should the same guidelines be used each year into the foreseeable future, or alternatively, should new guidelines be issued at the beginning of each year conditioned on expected private investment, Government spending, taxes, etc.? Please indicate the reasons for your preference.

E. For only those persons who recommend that the guidelines be put in terms of the target variable's value or growth and who also recommend that the same guidelines be used year after year into the foreseeable future: What band of values or range of growth do you recommend? (By way of clarification, a band of values appears appropriate if your target variable is, say, free reserves, whereas a range of growth is appropriate if it is, say, money supply.)

F. For all those persons recommending that the guidelines be put in terms of the target variable's value or growth, (regardless of whether you recommend using the same guidelines year after year or revising them each year in light of expected private investment and fiscal policy): Under what circumstances, if any, should the monetary authorities be permitted during the year to adjust the target variable so that it exceeds or falls short of the band of values or range of growth defined by the guidelines issued at the beginning of the year?

Comments on question I.3, A–F

It would be a serious mistake for Congress to attempt to direct monetary policy by establishing specific guidelines for action, whether such guidelines be couched in terms of money supply, interest rates bank credit, or some other variable. Although evidence has mounted that monetary policy may make its greatest contribution to stable economic growth through fostering a relative stable growth in the stock of money, this evidence is by no means conclusive, and certainly does not at this time warrant a congressional directive requiring adherence to such a rule.

Moreover, Members of the Congress should recognize that unrelenting adherence to this type of monetary rule could at times contribute to disruptive swings in interest rates—swings that could have severe repercussions in both domestic and international financial markets. This is not to say that monetary policy should follow the short-run goal of attempting to stabilize some selected level of interest rates; recent experience demonstrates clearly that such actions can be self-defeating. But it is to say that Federal fiscal and other actions affecting credit markets frequently have to be taken into consideration by the monetary authorities, sometimes at the cost of temporarily disrupting the rate of monetary growth.

For the foreseeable future, the recent suggestion of the Joint Economic Committee that the Federal Reserve authorities should in retrospect explain variations in monetary growth outside of a range of 2 to 6 percent per year has considerable merit. As the committee emphasized, the range would not be rigid but represents a pragmatic choice to explain only significant abnormalities in monetary developments.

This approach, it seems to me, places as much reliance on the monetary rule concept as is now justified, avoids the error of interjecting

congressional views into day-to-day monetary policy decisions, and permits sufficient flexibility for the monetary authorities to carry out their duties under exceedingly complex circumstances.

I.4. Concerning debt management policy: Given the goals of the Employment Act, what can debt management do to help their implementation? (If you believe that debt management has no role to play in this matter, please explain why.)

Comments on Question I.4

The need for borrowing economically and shaping a manageable debt structure severely limits the use of debt management as an instrument of national economic policy. Moreover, the relative weakness of debt management as a stabilization device, as contrasted with fiscal and monetary actions, raises questions as to whether efforts to manage the debt contracyclically are worth the effort.

I would not go so far as to say that debt management has no role to play in stabilization policies, but I would not let such objectives encroach unduly on the goal of creating and maintaining a stable and manageable debt structure.

I.5. Concerning open market operations: H.R. 11 requires that the FOMC conduct open-market transactions "in accordance with the programs and policies of the President pursuant to the Employment Act of 1946." And in this connection, H.R. 11 provides that "The Federal Reserve Board shall submit a quarterly report to the Congress, stating in comprehensive detail, its past and prospective actions and policies under this section and otherwise with respect to monetary affairs, and indicating specifically how such actions and policies facilitate the economic program of the President."

A. H.R. 11 makes no provision whatever for conducting open-market operations for so-called defensive or road-clearing purposes, that is to counteract seasonal and other transient factors affecting money market and credit conditions. Do you see any merit in using open-market operations for defensive purposes or should they be used only to facilitate achievement of the President's economic program and the goals of the Employment Act? What risks and costs, if any, must be faced and paid if open-market transactions are used to counteract transient influences?

Comments on question I.5.A

There is great merit in using open-market operations for "defensive purposes." Otherwise, swings in financial market conditions and interest rates resulting from seasonal and other factors could prove highly disruptive and actually hamper the achievement of national economic goals.

The principal risk incurred in pursuing defensive measures is that intervention in the Government securities market will occur too frequently, thus hampering and perhaps ultimately stultifying market processes. However, these risks are not great as compared with the advantages that result from soundly conceived and implemented defensive open-market measures.

I.5.B. Do you believe that monetary policy can be effectively and efficiently implemented solely by open-market operations?

C. For what purposes, if any, should (a) rediscounting, (b) changes in reserve requirements, and (c) Regulation Q be used? How might H.R. 11 be amended to implement your recommendations?

Comments on I.5.B and C

There is little doubt that monetary policy can be effectively implemented solely by open-market operations, but only at the cost of efficiency. This is because the other instruments of monetary policy listed in Question I.5.C, especially discount policy, at times have important roles to play as supplements to open-market operations.

The discount mechanism, for example, provides a "safety valve" for individual banks that may be hit especially hard by absorption of reserves through open-market operations or increases in reserve requirements. In addition, the regional administration of the discount rate permits tentative shifts in policy on the part of one or more outlying district banks, without overall commitment of the System to a given course of action. (This technique was used when discount rates were lowered in the summer of 1968.)

Changes in reserve requirements also possess important advantages as instruments of policy when the need is to affect all member banks by a set amount at a given time. In addition, decisions as to the policy mix between open-market purchases and/or reserve requirement reductions to provide secular growth in the reserve base has important implications for commercial bank earnings, their ability to attract capital, and thus their lending and investing policies.

Regulation Q should seldom be used as an instrument of monetary policy. Both logic and experience indicate that attempts to use the ceiling to prevent renewal of commercial bank C/D's in a tight-money period, as in the summer of 1966, are fraught with danger to credit markets and the stability of the economy.

I.5.D. Do you see any merit in requiring the Federal Reserve Board to make detailed quarterly reports to the Congress on past and prospective actions and policies? Are there any risks and costs in this procedure? In what ways, if any, would you modify the reporting provision? What information do you believe should be included in such reports as you recommend the Federal Reserve submit to the Congress?

Comments on question I.5.D

I see no harm in requesting the Federal Reserve Board to report to Congress from time to time on past policy actions, although such reports on a quarterly basis might prove to be more frequent than necessary.

There is great harm in forcing Federal Reserve authorities to disclose prospective actions and policies. Such a requirement could prove highly disruptive to credit markets as participants acted on the basis of future policy moves which might or might not prove necessary as events unfolded.

I.5.E. What costs and benefits would accrue if representatives of the Congress, the Treasury and the CEA were observers at Open-Market Committee meetings?

Comments on question I.5.E

The benefits to be obtained from representatives of the Congress, the Treasury and the Council of Economic Advisers sitting in on meetings of the Federal Open Market Committee would be more than offset by the costs. These costs would involve the probability of political considerations weighing more heavily in the implementation of monetary policy.

The informal consultative arrangements involving the "triad" and "quadriad" appear adequate for exchange of information between the Federal Reserve and the executive branch. Frequent reports to and appearances before congressional committees assure an adequate flow of information on monetary policy to the Congress.

II. Appraisal of the structure of the Federal Reserve:

H.R. 11 provides for the following structural changes in the Federal Reserve System:

1. Retiring Federal Reserve bank stock;

2. Reducing the number of members of the Federal Reserve Board to five and their terms of office to no longer than 5 years;

3. Making the term of the Chairman of the Board coterminous with that of the President of the United States;

4. An audit for each fiscal year of the Federal Reserve Board and the Federal Reserve banks and their branches by the Comptroller General of the United States; and

5. Funds to operate the Federal Reserve System to be appropriated by the Congress of the United States.

Please comment freely on these several provisions. In particular, it would be most helpful if you would indicate any risks involved in adopting these provisions and discuss whether their adoption would facilitate the grand aim of H.R. 11, which is to provide for coordination by the President of monetary and fiscal policies.

Comments on question II

There is little doubt that the structural changes proposed in H.R. 11 would facilitate the "grand aim" of the legislation; namely, to provide for coordination by the President of monetary and fiscal policies. These changes would reduce the independence within Government of the Federal Reserve System. The structural changes need not be discussed in detail; thousands of pages of testimony have already been received by relevant congressional committees on one form or another of these proposals. The simple question is: Should the independence within Government of the Federal Reserve be reduced and the authority of the President of the United States over money policy be increased?

One of the most thorough discussions of this question was the testimony presented to this subcommittee in 1964 by the then president of the American Bankers Association, the late William F. Kelly. Rather than restate the arguments made at that time and frequently over recent years, I should like to submit a portion of Mr. Kelly's statement for the record. This appears on page 585.

III. Comments on recent monetary policy:

Your analysis of monetary developments, since 1964, including policy-induced changes and their effects on economic activity, is invited.

Comments on question III

Although serious mistakes have been made in implementing monetary policy since 1964, Federal Reserve authorities were correct on the fundamental issues and therefore deserve commendation for their overall posture.

An expansive policy was overstayed in 1965–66, and thereafter the shift toward restraint was too abrupt and became so severe in late summer that crisis threatened in credit markets. Later, as business activity leveled off, the move toward monetary ease was too aggressive.

Throughout the period, more attention has been paid to interest rate stabilization—sometimes in a self-defeating manner—than has been justified.

But the American people owe the monetary authorities a great deal for the courage with which a bare majority of the Federal Reserve Board stood up against administration and Treasury pressures in increasing the discount rate in December 1965. To be sure, the increase in the discount rate was primarily symbolic—monetary expansion was not curtailed until several months later and then too abruptly.

Still, the general direction and inclination of the monetary authorities, in contrast to the Congress and the administration, was correct. The country would be much better off today if the administration had quickly followed the lead of the independent Federal Reserve System and shifted fiscal actions toward restraint. This might have prevented, or at least reduced, the demand-pull inflation of 1965–66 and the subsequent cost-price pressures which are still elevating the cost of living and disrupting the economy.

The Mix of Monetary and Fiscal Policies

REMARKS OF DR. CHARLS E. WALKER, EXECUTIVE VICE PRESIDENT, THE AMERICAN BANKERS ASSOCIATION, BEFORE AN ASSEMBLY ON MONETARY POLICY AT THE SOUTHWESTERN GRADUATE SCHOOL OF BANKING, SOUTHERN METHODIST UNIVERSITY, DALLAS, TEX., THURSDAY AFTERNOON, JULY 28, 1966

I shall discuss four questions.

First, what is meant by the "mix" of monetary and fiscal policies?

Second, to what extent is one policy substitutable for the other?

Third, are different degrees of "mix" likely to have differential impacts on various sectors of the economy?

Fourth, is the currently existing "mix" suitable to the needs of the United States economy in mid-1966?

Question No. 1. What is meant by the "mix"?

Economists have recognized for some time that fiscal and monetary policies can be used together to promote balanced economic growth and price stability. Each operates by affecting aggregate demand for goods and services. An increase in taxes and/or a cut in spending will tend to dampen such demand, as will a tightening of monetary policy. A cut in taxes and/or an increase in spending, or an easing of monetary policy, will tend to stimulate aggregate demand.

Thus the term "policy mixture" refers to the relative emphasis at any one time on fiscal as compared with monetary policy for promoting the Nation's goals of economic stabilization.

Question No. 2. How much substitutability?

Economists are also convinced that, within reasonable limits, a deficiency in fiscal policy can be offset by more intensive use of monetary policy, and vice versa. The difficult problem is to define "reasonable limits."

This question is today unresolved and is likely to remain so until additional experience and analysis become available. I agree fully

with the conclusion in the excellent review of issues prepared for your assembly; namely, that "from the standpoint of domestic objectives the evidence to date appears to justify an evenly balanced 'mix' between general monetary and fiscal policies * * *." Despite the paucity of evidence, however, one or two general observations seem to be warranted.

The impact of fiscal policy is much more direct than that of monetary policy; changes in Federal spending and/or taxes affect quickly and directly the disposable income of households and businesses. Monetary policy, on the other hand, works indirectly—through affecting the cost and availability of credit, and the pace of growth of money and other liquid assets—and there may be a significant timelag between the application of monetary restraint or ease and its ultimate impact on aggregate demand.

If these views are correct—and I think they are generally accepted—then it follows that the degree of substitutability between fiscal and monetary policy as desirable policy instruments is far from perfect. Especially is this the case when policy officials attempt to restrain an overheated economy. Under these conditions, a tight monetary policy can go only so far in offsetting a weak fiscal policy, lest the risk be run of achieving an impact that is both too late and too strong.

This possibility carries further dangers in that monetary policy works to a large extent through money and credit markets, and reliance on a "tight money-loose budget mix" may give rise to severe and damaging turbulence in financial markets.

On the other side of the coin, some would argue that recovery from recession will be impeded if excessive reliance is put on easy money as compared to an expansive fiscal policy. I am not fully convinced that this is true, at least within the context of the relatively minor contractions that have occurred since World War II. I have treated this matter in detail elsewhere and will not go into it here.*

To summarize on the second question: Fiscal and monetary policies are indeed substitutable one for the other, but only within reasonable limits. Today no one can say precisely what those "reasonable limits" are. Still, there is general agreement that, because of lag effects and the possibility of severe disorder in money and credit markets, the combination of a loose fiscal policy and tight money in an overheated economy may run serious risks.

Question No. 3. What is the impact of different "mixes"?

The answer to the third question—are different degrees of monetary-fiscal "mix" likely to have differential impacts on various sectors of the economy—is "yes." Few economists would dispute this view, although there is difference of opinion as to the nature and significance of this differential impact.

As a general proposition, it seems clear that variations in monetary policy have greater impact on those sectors of the economy which rely heavily on credit, especially long-term credit, than on sectors which usually finance out of current cash flow or internally accumulated funds. This impact would be magnified considerably if the activity in question is especially sensitive to changes in interest rates. Thus, a fiscal-monetary "mix" which relied heavily on monetary policy,

*See my article, "Fact and Fiction in Central Banking," in *Essays in Monetary Policy in Honor of Elmer Wood* (University of Missouri Press: Columbia, 1965), pp. 109–129.

whether for expansion or restraint, would be expected to have a greater differential impact on such activities as homebuilding, State and local government financing and, to a somewhat lesser extent, business investment in new plant and equipment. Business spending on inventories and consumer spending for durable goods both of which are believed to be relatively insensitive to changes in interest rates, would be expected to be less affected by changes in monetary policy, although it must be recognized that shifts in the availability of credit might at times bear heavily on these areas.

A very important differential impact stemming from heavier reliance on monetary than fiscal policy relates to the international balance of payments. In international transactions, capital flows—especially those of short term—are highly sensitive to the pull of interest rates. Since heavy reliance on monetary policy implies large swings in interest rates as economic activity fluctuates, the implications of such reliance for the balance of payments are highly significant.

It is intriguing to speculate with respect to the various "mixes" of fiscal and monetary policy that might be used at different stages of the business cycle. An expansive fiscal policy and a firm monetary policy might on balance encourage expansion while helping to promote equilibrium in the balance of payments. On the other hand, when inflation threatens, a tight budget—achieved through an increase in taxes and/or a cut in spending—combined with expansive monetary policies might, if the balance of payments is not a problem, achieve the best of many worlds: sustained economic growth with stable prices and, since monetary policy is not excessively strong, relatively low interest rates. This policy "mix" was advocated as early as 1959 by then Secretary of the Treasury Robert B. Anderson, who argued that it was the best means of achieving the twin but sometimes contradictory goals of stable prices and (relatively) low-interest rates.

This type of policy "mix" may also be most stimulative to long-term economic growth, since the easier monetary conditions and lower interest rates would encourage long-term investment expansion by business firms and State and local governments. Tight money and an expansive budget, on the other hand, would as noted earlier run the risk of exerting too much restraint at a relatively late stage of an expansion and, at the same time, run the risk of creating disorderly and perhaps chaotic conditions in money and credit markets.

We need to learn much more about the differential impact of monetary policy as an instrument of economic stabilization. But it does seem that we know enough to conclude that extreme reliance on either leg of the policy "mix"—and especially upon monetary policy—should be avoided. Unfortunately, however, the error of relying too heavily on monetary policy to restrain an excessively ebullient economy is precisely the error Government policymakers are making today. This observation brings me to the fourth and final question.

Question No. 4. Is the currently existing "mix" of fiscal and monetary policies suitable to the needs of the U.S. economy in mid-1966?

My answer to this question is "No," and I am certain that it is shared by the vast majority of economists.

Viewed in one sense, the "mix" between Federal monetary and fiscal policies today is very much like an extra dry Martini—about six parts monetary to only one part fiscal.

Just a little over 4 years ago I stood on this podium and voiced my support for a substantial Federal income tax cut to promote healthy economic growth. The tax cut came and it was the right policy at the right time, for the existence of unutilized labor and resources justified an expansive fiscal policy. Last March I advocated a Federal tax increase and a spending cut to take some of the steam out of an economy overheated by strong domestic demand and the impetus of war spending. I repeat that recommendation today, but I do so now with considerably more trepidation than when I did so last March.

The danger is that we may well have waited too long. Ideally—and ideal policies can be identified only on the basis of hindsight—Federal taxes should have been raised in the latter half of 1965. But it was not until December that the Federal Reserve Board—and even then with the disapproval of the President—finally made an overt move toward greater economic restraint by raising the discount rate. These remarks are made less in criticism of Government policymakers (although some of their actions and statements in recent months are indeed subject to considerable criticism) than to emphasize the shortcomings of economic forecasting. But, to many observers, including many liberal economists, these mistakes were clear by March 1966, and there was at that time broad-based support for a tax increase.

The administration took no action; now it may be too late. Tight money may be taking hold and a tax increase on top of such conditions could do more harm than good. Still, one must balance against this the fact that economic conditions are very strong and monetary and credit expansion seems to be continuing apace—a clear indication that the tightness of money stems less from the supply side than from the demand side. Stated differently, the tight money that we have today reflects the impact of prosperity and wartime financing, which add heavily to credit demands, rather than a contraction in the volume of money or credit.

The results of the administration's inaction are clear: the tightest monetary conditions in many years, with especially severe impacts on those industries, such as homebuilding, which rely heavily on credit. In addition, banks and other financial institutions are competing vigorously for funds, leading in some cases to an escalation of interest rates paid to savers. Such competition is, of course, in the public interest, so long as it does not lead to a deterioration in the quality of assets held by the institutions. Excessive competition—and this is doubtless occurring in some areas and among some institutions—does no one any good.

The answer to this problem is not to attempt to roll back interest rates by putting low ceilings on the competing industries—in this instance, banks and savings and loan associations. The imposition of such ceilings will simply drive more and more funds into credit market instruments and, ironically, the Federal Government's own securities and participation instruments, which are being issued in steadily increasing amount. The answer lies rather in bringing fiscal policy into proper balance with monetary policy.

How can this be done without running the risk of adding too much restraint at too late a stage in the expansion? One suggested approach deserves serious consideration. I refer to legislation introduced earlier this week by Congressman Moorhead, Democrat, of Pennsylvania, to provide the President with power to enact an income tax increase

during the period when Congress is in recess later this year. I have not had an opportunity to study in detail Congressman Moorhead's bill, but my cursory examination of it convinces me that it avoids some of the inherent dangers of providing standby tax power to the Chief Executive, but still provides sufficient flexibility for dealing with today's perplexing conditions.

I am opposed to giving the President standby authority either to raise or lower Federal income taxes. In part, this opposition is philosophical—an unwillingness on my part to accept this much permanent delegation of power over domestic events to one Government official. In part, my opposition is pragmatic—the assertion that Congress will not act quickly to raise or lower taxes when circumstances warrant is not supported by the facts; witness the Korean tax increase in 1950, the excise tax reductions in 1965, and the fiscal actions of early 1966. As to the absence of contracyclical tax changes—such as those advocated by many economists in 1958 and again in 1966—no administration proposal was forthcoming.

I am convinced that, when circumstances warrant, a firm administration proposal—if easily understood, broadly based, and soundly conceived—would receive quick action in the Congress. At the least, it seems to me, the congressional approach should be tried before more radical techniques are adopted.

Congressman Moorhead's proposal, however, involves no permanent delegation of congressional authority to the Executive. As I understand it, the President would be empowered during the congressional recess to put into effect a moderate across-the-board income tax increase, affecting both individuals and corporations and for a 6-month period, if he concluded that conditions so warranted. The authority would expire with the reconvening of Congress in January 1967.

Some observers may object to the Moorhead approach because of its novelty. Admittedly, it is a new departure, but it seems to me a departure justified by the urgency of the situation. Clearly, monetary policy is bearing much too much of the stabilization load. Clearly, fiscal policy must assume a larger portion of the burden. But at the same time impartial observers must admit that the imposition of restraint at this stage of the expansion—on top of stringent monetary conditions—might bear too heavily on the economy.

This possibility points up the most attractive aspect of the Moorhead proposal. Delegation of temporary authority to the Chief Executive to raise taxes will permit the President and his aides to keep a very close watch on the economic situation as it unfolds from week to week. The President could pull back from any precipitate action if economic indicators began to show that monetary restraint was cooling the inflationary fires. The possibility of a highly damaging tax increase would not be completely avoided, but it would be reduced. The Moorhead proposal is not without shortcomings. Perhaps the most significant criticism is that, if Congress is willing to give the President temporary authority to raise taxes, it should go right ahead and raise taxes itself. Some would argue that shifting the decision to the Executive would in effect be a device for moving the "monkey" from Congress' back to that of the Executive. But to me the need for maximum flexibility in an urgent and perplexing situation justifies the efforts of Congressman Moorhead to obtain temporary delegation

of congressional authority to the President. The only change that I might suggest in Mr. Moorhead's approach is that he amend his legislation to permit the President to act earlier, before Congress adjourns, if conditions so warrant.

My support of the Moorhead proposal in no way implies that I would favor a tax increase *in preference to* a sharp cut in Federal domestic spending at this time. Unfortunately, the outlook for such is dim indeed. In his fiscal year 1967 budget submitted in January, President Johnson proposed a $3.8 billion increase in domestic social programs on top of a sharp rise in war spending. Congress, rather than reducing this amount, has increased it, and there is practically no likelihood of any reversal of this trend during this congressional session.

An equitable and broad-based increase in income taxes, therefore, seems to be the only practical method of bringing fiscal policy into its proper place in the policy "mix."

SUMMARY AND CONCLUSION

Federal economic policy is relying too heavily on monetary restraint and insufficient on fiscal restraint. Although fiscal and monetary policies are to some degree substitutable, it is dangerous to use either to extreme—particularly monetary policy. The administration and the Congress should move rapidly to provide appropriate fiscal restraint.

There is, however, a possibility that monetary restraint is beginning to take hold and that a tax increase would prove to be too much of a burden for the economy. Accordingly, careful consideration should be given to Congressman Moorhead's proposal that the Congress give the President temporary authority, expiring at the time the Congress reconvenes in January 1967, to enact an equitable and across-the-board income tax increase.

The administration has procrastinated much too long in adjusting fiscal policy to the demands of the day. The Moorhead approach is novel, but in essence it is soundly conceived to meet today's problems without sacrificing basic principles.

(Supplementary materials follow:)

EXCERPTS FROM A STATEMENT OF WILLIAM F. KELLY, PRESIDENT, THE AMERICAN BANKERS ASSOCIATION, BEFORE THE SUBCOMMITTEE ON DOMESTIC FINANCE OF THE HOUSE COMMITTEE ON BANKING AND CURRENCY ON PROPOSALS TO MAKE REVISIONS IN THE FEDERAL RESERVE SYSTEM, APRIL 29, 1964

The American Bankers Association is pleased to have this opportuntiy to comment on proposed legislation which would alter the structure of the Federal Reserve System. In considering these bills, we are impressed with the marked extent to which their provisions depart from the long-held congressional view that the Federal Reserve System should be endowed with a relatively high degree of independence within Government.

Much has been written about the so-called independence of the Federal Reserve System. In its general sense, the term is used to denote the insulation of the monetary decisionmaking process from narrow public or private pressures that would interfere with the application of monetary policy consistent with long-range economic goals—including sustained economic growth, reasonable stability in the aggregate level of prices, and maximum employment. In its strict sense, the term is used to describe the position of the Federal Reserve System—and more specifically, the Board of Governors of the Federal Reserve System—within Government. Thus, the Board of Governors often is said to be independent *within* Government, although it is not independent *of* Government.

Insofar as its relationships with the executive branch of Government are concerned, the Federal Reserve is independent in the sense that its policies and operations are not subject to direct management or determination by the President. This does not mean, of course, that the President may not take steps to discharge his duties to determine that laws are faithfully executed. Rather, it means that in the performance of duties involving the exercise of discretion, the Board of Governors is responsible for carrying out its functions in accordance with its independent judgment.

The debate leading up to the passage of the Federal Reserve Act, the language and provisions of the act, and subsequent legislative reports concerning the Federal Reserve System leave no doubt that the original intent of Congress was of Congress was to assure the Board members a high degree of independence from the executive branch. The authority of Congress to create such an agency and to require it to act independently of executive control also is well established. As has been pointed out in earlier hearings, the Supreme Court noted in 1838 that—

"It would be an alarming doctrine that Congress cannot impose upon any executive officer any duty they may think proper, which is not repugnant to any right secured and protected by the Constitution; and in such cases the duty and responsibility grow out of, and are subject to, the control of the law, and not to the direction of the President." [1]

This principle has long been recognized by the courts, and its applicability is by no means confined to the Board of Governors of the Federal Reserve System. In commenting on the relationship between the Federal Trade Commission and the executive branch, for example, the Supreme Court has noted that—

"Such a body (i.e., the Federal Trade Commission) cannot in any proper sense be characterized as an arm or an eye of the executive. Its duties are performed without executive leave and, in contemplation of the statute, must be free from executive control." [2]

In commenting on this case, the Board of Governors has delivered the following interpretation:

"The Board of Governors, of course, operates in a different field from that of the Trade Commission and with respect to different subject matters. As previously indicated, however, in performing many of its important functions, the Board exercises rulemaking powers as the agent of the legislative authority, and in certain other respects the Board performs quasi-judicial functions. The Federal Reserve Act and its legislative history show the intent of Congress that the Board shall exercise its own judgment and discretion in performing its duties. Consequently, if occasion should ever arise for judicial determination of the status of the Board, it would appear that, if the principle of the *Humphrey's* case is followed, the courts would hold that the Board is authorized to carry out its important reserve banking functions in accordance with its own independent judgment, 'free from executive control.'" [3]

Historical review.—Public awareness of the problem of defining the relationship between a central banking institution and its government was at its peak in this country during the debate preceding the establishment of the Federal Reserve System. The problem was an acute one, and to its solution the Congress brought, as background, the findings of the most exhaustive study ever undertaken of foreign central banking structures, policies, operations, and techniques. The ultimate decision in favor of an independent central banking organization reflected in large measure the desire to erect safeguards against the entry of partisan political considerations into determination of central banking policy. The emphasis placed on this point is indicated by the following passage from the report of the House Banking and Currency Committee.

"It cannot be too emphatically stated that the committee regards the Federal Reserve Board as a distinctly nonpartisan organization whose functions are to be wholly divorced from politics." [4]

The strength of congressional feeling on this subject was reflected in the floor discussion leading up to the passage of the Federal Reserve Act. The terms of office and manner of appointment of Federal Reserve Board members frequently were discussed, for example, in terms of the possibilities that a President might

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[1] *Kendall* v. *United States*, 12 Peters 610.
[2] *Humphrey's Executor* v. *United States*, 295 U.S. 602, 628 (1935).
[3] Joint Committee on the Economic Report, 82d Cong., second sess., *Monetary Policy and the Management of the Public Debt*, pt. I, p. 247.
[4] *H. Rept. No. 69*, 63d Cong., p. 43.

exercise influence over the Board's decisions. It was pointed out in congressional debate that—

"There is no Board until the President appoints one, and the act of appointment and the manner of appointment are not similar nor coextensive with the acts of the Board after they are appointed. The President does not control the action of the Federal Reserve Board. * * *" [5]

Similarly, the provision for staggered terms for Board members was described on the House floor as taking the Federal Reserve out of politics.[6] The provision which relieved the Board from the necessity of relying on congressional appropriations also was designed to render the organization independent of the executive branch and aloof from partisan political pressures which might emanate from the Congress itself,[7] and the chairman of the House Banking and Currency Committee indicated that the Board should report directly to the Congress (rather than to the executive branch) for "obvious reasons." [8]

The incorporation into the Federal Reserve Act of provisions which admittedly were designed to isolate the Federal Reserve System from political influences left little doubt as to the Congress' appraisal of the issues involved.

Congressional determination to insulate the central banking organization against political pressures was endorsed strongly by Woodrow Wilson, who placed the full weight of the President's office behind measures aimed at accomplishing this end. Moreover, in his subsequent relations both with the Congress and with the Federal Reserve System itself, Wilson showed iron determination in refusing to intervene in the affairs of the central bank.[9] Senator Carter Glass, one of the principal architects of the Federal Reserve System during his service in the House of Representatives, wrote as follows in 1923:

"I commend, without qualification of any description, Mr. Wilson's wise determination to refrain from executive interference with Federal Reserve administration and his refusal to permit politics to become a factor in any decision taken. Unless the example thus set by President Wilson shall be religiously adhered to, the system, which so far has proved a benediction to the Nation, will be transformed into an utter curse. The political pack, regardless of party, whether barking in Congress or burrowing from high official station, should be sedulously excluded." [10]

Senator Glass' strongly worded warning against executive interference with Federal Reserve administration has as much relevance today as when it was written. Nor has the Congress lacked diligence in assuring that the independence of the Federal Reserve be protected against erosion. Having already provided for the staggered expiration of terms of Board members, required Senate confirmation of Presidential appointments to the Board, and limited the power of the President to remove Board members, Congress lengthened the terms of office of Board members from 10 to 12 years in 1933 and to 14 years in 1936. In the latter year Congress also removed the Secretary of the Treasury and the Comptroller of the Currency as ex officio Board members.[11] Consequently, legislative developments since the passage of the Federal Reserve Act in 1913 have tended to strengthen—not weaken—the Board's independence within Government.

Much has happened, of course, since arguments over the advantages and disadvantages of independent administration of monetary policy were resolved in favor of a strictly nonpolitical, nonpartisan Federal Reserve Board independent of the executive branch. The central bank has become a more powerful force in the Nation's economic affairs, and new concepts of governmental responsibility for economic stabilization have come to be accepted. These developments do not necessarily imply, however, that an independent Federal Reserve System is an outmoded arrangement which stands in need of radical change. Except for the

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[5] *Congressional Record,* vol. 50, p. 4789.

[6] *Congressional Record,* vol. 51, p. 1459.

[7] H. Parker Willis, *The Federal Reserve System,* the Ronald Press Co., New York, 1923, p. 558.

[8] *H. Rept. No. 69,* 63d Cong., p. 44.

[9] Perhaps because of the exigencies of war-time financing, however, Secretary of the Treasury McAdoo tended to dominate the Board's activities. This tendency remained noticeable under subsequent Secretaries of the Treasury, and in 1935 the Secretary of the Treasury was removed from *ex officio* membership on the Board.

[10] Willis, op. cit., p. ix.

[11] It had been widely alleged that the Secretary of the Treasury exercised excessive domination over Federal Reserve credit policy, and at least one member of the Federal Reserve Board made this representation to Congress. (*Hearings before House Banking and Currency Committee* on H.R. 5357, 74th Cong. first sess., 1935, p. 191.) Moreover, Carter Glass (who had served as Secretary of the Treasury), indicated that both he and his predecessor, Mr. McAdoo, directed the activities of the Board in the interests of the Treasury. (*Congressional Record,* vol. 79, p. 11776.)

question of coordination of monetary policy with other aspects of Government economic policy, in fact, the basic arguments have changed little over the past 50 years.

The basis for independence.—The desire of Congress originally to provide for, and subsequently to strengthen, the independent administration of monetary policy has reflected recognition of potential dangers in Presidential responsibility for national credit policies. These dangers arise from conflicts between political and economic considerations, and such conflicts are as evident today as they were a half century ago. There is widespread agreement among economists that policies of credit restraint are required from time to time, yet it is observable that such policies are seldom, if ever, "popular." If one can judge from experience in the United States, it seems fair to say that such restraint (particularly if prolonged) may provoke considerable public criticism of the monetary authorities. Money must be managed, and the monetary history of this country demonstrates consclusively that sound monetary management and "popular" monetary management are not always compatible. Under these circumstances, the question which immediately arises is whether any one elected official can be expected consistently to incur public disfavor in the interests of a sound monetary system.

There is little doubt that political considerations can provide a strong temptation for compromising with sound monetary policy, and it is doubtful whether any Chief Executive should be expected to avoid tempering monetary policy judgments with political considerations. Indeed, the assumption that future administration in this country will demonstrate a uniformly high degree of political courage—thereby protecting our monetary system from the possibilities of politically inspired credit policies—is scarcely consistent with the philosophy underlying the system of checks and balances which undergirds our form of government. There are numerous Government programs which, to some degree or another, are capable of being used to serve narrow political ends. Taxation, social welfare spending, housing programs, agricultural programs, and a myriad of other components of domestic economic policy may be cited as examples. In all these areas, however, congressional as well as Presidential action is required. Elimination of the independence of the Federal Reserve from the executive branch of the Government would make monetary policy far more vulnerable to political use than most other elements of Government economic policy, however, precisely because of the absence of direct congressional restraints.

The relevance of foreign experience.—Some observers point to foreign experience with the administration of monetary policy by politically elected officials as current evidence that Executive control over monetary policy need not spell serious political abuse. This view not only ignores past experiences with monetary excesses, but also fails to take account of important differences between public opinion in the United States and many other industrialized nations—differences which stem largely from differences in central banking experience. Whatever differences may separate shades of public opinion in these countries, and however diverse economic philosophies may be, conflicting judgments with respect to monetary policy are not often of major importance. To the extent that they are noticeable, they frequently represent differences of degree and not fundamental differences in concepts.

It is significant that general agreement on the role of monetary policy is most noticeable in countries which not only have eliminated the formal independence of the central banks but also, in many cases, have experienced the political control of monetary policy. General dissastisfaction with the results of such control has led to a reversal of the trend which, in the 1930's and in the immediate postwar period, led to the subordination of the central bank's viewpoint to the views of politically elected officials. In summarizing the conclusions drawn from postwar European experience, for example, the late Per Jacobsson remarked as follows in 1952:

"The second conclusion to which we have come is that if we really need somebody to fight for the attainment of internal balance in our respective economies, the task cannot as a rule, be trusted to politicians, who have all their clients to take care of. The situation calls for some institution strong enough to do the fighting, and on the continent of Europe *the institutions with this qualification have mostly been the central banks.* (Emphasis in original.) It is almost possible to say that, in the majority of the countries where useful measures for a restoration of internal balance have been taken, this has been done thanks to the influence of their central banks. Thus on the continent there is again a growing feeling that influential and authoritative central banks are a necessity;

I am glad to say that among the general public this is coming to be realized, so that in more and more countries it is beginning to be hard for the governments to go against the views of the central banks on monetary matters." [12]

In elaborating further on the tendency for European political differences on monetary policy to wane, Mr. Jacobsson commented:

"We are witnessing the *reappearance of a kind of consensus* of opinion which is not restricted to any party but has adherents among representatives of various parties. We shall perhaps find, before long, a development along similar lines in the Anglo-Saxon countries also." [13] (Emphasis in original.)

Under the circumstances which Mr. Jacobsson describes, where public and political thought concerning the role of monetary policy is less sharply divided, where both the public political parties are alert to dangers in political use of the instruments of credit control, and where the lessons of the consequences of departure from recognized principle of monetary management already have been learned, the susceptibility of monetary policy to narrow political influence is small. Indeed, where attempts to use monetary policy to promote political ends would be both widely understood and widely disapproved, the question of the central bank's formal status is largely academic.

If we are to accept foreign experience as having relevance for our own central banking arrangement, in fact, one might be justified in concluding that the United States, like many another industrialized society, may have to suffer a clearly identifiable consequence of political abuse of monetary policy before it concludes that the independent implementation of credit policy—independent in substantance if not in form—holds the key to a stable credit environment.

Nonpolitical conflicts within Government.—Previous paragraphs have stressed hazards of exposing monetary policy to narrow political pressures. It ought to be mentioned, however, that factors outside of the political realm also tend to undermine the soundness of monetary policy when the instruments of credit control are subjected to Executive influence and control. Because of close relationships between the area of responsibility of monetary authorities and that of the Treasury Department, arrangements which provide for Executive influence and guidance of monetary policy would tend to give rise to circumstances under which the role of the Secretary of the Treasury in monetary-management decisions would be considerable importance. Moreover, by virtue of his Cabinet position and closer working relationships with the President, the Secretary of the Treasury could be expected to be in a strategic position to influence the President's views on monetary matters—perhaps to such an extent as to eclipse the influence of Federal Reserve authorities themselves.

Just as executive responsibility for credit control may involve a conflict between economic and political considerations, undue Treasury influence in monetary policy determination may give rise to conflicts between broad economic considerations and the more narrow considerations involved in financing government, of which the management of the public debt is often a troublesome aspect. One of the considerations involved in public debt management is the cost of financing, and there can be no doubt that economizing on interest cost is—and ought to be—an important (but not exclusive) objective of debt management. There is no question but that the temptations to use monetary policy to reduce the size of the interest burden are very real. Closely related is the fact that monetary policy can be used to facilitate the placement of debt either with the central bank or with other investors as a result of central banking action. This being true, when periods of strain in capital and credit markets pose real problems for debt management, the urgency of debt-management problems is capable of generating strong pressures for "temporary" reliance upon monetary action as a means of avoiding difficult decisions. Monetary policy thus can serve as a substitute for discipline in the management of Government finances, and it can be used as an instrument for shielding the Government (in its debt-management affairs) from the economic consequences of inappropriate deficit spending. These characteristics render it extremely vulnerable, when placed under the influence of debt-management officials, to uses which are associated more directly with temporary expediency than with the long-range economic objectives of the Nation.

The risks which stem from excessive Treasury influence over monetary policy are widely recognized. In discussing this issue, the Commission on Money and

[12] Per Jacobsson, *Some Monetary Problems*, London, Oxford University Press, 1958, p. 269.
[13] *Ibid.*, p. 278.

Credit, which issued an extensive report on the financial system in 1961, reported as follows:

"As the largest single borrower in the capital market the Treasury has too strong and direct an immediate interest in minimizing the cost of public borrowing to allow it a deciding voice in all policy disputes over debt management and monetary policy." [14]

Federal Reserve independence and democracy.—The argument is sometimes advanced that an independent central banking organization is inconsistent with principles of democratic government, although the basis for this view is not often spelled out.

According to article I, section 8 of the Constitution, which vests in Congress the power "to coin money" and "to regulate the value thereof," monetary management in the United States clearly is a congressional responsibility. Congress may exercise its power in this field in any manner which it sees fit, or it may delegate the power to the executive branch. It cannot, however, relieve itself of the ultimate responsibility with which the Constitution charges it. Whatever arrangements are made pertaining to the central banking organization—whether it be wholly independent of the executive branch or integrated completely with that branch—Congress is responsible for that arrangement, and it is responsible for the results that stem therefrom. It is to be stressed, therefore, that the responsibility of Congress for monetary management is complete. unequivocal, and irrevocable within the framework of our Constitution. Power may be delegated, but final responsibility which is fixed by the Constitution cannot be shifted.

In those areas for which it has responsibility fixed by the Constitution, Congress translates the will of the people, according to its own best judgments, into public policy. The task is never easy. Not only is majority preference difficult to determine in individual instances, it also involves conflicting elements which must be resolved by public officials.

In the field of monetary policy, difficulties of interpreting the public will are noticeable, and elements of conflict are present. It is obvious, for example, that the public requires at all times the sound functioning of its monetary system. It is equally obvious, however, that monetary policies necessary to accomplish this end may not always be popular (or even understood) in the short run. There is no system of government which can reconcile the irreconcilables and it would be difficult to define standards of democracy which could be used in arriving at the judgment that the public's continuing will for a sound monetary system, though largely unvoiced, should be subordinated to its preference for easier credit in an inflationary period.

The accountability of a Federal agency to the Congress, rather than to the President, does not make it a less democratic institution. Nor is it required that the Congress participate directly in the decisions and administrative affairs of such an agency in order to demonstrate its ultimate responsibility for the agency's policies and operations. The fact that it does not do so has encouraged the view that the Federal Reserve has *de facto* independence of Congress as well as of the executive branch. This idea—that the Federal Reserve System has severed ties with the Government which created it, that it answers to no one, and is governed by no authority save its own—should be dispelled.

Under the laws which define its relationships with both President and the Congress, the Federal Reserve cannot subordinate its judgments to those of either the President or of individual Congressmen. It is as independent as Congress has provided for—neither more nor less. The Congress is free to alter this arrangement, of course, and presumably it would do so in the event of widespread public dissatisfaction. If, however, there is broad sentiment for keeping partisan politics out of monetary policy, and if, through democratic processes, the Nation elects to impose restraints both upon itself and upon its Government in order to insulate monetary policy from narrow political pressures, there is no conflict between this action and the concept of democracy which has been employed successfully in this country for almost 200 years.

The need for coordination

Proposals for structural reorganization of the Federal Reserve System occasionally are aimed at achieving greater Government-wide coordination in the use of instruments of national economic policy.

In any discussion of the need for greater coordination, it is essential to bear in mind that monetary policy decisions are based on the full spectrum of forces affecting the economy's performance. Not the least important of these are eco-

[14] *Report of the Commission on Money and Credit*, p. 108.

nomic influences stemming from the Federal Government's nonmonetary policies and operations. Taking into account all forces, both public and private, monetary policy is designed to provide the appropriate credit environment which will contribute to sustainable economic growth. Sometimes monetary policy will be restrictive while other Government policies may be expansive, and sometimes the reverse will be true. At still other times, both monetary policy and other instruments of national economic policy will be operating in the same direction. This does not mean, however, that monetary policy is out of step and requires greater coordination with other instruments of economic policy. It simply means that monetary policies are based on economic considerations, whereas other Government activities having economic significance cannot always be so determined. Economic circumstances, for example, may suggest the need for a reduction in Federal expenditures, whereas noneconomic considerations having quite the opposite effect (e.g., the need for greater defense spending) may make this impossible. The absence of "harmony" between monetary and other Government policies does not necessarily reflect a lack of coordination under these circumstances.

The necessity for close coordination of monetary policy and debt management policy has long been recognized, and for reasons which are outlined succinctly in the *Report of the Commission on Money and Credit:*

"There are compelling reasons why monetary policy and debt management must be formulated and executed in close relationship. Although these policies are in the charge of different authorities, there is great similarity in the impact which they have on the economy and in the processes by which the effects are reached. Monetary policy and debt management both influence the level and structure of interest rates, the availability of loanable funds, and through liquidity and asset changes, the velocity of money. Both open-market operations and debt management can influence directly the maturity structure of the publicly held Federal debt. This does not mean that the economic powers and effects of each agency are identical—they are not—but it does mean that a close relationship between debt management and monetary policies is essential in reaching our economic objectives."

"In addition, there are potential points of conflict between the Treasury and the Federal Reserve which, without continued close cooperation can easily cause difficulty. The Treasury's debt management can interfere with an appropriate monetary policy if by increasing the frequency and volume of refinancings it reduces the time for maneuver by the Federal Reserve. Also, there may be some interference with monetary policy if the Federal Reserve finds it necessary to provide direct support to a refinancing. Similarly, Federal Reserve policy may interfere with debt management by its influence on the Treasury securities market." [14]

The mention of the need for close coordination between Federal Reserve and Treasury officials should not be taken to suggest, however, that a high degree of consultation and cooperation does not already exist. The Commission recognized this, and it added that "Treasury and Federal Reserve officials recognize their complementary relationships and are not likely to fail in cooperation by accident. They know well enough how to work together when they are in agreement on objectives."

The Commission's concern was not that Treasury and Federal Reserve officials will fail to show the requisite cooperation in dealing with problems of mutual interest and concern, but rather that they might fail to agree of broad objectives.

"The problem is not the technical one of properly meshing an intricate set of interlocking administrative gears; rather it is the policy problem of making sure that the motivating forces in the two institutions are both driving in the same direction. There have been occasions which may recur, of serious conflicts between the Treasury and the Federal Reserve. When they occur, and especially when they do not yield to the influence of direct interagency negotiations, the important thing is that they be identified promptly and be brought to the President's attention." [15]

In connection with the Commission's conclusion that Executive coordination is required in order to assure that conflicting policy objectives do not go unresolved, a number of points deserve emphasis. First, it should be noted that monetary management is an inexact science, on which differences of opinion concerning emphasis and timing are inevitable. Such differences unquestionably oc-

[14] Pp. 107–108.
[15] Ibid., p. 109

cur in Federal Reserve circles themselves, so it is not surprising that there should be interagency differences of considerable frequency. These differences do not necessarily mean, however, that the Federal Reserve is pursuing policy objectives which are in conflict with objectives of other departments and agencies of the Federal Government.

Second, it must be stressed that the possibilities of serious conflicts resulting from the pursuit of different policy objectives by the Federal Reserve and the Treasury, respectively, are not as strong as is often suggested. Throughout the postwar period, in fact, the single instance of a serious and sustained policy conflict was the Treasury-Federal Reserve disagreement over the pegging of interest rates prior to the "accord" in 1951. Yet the circumstances surrounding this conflict indicate clearly that the Treasury and the Federal Reserve were in quite close agreement as to the main objectives—the maintenance of a broad and healthy market for Treasury securities and restraint of further inflationary expansion of bank credit.

It is inevitable that the transition from a wartime to a peacetime economy should have posed severe problems for both monetary and debt-management authorities, and that in their approach to the solution of these problems—each in their respective areas of responsibility—sources of disagreement should arise. The significance of the Treasury-Federal Reserve accord of 1951 is not that these disagreements resulted in stalemate, however, but that they were resolved in a manner consistent with the policy objectives of both the Treasury and the Federal Reserve.

It should not be supposed that problems as trying as those which characterized the immediate postwar period will be a recurrent feature of Treasury-Federal Reserve relationships, and the manner in which problems were resolved in that case offers little support for the view that the open pursuit of conflicting policy objectives is likely to jeopardize the attainment of national economic goals.

There is always the possibility, of course, that the Treasury and the Federal Reserve could develop incompatible philosophies of economic stabilization, rendering impossible the complementary administration of debt management and monetary policies. Under such circumstances, policy differences scarcely could escape the attention of either the President or the Congress. In the event of such circumstances, prudence would suggest that such differences should warrant a full-scale investigation by the Congress into the goals of monetary management and the role of monetary policy in the national economy. A congressional decision in this case would be based on analysis of the issues at hand, and it properly should reflect the judgment of Congress as to whether monetary policy was, in fact, interfering with the achievement of national economic goals.

To transfer *de facto* responsibility for monetary policy to the executive branch on the theory that policy conflicts *might* develop would represent, in effect, a prejudgment that the monetary policy views of the executive branch would be more consistent with the achievement of national economic goals than those of the monetary authorities themselves; or, alternatively, that Congress is prepared to surrender to the executive branch a larger measure of responsibility for the formulation and interpretation of national economic goals. Under such an arrangement, it is implicit that discussion of Treasury-Federal Reserve conflicts, should they arise, largely would be limited to the executive branch of Government. These conflicts presumably could stem from fundamental differences in philosophies of monetary management—conflicts which should be resolved with congressional participation.

The impression cannot be escaped that arguments for executive participation in monetary policy decisions reflect a tendency to think of coordination as an end within itself. Yet it must be granted that while the coordination of sound economic policies may indeed be a blessing, the coordination of unsound policies may lead down paths which are not free of thorns. The existing arrangements governing the determination of monetary policy are designed to protect nonpartisan judgments as to what constitutes soundness of monetary policy, and experience with these arrangements does not lead to the conclusion that they have served as a serious barrier to coordination.

* * * * * * *

Following now are supplementary materials submitted by the staff to show a different point of view on Federal Reserve independence that was developed at the 1964 hearings. These materials consist of parts II and IV of "The Federal Reserve System After 50 Years," staff report on hearings before the Subcommittee on Domestic Finance of the Committee on Banking and Currency.

PART II.—INDEPENDENCE

A. THE FEDERAL RESERVE'S INDEPENDENCE AS A MATTER OF LANGUAGE

1. Part of Government or allied to Government

There is some confusion about the meaning of "independence" as it applies to the relation of the Federal Reserve to the Government. To some Federal Reserve officials it was a question, as President Bopp (Philadelphia) put it, of "the degree of independence within Government" (740). Others discussed the potential loss of independence in terms of nationalization. President Ellis (Boston) did this when, in referring to Mr. Patman's bills, he commented:

> Taken as a group, these proposals amount to a nationalization of the country's central bank (269).[1]

Still other officials of the System distinguished between the Board of Governors and the Reserve banks and asserted that the 12 Federal Reserve banks are, as President Hayes (New York) put it, "allied to Government but not part of Government" (536).[2] But it must be noted that Chairman Martin disagreed with this. He told Congressman Reuss (Wisconsin):

> Let me say, Mr. Reuss, that I don't concede that the presidents of the 12 Federal Reserve banks are private individuals (38).

2. Independence defined as the authority to act independently and the argument for the continuation of this authority

Though Federal Reserve officials differed on whether the Federal Reserve banks constitute a part of the Government or merely are allied to it, there was complete agreement among them, and the other witnesses as well, on the legal right and authority of the Federal Reserve Board and the Open Market Committee, the two policy-making bodies of the System, to make policy independently of the administration and the Congress. And this is precisely what independence means as it applies to the relation of the Federal Reserve to

[1] Some indication that important segments of the commercial banking community carry this argument to its logical conclusion and think of the Federal Reserve as a private organization, which the Congress has hired on an eternal contract basis to help the Government achieve desired economic goals, is provided by a March 1964 pamphlet issued by the Manufacturers Hanover Trust Co., which contains remarks of the bank's consulting economist, Prof. Marcus Nadler (New York University) on the independence of the Federal Reserve. The pamphlet, of course, states: "The opinions expressed are Dr. Nadler's * * *." On the particular question at hand, Dr. Nadler remarked, "The Patman recommendations, if enacted, would undermine the independence of the Federal Reserve System and for all practical purposes would make the Reserve Board a branch of the Government * * *. As a creature of Congress, the Reserve authorities must consider the broad economic policies of the administration and assist it to achieve the desired economic objectives * * *. The nationalization of the Reserve banks and the conversion of the Federal Reserve System into a branch of the Government would constitute a serious blow to the economic system of the country."

[2] In fact, the words are Allan Sproul's. Quoting them, Hayes said, "I agree fully * * *" (536).

the Government. The argument for continuation of independent authority was made by Chairman Martin when he stated:

> Because money so vitally affects all people in all walks of life as well as the financing of the Government, the task of credit and monetary management has unique characteristics. Policy decisions of an agency performing this task are often the subject of controversy and frequently of a restrictive nature; consequently, they are often unpopular, at least temporarily, with some groups. The general public in a democracy, however, is more apt to accept or tolerate restrictive monetary and credit policies if they are decided by public officials who, like the members of the judiciary, are removed from immediate pressures.
>
> There is a long-established tradition both in this country and in other democracies that the proper exercise of reserve banking functions requires that it be insulated against private or public pressures * * * (23).

Scholars would caution that in most other democracies central banks currently are, literally not merely figuratively, arms of the political authorities. This point need not be pursued here. A summary of the relations between central banks and governments in other democracies today was submitted for the record (889–892) by President Irons (Dallas) in response to a request by Congressman Widnall (New Jersey). Regardless, what is important here is that most would agree with Chairman Martin that, as a matter of language, independence means insulation from public pressures, especially as these pressures are expressed by the President. As Professor Strotz (Northwestern) stated:

> By an independent central bank we mean, of course, one whose authority is substantially independent of the executive wing of the Federal Government (1451).

Mr. Kelly, the president of the American Bankers Association, put it this way:

> * * * the Federal Reserve is independent in the sense that its policies and operations are not subject to direct management *or determination* by the President (1905). [Emphasis supplied.]

The fact that monetary policy is not subject to direct management or determination by the President is a measure of the degree of the Federal Reserve's independence. Ordinarily, so-called independent administrative bodies are not subject to the direct management by the executive branch of Government but their policies are, in the final analysis, determined by the executive or, alternatively, by clear-cut legislative guidelines.

3. Finality of the Federal Reserve's decisions

Unlike other independent decisionmaking bodies such as the FTC and ICC, the decisions of the Federal Reserve are not subject to outside review and so cannot be reversed. This awesome fact was brought out in colloquies between Congressman Pepper (Florida) and President Deming (Minneapolis) and President Hayes (New York). The relevant questions and answers follow:

(*a*) *Colloquy between Representative Pepper and President Deming.*—

Mr. PEPPER. Suppose the President would write a letter to the Federal Reserve Board and say, "Dear Mr. Chairman, I enclose a copy of my message recently delivered to the Congress, and I think it would be in the national interest if the Federal Reserve System, through all the functions that you exercise, would implement the declaration of the policy that I have made, and I shall appreciate and look forward to your cooperation." What would be the effect of that?

Mr. DEMING. Well, I think in this case the Open Market Committee, if it were to get such a letter, would reply that this is always the policy of the Open Market Committee, to attempt to have as strongly a growing economy as we can have, and * * *.

Mr. PEPPER. Would not you consider it sort of an inappropriate thing, like trying to talk to a judge in the backroom?

Mr. DEMING. I do not think the President would write such a letter, myself. I do not have any case—I do not know of any case in history where he has, but the——

Mr. PEPPER. But it accentuates the fact that under the present system the Government does not have any direct way of influencing the decisions of this committee that has so much to do with the economy of the country.

Mr. DEMING. Well, the committee is fully cognizant of the position against poverty.

Mr. PEPPER. Thank you, very much.

Mr. DEMING. And it is completely sympathetic to it (726).

(*b*) *Colloquy between Representative Pepper and President Hayes.*—

Mr. PEPPER. Under the law, is there any right of review of the decisions made by the Open Market Committee?

Mr. HAYES. I am not sure I understand, Mr. Pepper.

Mr. PEPPER. I mean you make decisions relative to the functions of the Open Market Committee. Is there any other body which has the right of review of your decisions?

Mr. HAYES. I think not.

Mr. PEPPER. So, then, you are an independent body, consisting of 12 citizens of the country, chosen as provided by law, and you exercise your discretion, not subject to review by any other authority or authorities, in making the decisions that you say are perhaps the most vital decisions made affecting the economy of the country. Is that true?

Mr. HAYES. Well, I spoke a little hastily. Obviously, the Congress which set us up has the authority and should review our actions at any time they want to, and in any way they want to. And we welcome for that reason any hearing like this, or any other investigation that the Congress may wish to make of us.

But we are a creature of Congress. So I certainly would not want to——

Mr. PEPPER. But while Congress, you might say, appropriates the money to provide for the U.S. Supreme Court, we don't have any right to review their decisions——

Mr. HAYES. I think there is a constitutional difference. I am not a lawyer but obviously there are three departments of Government. We are specifically under Congress (633).

The colloquy between Mr. Pepper and Mr. Hayes resumed a few minutes later and this part of their dialog demonstrates the almost total finality of the Federal Reserve's independent policymaking authority.

Mr. PEPPER. So to get back to the inquiry I made a few minutes ago, this Open Market Committee, consisting of 7 members appointed by the President and confirmed by the Senate, and 5 members elected by the Federal Reserve System of the country, a body of 12, that Board which, as you said a while ago, is not subject to any review by any authority or authorities in this country——

Mr. HAYES. Other than Congress, Mr. Pepper.

Mr. PEPPER. Well, excuse me. You can be abolished or new laws can be made by the Congress but this is the Banking and Currency Committee of the Congress, and we do not have any right to review your committee unless we change the law.

We, for example, can abolish inferior Federal courts under the Constitution but we have no right to review their decisions.

Now, are we not in the same relationship with the Open Market Committee? Congress can abolish it but we have no right to review the individual decisions which that committee makes.

Mr. HAYES. Well, by legislation you can do anything you want.

Mr. PEPPER. I mean under the present law.

Mr. HAYES. Under the present law that is correct (654).

(*c*) *The difficulty of enacting new law.*—An appropriate postscript to the above dialogs was added by Chairman Patman (Texas) when he observed that enacting legislation is a difficult and time-consuming process. He put the matter this way:

You know, in a democracy such as our own there are a lot of people who have bottleneck positions, any one of whom can say "No" and make it stick, but there is not one person in the United States who can say "Yes" and be absolutely sure. They just cannot do it.

Now, when you go to making legislative changes you first introduce a bill that is referred to a subcommittee. The subcommittee chairman can stop it if he wants to.

Then it passes out and it goes to the whole committee, and the whole committee chairman can have a lot of influence on it, and it can stop there.

Then it has to go through the leadership of the House and then the Rules Committee and those four bottlenecks—that is not all—just those four we see every day.

And then in the Senate it is the same way. So the chances of getting something really meaningful but opposed by an

entrenched interest in this country, that is profiting so much by occupying a position that gives them special privileges, are rather remote because it takes only a few to stop things while a majority cannot always actually accomplish things.

So we have those deterrents to changes. So we should not speak of them glibly in that we can just go to Congress and get something done right quick. We just cannot do that (1113–1114).

B. RELATIONSHIP OF THE FEDERAL RESERVE'S INDEPENDENCE TO THE PRESIDENT'S RESPONSIBILITIES UNDER THE EMPLOYMENT ACT OF 1946

The fact that the Federal Reserve's relation to the President and Congress has not changed since 1935 is itself extremely significant. Totally new concepts concerning the economic functions of the President and his responsibility for the results of monetary policy were given legislative substance in 1946 when Congress passed the Full Employment Act and charged the President with achieving "maximum employment, production and purchasing power." This act, in the words of Professor Miller (George Washington):

> * * * is of such basic importance that it takes on the character of a constitutional amendment, is the basic charter under which government affirmatively seeks to improve the American economy and also the economic well-being of the American people (1681).

1. The Federal Reserve's assumption of the Employment Act's goals

Congress did not redefine the relations of the Federal Reserve to the President when in 1946 it enacted the full employment law and thereby profoundly changed the economic duties and responsibilities of the President. Furthermore, it also is significant that for about a year after passage of the Employment Act, no reference to it, not even the fact that it had been passed, was made in the monthly publication of the Board of Governors or in the System's annual report.

Since 1946 our understanding of the importance for achieving the goals of the Employment Act, of Federal Reserve policy in general, and that of the Open Market Committee in particular, has increased significantly. The relationship of monetary policy to the 1946 law now is well understood by most Federal Reserve officials, as well as by professional economists. Chairman Martin put it this way:

> I would subscribe fully to the view that the Open Market Committee is concerned with maximum production, maximum employment, and maximum purchasing power—that those are its objectives and purposes (35).

Every Reserve official agreed with the sense of this.[3] Moreover, some expressed concern that Members of Congress, as President Scanlon (Chicago) stated—

> * * * appreciate that Federal Reserve credit policy is, in fact, carried out with a view to achieving the objectives of the Employment Act of 1946 (527).

[3] Some, however, tended to obscure Chairman Martin's clear-cut statement of purposes by inserting the noncognitive term "sustainable" between "maximum" and "employment."

2. How independent action by the Federal Reserve makes it impossible for the President to carry out his mandate under the 1946 Employment Act

Federal Reserve policy is, as affirmed by official statements, determined with the goals of the Employment Act as policy targets. But the fact that Federal Reserve policy is made independently of the views (as well as the management) of the President makes this law meaningless. Professor Reagan (Syracuse) recognized this when he said:

> The President is required by the Employment Act to submit an economic program, such a program must include recommendations on monetary policy to be meaningful. Thus the President must be, as H. Christian Sonne has said, "the coordinating agent for the whole national program." If the Congress wishes to hold the President responsible for economic policy, and if the electorate thinks of him as responsible (as is clearly the case) then he must be given authority commensurate with his responsibilities (1577).

This means authority to decide monetary policy or at least to nominate those who do decide it.

Professor Miller (George Washington) put it this way:

> I should think that if the objectives of the Employment Act are to be attained, as I believe they should, it is of the highest importance that the policies of all organs of government be consistent with each other; that, in other words, there be a high degree of congruity in economic policy. It is my understanding that at present such congruity, if it is reached, is attained through a policy of consultation and coordination; but that, however, there is no legal requirement for the Federal Reserve Board to coordinate its policies with the Treasury Department. This to me violates at least two principles:
>
> (*a*) In the first place, it makes congruity of policy a matter of accident of personality and of whether or not given government officials get along well enough together to cooperate rather than fight (1681).

On this matter, an answer to a question put to him by Congressman Widnall, of New Jersey, by Professor Gordon (Carleton University, Ottawa) is especially relevant. Referring to the clash of personalities which precipitated the Canadian economic crisis of 1956–61, Professor Gordon remarked:

> Well, I believe, myself, sir, that a structure should always be designed to provide for the existence in positions of authority of inappropriate personalities (959).

The second principle Professor Miller thought to be violated by the lack of formal coordination is this:

> (*b*) Secondly, the Federal Reserve Board, in all of its operations, seems to be an independent organization, not responsible or accountable to any official, including the President * * *. To the extent that the Board operates autonomously, it would seem to run contrary to another principle in our constitutional order—that of the accountability of power (1681).

The heart of the matter is that the Federal Reserve's structural independence and so insulation from the President and, under today's law, from the Congress as well, means that the Employment Act of 1946 is simply not enforceable. The President cannot, as he is required to do by the Employment Act, submit a program that is likely to be effective in achieving the goals of the law unless the Federal Reserve is willing to cooperate. There is no assurance that the required cooperation will be forthcoming. Moreover, the President's program will not have even the proverbial "ghost of a chance" if the Federal Reserve decides upon a perverse monetary policy. Thus the President's program is really not a working program but a vision, the fulfillment of which depends on the policy of the independent Federal Reserve.

3. Showdown not a realistic alternative to Presidential authority

Leon H. Keyserling pointed out that Federal Reserve executives "take policy steps clearly in conflict with the policies of the administration when they so desire" (1843). There is no assurance that the President could compel the Federal Reserve to do what he thought was in the public interest if the Chairman and a majority of the other 11 members of the Open Market Committee, or simply a majority without the chairman, did not want to do so. Moreover, it could be politically inexpedient for a President to force a public showdown with the Federal Reserve's Chairman over anything, except a "life and death" issue. An article appearing in the Wall Street Journal, which was put into the record by Congressman Brock (Tennessee), indicates that a showdown between President Johnson and the Chairman would be politically very risky:

> If he [Martin] were forced out of his post—or just irritated into indignant resignation—the impact upon this administration could be profound * * *. Republicans would be handed on a platter their first convincing evidence that this Democrat [Johnson] has no sense of economic responsibility (1427).

Past experience teaches that even strong disagreements tend to evaporate rather than to be resolved. On this, Secretary Dillon's answer to a question by Congressman Brock (Tennessee) is enlightening. Mr. Brock asked:

> Is it really possible for you to have a violent disagreement? I mean, these are not black and white decisions in most cases. Are they not mostly a gray area? You have a number of experts that disagree within the Treasury, as they do within the Fed?

Secretary Dillon answered:

> I think that is correct. I think it would be unusual to have—certainly in the spirit in which we have been working in the 3 years that I have been here I have not seen any—real black and white basic differences of opinion.
>
> However, if you had strong-minded individuals on either side, even if it were gray area issue, they might strongly differ with each other. We have not had that sort of a situation in the last 3 years.

> I think there have been some differences of opinion in the past. I think there were some differences of opinion on a number of occasions—probably on one or two occasions during the preceding administration—that were quite strong, but after a time they evaporated (1264).

The hard truth is that unless the administration is willing to force a showdown it cannot change Federal Reserve policy. Its spokesmen may nag privately and for a time even disagree publicly, as Secretary Humphrey and Mr. Burgess did in 1956 and 1957. But it is not likely to make a major issue over monetary policy if it is a question of reducing unemployment 1, or even 2, or possibly 3 percentage points. Monetary economics is a complex subject and it would be difficult to explain to the general public how a slightly more expansive policy could achieve a 1, 2, or even 3 percent fall in the rate of unemployment.

In essence, then, structural independence of the Federal Reserve from the President and the President's responsibilities under the Full Employment Act are both logically and practically inconsistent. Congress must decide which of the two it wants. We can't have both. What we have now is independence of the Federal Reserve and lip-service to the proposition that the President is responsible for coordinating "all plans, functions, and resources" to achieve "*maximum* employment, production, and purchasing power." [Emphasis added.] He is simply not responsible for what the Federal Reserve does with the monetary powers of the Nation.

4. The absurdity of the situation

Since what the Federal Reserve does is perhaps the most important determinant of levels of employment, production, and purchasing power, the President cannot in any meaningful sense be held responsible for achieving the objectives of the Employment Act as long as the Federal Reserve's independence of his views is preserved. The absurdity of the situation was pointed out by many witnesses. Prof. Dudley Johnson (Washington) put it this way:

> To argue that the control over the money supply should be independent of the values of certain representatives of the citizenry in a democracy strikes me as ludicrous. It is as if Congress were to create a Department of War and Peace and the President of the United States would appoint a Board composed of seven members for terms of 14 years, with the terms arranged so that one expires every other year. Now this Board would have the exclusive jurisdiction to decide whether or not the United States would or would not go to war (1444).

In a similar vein, Professor Raskind (Law and Economics, Vanderbilt), commented as follows:

> When the President, who is authorized in the limit, to make decisions involving nuclear war, is barred by statute from responsibility from the monetary component of economic stabilization policy, the need for change is apparent (1669).

Mr. Keyserling put the matter in terms of both our current economic policy and traditional political philosophy. He observed:

> The President and the Congress, in the Nation's interest as they see it, have recently undertaken a contrived Federal deficit of unparalleled size. This tax action, for all practical purposes, is irreversible for many years to come. It will confront the Government with many thorny problems for many years to come. Can it be argued with any rationality, under the circumstances, that the Government has no direct and proximate interest in the extent to which the management of the people's money—which in fact is created by the Government—advances or impedes the objective of this momentous step in tax and fiscal policy? Can a deflationary monetary policy be permitted to cancel out, in whole or in part, an expansionary fiscal intent?
>
> I submit, in conclusion, that we have moved far beyond the point when any one impregnable citadel of policy formulation, affecting profoundly the totality of our objectives as an economy, a nation, and a people, can remain "independent" of that ultimate responsibility to the people through their Government which is the very hallmark of our democracy and our free institutions (1761).

C. CENTRAL BANK INDEPENDENCE AS A MATTER OF GENERAL THEORY AND HISTORY

1. Central bank independence and monetary stability and instability

The case for making a nation's central bank independent of the political representatives of its people is that insulation is necessary to prevent abuse of the money-creating powers of government and resulting monetary and economic instability. But this hypothesis was not supported by decisive empirical evidence or logical deduction by Chairman Martin or any other witness who asserted its validity.

As it was set forth by Chairman Martin and its other proponents as well, the proposition appears one-sided. Simply stated the contention is that if the System were to lose its independence from public pressures there would be excessive creation of money and resulting inflation. It is not contended that insufficient money creation and persistent unemployment would result, though this is logically an equally likely result.

Case histories of hyperinflation were cited by Federal Reserve officials, Mr. Kelly (ABA), and Secretary Dillon by way of attempting to demonstrate that the money-creating powers of Government can be abused. No one would deny the possibility of such abuse. The question, however, is which sort of institutional arrangements are apt to lead to abusing the money-creating powers of Government. More often than not, severe or hyperinflation have occurred in countries run by dictators, not in democracies. Thus a central bank which is insulated from the public would appear more apt to generate hyperinflation than a truly public monetary authority. Certainly the 1950 inflation in Paraguay, which both Governor Daane and Secretary Dillon

referred to, illustrates the danger of insulating Government in general and the money-creating powers of Government in particular, from the pressures of the people; for, as Chairman Patman pointed out, Paraguay is governed by a dictator and is not a democracy. Paraguay has been governed by one political party with the army's support since 1943. Elections have been formalities wherein the people can only vote "yes," affirming the party's (and the army's) candidate. The 1945–55 Argentine inflation cited by Secretary Dillon is another example of the danger of insulating the money-creating powers of Government from the people; for these were the years of Peron.

Cases in which an insulated, and so independent, monetary authority abused its powers by following the deflationary policies to excess also have occurred. Canada in the 1956–61 period provides an example. During this period the independent Bank of Canada was pursuing a tight money policy; even though 10 percent of the labor force was unemployed. Referring to that occasion, Professor Gordon (Carleton University, Ottawa) stated:

> The Minister of Finance was questioned in the House concerning the policy and he denied that he had anything to do with the policy or was responsible for it (959).

Other examples could be cited. Indeed, Professor Friedman (Chicago) stated that in the case of the independent Federal Reserve—

> The chief defect in Federal Reserve policy has been a tendency to go too far in one direction or the other, and then to be slow to recognize its mistake and correct it. Contrary to widely held views, the major mistakes of this kind in peacetime have all been in a deflationary direction * * * (1135).

Thus, as Prof. Harry Johnson (Chicago) pointed out, the assumption that an independent central bank will govern monetary policy flexibly and efficiently and in the best interests of the country—

> is not consistent with the historical evidence of the behavior of monetary authorities; the evidence is rather that central banks have done little if anything to restrain inflation in wartime * * * while in peacetime they have displayed a pronounced tendency to follow deflationary policies on the average (970).

Insulated central banks, in short, do not protect against but in fact have caused both inflations and depressions. Professor Friedman put it this way:

> Experience shows that independent monetary authorities have introduced major elements of monetary instability, and analysis suggests that they can be expected to continue to do so (1134).

2. Responsibility and independence

(*a*) *Independence and the impossibility of assigning responsibility.*—As indicated, Professor Friedman also argued that logic, or as he puts it, analysis, suggests that an independent monetary authority can be expected to produce economic instability. In an article submitted for the record he wrote:

> One defect of an independent central bank * * * is that it almost inevitably involves dispersal of responsibility * * *. In the past few years, I have read through the annual reports of the Federal Reserve System from 1913 to date, seriatim. One of the few amusing dividends from that ordeal was seeing the cyclical pattern that shows up in the potency that the authorities attribute to monetary policy. In years when things are going well, the reports emphasize that monetary policy is an exceedingly potent weapon and that the favorable course of events is largely a result of the skillful handling of this delicate instrument by the monetary authority. In years of depression, on the other hand, the reports emphasize that monetary policy is but one of many tools of economic policy, that its power is highly limited, and that it was only the skillful handling of such limited powers as were available that averted disaster. This is an example of the effect of the dispersal of responsibility * * * no one assumes or is assigned the final responsibility (1170–1171).

Professor Lerner (Michigan State) put the argument this way when he observed:

> Independence of the monetary authority from the Executive in matters of policy, even if both do the best they can in the public interest, leads to fiscal and monetary policies working at cross purposes, defeating each other's objectives. It enables both the Executive and the monetary authority to blame each other for whatever happens to the economy (1400).

(*b*) *Independence and the possibility of evading responsibility.*—An independent central bank can, of course, benefit an inept political administration. Such an administration can shirk its responsibility because, as Prof. Harry Johnson observed:

> The monetary authority can easily be cast as a scapegoat * * * (972).

This is certainly a disadvantageous byproduct of central bank independence. But the primary defect of insulating the central bank from the political processes and assuring that its officers do not have to pay for failing to perform well is that the central bank itself can shirk its responsibilities. Thus, independence raises the specter of major mistakes being committed, such as those that were committed in the early 1930's by the then completely independent Open Market Committee. The danger of such a catastrophe occurring in the future was brought into common view by Representative Vanik (Ohio) and Secretary Dillon. Mr. Vanik asked:

> But can you conceive of a situation where the Fed may take some very, very tremendous action and the barn would burn down, and we would be pretty powerless to do anything about it except to try to correct it on the next go around?

Mr. Dillon answered:

> It is theoretically possible, yes. (1250).

History, of course, warns us that the theory in question is, unhappily, valid.

(*c*) *The meaning of responsibility.*—Because insulated central bankers can shirk their responsibility it is important, as Chairman Patman recognized, to link the central bank to the political administration. If something goes wrong the people then are assured of "being able to blame somebody they had something to do with putting into office." Professor Gordon (Carleton University, Ottawa) in commenting on Chairman Patman's remarks also indicated the necessity of achieving a political tie. He stated:

> We mistake the question of responsibility very often. We think of the responsibility of a public official in terms of his personal integrity. However, responsibility really means being responsible to some other body and eventually to the people at large (960).

The powers of a central bank may be exercised by men of the highest integrity, but the bank cannot be said to be responsible unless its officers, or alternatively, their nominators, are subject to the election process. "Power under a constitutional order," Professor Miller (School of Law, George Washington University) pointed out, "means accountable, i.e., responsible power." (1684.)

3. Bad effects of not being able to assign blame

(*a*) *Learning made unnecessary and policy inflexible.*—The problems created by institutional arrangements which fail to assign responsibility for error are familiar to all students of comparative economic systems. One of the great weaknesses of Socialist political economies is that they have no way of assigning accountability where it belongs. Thus, for example, a few years ago Soviet Premier Khrushchev complained about the production of cars without tires. But he did not know whether to blame automobile factory managers for exceeding their quotas, tire plant managers for not meeting theirs, or any of the several suppliers of materials to tire plants. In our profit system a mistake like this would occur, but whoever was responsible for it would be detected quickly by impersonal market forces and punished by these same forces. He certainly would lose money and perhaps he would even be compelled to seek new employment for himself and his capital. But this is the very strength of the profit system. For by fixing responsibility it insures that adherents of once fashionable dogma and also incompetents will either learn their business and jobs or give way to those who can and will learn. And thus our profit system succeeds by what is essentially a learning process.

An independent central bank is heir to weaknesses similar to those of a socialistic economy. For by virtue of the central bank's independence, central bankers do not have to bear final responsibility. It is not enough to say, as Chairman Martin did:

> Now we do bear the slings and arrows of the public. You are in the position of being able to blame us if it goes wrong (96).

Recent history proves otherwise, however. Insulated central bankers can terminate all inquiry simply by saying, as Chairman Martin so often does when someone tries to clarify the role of the Federal Reserve in particular historical episodes, "You and I don't read economic history the same way."

Because they do not have to worry very much about being blamed and paying for their mistakes, insulated central bankers are not apt to learn from them. In practice this means that independent central bankers are not likely to acquire knowledge of the processes on which they are acting; and so, they are not likely to develop sound operating methods. It also means that central bank policy will be *inflexible*, and, in turn, that bad policies are likely to be perpetuated. These structural flaws were recognized by Prof. Harry Johnson (Chicago) when, referring to the economic instability misguided monetary policies have generated, he observed:

> These defects are in my judgment inherent in the conception * * * of an independent monetary authority, and are unlikely to be modified greatly * * * on the basis of accumulated experience and research (970–971).

Failure to do substantive research in monetary economics is still another flaw of the Federal Reserve which derives from its independence. Many witnesses complained about this failure. To quote Professor Bach (Carnegie Tech)—

> The Fed deserves criticism for its failure to push more actively on the fundamental research that must be done to continue to improve further our monetary policy (1390).

(*b*) *Reliance on strong personalities.*—This tendency for deleterious policies and misguided methods to persist is reinforced by the tendency for central bank independence to produce a "cult of personality." Professor Friedman brought this out when he observed:

> Another defect of the conduct of monetary policy through an independent central bank that has a good deal of leeway and power is the extent to which policy is thereby made highly dependent on personalities. In studying the history of American monetary policy I have been struck by the extraordinary importance of accidents of personality * * *. A similar situation prevails today. The actions of the Reserve System depend on whether there are a few persons in the System who exert intellectual leadership (1171–1172).

The dependency of an independent central bank's policies on personalities together with the fact that insulation means that responsibility won't be affixed in the event of error tends to perpetuate inappropriate policies and operating methods. For there are no compelling reasons for insulated authorities to admit error, and it always is difficult for men, especially strong personalities, to admit that a specific institutional decision they made was wrong. Of course, in a democracy it doesn't matter whether those in error will admit being wrong. As Chairman Patman put it, in a democratic Republic like the United States—

> The politicians have responsibility. If they don't carry out the will and wishes of the people, they are defeated (62).

But an independent, politically insulated central bank, by definition, is not a democratic institution. Its officers are insulated from, and so need not be responsive to, the public will. Its intellectual leaders need not learn from mistakes. Thus inappropriate policies and actions tend to be perpetuated. There is nothing in the structure of independent central banks that compels or impels correction.

(*c*) *The sensitivity (not accountability) of independent central bankers to public opinion and the temptation to propagandize.*—The fact that independent monetary authorities need not be responsive to public opinion does not mean that central bankers are insensitive to public opinion. They are sensitive. But as Prof. Harry Johnson (Chicago) put it, an independent central bank's—

> position as the one agency of economic policy formation outside the normal political structure both exposes it to subtle and sustained political pressures and forces it to become a political animal on its own behalf, devoting considerable effort, either to justifying its policies * * * or to denying responsibilities * * * (971).

In other words, independence permits central bankers to substitute linguistic acrobatics for actual flexibility. A truly flexible policy, one that responds quickly to changes in economic conditions, requires that decisions be made by men who must pay some sort of penalty for monetary and economic instability. Unless this condition is met, and it is not likely when the central bank is independent, policy and operating methods will tend to be inflexible and errors to be perpetuated.

D. INDEPENDENCE AND THE PROBLEM OF COORDINATION

1. The necessity of achieving coordination

Another weakness inherent in an independent central bank is that monetary and fiscal policies are not coordinated. Every economist who testified saw the necessity for coordination. Said Professor Barger (Columbia)—

> Coordination of monetary policy with the general economic policy of the President obviously is necessary * * * (1354).

Of course no Federal Reserve official denied this. In fact, all claimed the desired coordination was currently being achieved at informal luncheons and the like. But for many this sort of arrangement is not enough. Prof. John Gurley (Stanford) put it this way—

> "Independence" is a good word, and so many people think that the independence of the Federal Reserve is a good thing. But it is not a good thing. It is like having two managers for the same baseball team, each manager independent of the other. The managers could get together for lunches once a week; that might help. Or one of them could try to offset the actions of the other—that might work a bit. Nothing of this sort, really, would correct the basic situation, the intolerable arrangement of having two managers (1309).

Thus limited informal advisory efforts to coordinate policy aren't enough to assure coordination. The Chairman of the Federal Reserve may meet with administration officials. They may even agree—though

they need not and often have not. But most important, the Chairman of the Federal Reserve cannot commit the system to a course of action. He has only one vote on the 12-man Open Market Committee. This crippling limitation on the "lunch meeting" method of coordinating monetary and fiscal policies was brought into common view by a colloquy between Representative Minish (New Jersey) and Secretary Dillon. The dialog is as follows:

> Mr. MINISH. * * * Mr. Secretary, on page 3 of your testimony it says that Presidents Kennedy and Johnson have continued the practice of meeting from time to time with the top financial officials of the administration.
>
> Chairman Martin, it says, has participated fully in these discussions. How fully can he participate if he has to go back to the Board and the Open Market Committee for directions?
>
> Secretary DILLON. Well, he can participate fully from the point of view of explaining the considerations that are topmost in the minds of both the Board and the Open Market Committee, because he meets with the Board and Open Market Committee every 3 weeks. And, therefore, it is not at all difficult for him in this sort of a meeting to either explain very clearly what he thinks their views would be or to take back to them the views of the President. * * *
>
> So, I think it has been a very useful two-way thing, so that the President and the other financial officers of the Government understand what is motivating the Open Market Committee and the Board and what they are thinking about, and they, in turn, get absolutely straight first hand from the President himself his own desires in the field of economic and monetary policy.
>
> Mr. MINISH. So that he can only get the views of the people that he is dealing with until he gets further directions from the Open Market Committee?
>
> Secretary DILLON. Well, yes, as I pointed out in my prepared statement, he cannot commit the Open Market Committee or the Board to any specific action.
>
> He can commit himself to trying to obtain action, if he wishes to, and at times I think that has been the case. But he cannot commit the Board (1255–1256).

Professor Gurley proceeded to point out one of the many unreasonable situations that result from the separate formulation of monetary and fiscal policy. He stated:

> That we have a separate manager for monetary policy gives rise to unreasonable situations, such as the President of the United States trying to use moral suasion on the Federal Reserve, hoping that it will not nullify the good effects of the tax reduction. * * * (1309)

It was precisely this problem of assuring a coordinated economic policy that led Professor Villard (CUNY) to assert,

> I am prepared to compromise the independence of the Federal Reserve in order to achieve overall coordination of economic policy (1022).

Dr. Warburton (FDIC) put it this way—

> Proper administration of monetary policy is so vital to national welfare and the success of other Government policies that it should be a responsibility of a top-ranking official and appropriately coordinated with the executive branch of the Government (1319).

Professor Strotz (Northwestern) used an especially colorful imagery to project the need for coordinating monetary, fiscal, debt, and other national economic policies when he stated:

> Thus, from every limb of the puppet go many strings held by different authorities, all of whom may have different intentions as to how the puppet is actually to perform—and in the midst of a windstorm. In such a situation, who can dispute the need for coordination of the many different puppeteers? The notion of an independent monetary authority set up to achieve a particular goal, such as price level stability, is, in any practical context, very unrealistic (1453).

2. A byproduct of not integrating monetary and fiscal policies

Failure to coordinate monetary and fiscal policy, then, can lead to negation of one set of fiscal policies, and thereby the substitution of a less desirable set of fiscal policies; for no administration can allow its overall economic policies to fail and long endure. Prof. Eli Shapiro (Graduate School of Business, Harvard) called attention to this possible byproduct of not coordinating monetary and fiscal policy. The point is that an independent monetary authority can create an insufficient money supply and thereby impel, if not compel, the adoption of fiscal deficits. Professor Shapiro put it this way:

> Since policy decisions are made by different agencies and since these decisions require trade-offs to be made among the various goals, our stabilization strategy requires coordination among the agencies to insure the pursuit of a common end. For if one agency takes price stability to be the critical goal and pursues policies appropriate to the attainment of that goal, while other agencies deem full employment or economic growth to be the more important objective of policy, we will observe conflicting policies which may indeed prevent the attainment of any of these goals.
>
> For example, if the central bank, in its interest in price stability, maintains a monetary policy which dampens demand, the fiscal policy of the Government in attempting to offset this policy will be forced to run larger deficits (1099–1100).

The point which Professor Shapiro made also was stressed by several Congressmen. Representative Hanna (California), in a dialog with Professor Samuelson (MIT) pointed out:

> * * * is it not basic here that one of the reasons that we cannot have members of the Board (and OMC) too independent is that their actions are in no sense independent of politics? * * * I was not speaking of politics in a petty sense * * * but * * * in the fact that no matter for what reason they did it, what they did would have an effect upon the political situation (1120).

Implicit in Mr. Hanna's remarks is the fact that, whether they like it or not, legislators and the President are held accountable by the people for the economy's performance. Thus, if the Federal Reserve causes or contributes to severe price inflation, Congress may be impelled to enact price controls. Alternatively, if the Federal Reserve causes or contributes to rising unemployment and business recession, Congress may try to generate economic expansion through a variety of deficit spending and welfare programs. Certainly past economic stagnation and recessions provided impetus for the growth of Government in general and Government welfare spending in particular. "Those who oppose the trend toward more Government spending should ask why we have had so much monetary restriction. With greater monetary ease, private investment activity would not be stifled. Hence, the need for easy fiscal policy would be eliminated."

E. CENTRAL BANK INDEPENDENCE AND DEMOCRACY

An independent central bank is essentially undemocratic. It is the very antithesis of democracy to give so much power to men who are insulated from the elective process. In a democratic republic, the central bank must be a truly public body. Thus, "the central bank," said Professor Samuelson (MIT)—

> like the House of Lords, it should be able to delay innovations to smooth down the volatile changes of public opinion and of thin majorities. But the central bank should never be thought of as an island of isolated power, as a St. George defending the economy against the "dragon" of inflation and frenzied finance * * *. "The age of chivalry is dead—that of responsible, democratic government has succeeded" (1110).

Traditionally, Americans have been against ideas and institutions which smack of government by philsopher kings. As Mr. Goldfinger pointed out:

> The persistent inference that representative government means runaway inflation, unless some superboard made up almost excusively of technicians or bankers filters out all such possibilities, is offensive in a democratic society * * * (1474).

The point was brought out also in a dialog between Representative Brock (Tennessee) and Professor Villard (CUNY). Representative Brock asked:

> Is it not true that you would create more political pressures for changes in monetary policy overall, economic policy, with the change in the administration, with the advent of some new pressure on the President?
>
> Are you not subjecting yourself to some rather drastic shift according to the winds if you take this position?

Professor Villard answered as follows:

> Well, I do not believe so, because it seems to me that—perhaps I should answer it the other way around and say that obviously the President will be subject to political pressures,

but what I am concerned with is that he should be the one who makes the basic economic decisions.

Now, in making these decisions he will undoubtedly be subjected to pressures, pressures on the one hand, for example, to reduce the level of unemployment, pressures on the other hand, to prevent an increase in prices.

I think both of these alternatives generate political pressures. I sometimes worry about the fact that the pressure on the President to prevent an increase in prices may be more powerful politically because everybody is subjected to price increases but there are only a relatively small percentage of the population who are unemployed, so that it may well be that he will give too much weight from my point of view to preventing price increases.

But I do not see, in a democracy, any alternative except to give the power to make decisions on basic economic policy to the Executive. This does not guarantee that he will make the right decisions all the time, but I do not think there is any possibility of setting up a group of experts who should have this power.

In fact, I agree with Professor Johnson's point that you would really have to have a fourth arm of the Government composed of experts if you do not want to give the power to the President.

In short, it seems to me that, to the extent that power can be appropriately delegated by the Congress, it must be given to the President (1043).

Thus, our democratic tradition alone will be enough to make many thoughtful people demand a politically accountable central bank. But if this were the only argument, many might still prefer an independent central bank, basing their preference on the oft-heard assertion that independence has economic advantages. In the hearings, however, those who supported independence on this ground failed to develop substantial logical or empirical evidence for this position. On the contrary, testimony presented at the hearings brought into common view some important economic weaknesses and disadvantages of an insulated independent central bank, and, as demonstrated in the foregoing, those who cited these developed powerful analytical and historical reasons for them. The case against central bank independence is strong, whether viewed from the standpoint of achieving economic responsibility, flexibility, and coordination, or from the standpoint of making our institutions truly representative of the people.

PART IV.—THE NEED FOR CHANGE

A. THE NECESSITY OF RESTRUCTURING THE FEDERAL RESERVE SYSTEM

In the middle of the recession of 1960–61, the volume of money, narrowly defined and seasonally adjusted, was $140 billion. Fifteen months later it was $145 billion. It had increased at an annual rate of roughly 3 percent. This was enough to end the recession and initiate the upswing that now is in its 40th month. The expansion faltered in the latter part of 1962 because for the first 9 months of that year there was no increase in the money supply. But in the 21 months from September 1962 to now, in June 1964, the money supply has grown at an annual rate of 4 percent. Together with the tax cut, which was initially proposed in January 1963 because first the growth of the money supply and then the business upsurge had faltered in 1962, this latest increase in the volume of money has underwritten continuation and even acceleration of the current business expansion.

If the Nation could be assured that these recent monetary developments have been the result of deliberate policy, and moreover that this policy will not be significantly modified in the future, there might be a less compelling need to restructure the Federal Reserve and terminate its authority to act independently of the administration and Congress. But the assurance is not forthcoming. Indeed by reason of influences discussed below, the objective reviewer can only expect present policy to devolve into overreaction to balance-of-payments difficulties or carefully selected ad hoc harbingers of future inflation. In fact, the signs of renewed monetary stringency are again appearing as this is written in June 1964; the growth of the money supply as now defined and measured by the Federal Reserve, has fallen steadily recently. Hopefully this trend will be reversed.* If not, then, as in the past, the results of renewed monetary stringency will be economic stagnation, increased Government spending to bolster consumption as opposed to needed private and public investment programs, increased Government debt, and excessive unemployment. The reason for gloomy expectations that past errors will be repeated in the future—though perhaps not in the immediate future—stems from the very structure and independence of the Federal Reserve System, in the opinion of staff. It was for this reason that Professor Shapiro (Harvard) told the subcommittee:

> I do regret, however, the intrusion of consideration of the "tenor of monetary policy" into these proceedings. I say this because even if the *present* course of monetary policy were letter perfect, it should not preclude the discussion and enactment of necessary structural changes which might improve the effective discharge of monetary policy in this country in the *future* (1099). [Emphasis supplied.]

* In this connection, see "The Federal Reserve System After 50 Years," staff report, part III, p. 53, House Committee on Banking and Currency.

B. OUR MONETARY FAILURE AND THE FEDERAL RESERVE'S STRUCTURE

The failures of U.S. monetary policy, documented in part III of this report, were in Prof. Harry Johnson's judgment "inherent in the conception, constitution, and operating responsibilities and methods of an independent monetary authority" (970), and we must add that they are particularly rooted in the operating methods and prejudices of the Federal Open Market Committee.

1. Structure of the Federal Reserve and its intellectual myopia

As was earlier observed, the Federal Open Market Committee, which is the System's principal monetary control body, consists of the 7 Governors of the Federal Reserve Board, the president of the New York Reserve Bank, and 4 of the other 11 Reserve bank presidents. The Cleveland and Chicago presidents serve as voting members of the Committee every other year, and the other nine presidents every third year. The seven presidents not currently serving as voting members of the Committee participate in its deliberations as invited discussants.

The argument for continuing this arrangement whereby all 12 Reserve bank presidents participate in open market policy deliberations, and 5 join the 7 Governors in determining policy was initially given by the Board of Governors in answering a questionnaire submitted by the Patman subcommittee in 1952. The Board's argument was iterated by Chairman Martin in his testimony at the present hearings. Referring to the present arrangement, the Board stated in 1952 and Chairman Martin repeated in 1964 that—

> It provides a means whereby the viewpoints of the presidents of the Federal Reserve banks located in various parts of the country, with technical experience in banking and with their broad contacts with current credit and business developments, both indirectly and through their boards of directors, may be brought to bear upon the complex credit problems of the System (13–14).

But, without impugning the integrity of any person or groups, it is legitimate to question whether banking experience and contacts with credit developments lend themselves to the formulation of sound monetary policies or, on the contrary, to an intellectual myopia which prevents effective monetary control.

Everyone agrees that not every occupational experience is conducive to the formulation of sound monetary policies. H.R. 9631 proposes making the Secretary of the Treasury Chairman of the Board of Governors. The testimony argued persuasively for rejecting this proposal on the ground that the Secretary of the Treasury is unduly concerned with the cost of carrying the Government debt. This problem is directly and immediately in any Treasury Secretary's line of vision. If, therefore, the Secretary were also Chairman of the Federal Reserve Board, monetary policy would tend to be unduly concerned with this problem and, in turn, this would bring monetary and economic instability.

The argument has widespread applicability. Treasury Secretaries are not the only persons who can't "see the forest for the trees." In the sense that people take on the colorations and limitations of their

occupational surroundings, intellectual myopia is very nearly a universal affliction. Perhaps that is the basic reason for maintaining civilian control over the National Defense Establishment. Because human beings tend to select facts and appraise problems in terms of their particular specializations, it is more in point to determine what, if any, are the views and concepts with which Federal Reserve officials feel most at home and the sources of such views and concepts.

The Federal Reserve has many direct ties to the banking business, and some indirect ones to bankers. No one denies this. Indeed, as Chairman Martin's statement (above) indicates, some believe that these ties promote monetary and economic stability and prosperity. Later we will explore this question. First we must delineate the ties.

Governor Mitchell's testimony is pertinent here. He stated:

> I think there are lots of relationships between the Federal Reserve and bankers because they are both in essentially the same business and so they speak a common language in a great many respects, and the Federal Reserve engages in supervisory operations which bring them in close contact with the bankers (1201).

The formal ties between the Federal Reserve and the commercial banking business were described briefly and clearly by the American Bankers Association in a monograph prepared for the Commission on Money and Credit. The association observed:

> Member banks are entitled to certain privileges such as the use of various Federal Reserve facilities, the ability to borrow from the Federal Reserve banks under certain conditions, the right to participate in the election of two-thirds of the directors of their Federal Reserve banks, and a 6 percent dividend on their investment in capital stock of the Federal Reserve banks. In turn, members undertake to abide by the laws and regulations governing the System. Nonmember banks may also be permitted to use certain of the System's facilities.
>
> The commercial banks thus have close relationships with their local Federal Reserve banks. They also have indirect but nonetheless important relationships with two other agencies of the Federal Reserve System, the Board of Governors, and the Federal Advisory Council.[1]

As indicated by both Governor Mitchell and the American Bankers Association, our Nation's monetary authority is specifically tied to the commercial banking business in two ways. First, commercial banks elect two-thirds of the directors of their Reserve banks. Chairman Patman, early in 1964, conducted a confidential inquiry as to the banking affiliations of class B and class C directors of the Federal Reserve banks. Individual responses remain confidential, in sole custody of the chairman and available only to members of the committee. Only aggregative figures were made available to staff. These indicate that out of 36 class B directors, 20 presently own stock in banks, and 11 others have owned bank stock in the past. In addition, 17 have been commercial bank directors before becoming Federal

[1] "The Commercial Banking Industry," a monograph prepared for the Commission on Money and Credit by the American Bankers Association, p. 381.

Reserve directors, and 12 have held other positions and officerships in banks.

Of the class C directors, 18 had formerly been directors of banks and 20 of the present class C directors owned bank stock in the past. When it is considered that class A directors are directly chosen from the banking community, the heavy incidence of banking connections of the B and C directors all add up to a strong banking orientation among those who direct the affairs of the Reserve banks and select men who participate in open market deliberations.

The second way in which our monetary authority is tied to the commercial banking business is that the Federal Reserve, in addition to being the Nation's monetary authority, also is one of the several Government agencies which supervises and regulates the commercial banking business.

Inescapably, those who make our Nation's monetary policy get a considerable proportion of their information and "feel" about the economy's problems and trends from their contacts with the commercial banking business. This was recognized by Professor Bach (Carnegie Tech), who, as a director of the Pittsburgh Federal Reserve Branch bank, is especially qualified to speak on the matter, when he said:

> * * * Federal Reserve officials have ready access to recent developments in financial and business affairs and to the views of financial and business leaders * * * I suggest, however, that this may provide a somewhat unbalanced flow of information * * * (1391).

The degree of imbalance was brought out in a short colloquy between Congressman Minish, of New Jersey, and President Shuford (St. Louis). Mr. Minish asked about memberships purchased for Reserve Bank personnel in the St. Louis Chamber of Commerce. President Shuford stated: "We get a lot of information from the chamber of commerce. We work closely with these people * * *." Mr. Minish then asked: "Do you consider * * * the labor organization out there—do you think about talking with those people?" President Shuford answered: "* * * Personally, I have not" (407). Given the present structure of the Federal Reserve, there is no reason why he would. As the Commission on Money and Credit observed, one of the hazards inherent in a close agency-clientele relationship such as that between the Federal Reserve and commercial banks is that "* * * parties on both sides come to take too parochial a view of the national interest." [2] And this view is not necessarily the wisest one.

In addition to obtaining a disproportionate amount of information on the nature of the economy's trends from their contacts with the banking business, the Federal Reserve inescapably also gets an exaggerated notion of the remedial effects of using monetary control tools to treat the problems encountered by bank managers and, more specifically, bank examiners. The Federal Reserve's bank supervisory and regulatory responsibilities contribute to the development of expertise in problems that are unique to the credit market and the

[2] Commission on Money and Credit, "Report," p. 92.

banking business. It is this very involvement in bank supervision and regulation, which, together with the ties to men with "technical experience in banking," gives rise to the myopic concept that the problems of the credit market and the banking business are problems a monetary authority must solve. This is not necessarily a sound working hypothesis, as will be developed later.

2. An unwarranted inference

The evidence is overwhelming that the close agency-clientele ties between the Federal Reserve and the banking business lend themselves to a parochial view of what the Nation's monetary problems are, and also to a myopic concept of how these problems can best be treated. Before proceeding to a more precise analysis of the occupational limitations that characterize the Federal Reserve's interpretation of the economic winds as well as the concepts that dominate its day-to-day operations, it is useful to examine a charge that is sometimes heard in the context of this subject matter: namely, that bankers profit from their close contacts with the Federal Reserve. This allegation has historical as well as immediate significance. It was vigorously put by Congressman Charles Lindbergh, Sr., in 1913, in his minority report on the Federal Reserve bill. Mr. Lindbergh charged that instead of "providing relief from existing economic evils, the Glass bill proposes to incorporate, canonize, and sanctify a private monopoly of money and credit of the Nation—to remove all the people's money from the U.S. Treasury and place it in the vaults of the banks to be used by them for private gain." [3]

It is to be stressed that no one made such an allegation in the current hearings, nor has the committee or its staff found any shred of evidence to support the notion. However, since it often looms up in the background of monetary policy discussions, it is prudent to deal with it at this time.

Analytically the charge can be broken into two separate accusations. One is that the Federal Reserve's policymaking executives are corruptible. The second is that commercial bankers use their contacts with Federal Reserve officials to shape monetary policy so that it benefits banks regardless of its impact on other economic sectors. Either accusation, if true, would be scandalous. But both must be true for the charge that bankers profit from their ties to the Federal Reserve to be valid. We examine first the suggestion, or innuendo, that Federal Reserve officials are liable to corruption.

If there was any tendency for anyone to believe that the Federal Reserve's executives, including both the Governors and the Reserve bank presidents, are in any sense whatever corrupt, or partial to the banking community in any penal sense, it should have been completely erased by the many forceful and straightforward statements on the subject which were made by Reserve bank presidents and Governors of the System, and the non-Government witnesses who testified on the matter.

President Hayes (New York) stated:

> I reject as imaginary, and as unfounded in my experience, the theoretical argument that suggests that the member banks are able to make felt in the Open Market Committee

[3] Congressional Record, Sept. 11, 1913, p. 4743.

a narrow partisan interest that influences the six directors of the Reserve banks whom they elect and in turn the presidents who are elected by the directors, and, thereby, the Committee itself. Such an argument is fallacious, not only because the bankers, even if they wanted to, could not by such a means exert leverage on the presidents for this purpose, but also because it cynically assumes that the presidents, whose appointments must be approved by the Board of Governors, are men of such little scruple that they would violate their oaths of office as members of the Committee, by subordinating the public good to the private interest. The presidents and the staffs of the Reserve banks are public servants in the finest sense of the word (528).

President Irons (Dallas) put it this way:

* * * I am not going to cotton to the bankers in our district, and I just know that that is typical of the Federal Reserve presidents. I do not do anything under pressure, suggestion, or connivance with the bankers in our district. I consider I am in my job because the Board of Governors said "Yes, we will accept you" (896).

Governor Robertson's comment also was very persuasive. Answering a question by Congressman Weltner (Georgia), he told the subcommittee:

* * * But I must say that on the basis of my observation of open market operations over the past 12 years, I do not believe that any Federal Reserve bank president could have been more objective if he had been an employee of the United States rather than the Federal Reserve. It has been amazing to me to see the extent to which they have remained objective.

And I think the traditions within the System are such as to assure real effort on the part of every individual to remain impartial and objective, and avoid any conflict of interest (119).

Similar comments could be listed. But there is no need to do this. Beyond any doubt the men who administer the Federal Reserve System are men of great integrity and fairness.

Attention now is called to the accusation that bankers try to use their contacts with Federal Reserve officials to shape monetary policy to the benefit of banks. Professor Friedman (Chicago) was questioned about this by Chairman Patman (Texas). Their dialog is instructive. Congressman Patman asked:

Now, the question is, Professor, Do you believe that because of people who are subjected to the bankers' influence all the time, people like the 12 Federal Reserve bank presidents, and all of these advisory groups who are always conferring with our money managers, that the views of the bankers have a special influence on our money policies and this is not good because if it is handled right one way the bankers gain a lot and if it is not handled that way they do not make as much money?

Mr. FRIEDMAN. Well, I think that this is a very difficult and complicated question.

My impression, on reading the evidence and looking over the history, is that the bankers who have been associated with the Reserve System in all capacities have been, in the main, public-spirited citizens who have been trying to promote the interests of the public.

To this extent I would not agree that they have, in any deliberate way, used their position of influence on the System to promote their private interests.

On the other hand, there is no doubt that each of us is very much affected by the environment in which we are and know best those things which we are familiar with. And there is no doubt that from the point of view of the bankers, what they are individually familiar with is the credit and investment market.

To them it seemed perfectly natural and understandable in trying to serve the public interest to place major emphasis on interest rates and credit conditions, rather than on the aggregate quantity of money. From this point of view, I think it has been an unfortunate thing that we have had a Reserve bank which has been as closely linked to the banking community and to the lending and investment process as it has, not at all because the individuals are trying to feather their own nests, not for that reason, but because they naturally interpreted the instrument they were dealing with in terms of the environment they knew best and were most familiar with.

And this was wrong interpretation, as I see it, from the point of view of the public interest.

The CHAIRMAN. Substantially I agree with you, Professor. I do not impugn the motives of these people.

I think they are in an environment where they just naturally think that way and they think, honestly, to serve the public interest you have to serve the bankers and by serving the bankers you have to serve the public interest.

Mr. FRIEDMAN. Pardon me, but I do not believe that is the case either, because I think I can name times in history where bankers did things that they thought were against the——

The CHAIRMAN. Oh, I will agree with you; there have been times.

Mr. FRIEDMAN. So I do not think it is because they thought they were trying to serve the banks' interest.

The CHAIRMAN. I did not go that far. I said where they honestly believed——

Mr. FRIEDMAN. Oh, yes. (1163).

The dialog between Chairman Patman and Professor Friedman, confirmed by numerous other witnesses and observations, would appear to dispose effectively and thoroughly of innuendoes that the contacts between the Federal Reserve and commercial bankers have been exploited to promote the private interests of bankers. Any such innuendo is totally unwarranted.

On the other hand, the colloquy also forcefully reminds us that, though corruption definitely is not the cause of the Federal Reserve's policy errors, occupational myopia, or "tunnel-vision," as Representative Hanna (California) put it, may be the root of our monetary instability. This is because monetary policy has been formulated and put into effect by persons with banking experience and therefore expertise in the problems of the credit and investment market, and this expertise has often led the Federal Reserve to aim monetary policy at the wrong targets.

3. The defects of monetary policy and the Federal Reserve's myopia

As indicated in the preceding analyses of testimony, occupations tend inevitably to produce a limited and ofttimes parochial view of what is in the national interest and how best to achieve these goals, based essentially on an exaggerated application to the rest of the world of the concepts and precepts that are uniquely suitable to the particular professional subject area. Men in the banking business, like Treasury Secretaries, union leaders, and clergymen, are not immune to this affliction. Since it has already been established that the ties between the Federal Reserve and the banking business and bankers provide both an unbalanced flow of information about the nature of the economic winds and a nearsighted view of how to treat whatever windstorms are thought to be blowing, it is important to find out how men with technical experience in the commercial banking business view the economy. What, if any, are their misconceptions and prejudices?

(*a*) *The Federal Reserve's immediate targets.*—Many persons believe that "technical experience in banking," as Chairman Martin implied, qualifies a man to manage the Nation's money. Obviously this view prevailed when the Federal Reserve Act was passed in 1913 and again when it was amended in 1933 and 1935. But not every Member of Congress agreed. Representative Graham of Illinois, for example, tried to persuade his colleagues that banking experience lends itself to the formation of erroneous conceptions concerning the Nation's money system. Mr. Graham told the House:

> The ordinary banker devotes very little of his time to a study of financial systems. He devotes himself rather to the immediate management of his bank, such as determining the soundness of the paper he discounts, the character of the loans and investments made for the bank, and all that. In fact, he is so close to this part of the field that it is quite difficult for him to have a clear and disinterested view of the entire field.[4]

As indicated by Congressman Graham back in 1913, men trained in the banking business will tend to conceive the problems faced by individual banks as a miniature of the economy's monetary problems. To them, therefore, it will be important to control the variables that are vital to an individual bank's functioning and, as a corollary, its solvency, liquidity, and profits. Some of the things that are vital to a bank's functioning are the quantity and quality of its credit; who wants to borrow; the daily quotations on "Federal funds"; the loan rate to dealers in Government securities; the daily price of Treasury bills; excess and free reserves, etc. These variables have served and

[4] 63d Cong., 1st sess., p. 4843, Mr. Graham of Illinois.

continue to serve as the target or instrument variables of the Federal Reserve. The System's officials explain the fact that the manager of the Open Market Committee's account engages daily in so-called defensive operations—from which longrun money supply changes emerge—as necessary to insulate these variables from the effects of strikes, snowstorms, and other essentially random disturbances. Unfortunately they are the wrong targets. It would be far better to aim at controlling the money supply rather than, as at present, having the money supply emerge as a byproduct from controlling bank credit and other banking variables.

In the present hearings, almost all of the economists who testified were disturbed by the Federal Reserve's choice of targets. Professor Lerner (Michigan State) called attention to the fact that expertise in the banking business simply does not qualify a man as an expert in monetary policy when he observed that:

> The historical accident that the management of the national money supply developed out of the banking business is responsible for monetary policy being distracted from its proper objectives by the bankers' natural but irrelevant concern with such matters as the quality of bank credit (1398).

Professor Friedman put the matter even more strongly when, in an article he submitted for the record, he stated that—

> an independent central bank will almost inevitably give undue emphasis to the point of view of bankers * * * (and) since the banking community is concerned primarily with the credit market, central banks are led to put altogether too much emphasis on the credit effects of their policies and too little emphasis on the monetary effects * * * (1172–1173).

Money and credit are not the same thing. Nor are they two sides of the same coin. Most important, the volume of money and the supply of credit do not behave in the same way. Sometimes the growth of the money supply accelerates faster than that of credit; sometimes the converse is true. For example, in 1963, as reported by the Federal Reserve, "The money supply increased by 3.8 percent * * * a substantially *faster* rate than in 1962 * * *." In the same year, "Commercial bank credit increased * * * a little *less* than in 1962 * * *."[5]

In view of these facts it is unfortunate that the Federal Reserve should conceive of monetary expansion and bank credit expansion as identical. Professor Meltzer (Carnegie Tech) called attention to the fact that this mistaken idea prevails among Federal Reserve executives. He observed that—

> When asked by the Joint Economic Committee to distinguish between monetary expansion and credit expansion, the Board submitted the following written reply:
>
> "No difference was meant by the two terms 'bank credit expansion' * * * and 'monetary expansion' * * *
>
> "* * * 'bank credit expansion' and 'monetary expansion' are essentially two sides of the same coin" (930).

[5] "50th Annual Report, "Board of Governors of the Federal Reserve System, p. 6. (Emphasis supplied.)

But as Professor Friedman pointed out, they—

> are not the same thing. Monetary policy ought to be concerned with the quantity of money and not with the credit market. The confusion between "money" and "credit" has a long history and has been a major source of difficulty in monetary management (1151).

The problems created by confusing credit and money and acting to change credit—money supply being an economic, not a banking concept—were brought out by Professor Meltzer. He pointed out that the Federal Reserve has—

> permitted larger rates of growth in the money supply during periods of expansion than during periods of contraction. This is the direct opposite of a policy designed to expand economic activity during recession and to control inflation.

On the other hand—

> When we look at this stock of "bank credit" for the same periods, we note "credit expansion" has behaved in a countercyclical way. The rate of "credit expansion" has been greater during periods when unemployment and recession were our national concern. And the rate of "credit expansion" slowed during periods of expanding economic activity (930).

His observation squares with the facts cited immediately above from the Board's "50th Annual Report" on the increases in money and bank credit in 1962.

Using the quantity of bank credit as a target variable is apt to amplify cyclical changes. Since the sum of bank loans and investments, i.e., bank credit, expands most rapidly during recessions, the Federal Reserve's executives will be misled by looking at this total into believing their policy is easy in recessions and tight in inflations. If they looked at the volume of money instead of the volume of bank credit they would not make this mistake because money expands most rapidly in inflations and expands little, if at all, during recessions.

Using the quality of bank credit as a guide to action also leads to error. This is because credit quality is determined by monetary policy and hence cannot be itself a determinant of this policy. On this, it is astonishing, as Professor Strotz (Northwestern) pointed out, that the Federal Reserve is so concerned with the quality of credit. This indicates—

> * * * little confidence in the banking community. My feeling is that the problem of judging credit quality is a problem for the commercial bankers and others who run lending institutions. In the past they have been in serious difficulty only when the Federal Reserve System has permitted the quantity of money to fall drastically, thereby producing a situation very unlike anything that would constitute a proper environment for the determination of terms of credit (1455).

The Federal Reserve's use of other banking phenomena as its immediate target variables also was criticized. Professor Brownlee (Minnesota) was one of those who brought out that—

> * * * many different levels of total reserves, and hence of the potential money supply, can exist with a given amount of "free reserves"—the target variable used by the Committee. An increase in free reserves can be compatible with an increase or a decrease in the potential money supply (1063).

Professor Shapiro (Harvard) was among the witnesses who were disturbed by the Federal Reserve's concern with the Government bond market. He told the subcommittee:

> Preoccupation with the minute variations in the financial markets tends to cause erratic behavior on the part of the Fed, and subjects these markets to uncertainties which, in my opinion, are not helpful either to the outcome of monetary policy or to the effective functioning of these markets.
>
> I believe that the bond market is more viable than is suggested by the Fed's almost minute concern with it. Moreover, the concern with the state of the bond market appears to me to constrain the Fed in pursuing monetary policies which might substantially affect bond prices.
>
> In this sense, I agree with the Commission on Money and Credit report, when it states: "The monetary authorities should make full use of the fact that monetary measures can be varied continually in either direction and reversed quickly at their discretion."
>
> If, in fact, our economic system contains more rigidities than was true in the past, I believe a more active response to projections in the rate of change of economic activity may be desirable. For, if the Fed delays its action in the face of an increasing number of signs of recession, and then later reacts with an overactive policy of increasing reserves, it tends to get the worst of two worlds. That is to say, unemployment is larger than it need be, and the subsequent increase in economic activity tends to be associated with more price rise than is necessary (1103).

Professor Bach (Carnegie Tech) stated the objection of economists to the Federal Reserve's operating methods at some length. His criticisms merit attention and are given below.

> The Federal Reserve has not made it clear that it has a clear, explicit framework, or rationale, for its monetary policy, specifying the mechanism or steps connecting particular Federal Reserve policy changes with the desired end results. * * * Federal Reserve policy statements indicate recognition of a multiplicity of possible channels of impact for their policy actions (open market operations and rediscount and reserve requirement changes) on the economy. But without firm knowledge of the links connecting Federal Reserve actions with their immediate targets (for example, free reserves or interest rates) and in turn with later goals (for example, the money stock or availability of credit) and with ultimate objectives (employment, output, and prices), neither Federal Reserve officials nor the public can be at all sure of the appropriateness of particular policy measures.

> Federal Reserve officials speak of influencing "free" reserves, total reserves, the supply of money, the supply of credit, interest rates, the "tone" of the market for Government securities, and other intermediate variables. At times, at least, these steps appear to be inconsistent.
>
> For example, the supply of money and the supply of credit often change at quite different rates, so it is critical for the Federal Reserve to be clear and to make clear which it is trying to influence and why. The System's heavy focus on "free reserves" as an apparent central intermediate goal of policy actions is another example.
>
> While the Fed can substantially control free reserves, merely making free reserves larger or smaller may have little relation to whether money will be easier or tighter. For example, in mid-1963, the Fed announced a policy of "less active ease" and apparently reduced its target level of free reserves. Yet at about the same time, higher interest rates and the rising demand for funds apparently led banks to reduce even further their desired level of free reserves. Thus the Fed's policy of "less active ease" appears to have been associated with a more rapid increase in bank reserves, and hence a more rapid increase in both bank credit and the stock in money, than was true in the preceding period of presumably "more active" ease (1389–1390).

Prof. Harry Johnson (Chicago) summarized why economists object to the Federal Reserve's concentrating on banking phenomena. He told the subcommittee:

> * * * the methods of monetary management, which involve the central bank concentrating its attention on money market conditions and interest rates, and on member bank reserve positions and lending, rather than on the performance of the economy in general, are extremely conducive to the behavior pattern of overreaction and delayed correction of error already mentioned (971).

The money supply behaves erratically because changes in the volume of money emerge as a byproduct from the Federal Reserve's attempts to offset random daily disturbances in float, the price of Treasury bills, etc. And, as was amply demonstrated by the testimony summarized in part III of this report, it is the behavior of the money supply that matters. Of course, Federal Reserve officials remain unconvinced, as a recent article in Business Week recognized when, referring to the money supply school of theorists, it observed—

> They can muster *piles of evidence* to show that business downturns have been *preceded by* declines in the money supply, but the Fed thinks the evidence is inconclusive.[6] [Emphasis supplied.]

A change in targets is essential. But to date there is no evidence that the Federal Reserve is sufficiently flexible to make the required changes.

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[6] Business Week, May 16, 1964, p. 76.

(*b*) *The Federal Reserve's prejudices.*—Professor Reagan (Syracuse) made an interesting observation about prejudices in general when he told the subcommittee:

> I do not doubt for a moment that Reserve bank presidents are dedicated to the public interest and so think of themselves, and that the members of the Board of Governors are devoted to the public interest, and the President is devoted to the public interest, and that the Secretary of the Treasury is devoted to the public interest. And I will hopefully assume that Dean Walden and I, myself, are. The trouble is each of us sees the public interest a little bit differently (1587).

The Federal Reserve's deepest prejudice is that inflation is our No. One economic enemy. This was recognized by Professor Fishman (West Virginia). In an article submitted for the record, he stated:

> The Federal Open Market Committee has consistently regarded avoidance of inflation as the primary objective of monetary policy, and has not regarded reduction of unemployment as an objective of comparable importance (1951).

Federal Reserve officials did not deny this. For the Federal Reserve, is, as Chairman Martin told the Senate committee during the 1957–58 recession, "always fighting inflation." [7]

The trouble with this philosophy is that sometimes, like the time this statement was made, the enemy is deflation and unemployment. The Federal Reserve's executives pay lipservice to the goal of maximum employment but nearly always they direct the power of monetary policy against an inflation which, in some mystical way, they see in the future. The result is the economy usually must squirm in order to fit into a tight monetary coat.

The testimony also indicated that the Federal Reserve has—if not a deep prejudice, then at least an operating bias—which favors higher interest rates. In part, this bias is a natural corollary of the Federal Reserve's deep fear of inflation. Higher interest rates are the classical prescription for inflation and are used to fight both real and imagined inflations. This, as Prof. John Kenneth Galbraith (Harvard), who served President Kennedy as an economic adviser and Ambassador to India has pointed out, puts those who urge higher interest rates in an enviable position.

> Producers of wheat, copper, cotton, and even steel are assumed to prefer higher prices for the larger revenues they return. Those who lend money, in contrast, are permitted to urge higher interest rates not for the greater return but as a selfless step designed to protect the Nation from the evils of soft money, loose financial practice, and deficient economic morality. An economist who sees the need for a higher weekly wage may well be suspected of yielding to unions; one who urges an increase in the rediscount rate, is however, invariably a statesman.

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[7] "Investigation of the Condition of the United States," hearings before the Senate Finance Committee, August 1959, p. 1345.

But, Professor Galbraith continued:

> This should not keep anyone from penetrating to the fact. There is a lively, insistent, and durable preference by the money-lending community for high rates of return; this is related to an intelligent view of pecuniary self-interest.[8]

It goes without saying that Federal Reserve officials would be horrified at the thought they moved to higher interest rates because this added to the profits of those in the lending business. Still, this is one of the effects of higher interest rates, and, in view of the fact that inflations the Federal Reserve fought in the post-Accord period were more imagined than real, it may have been their only important benefit. Professor Lerner (Michigan State) suggested this when he told the subcommittee:

> The other point that I wanted to make is that I do not believe the bankers in the Federal Reserve System deliberately twist their advice so as to raise the rate of interest in order to increase bank earnings. I think they regard it as an honor to work for the "Fed" and they try to serve the public interest the way they see it.
>
> I think, however, that there is good reason for doing what the chairman recommends, of having the Governors of the "Monetary Authority" consist only of people appointed as public servants, because even though the bankers do not consciously try to pervert things, they nevertheless cannot get away from their habits and prejudices as bankers which makes them tend to prefer higher rates of interest to lower rates of interest.
>
> This is one of the reasons why we have been suffering from somewhat higher rates of interest than we should have had up to the last year or so (1431).

By now the bad effects of the prejudices which have dominated Federal Reserve policy will be familiar. Briefly, in past years the combined effect of the Federal Reserve's neurotic fear of inflation and preference for higher interest rates was to cause economic stagnation and recurrent recessions. It, therefore, would seem urgent to agree with Mr. Goldfinger (AFL-CIO) that:

> The Nation's monetary management is much too pervasive in its influence to be left in the hands of people whose training and experience are mainly in big business and banking and who are further insulated from the major currents of American life by the "independence" of the Federal Reserve. The entire Federal Reserve System must be made into a public system, fully a part of the U.S. Government and broadly representative of the population (1473).

In addition to the bad economic effects which have resulted from the large part now played in the formulation and execution of monetary policy by those whose training and experience is in banking, there is a compelling political reason for freeing the monetary authority from the occupational prejudices and myopic concepts of those

[8] J. K. Galbraith, "The Balance of Payments: A Political and Administrative View," Review of Economics and Statistics (May 1964), p. 118.

who are expert in extending credit and making investments in individual business enterprises and households. Chairman Patman (Texas) called attention to this when he observed:

> * * * One of these days Congress is going to wake up to this thing and say that the bankers have no right to set monetary policy any more than the owners of railroads have the right to be on the ICC and set freight rates and the passenger rates, or the broadcasting industry to be on the FCC and determine the rights and privileges and responsibilities of the broadcasting industry (897).

It would appear that Chairman Martin's argument for keeping the present Open Market Committee intact, which, recall, is in order that the "viewpoints" of those "with technical experience in banking * * * may be brought to bear upon the complex credit problems * * *" flies in the face of both the economics and the political morality of the matter.

4. The Federal Reserve's independence and its inability to change its ways

The Federal Reserve has authority to act independently, even at variance with the administration whenever it chooses, and it has in the past so chosen.[9] Moreover, the Federal Reserve's decisions, under the law, are not, as this report has shown, subject to review and cannot be reversed by any authority or authorities including the President and the Congress. It is foolish to believe the Federal Reserve is in any meaningful sense an arm of Congress. Its executives do what they want independent of the desires of Congress. The late Speaker of the House of Representatives, the Honorable Sam Rayburn, recognized this when he said, in 1959:

> I have been forced to the conclusion that the Federal Reserve authorities * * * consider themselves immune to any direction or suggestion by the Congress, let alone a simple expression of the sense of Congress.[10]

But most important of all, the executives of the Federal Reserve System cannot be penalized by the President or the Congress for their policies and actions no matter how mistaken and costly to our people and free enterprise economy their policies and actions are.

The seven Governors of the System serve 14-year terms and so are effectively insulated from public pressures. The Reserve bank presidents are directly accountable to their banks' directors and indirectly to the seven insulated Governors, and so they, too, need not fear public disapproval.

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[9] In this connection, a dialog between Senator Long (Louisiana) and Chairman Martin which occurred in the 1957 Senate Finance Committee hearings, "Investigation of the Financial Condition of the United States," is enlightening. Excerpts from the colloquy which appears on p. 1362 are as follows:

"Senator LONG. And you believe that the Federal Reserve * * * has the right to pursue a policy that is completely contrary to the policy that the administration proceeds to follow * * *?

"Chairman MARTIN. Under the law we feel it is our prerogative; yes, sir.

* * * * * * *

"Senator LONG. Yes. Has the administration of recent date * * * been urging you to take a position or adopt a policy contrary to the one that you have been pursuing?

"Chairman MARTIN. * * * They have tried on a number of occasions to persuade us that we should not take action which we did take. * * *"

[10] Cited in Labor, Aug. 1, 1959, p. 1.

The executives of the Federal Reserve are not accountable to any public authority, not even the electorate. Thus, though 50 years have elapsed since the Federal Reserve was conceived, it still has not, as Professor Brunner (UCLA) observed:

> * * * acquired a validated knowledge about the monetary process (1053).

Other witnesses also were critical of the Federal Reserve's failure to develop a valid understanding of what it is actually doing. In a passage which was more fully quoted earlier, Professor Meltzer (Carnegie Tech) put the matter this way:

> After 50 years, the Federal Reserve has little verified knowledge to form the basis of its policy actions (927).

The comments of Dr. Warburton (FDIC) and Professor Bach (Carnegie Tech) on the Federal Reserve's "knowledge gap" also are noteworthy. Dr. Warburton told the subcommittee:

> One of the most serious problems in the formation of the Federal Reserve policy has been a lack of adequate research regarding the relation of central bank operations to business conditions * * *. The lack of research on the relation of changes in the supply, velocity, and value of money to fluctuations in output, employment, and gross national product becomes most evident when inquiries are made regarding the character of the information used by the Federal Open Market Committee in arriving at its decisions. It is not known what quantitative guides, if any, the Committee uses in deciding what rate of growth in money or bank reserves is needed or how much fluctuation is desirable when they adopt differing degrees of "restraint" or "ease." The policy record of the Committee published each year in the annual report of the Board of Governors does not provide such information (1323–1324).

Professor Bach said:

> Surely, improving our understanding of the behavior of money, and of the linkage between central bank action and ultimate policy goals, should be a major responsibility of the central bank. The Fed has an excellent research department for keeping it informed on current economic developments and for providing staff work on current issues. But unfortunately, nearly all of its expertise has been devoted to these activities and in my judgment the recent rapid growth in tested knowledge on the behavior of money in our economy has come primarily from academic economists. I believe that the Fed deserves criticism for its failure to push more actively on the fundamental research that must be done to continue to improve further our monetary policy. If the Fed is to make better policy, the sine qua non is a better base of tested knowledge on which to base that policy (1390).

The Federal Reserve's "knowledge gap" and the corollary lack of guidelines for monetary policy will not be corrected if the present structure of the System remains intact. This is because the present

structure of the Federal Reserve lacks an educational feedback. The 14-year terms of the seven Governors and the complete insulation of the Reserve bank presidents from the public's criticism in cases of error, make it unnecessary for ranking Federal Reserve officials to further their knowledge. If the present structure is maintained, monetary policy will continue to emerge from the misguided operating methods and prejudices which the Federal Reserve has taken secondhand from the business of extending credit and making investments, under the false assumption that the problems of this business are a miniature of the economy's problems. With the present structure, these misguided methods and biases will persist and the recessions and other costs that result from them will continue to be inflicted on our economy.

C. ANALYTICAL CONCLUSIONS

This brief set of analytical conclusions is based on our staff review of the testimony heard by the subcommittee. It will, in fact, serve as a summary of this testimony.

While there is always a subjective element in evaluating testimony received from many persons, representing individual as well as organizational points of view, it is our belief that we have reviewed and considered all points of view given in testimony before this committee. Upon such review the staff reached the inescapable conclusion that the Federal Reserve has erred in the past and that these errors derived from defects still present in the structure of the System.

One glaring deficiency in the Federal Reserve Act is the lack of adequate guidelines. Members of the subcommittee were troubled about this defect. Congressman Vanik (Ohio) indicated his concern when he stated:

> We would not be so critical of these actions if we understood some rule or regulation that would guide the conduct of the Open Market Committee, the Board members, and the presidents when you are acting on these important decisions.
>
> For example, if we knew that there was some established rule, and the presidents of the banks, that if certain conditions would occur, the discount rate would rise or fall, we could understand that and then we could argue with the reasoning that supports the rule.
>
> As it stands now, it is a completely arbitrary decision. Arbitrary because we do not have any guide points on which we can fix this course of action. In other words, if you were to have some rulemaking body which said that if certain conditions happen in precisely such-and-such a way then "our decision will be to do thus and so," then we could study the wisdom and analyze the thinking behind the rulemaking on which you have established your actions. Then we would have an opportunity to know whether or not your guideposts or decisions were in the public interest.
>
> I think this is the area that we complain about. The arbitrary decisions that can be made without any review, without any conformity to rule or regulation (658–659).

Chairman Patman (Texas) put the matter this way:

> That discretionary power is preferable to fixed laws for the performance of some functions seems unquestionable, but definite norms must be present to guide progress toward clearly defined objectives.
>
> Congress set up the Federal Reserve to regulate the country's money. I am suggesting that the guidelines for policy and responsibility furnished the Fed by Congress in the original 1913 act have for many years been inadequate for the severe demands of a more modern society (1534).

In this connection, the 1946 Employment Act declares—

> it is the continuing policy and responsibility of the Federal Government to use all practicable means * * * to coordinate and utilize all of its plans, functions, and resources * * * to promote maximum employment, production, and purchasing power.

Professor Fishman (West Virginia) pointed out that—

> Other portions of the act indicate more specifically that it is the President who has the responsibility of achieving the required coordination of "all plans, functions, and resources" to achieve these ends.

And moreover, that during the debates—

> on one or two occasions it was observed that monetary policy would be used by the President to promote the purposes of the legislation (1955).

But, even if there had been no awareness in 1946 concerning the importance of monetary policy for the prosperity of the Nation, both fact and theory now demonstrate that mismanaged money can and all too often has prevented our achieving the goals of the Employment Act.

The facts show that money matters, and especially that a mismanaged money supply can retard our economy's growth and cause unemployment and business failures. Thus as Senator Clark (Pennsylvania) and Congressman Reuss (Wisconsin) pointed out a few years ago—

> omission of monetary and credit policies, on the ground of the independence of the Federal Reserve System, is a serious misconstruction of the Employment Act. It defeats its very purpose, which was to enable the President to come forward with a coherent overall economic program directed to the Employment Act's targets.[11]

Clearly the Employment Act contemplates that the President will be responsible for the determination of monetary policy but not necessarily for its day-to-day management.

Our analyses also have shown that the Federal Reserve Act is defective because it has established a system which is inherently prone to exaggerate the danger of inflation, and, as a corollary, to understate

[11] H. Rept. 539, 86th Cong., 1st sess., Committee on Government Operations, to accompany H.R. 6263, amending the Employment Act of 1946 to provide for its more effective administration, and to bring to bear an informed public opinion upon price and wage increases which weaken economic stability, 1959.

the peril of unemployment, and also to select the wrong target variables for exercising monetary control. The facts of recent economic history demonstrate that money must be watched and controlled. But the testimony has shown clearly that the growth of the Nation's money supply is not controlled. Rather it emerges in fits and starts as a byproduct of operations to control such variables as the quality of credit, free reserves, and the loan rate to dealers in Government securities. Congress did not make the Federal Reserve responsible for the behavior of these variables. But because of its contacts and ties to credit institutions it has unfortunately assumed this responsibility. The combined effect of the Federal Reserve's excessive fear of inflation and bad choice of target variables is to cause the long-term money supply growth trend to be deflationary and short-term movements to be destabilizing.

The testimony also has revealed that because of its independence from public pressures the Federal Reserve lacks an educational feedback. Such a feedback is required to assure that mistakes lead to critical reevaluations of operating objectives and methods. Without it past errors are almost sure to be repeated in future years.

Secretary Dillon told the subcommittee:

> If there are persuasive reasons for particular proposals * * * by all means, this committee should act (1233).

Clearly, the hearings have established that there are valid and vital reasons for restructuring the Federal Reserve System. And so the question becomes one of formulation by the subcommittee of specific proposals to remedy the deficiencies and defects brought to light by the hearings.[12]

[12] The set of proposals released by all of the majority members of the subcommittee precedes this report.

21-750 O—68——41

STATEMENT OF HENRY C. WALLICH, YALE UNIVERSITY

I. COORDINATION OF FISCAL, DEBT MANAGEMENT, AND MONETARY POLICIES

Monetary, fiscal, and debt management policy are interrelated instruments and should be coordinated as far as possible. This should be done with due regard to the goals, not only of the Employment Act, but of the American economy as these goals have evolved since the passage of the act. For instance, price stability and balance-of-payments equilibrium have emerged as important objectives that can be found at best implicitly in the act.

I am somewhat skeptical of the possibility of formulating a program for a full year ahead, let alone the 18 months over which the budget must try to look ahead. If a 1-year program is to be established, it would have to be subject to certain contingencies. Failure fully to implement the program should not be regarded as a failure of the policy-executing agencies.

2. Should the President draw up the program?

The President should draw up the fiscal and debt management program based on full information concerning the plans of the monetary authorities. Both sides should develop their programs with reference to, and in full knowledge of, the plans of the other. I do not believe that the President should prescribe the program of the Federal Reserve. It should be noted, incidentally, that the real fiscal program is determined, not by the President, but by the Congress. There may be times, consequently, when the main task of coordination will be to achieve harmony between the plans of the executive branch and the Federal Reserve on one side and the purposes of the Congress on the other.

Since monetary policy can take action on very short notice, the monetary authorities need not formulate their program with as long a leadtime as must the fiscal authorities. There is no need, for instance, for the Federal Reserve to try to anticipate, in January of 1969, what conditions may be in June 1970, as the President must do in presenting his budget plans.

3A. Monetary policy variable

I do not believe that any single target variable is at all adequate. The money supply is important in the long run. I would be concerned if the money supply grew substantially less, or substantially more, than the economy over a prolonged period of time, say 1 or 2 years. Even then, special conditions, such as shifts in the demand for money, would have to be taken into account before taking for granted that the money supply should grow as fast as the GNP.

In the short run, say one or two quarters, I can see no major problem in a money supply growth below or in excess of the economy's growth rate. On the contrary, an effort to keep the money supply to a constant rate of growth month by month would probably, in the case of short-term shifts in the demand for money, cause substantial fluctuations in interest rates. Such fluctuations in interest rates could be destabilizing to the domestic economy and particularly to the balance of payments. I see some benefit from maintaining reasonably stable interest rates in the short run. However, if such relative stability of interest rates leads to inappropriate growth rates of the money

supply, say a rapid expansion, or a very slow expansion, these interest rates are plainly inappropriate. Over a longer period of time, therefore, interest rates should be allowed to change so as to permit an appropriate growth of the money supply.

It should be noted, in assessing the relative merits of interest rates and money supply, that the theoretical bases for requiring money growth to equal growth of the economy are not strong. There may be economies of scale in the use of money, or alternatively, money may be a luxury good, demand for which increases more than in proportion to income.

Most efforts to assess the effect of monetary policy upon particular expenditures take the form of a study of the impact of interest rates on expenditures, not of money supply. In the case of housing, the form of spending most affected by monetary policy, it plainly seems to be the interest rate that influences new starts. Only in exceptional periods, when mortgages are unobtainable, is an "availability factor" traceable. In conditions of tightness, the rate of growth of the money supply could be viewed as the analog of "availability."

If a money supply target were to be instituted despite all these difficulties, it is only fair to recognize that the resulting unstable interest rates may be incompatible with balance-of-payments equilibrium and with the maintenance of a stable exchange rate. The logical counterpart of a money supply target is a flexible exchange rate. I do not regard a flexible exchange rate as desirable. So long as we adhere to a fixed rate, decisions concerning the money supply must be constrained by their consequences for the balance of payments.

3B. Should a target variable or economic conditions serve as policy guideline?

Our ultimate objectives are conditions in the economy, especially the goals of the Employment Act. A target variable is useful to the extent that it is related to those goals. If pursuit of a target variable leads us away from attainment of the goals, the target variable should be abandoned. So long as the relation between the target variable and economic conditions remains stable, a target variable is useful because it can be observed more accurately and speedily than can the achievement of the ultimate goals. In selecting a target variable, care should be had that the variable be influenced as little as possible by factors other than monetary policy actions, since that would confuse the policymaker as to the effect, respectively, of his own actions and of outside circumstances.

I repeat that I am skeptical of the usefulness of any single target variable.

3C. Indicators

The goals of the Employment Act are related, for the most part, to coincident indicators. Goal achievement must, therefore, be kept under continuous review by study of coincident indicators. At the same time, it seems reasonable to study leading indicators, in view of the lag with which monetary policy actions are likely to become effective. Since no leading indicator is wholly reliable, no such indicator or group of indicators can be made the sole objective of policy.

4. Debt management policy

In conditions of mild economic fluctuations, debt management can join with monetary policy in influencing movements in interest rates and money supply in a desirable direction. The same applies to the management of credit, both bank credit and nonbank intermediary credit, which I regard as an important policy tool separable from management of money supply. In conditions of stress, the problems confronting the debt manager usually are of a sort that make it difficult for him to contribute to stabilization policy. In periods of tight money, it may be very difficult for debt management to emphasize longer term issues, although that might be appropriate. In periods of ease, while economic conditions might counsel predominately short-term financing, the maturity structure of the public debt may call for some long-term financing. Debt managers must strike a reasonable compromise between the needs of stabilization policy and the housekeeping objectives connected with the debt.

5. Open-market operations

The details of open-market operations are largely technical and I see no particular purpose to be served by a detailed quarterly report to the Congress. Major monetary policy decisions are of a different order.

5A. Defensive operations

If the Federal Reserve were to give up defensive open market operations, the market would to some extent probably take over the function of smoothing the movement of interest rates. There is no assurance that the market would do this very effectively or that there would not be major failures from time to time. I see no good purpose being served by abandonment of these operations. In particular, I see no conflict between the pursuit of the goals of the Employment Act and defensive open market operations. If defensive operations are defined to include "even keeling" by the Federal Reserve during Treasury financing periods, I would see a danger to good monetary policy from this source unless monetary policy and debt management are well coordinated.

5B. Open market operations only?

Monetary policy probably could be conducted by this technique only, if there is a strong reason for doing so. The monetary authorities would have to maneuver more rapidly and delicately than when the escape valve of the discount window is open. The results would be somewhat less smooth than at present. I can see no reason for playing, as it were, on one string of a violin a piece written for four strings.

5C. Other policy instruments

Interaction of these various instruments are complex. I would like to limit myself to saying that I regard discounting as a useful escape valve from the uneven pressures inevitably generated by open market operations, and I view with alarm the use of regulation Q as a means of creating uncertainty and therefore instability in the banking field.

5D. Federal Reserve reports

The significance of quarterly reports to Congress by the Federal Reserve depends on how soon after the close of the period the report is to be rendered, and what use the Congress makes of the report. Since very large amounts of money ride on correctly guessing the action of

the Federal Reserve, I see substantial dangers in frequent and up-to-date analysis, in the public press, of the voting propensities of individual Federal Reserve Board members. I also believe that use made by the Congress of the report in order to influence the behavior of the Federal Reserve is of very uncertain value unless major policy issues are at stake.

5E. Attendance at open market committee meetings

The effect would depend very much on who these representatives were, and on the spirit in which they participated. Routine attendance of staff observers to maintain coordination might be helpful or at any rate innocuous. Attendance of potential critics, or for the purpose of influencing the decisions of the committee, raises serious questions. Benefits would result from better understanding of the Federal Reserve's problems. There is danger, however, that frank discussion would be inhibited, that the discussion would become politicized and, conceivably, if the number of observers were large, that leakages would occur of information valuable in the market.

II. APPRAISAL OF THE STRUCTURE OF FEDERAL RESERVE

1. Retiring Federal Reserve bank stock

This would be a good move. Federal Reserve capital serves no function, the system having accumulated a large surplus. Private ownership, while conveying no real rights and privileges to bankers and others, gives an unwarranted appearance of domination by private interests. This appearance of private ownership should be ended.

2. Reducing Board membership

A smaller membership would probably be an advantage, since it would make membership marginally more attractive. Shortening the term of office would work in the opposite direction. It would make acceptance of membership difficult for persons without independent means or assured postterm job, and raises the danger that members might be under pressure to concern themselves with possible future association with an industry they are regulating. If reappointment were possible, the independent judgment of members might be affected.

3. Chairman coterminus with President

This seems to be a reasonable move to improve coordination without substantially subjecting the entire Board to the President's domination.

4. Audit by the Comptroller General

It is difficult for someone who claims to keep his accounts properly to object to an audit. A purely technical audit, taking into account the special circumstances of a central bank, ought not to be objectionable. It is very difficult for the General Accounting Office, however, to practice such an audit. The Federal Reserve Board is a Government agency, but it is also part of a central banking structure. The 12 Federal Reserve banks are one step farther away from the Government and one step closer to the financial markets. Both Board and banks are in touch with central banks in foreign countries, to whose structure and habits of work they must to some degree adapt. All this means that the Federal Reserve System cannot be treated by precise Government stand-

ards in some of its internal financial aspects, such as job and salary structure, hospitality to foreign visitors, and travel; although every effort should be made by the System to conform to Government standards wherever possible. I doubt that the General Accounting Office could take these special circumstances into account sufficiently.

5. Appropriation by Congress

I regard this proposal as very objectionable. If the experience of other Government agencies is a guide, the System would have far more difficulty than even now in gathering an adequate research staff. Its research has been the strength of the Federal Reserve. The fact that everything the System does or says is attacked somewhere in the academic world simply reflects the fact that a high-level technical conversation is possible with the System, where most other Government agencies lack the resources to sustain this sort of debate and largely for that reason go free from attack.

Aside from the prospect that the research budget of the Federal Reserve would be much more limited under congressional appropriation, that process also raises the danger of pressure being brought on the policies of the System. I believe the present system is working adequately.

STATEMENT OF CLARK WARBURTON, McLEAN, VA.

I. MONETARY GUIDELINES AND OPEN MARKET OPERATIONS

I. 1. Both alternatives in this question fail to focus on the most important problem with respect to determination of basic monetary policy. The Congress is the fundamental policymaking branch of our Government; and with respect to money the Constitution gives the Congress not only the kind of responsibility and powers applicable to policymaking throughout the Government, but also a specific directive to regulate the value of money.

Throughout American history many astute observers of the contemporary sequence of economic events have attributed serious deviations from economic stability to the malfunctioning of the Nation's monetary mechanism, expressed during the past half century primarily in the central banking operations of the Federal Reserve System. The validity of this focus on monetary developments and policy as the overwhelmingly important originating factor in serious economic disturbances—both recessions and inflationary booms—has been given the strongest kind of support by extensive studies during the past 25 years of the relation of money to business fluctuations. No such support has been found for any other hypothesis regarding casual forces operating to produce business fluctuations of the order of magnitude involved in the business cycle measurements of the National Bureau of Economic Research.

The basic rule or guideline for monetary policy should therefore be embodied by the Congress in the statutes governing the activities of the Federal Reserve System. The fundamental principle in such a rule should be maintenance of sufficient growth in the stock of money to match (approximately) the general rate of growth in the real output of the economy, and thus, with appropriate attention to other factors bearing on the efficiency of money, maintain a stable value of money

(as measured by an appropriate index of prices) under the condition of "maximum employment and production." This is the only kind of monetary policy that will permit achievement of the threefold objective of the Employment Act of 1946, "maximum employment, production, and purchasing power."

With the basic statutory directive suggested above in force, there would be some real advantages in requiring the administration to present to the Congress from time to time a program for coordinating fiscal, debt management, and monetary policies for the purpose of achieving the goals of the Employment Act. But without such a statutory directive for monetary policy, a requirement for a program of coordination of monetary policy with fiscal policies would—judged by past history—inevitably result on many occasions in disastrous policymaking. The temptation to misuse monetary policy to alleviate fiscal problems is far too great to be encouraged by the absence of permanent statutory principles for monetary policy.

Moreover, there are a multitude of forces operating in the economy which have some influence on the stock and efficiency of money, and which in consequence, the administrators of monetary policy need to keep under constant study and watchfulness in order to keep monetary policy in line with the basic statutory directive. In addition, there are moot questions about the usefulness of minor deviations in the stock of money (major deviations, according to the record of history, are always disastrous) in the achievement of maximum productions, employment, and purchasing power. Further, there are moot questions and many divergencies of opinion among economists about the role of related variables and the extent to which the administrators of monetary policy should give attention to them in their programs of action. These considerations, which will be discussed in more detail below in replies to other questions, also support the desirability of a periodic presentation to the Congress by the administration of a program for coordinating fiscal, debt management, and monetary policies with each other and with other policies designed to achieve the goals of the Employment Act.

I.2. Presentation of an annual program for implementation of the Employment Act, including the coordination of fiscal, debt management, and monetary policy, is more properly a function of the Office of the President than dispersal between the Federal Reserve and other agencies. However, great care should be taken to insure that the views of any agency on matters for which it has responsibility should be available to the Congress, whatever their degree of agreement or disagreement with the program presented to the Congress by the President.

Perhaps a comment may be made here about the limitation of monetary policy, and of fiscal and debt management policy, respectively, in achieving the goals of the Employment Act. Regarding monetary policy, the overwhelming evidence from the historical record that monetary developments have throughout the Nation's history been the major cause of serious economic instability must be taken as leading to the conclusion that monetary policy is the magic key to achievement of maximum production and employment. Improper monetary policy can and will ruin the performance of the economy, regardless of the quality of other economic policies; proper monetary policy will avoid

that result and provide a climate in which other phases of economic policy can be most effective. Regarding fiscal and debt management policies, their impact on the economy is unquestionably substantial, but their potency in bringing about or maintaining maximum production and employment has in recent years been vastly overrated and also confused with the effectiveness of monetary policy. Further comments on this would not be relevant here.[1]

I.3.A. As indicated above, the one great contribution of monetary policy to the goals of the Employment Act is maintenance of stability of the stock of money at a reasonable rate of growth, and that criterion for monetary policy should be embodied in a permanent statutory directive in the Federal Reserve Act. However, there are numerous collateral or "fringe" problems of monetary policy to which both the Office of the President and the Federal Reserve System should give intermittent or constant attention.

One of these problems is the definition of the stock of money. In theory, noninterest bearing demand deposits plus currency held by the United States' public (individuals, enterprises, other nongovernmental organizations, excluding banks, and State and local governments) appears to be nearest practicable measurable quantity for a definition of the stock of money. Nevertheless, historical changes in conditions attached to time deposits and to the use of demand deposits (such as changes in reserve requirements associated with the introduction of the Federal Reserve System, legislative restrictions on corporation holding of savings deposits, the widespread development of service charges on demand accounts in the 1920's and 1930's, changing practices by banks with respect to customers' minimum balances, and the great expansion of negotiable certificates of deposit in the 1960's) have been such that inclusion of time deposits, in full or through a weighting procedure, may provide a statistical series with more consistent meaning through time than the narrower definition. In addition, the currently published "money supply" series contains at least one element, foreign bank deposits, which is inappropriate for a definition of the stock of money oriented on the problem of maximum production, employment, and purchasing power of the individuals and enterprises of the Nation. Further, a measure of money held by business and individuals (that is, excluding cash balance of State and local governments) is also desirable for use in studying variations in the rate of use of money for final products by business and individuals. On the other hand, in view of the large portion of "gross national product" consisting of Federal Government expenditures, cash balances of the Federal Government might well be included in one of the measures of the stock of money used in the formation of monetary policy.[2] The Federal Reserve System and the Council of Economic Advisers do not need additional powers to pursue in an adequate fashion the problem of the best definition (or definitions) of the stock of money, but they may need more legislative stimulus to do so before adoption of a specific target for the rate of growth of the stock of money. In the meantime there is sufficient evidence regarding the appropriate growth rate to

[1] Some elucidation of this point of view is given in my presidential address in 1964 before the Southern Economic Association, *Southern Economic Journal*, April 1965, pp. 289–97.

[2] The need for such measures of the stock of money is mentioned in my address cited in footnote 1.

warrant congressional approval of a statutory directive for Federal Reserve policy such as the following: In pursuance of the objective of maintaining stability of the value of money under the condition of maximum production and employment, the Federal Reserve Board and banks shall use their powers to keep "money supply" within a growth range of 2 to 5 percent per annum, and "money supply plus time deposits adjusted" within a maximum of 7 percent per annum, over any 3-month period, unless urgent circumstances indicate otherwise; and in that event such circumstances shall be promptly reported and described to the Congress (or a designated congressional committee).

None of the suggested alternative variables mentioned in question I.3.A. (interest rates, bank credit, liquidity, high-powered or base money, total bank reserves, excess reserves, or free reserves), nor any other related variable, is as suitable as the stock of money for the concept to which monetary policy should be oriented. Nevertheless, most of these alternatives are variables to which both the Federal Reserve and the Office of the President may well give considerable attention in framing a program for achieving maximum employment, production, and purchasing power. In particular, Federal Reserve authorities should constantly be concerned with total member bank reserves, since Federal Reserve influence on the money supply is exercised primarily through open-market operations directly impinging on member bank reserves. Unusual movements in excess reserves should also be given attention, to see whether the conditions producing such movements warrant variations in total reserves in order to maintain the stock of money in accord with the statutory directive. The concept of free reserves, to which far too much attention has been given in the past, should be relegated to a position of minor importance. Liquidity, bank credit, and high-powered or base money are concepts warranting considerable attention, but not the place of primacy as either an immediate or longrun target of monetary policy. Interest rates deserve more continuous attention and analysis, but to make them the focal point of monetary policy would be a colossal policy error.[3]

I.3.B. My comments here relate to annual or periodic monetary policy guidelines by the Office of the President and the Federal Reserve Board in accordance with and within the limits specified by statutory directive. Formulation of such guidelines should give consideration to various factors: the growth rate of the stock of money during the preceding year (to avoid a disturbing instability), with a critical evaluation of circumstances that might indicate some deviation therefrom; consistency with targets in the President's program regarding production and employment; and consistency with maintenance of a stable value of money. In order to give these factors due consideration, more careful investigations need to be made than have hithereto been available of a galaxy of related technical problems, including: the best index of prices for the purpose of measuring the degree of stability in the value of money; the adequacy of available measures of total real output and the relation of such measures to those of indus-

[3] Some comments in articles of mine written years ago are still, I believe, of current significance with respect to the misuse of interest rates in monetary policymaking, and to their useful role in a program for maximum production, employment, and purchasing power. See the introduction (pp. 15–18), selection 4 (pp. 89–101), selection 10 (pp. 222–233), and selection 13 (pp. 281–290), in Clark Warburton, *Depression, Inflation, and Monetary Policy* (Johns Hopkins Press, 1966).

trial production and employment; the most appropriate definition and measurement of the stock of money (mentioned above); the extent of variations in the rate at which money is used in the economy and the degree to which such variations have been induced by or related to variations in the stock of money;[4] the relative timing in the course of business fluctuations of variations in member bank reserves, the stock of money under various definitions, and the rate of use of money in the economy; the degree to which variations in interest rates have been related on the one hand to changes in Federal Reserve policy and the stock of money, and on the other to the multitudinous and constantly varying circumstances affecting the demand for and supply of loanable funds (apart from monetary policy); seasonal needs for variation in the stock of money and in bank credit; and the degree to which various types of bank credit have varied in the past and may appropriately vary in the future without disturbing proper policy with respect to the stock of money.

In view of the inadequate state of economic knowledge on these and other related economic variables, I do not believe that definite recommendations can be made as to whether guidelines of monetary policy by the Office of the President or the Federal Reserve—within the limits specified by statutory directives—are best stated in terms of a relation to some index of past, present, or future economic activity or directly in terms of the rate of growth of the money supply (or some other definition of the stock of money). The form of such recommendations for monetary policy guidelines (within the limits of statutory directives) by the President's advisers or by the Federal Reserve authorities can well be left to their judgment, with the understanding (or statutory directive) that the factual and theoretical bases of the recommendations be made public in as much detail as possible.

I.3. C, D, and E. In view of the views presented above regarding statutory guidelines for monetary policy containing specified limits, and regarding freedom of judgment for guidelines within those limits by the Office of the President or by Federal Reserve authorities, comments on these questions are not necessary here.

I.3.F. In view of the rapidity with which changes in economic circumstances occur, guidelines issued by the Office of the President or Federal Reserve authorities at the beginning of each year should be adjustable, in the light of changing circumtances, with public explanations of the basis of such adjustments.

I.4. The role of debt management in helping to implement the goals of the Employment Act is, in my opinion, comparatively limited. However, because of the magnitude of the Government debt, and of changes in the amount of such debt relative to the amounts of other types of debt, the form and terms of both new and refunding issues of Government debt need skillful management to avoid interference with appropriate variations and adjustments in interest rates, and

[4] The phrase, "rate of use of money," as used here includes concepts variously described by economists as monetary velocity or liquidity preference, and various measurements of ratios of expenditures to money holdings or of their obverse, cash holdings relative to expenditure rates. One specific neglected asset of the rate of use of money that may be mentioned here is the comparative change, over the past half century, of major segments of the ratio of gross national product to the stock of money, such as the ratio of personal consumption expenditures including taxes actually paid by individuals to their cash holdings, and the ratio of business enterprise expenditures for items in the gross national product (including their own taxes and those paid on behalf of individuals) to business cash balances. For a brief comment on such ratios and their relation to changes in the scope of Government activities and methods of collecting taxes, see my book, *Depression, Inflation, and Monetary Policy*, p. 14.

perhaps in some other economic variables also. I have no specific suggestions to make here regarding debt management policies.

I.5.A. As stated in my answer to question I.1 above, the most needed revision in the Federal Reserve Act is a directive that the Federal Reserve authorities use their powers to provide growth in the stock of money at a rate which will maintain a stable value of money under the condition of maximum production and employment, with a statutory specification regarding the maximum range in the rate of monetary growth. There is, I think, some merit in permitting the use of open-market operations, within limits that will not interfere with adherence to such statutory guidelines, to counteract seasonal and other transient factors affecting the stock of money, and under some circumstances (which cannot be specified in advance) to counteract or modify other factors "affecting money market and credit conditions." The risks and costs of such open-market operations, within the above-recommended statutory guides to monetary policy, should not be disturbing to the economy.

I.5.B. Monetary policy could, I think, be implemented with reasonable effectiveness and efficiency solely by open-market operations. However, other techniques now available to Federal Reserve authorities have advantages under various circumstances.

I.5.C. Rediscounting may appropriately be used for the purposes described in the recent Federal Reserve proposal, "Reappraisal of the Federal Reserve Discount Mechanism." [5]

Changes in percentage reserve requirements at the discretion of the Federal Reserve Board are, in my opinion, of more questionable usefulness. However, some modifications of the present statutory percentage reserve requirements are desirable, though I will not outline here recommendations for such changes. With regard to regulation Q, I have never regarded its provisions a desirable device for implementation of monetary policy.

I.5.D. Under present circumstances, with inadequate statutory principles for monetary policy, and the Federal Reserve's history of erratic policy, detailed quarterly reports by the Federal Reserve to Congress, or to one or more of its committees on banking and economic affairs, should be very helpful in the maintenance of reasonable monetary policy. However, if basic principles of monetary policy are provided by statute, as recommended in my answer to question I.1. above, the need for quarterly reports to Congress is less obvious. The question would then arise as to whether required quarterly reports from the Federal Reserve would be desirable when such reports are not required from the major Government departments and other regulatory commissions.

I.5.E. Again, under present circumstances—the Federal Reserve's history of erratic monetary policy, and the customary absence of genuine illuminating information on the purpose and process of policy-making in the published reports of Open Market Committee meetings—the presence of observers from Congress, the Treasury, and the Council of Economic Advisers at such meetings might be of some benefit to coordination of governmental economic policy. But also, if basic principles of monetary policy are provided by statute, the presence of such observers would be less significant. Obviously, it would

[5] This agreement with the purposes of that proposal does not constitute a general approval of its recommendations.

not be feasible to make such a practice customary for meetings of all regulatory commissions, or intradepartmental policymaking conferences; and (with appropriate statutory directives for monetary policy) there should not be a unique need for such observers at Open Market Committee meetings.

II. APPRAISAL OF THE STRUCTURE OF THE FEDERAL RESERVE

II.1. and II.2. I favor retirement of Federal Reserve stock, by use of Federal Reserve bank earnings, but this is a minor issue relative to the need for appropriate statutory directives in the Federal Reserve Act for Federal Reserve policymaking. I also think the number of members of the Board might well be reduced to five, with terms of 5 to 7 years and with the term of not more than one member expiring within any 1-year period.[6]

II.3. A requirement that the term of the Chairman of the Federal Reserve Board be coterminous with that of the President of the United States is not, I think, desirable. The provision in H.R. 11 is preferable, that the Chairman serve as such until the end of his term as a member or designation by the President of another member as chairman.

II.4. With respect to audits, the following provisions are suggested: (a) an annual audit of the Federal Reserve Board by the Comptroller General; (b) an annual audit of each Federal Reserve bank, including its branches, by, or under the supervision of, the Federal Reserve Board; and (c) authorization to the Comptroller General to review audits of the Federal Reserve banks and branches, and in his discretion to conduct such audits.

II.5. It would not, in my opinion, improve the operation of the Federal Reserve System to have its funds appropriated by the Congress of the United States. The operations of the System generate revenue for the Government. If the System is given appropriate directives and adequate audits by congressional authority, and the members of the Board appropriately chosen, the Board and banks should be able to manage their financial affairs without undue risk of inefficiency or dishonesty. However, the provision in the Federal Reserve Act prior to 1933, providing that earnings of the System in excess of specified additions to surplus be paid into the Treasury, should be restored.[7]

III. COMMENTS ON RECENT MONETARY POLICY

Federal Reserve monetary policy since 1962, and particularly since 1964, has been characterized by two major errors: (1) a much higher average rate of increase in the stock of money than was desirable or necessary, even under the circumstances of the war in Vietnam; and

[6] More detailed discussion of these questions is given in my statement and memoranda submitted to the Subcommittee on Domestic Finance, Committee on Banking and Currency of the House of Representatives, at its hearings in February–March 1964, *The Federal Reserve System After 50 Years*, vol. 2, pp. 1318–19, and 1328–31.

[7] Incidentally, I have long believed that the postal service could be conducted more efficiently, provide better service, and operate at a moderate profit to the Government (or at least without a deficit to be financed from taxes) were it reorganized as a Government-owned corporation, with suitable congressional directives regarding the principles of rate-making and other basic policies. There are other Government operations that appear to be more efficiently conducted by Government-owned corporations handling their financial affairs without legislative appropriations, but with appropriate statutory directives regarding their duties, and auditing by the Comptroller General.

(2) more variation than has been needed or desirable in the rate of change in the stock of money.[8]

During the 11 years prior to 1963, the average annual rate of increase in the money stock, exclusive of time and savings deposits, was about 2 percent, and if time and savings deposits are included about 4 percent. In view of the increasing rate of use of money these rates were sufficient (or nearly so), had they been steadily maintained, to permit continuous "maximum employment and production" without much (if any) inflation.[9] However, interruptions to monetary growth, with resulting business recissions, and the continual uncertainty regarding monetary policy and consequently business prospects, were a potent drag on the average rate of output. During the 11 years there were three interruptions to growth in money supply (in 1953, 1957–58, and 1959–60), each followed by a business downswing. The combined length of these downswings comprised one-half of the entire 11-year period.

During the 5½ years from the beginning of 1963 to the middle of 1968, the stock of money, exclusive of time deposits, increased at an average annual rate of 4½ percent, and inclusive of time and savings deposits about 8 percent, the former more than twice and the latter twice the annual rate of the preceding 11 years. The rate of use of money also continued to increase. Prices rose more rapidly than in the preceding 11 years: wholesale prices three times as fast, consumer prices nearly twice as fast, and the Department of Commerce implicit price index one and one-half times as rapidly. Because of the time lag involved in the transmission of the impact of changes in the money stock on changes in output and prices, these comparisons understate the real effect of the abnormally high rate of increase in money stock since the beginning of 1963.

These data for the two periods, taken together, suggest the following conclusion regarding the first of the two major errors in monetary policy mentioned above. Since the beginning of 1963, the stock of money has been increased at an average rate roughly twice that which would have been reasonable for the purpose of steadily sustaining maximum employment and production without inducing inflation.

The second major error in monetary policy in recent years—more variation than is desirable in the stock of money—has been exhibited in two ways: an accelerating rate of increase in the stock of money and one abrupt interruption, about three-fourths of a year in length, when there was no increase in money supply. The accelerating rate of increase is evidenced by the abnormally high annual rate of 7.3 per-

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[8] In the following discussion, the money data used are the Federal Reserve series for money supply, and for money supply plus time deposits adjusted. As indicated in comments above on question I. 3.A. other measures of the stock of money may he more useful in business fluctuation analysis.

[9] The rate of use of money, as measured by the ratio of gross national product to money supply, increased by about 3 percent per year. This, together with the money supply increase, was about 5 percent per year (the rate of increase in gross national product in current dollars). This is higher than the historic rate of growth of output of about 3.7 per year, and is approximately the maximum rate of increase in output considered "sustainable" by economists who have examined the productivity and manpower data for recent years. Price indexes indicate some inflation during the 11 years. The index of wholesale prices was remarkably stable, relative to previous historical periods, but rose at an average annual rate of about one-half of 1 percent per year. The consumer price index and the Department of Commerce implicit price index rose, respectively, at nearly or more than 1½ percent per year. Perhaps it should be noted here that the 3 percent per year increase in the rate of use of money may reflect to a greater degree changes in the role of Government and in taxation than actual changes in the cash balances held by individuals or by business concerns relative to their payments for consumer goods and services and capital goods. See note 4 above.

cent in money supply during 1967 and the first half of 1968, which was nearly twice the rate of growth in 1963. The impact of the accelerating rate of increase in the stock of money has been price inflation at an accelerating rate, without any increase in the rate of growth of output.[10]

The interruption in rate of growth of the money supply in 1966–67 (zero change over a 9-month period) was somewhat more severe than in 1953 (with an increase of 0.6 percent in 9 months), but less severe than in 1957–58 and 1959–60 (with decreases, respectively, of 1.8 percent in 10 months, and of 3.0 percent in 11 months). The consequence of the interrupted growth in money supply in 1966–67 was of the same character—a substantial slowdown in the rate of growth of output—though less severe than in the three earlier cases.[11]

Federal Reserve spokesmen, both members of the Board and of their staff, have opposed placing as much emphasis on the rate of growth of the stock of money as do most economists who have examined the relation of money to business fluctuations. In their view, a wide range of variables and circumstances should be given substantial consideration—on many occasions much more than the stock of money and the level of prices—in the formulation and execution of monetary policy. Many of the items stressed by Federal Reserve officials doubtless need attention, and, as mentioned above in discussing question I.3.B, there are numerous difficult technical problems concerning some of them and their relation to the stock of money, prices, and output. But much of the Federal Reserve discussion of these matters has an amorphous character, with widely varying emphasis at different times on specific kinds of data or information, and often makes use of vague and imprecise concepts.[12] In addition, the great research facilities of the Federal Reserve, which have produced numerous admirable analyses of many detailed facets of both commercial and central banking problems, seem to have failed to "come to grips" with the most important aspects of the interplay between the stock of money, its rate of use, and variables bearing on the value of money. As a consequence, the Federal Reserve decisionmakers, during most of the history of the System, seem to have failed to grasp the basic elements of the problem of formulating monetary policy for maintenance of maximum employment and production without inflation. The Board has therefore strenuously resisted any unambiguous statutory directive to govern Federal Reserve operations, even though phrased in such away as to allow considerable discretion for short-term variations to meet current circumstances as seen by the Board and the Open Market Committee.[13]

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[10] Gross national product in constant dollars increased at 4.4 percent per year during 1967 and the first half of 1968, compared with 5.5 percent per year from the first quarter of 1963 to the second quarter of 1965.

[11] Money supply plus time deposits adjusted and the related measure of bank credit (from the asset side of bank operations) also show the same types of variability since 1963 (acceleration and unstable rates of increase) as money supply. The figures used in the above discussion do not reflect the extreme instability in recent years in month-to-month changes in money supply, which ranged from annual rates of 1.4 to 15.7 percent during the year ending with July 1968. Part of this monthly instability may be reasonable adjustments to current circumstances, such as shifting of deposits into and out of U.S Treasury balances.

[12] Illustrated by testimony in May 1968 before the Joint Economic Committee and by the unintelligible directives (at least to outsiders) of the Open Market Committee to the Federal Reserve Bank of New York.

[13] This opposition has existed for decades. In the 1920's and early 1930's, for example, the Board opposed any sort of legislative instructions to use their powers for price level maintenance (i.e., avoidance of both inflation and deflation). For references to testimony regarding congressional bills with this objective, see Clark Warburton, *Depression, Inflation, and Monetary Policy*, pp. 310 and 373.

Various aspects of Federal Reserve policy relate in some manner to interest rates. The role of interest rates in monetary policymaking has long been a matter of confusion and controversy among academic and business economists and central bankers and members of their professional staffs.[14] A few comments are made here on interest rates in recent years and their relation to changes in the stock of money and related variables, and on the relation of both interest rates and changes in the stock of money to fiscal policy and pursuit of the war in Vietnam.

During the 11 years prior to 1963, interest rates (as indicated by those on Treasury bills, long-term Government bonds, corporate Aaa bonds, and bank customers' loans) rose by 1.2 to 1.6 percentage points. This amounted to a percentage rise during the period of over 40 percent on long-term Government and corporate bonds and bank customers' loans and nearly 80 percent on Treasury bills. Since monetary policy for this period may be described as approximately "neutral" (that is, about the rate of growth needed for maximum employment and production with a reasonably stable price level), the general rise in interest rates during the period should be ascribed to the forces of demand and supply in the loan markets, apart from monetary policy.[15] Federal Government fiscal developments appear to have been a substantial contributor to the interest rate rise of the 11-year period. Budget deficits occurred in 8 of these years, adding to demand in the money loan markets, and the sharpest portions of the rise mostly occurred when the budget deficit was the largest. At the end of the 11-year period interest rates had recovered from the unusually low levels of the late 1930's and the 1940's and had returned to about the levels of the middle 1920's.

During the 5¼ years from the first quarter of 1963 to the second quarter of 1968 the additional rise in the level of interest rates was larger than that of the preceding 11 years, ranging from increases of 1.4 to 2.6 percentage points for the four types of rates mentioned above. In terms of percentage rise, the increases during the 5¼ years were similar in order of magnitude to those of the period more than twice its length. Again, the Federal Government budget deficit, swollen by war expenditures without an increase in tax rates, contributed to demands in the money loan market. The deficit during this period, on a cash basis, was larger than for the preceding 11 years.

In theory, and during a portion of the 5¼ years in practice, the increasing growth rate of money supply tended to ameliorate the rising interest rates by adding to the funds available in the loan market; and the stoppage of growth in the money supply for 9 months in 1966–67 clearly intensified the upward pressure on interest rates. However, the increasing rate of money supply, for the period as a whole, has probably contributed more to pushing interest rates up than to keeping them down. This is due to the second and third stage effects of a high rate of increase in the stock of money; (a) through rising prices and increased loan demands associated therewith, and (b) expectations of further increases in the price level, tending to

[14] For a brief comment on this confusion, and references to my earlier discussions of interest rates and monetary policymaking, see *Depression, Inflation, and Monetary Policy*, pp. 15–16.

[15] Some of the interest rate movements within the period, such as the sharp rise in short-term rates in 1959 and decline in 1960, may be ascribed to money supply deviations from the period growth rates.

reduce the flow of funds into the loan market (because of the lowering of the real rate of return) unless compensated by higher contractual rates.

On balance, my own conclusion is that these later stage effects of a rapid increase in the stock of money, exerting an upward pressure on interest rates, have exceeded the first stage effect toward lower rates. Another way of stating this opinion is to say that maintenance since 1962 of a steady increase in money supply, or in money supply and related time deposits, closer to that of the preceding 11 years would have induced higher interest rates than actually occurred in the early portion of the period since 1962, but would have lowered the prevailing rates in early 1968. That is, the interest rate rise would have come earlier, but would have peaked at a lower level.

As a closing remark, a brief comment may be made on another aspect of the situation in recent years. The excessively large and increasing rate of increase in the stock of money has had the typical effect of war financing through money creation, that of reducing the real rate of income of wage earners, retirees, and others whose economic situation is adversely affected by a faster rise in consumer prices than of wage and income rates. This impact—placing most of the cost of war onto the lower income groups through inflation—has long been recognized as an inequitable method of taxation.

STATEMENT BY SIDNEY WEINTRAUB, UNIVERSITY OF PENNSYLVANIA

Note: Numbers follow the list of the *Questions on Monetary Policy Guidelines and Open Market Operations.*

1. I would favor a program coordinating fiscal, debt management, and monetary policies at the beginning of each year.

I would add, however, that on the price level front, unless we adopt some program for maintaining general wage levels in some reasonable balance with productivity improvements, efforts at full stabilization will be doomed.

2. I would favor Presidential responsibility for the program with the advice of the Federal Reserve Board as submitted to the Council of Economic Advisers. Responsibility and decisionmaking for the program must rest with the President. It is *his* economic program.

3. A. I see full employment as the target. Monetary policy must contribute to thie end. A target of money supplies, or of interest rates, or of any of the other variables mentioned, seems to me rather spurious: they are not serious ends. They are means of contributing to full employment or maximum activity. I also see no useful way of the Fed announcing, except in the broadest terms, the interest rate structure that it will seek to implement, or the money supplies it will create. Specific announcements on the rate structure would be self-defeating, as in our late postwar experience. The same is likely to be true of an exact specification of the increase in the money supply. An announcement of a range of increase in the money supply, say of 2 to 6 percent as has been proposed, is inocuous—it is largely a statement against sin. In a growing economy we already know the money supply will—and must—grow. The 2–6 percent rule only makes public what we know will—or would—generally happen anyway.

B. *Future* economic activity alone matters. The President's estimates will, of course, be based on the past. But monetary policy must look ahead—not to the period behind us. The past enters only as it affects present thinking of the future, and insofar as past activity casts future shadows.

I see little merit in a target "regardless of the economic winds." The target selected must be geared to the realities, rather than heedless of them. One would scarcely propose increasing the money supply, say, if there was some imminent and prospective increase in money velocity through large economies in the use of funds; likewise, one would scarcely defend "normal" and "moderate" money increases in a liquidity crisis such as in the early 1930's.

C. Unemployment primarily, and gross national product secondarily, soom to me to be the important indexes of economic activity at the present time. If unemployment is "too high," it seems to me that our policies are generally too restrictive. Most of the other indexes are quite secondary, in my view, other than as some guide to unemployment trends.

Monetary policy can be revised, after the January statement of the President, insofar as activity falters or accelerates. Other indexes will influence the decision on the degree of modification required. As I do not think the various indexes, such as "leading," "lagging," or "coincident," can be used mechanically, I refrain from choosing among them. At best they contribute to some intuitive "feel" about the future.

D. New guidelines, of course, should be stated each year. They may come to sound familiar. So do most administrative statements of programs. This is not a criticism: so much of life, and our articulation of it, is repetitive.

E. For unemployment as a target, this should be as "low as possible." Our economic system *must* make job opportunities available. We must never be complacent at the unemployment of someone else. Fears of full employment, the belief in unemployment as a means of disciplining labor, reflect such complacency.

As remarked initially, I doubt that inflation can be countered or even substantially moderated, through monetary policy and/or acceptable levels of unemployment. "Tight" money itself contributes *something* to higher costs and higher prices, and thus to inflation. The Fed's perennial crusade against inflation, to judge by a 30-year record, has not been conspicuously successful.

F. Monetary policy must be permitted to adjust, to change its tempo. It is the flexible discretionary instrument for economic control and stabilization. As a practical matter, ordinarily a 1–2 month horizon could be set; in fast-moving circumstances more rapid modifications might be required. New weekly assessments and changes in direction or magnitudes might wind up with emphasis on minutes; half-year deferments might miss opportunities for stabilizing operations. Some "reasonable" balance must be struck between obsession with ephemeral events and acting in more significant moments.

4. Presently I would lean to the view that debt management is of less significance in the overall program. There is the view, held widely not so long ago, that in periods of high activity the Government should tend to borrow long, to implement the tighter money reins. But high activity or *nearly* full employment should be the *usual* state of affairs

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for otherwise, our overall economic policy is remiss. The "borrow-long" view would thus lead to an unbalanced maturity structure—with only long-term debts, if our economic policy is as successful as it should be.

Another substantial view is that the interest rate structure depends mainly on anticipations of future interest rates, and is independent of most "swaps" of longs for shorts, and so forth. On this basis, the maturity structure of the debt is immaterial.

In sum, at the present time debt management does not play a vital role one way or the other. In the future, what we do here will largely depend on Federal expenditure programs and Federal taxation. Hence my view on debt management may be subject to some revision. Undoubtedly, the future course of social security will be an element in this analysis.

5. I would prefer the Fed making a quarterly report only on its most recent *past* actions. It should not be a tipster to the financial markets on its *prospective* actions; it may even want to alter these between the time of report writing and evolving events. Surely we must not immerse the Fed so much in writing reports that it feels inert or rigid in its postures. What is expected of them is correct action, not report writing with the thought of neutralizing prospective congressional critics. Dedicated and clear decisionmakers are wanted, not devoted essayists.

A. I prefer the retention of "defensive" or "road-clearing" operations until it is demonstrated that these are really harmful. I doubt that private speculation could do it all, or do it better. I fail to see great merit in creating still more arenas for speculators. If there is some "cost in resources" for the Fed undertaking "defensive" measures, there are also some costs in having the actions performed privately.

B. Largely, open market operations should suffice for complementing monetary policy. In some circumstances, currently unforeseen, we may wish to expand the range of obligations to be included in the range of operations. Novel changes do not seem to be imperative currently.

C. I view rediscounting essentially as at present unobjectionable. Changes in reserve requirements might be retained for circumstances in which larger actions might be appropriate. Regulation Q, perhaps, no longer serves its original purpose of preventing bank competition that led to bankruptcies in the 1920's. But it seems to me to be desirable to retain some limitation on cutthroat competition and banking concentration.

D. I have indicated that there are major disadvantages in detailed reports on *prospective* actions. Requests for *lengthy* reports may be overdone. Fed decisions should be made on the basis of a judgment of events rather than a concern with how they might be rationalized in subsequent investigations.

E. The Open Market Committee meetings are probably too large even at present. Enlarging the audience might render the agency more cumbersome, with participants more concerned with how they can *explain* their decision for approbation by their peers rather than exercising their best judgment.

We seem too disposed to make all decisionmakers conventional, rather than independent. I find myself in opposition to this trend. I

prefer to think men appointed will be men of honor with the courage, integrity, and judgment for the job; I prefer that we not hold them suspect and accountable on picayune matters.

In sum, I am dubious of more observers or "watchdogs" at Fed meetings. Perhaps we have already gone too far in this direction.

II

1. I am moderately in favor of retiring the Federal Reserve bank stock. It would eliminate the fiction that the regional Fed banks are simply private institutions. In the normal course of events, little would be affected by this change.

2. I would favor reducing the number of members of the Federal Reserve Board to five. It would centralize responsibility and authority a bit more firmly. We have had seven members for 30-odd years. A smaller Board might have some advantages. It could be enlarged again, if desired, some time in the future. I see no magic in the number 7 or the other number, 5.

I would favor a 7-year term with an additional 3-year extension, by the President, at a maximum. Five years seems to be too short a period considering the initial time in "learning the job." Fourteen years, on the other hand, seems too long; men become old, behave in routine ways, and build up (it seems) an unintended constituency. Their sole dedication must be to the objectives of monetary policy.

3. I would urge that the term of Chairman be made coterminous with that of the President. Of all the changes contemplated, I regard this as most significant. The President is responsible for the management of his administration's economic program. He should not have to be put in the position of persuading the Fed, through its Chairman, to adopt a facilitating posture.

4. As a public agency the Fed should be subject to usual governmental procedures.

5. I would permit "reasonable" retention of earnings for operations by the Fed, rather than annual appropriations by Congress. Although it is not possible to foresee future contingencies, this should do much to maintain the independence of the Fed from the annual legislative process. What matters, of course, is how the arrangement works rather than the exact legal stipulation. On balance, I favor this degree of independence.

III. RECENT MONETARY POLICY

For the most part, since 1964 the Fed has been concerned with inflation; policy was undoubtedly somewhat heavyhanded in 1966. Further, it might be argued that its emphases have been unbalanced, with its efforts, through rhetoric, to secure the surtax while failing to understand the much more important implications of excessive wage increases as an inflationary phenomenon. As remarked, monetary policy, within the usual range of variations of money supply, and in a climate (properly) directed to high-level and full, employment, cannot be very effective in eliminating the upward price trend.

It seems to me that we are destined to fail on the inflation front until the Fed takes some initiative in admitting that monetary tools are not ample to the task, and directs public attention to the need for

wage policy. Of course, monetary policy would then be cut back to size. But economic policy generally should become more successful.

On the international front, the Fed, as a whole, has been far too dilatory in promoting the necessary reforms. However, present prospects are more encouraging. Nonetheless, I fail to understand the prevailing gold policy. Presumably, the "two tier" price policy marks only a transitional phase until a wider agreement is accomplished. What then with respect to gold? Statements that the gold price will *never* be altered scarcely advances matters: *never* embraces a great deal of future history.

STATEMENT OF C. R. WHITTLESEY, EMERITUS, UNIVERSITY OF PENNSYLVANIA

H.R. 11 would seem to be open to comment on two quite different bases. The first is as a proposal for making changes in the Federal Reserve Act of a primarily structural and administrative character. The other is as an indirect means of effecting drastic changes in the direction of monetary policies of the United States. The first is suggested by the summary given in the introduction of the bill and by a casual reading of the bill itself. The second is strongly indicated by the questionnaire that accompanies the bill and by a more careful examination of strategic sections of the bill.

In terms of the first of these criteria an acceptable case can be made, in my opinion, for the provisions on stock, membership on the Board of Governors, and terms of appointment of the Board and the Chairman of the Board (*a*, *c*, and *d* of the summary). I should be disposed to favor the latter two and not to object to the first. They do not impress me, however, as being of major consequence or worth a great effort to bring about. I should not, on the other hand, care to endorse the proposals on coordination of Federal Reserve policies and audit (*b* and *e* of the summary).

Turning now to the second of the bases for judging H.R. 11, I can only express my firm dissent. Changes as basic as those proposed or implied in the documents before me should be explicitly delineated. They should not be tucked in, almost casually, among matters of a relatively minor structural nature. Actually, the apparent significance of some of the provisions emerges only from the accompanying set of questions.

To attempt to answer the questionnaire in detail would require an excessive amount of time and effort. And I fear that the reply would be so lengthy as to defeat its purpose. I shall try, therefore, to address my remarks to central issues only. The first relates to the Federal Open Market Committee. Open market operations are an indispensable feature of Federal Reserve policy, even though they are by no means all of it. Likewise, in my opinion, the FOMC or its equivalent is an indispensable feature of effective open market operations. For these reasons the proposal to abolish the FOMC is little short of a proposal to abolish central banking in this country. While useful functions, largely routine, might remain, there would be a grievous loss to society.*

*STAFF NOTE.—H.R. 11 does *not* abolish open market operations, but simply vests all power to set open market policy in the Federal Reserve Board. The Board which now is seven-twelfths of the FOMC becomes, under H.R. 11, the full Open Market Committee.

My remaining observations are more general and attitudinal, but they go to the root of governmental policy. A specific program to be followed during the ensuing year or any other period should *not* be set forth in advance. Neither are monetary and fiscal policies to be treated as independent of one another or of other governmental policies. It is unfortunate that the query was couched in these uncompromising terms. A similar comment applies elsewhere.

The Federal Reserve is an agency of Congress. The first requirement of any agency relationship is that the agent be given powers to carry out the duties assigned to him. The second requirement is that he be allowed freedom to exercise those powers. In meeting these requirements Congress should specify what the primary economic goals are. But, apart from establishing recognizable jurisdictional limits, it should leave the question of methods to the discretion of the agents charged with attaining those goals. Methods are a technical matter and should be left to the technical experts. The same applies to the use of economic indicators. Inventiveness in the discovery of new methods and the utilization of old should be encouraged. Freedom and uncertainty—both of them, however, within the limits already referred to—are essential ingredients of policy.

Within the spirit of the foregoing remarks, the monetary authorities should be allowed to take actions they feel are required, when they are required. But they should also be asked to give the reasons for acting as they did. These reasons would then provide a basis for future evaluation of their judgment and skill. Where judgment and skill are seen to be deficient Congress should find means of replacing its agents with others of greater competence.

Congressmen and others have mistakenly assumed that governmental intervention in economic affairs will be minimized by reducing the powers conferred upon the stabilization authorities. The opposite may be nearer the truth. For Congress to deprive its agents of powers that are needed to promote stability effectively would be to increase the likelihood of breakdowns that would render massive intervention inevitable.

Consider what would happen if powers were so great as to leave no doubt in anyone's mind that announced goals (e.g., a stable price level or some combination of relatively stable prices, full employment, and economic growth) would be achieved. Any appreciable deviation from anticipated goals would then induce market responses appropriate to correction of the deviation. That is, the expectation that recognized goals will be achieved contributes directly to their attainment. This is a sort of "assurance effect": belief that certain ends will occur leads to market reactions that assist toward those ends.

Governmental intervention in the market is likely to follow not because there is power to intervene but because assurance is lacking as to the attainment of a desired outcome. To lessen the probability of intervention we must provide greater assurance concerning end results. The way to accomplish this is to overcome doubts as to the adequacy of means available for attaining clearly recognized ends. But it is in no way necessary, or even desirable, to specify exactly what those means shall be. And we must never overlook the simple truth that to restrict the freedom of monetary and fiscal authorities to do harm is to restrict their freedom to do good.

STATEMENT OF FRAZAR B. WILDE, CHAIRMAN EMERITUS, CONNECTICUT GENERAL LIFE INSURANCE CO.

In response to your letter of July 9, the greatest thing that the Congress could do for the country in respect to the Federal Reserve System would be to make simple but basic organizational changes.

As far as I recall, all the nations which have central banks make monetary policy the responsibility of one administrator.

Our Federal Reserve Board is altogether too large and hence fails to attract the most capable people, does not reach decisions easily, and has difficulty speaking with one voice. It should be reduced materially: five members are better than seven; three are better than five. There is no need to have different sectors of the economy or geography represented. Monetary policy is a sophisticated matter requiring overall judgment and knowledge.

Also, the Federal Reserve Governors should be relieved of many of their present administrative burdens. I believe that when the period since 1965 is examined we will probably agree that the Federal Reserve moved too uncertainly, both in a restrictive and an easy fashion, and had they followed a more stable pattern they could have achieved more of their objectives, given the destabilizing fiscal policy with which they were faced. As a matter of law, the Board should have the right to delegate administrative and regulatory duties so as to be able to concentrate on problems of monetary policy.

A reorganized Federal Reserve Board would be able better to coordinate its policies with the fiscal and other policies needed for steady economic growth. Monetary policy depends heavily on a rational and reasonable fiscal policy. It is imperative that the country and the monetary authorities be provided with a stabilizing fiscal policy so that the major burden of stabilization is not forced upon the monetary authorities. A streamlined Federal Reserve Board should be able to make a greater contribution toward a desirable mix of policies directed toward the goal of high employment at stable prices with steady growth.

As a fundamental proposition of good government and good administrative practice, the Congress should not spell out in any detail the business of the Federal Reserve in its monetary operations. The subject is too complicated and involved. It should be left to a few competent men within the broad objectives of national policy which the Congress has set forth in the language of the Employment Act of 1946. If any modification of objectives is needed, it should be by amendment to that act, so as to cover all of the agencies of government.

It follows from the foregoing that no purpose would be served in having representatives of the Treasury, the Council of Economic Advisers, or the Congress sitting with the Open Market Committee for the purpose of coordinating policy. What is needed is that the Federal Reserve sit with representatives of the Treasury, the Council of Economic Advisers, the Bureau of the Budget, and possibly others in formulating national economic policies consistent with the Employment Act.

In the event of reorganization, the Federal Reserve should have full supervisory authority over all banking institutions, including those of the States. In addition, it should have broad discretionary powers in the area of selective credit controls.

Finally, the subject of an audit has been long debated. On the face of it, it is a proper procedure, but I doubt if it would accomplish much because the Federal Reserve is a very carefully administered operation.

The idea of Congress appropriating the moneys for the operation of the Federal Reserve is extremely objectionable. It would, of course, immediately interfere with the administrative autonomy of the System, which is very important in this competitive age.

STATEMENT OF LELAND YEAGER, UNIVERSITY OF VIRGINIA

DEAR MR. PATMAN: The questionnaire accompanying your letter of July 9 covers the key issues of monetary policy so comprehensively that it frightened me. Really adequate answers would require extensive research and fuller discussion than I felt I could afford time for. Your letter of September 18 states, however, that you are looking for "views" and for a "sampling of the range of opinion". I am therefore complying with your request, explaining my conclusions only briefly.

My answers obviously show the strong influence of the work of Clark Warburton, Milton Friedman, Richard Selden, Karl Brunner and Allan Meltzer, the staff of the Federal Reserve Bank of St. Louis, and other "monetarists". If these men are broadly right, it would be irresponsible to disagree just to be original. I hope the answers to your questionnaire will be useful in indicating how monetarist views have gained ground among economists generally.

My answers are organized according to your questions and not necessarily as I would have organized an independent essay on the topics covered.

I, 1 and 2. Yes; since fiscal and monetary policies cannot be independent and mutually exclusive, decisions about them should be coordinated. How fiscal policy affects employment, income, and prices depends on how the government finances a budget deficit or disposes of surplus tax revenues and on what happens to the money supply accordingly. Especially when the government will run a deficit for some reason (such as war) other than an intention to stimulate the economy, a forthright decision should be made on how to finance the deficit, on whether to employ inflation as a kind of tax, on how much inflation to whether to aim at price stability instead and so allow government borrowing to bid up interest rates as much as may be necessary, and on whether, after all, to raise taxes or cut back government spending. The pros and cons of each alternative policy should be faced and weighed in a unified decision process. Monetary policy should not be made tacitly and by default, as by "even-keeling" and "avoiding disorderly money-market conditions" in the face of separately decided government budgeting financing. Dispersed responsibility for monetary and fiscal policy makes each partial authority's decisions and recommendations contingent on conjectures about what the others will do and invites delays, buckpassing, and excuse-mongering.

A coordinated program should be drawn up each year. The reason is not that monetary-fiscal policy should be subject to major change each year but simply that the Government budget is in fact drawn up each year. The President and his advisers should have to face the question of what the taxes and expenditures they recommend would imply about Government borrowing or debt repayment and about interest rates in

the context of money-supply policy aiming at stable growth. Or if they recommend taxes, expenditures, and financing methods that would undermine monetary stability, they should have the responsibility of explaining to Congress why tolerating that outcome, undesirable in itself, is a lesser evil than any alternative program.

My preference for a unified monetary and fiscal authority presupposes consensus on the functioning and relative strengths of monetary and fiscal policy, on rules to restrict the discretion of the authority, and on the importance of maintaining a stable monetary environment without attempts at short-run "fine tuning." Such a consensus will not be achieved anytime soon. Meanwhile, structural centralization without appropriate rules could make policy worse than it is now. Substantive and structural reform of policy belong together.

I, 3–A. As for targets and indicators of monetary policy, "liquidity" is hopelessly vague. Interest rates, free reserves or net borrowed reserves, excess reserves, and money-market conditions are all very bad, as explained by Friedman, Dewald, Brunner and Meltzer, and others.

Money supply is the best target and indicator. Bank credit is associated loosely with it; but aiming at the target itself is more sensible than aiming at something more or less close. High powered or base money or total bank reserves are instrumental for controlling the money supply, and steady growth in one of these quantities might cause the money supply to grow fairly steadily itself. But the latter is the real target; manipulation of high powered or base money is a means, not an end. The monetary authority should be able to correct or allow for looseness or slippages (such as variations in excess reserve ratios or in the public's currency-deposit ratio) in the gearing of the money supply to the base quantities, especially when the variations involved are seasonal or otherwise predictable. Furthermore, an announced and steady policy should help reduce unpredictable slippages. Abolishing the remaining link between the dollar and gold would also simplify the authority's task. The authority could maintain a chosen growth rate of the money supply with high accuracy if that were its clear duty.

The money supply concerns the goals of the Employment Act by determining whether aggregate demand (total spending) is adequate, excessive, or deficient. And so many people hasten to add, the velocity of money can change. But velocity is not entirely passive and pliable; it is no mere arithmetical result of dividing the quantity of money into a flow of income and expenditure whose size is determined solely by nonmonetary factors. Nor does velocity jump up and down in a capricious, inexplicable, unpredictable fashion. It (or the demand for cash balances, closely related to it) can be studied and understood. Influences on velocity can be observed and allowed for. Persistent upward or downward drifts in velocity, as well as the institutional and other trends causing them, can be taken account of in choosing (and revising) the target rate of money-supply growth. Short-run changes in velocity are characteristic of business cycles, which, as theory and history strongly suggest, generally owe their origin or at least their intensity to variations in money-supply growth. A steady monetary policy should go far toward removing precisely those fluctuations in velocity that critics wrongly cite as a decisive objection to that policy. Even if, contrary to apparent fact, business cycles did correspond to velocity changes on nonmonetary origin, a steady mone-

tary policy would at least avoid the frequent past mistake of allowing money-supply changes to reinforce cyclical movements in velocity.

I.3.B. The money-growth target should be chosen in view of the demonstrated full-employment growth capacity of the economy. The objective is a stable monetary environment in which the "real" factors making for economic growth can bear fruit without disruption from sometimes excessive and sometimes deficient total spending. Government policies should be framed with due regard for their impact on the real conditions of growth, including research, innovation, labor skills and mobility opportunities, the level and pattern of tax burdens, work and investment incentives, and the degree of business competition. If the Government does that and also provides a stable monetary environment, any pretense at doing more, such as announcing numerical targets for GNP or other economic indicators, would be empty.

The money supply should be kept growing at the chosen rate regardless of which way and how strongly the economic winds seem to be blowing at the moment. Critics of this recommendation can easily score some shallow debating points by listing the many things besides money that, in principle, have some influence on aggregate demand—interest rates, credit and stock-market conditions, the operation of nonbank financial institutions, and changes in technology, tastes, population, expectations, and so forth. It is easy to misrepresent the recommendation of steady monetary growth as based on a childishly simple view of a complex world. It is easy to declaim against tying the hands of the authorities, who should, on the contrary, keep the economy finely tuned by continually adjusting their fiscal and monetary actions to the changing requirements of complex reality. In principle, fine-tuning could achieve better results than an allegedly simple-minded steady policy.

That abstract proposition is correct but empty. Successful fine-tuning would require a great deal of detailed knowledge, including knowledge of which way the economic winds were blowing currently and would be blowing in the future if policy remained unchanged, as well as knowledge of how strongly and rapidly any shifts in policy would take effect. Recognizing that the world is complicated is not the same as knowing how to succeed with complicated manipulations. Acquiring the necessary knowledge would be a great intellectual achievement, but we should not deceive ourselves that we have it when we do not, at least not yet. It is prematurely and ridiculously ambitious to insist on detailed correction of even slight disturbances when the monetary authority still refuses to understand how its own actions have caused business fluctuations in the past. Recognition that many nonmonetary disturbances have some effect on aggregate economic activity does not contradict the hypothesis that the best practical way to keep them from being seriously destabilizing is to keep monetary growth stable despite them.

The man who offers the relatively simply "monetarist" explanation of and remedy for business fluctuations is at a tactical disadvantage. He seems naive in comparison with the man who cultivates a reputation for wisdom and profundity by insisting that problems are complicated and that simplistic rules would only bar their solution. But a tactical or debating disadvantage is not the same as error. To some problems, the simple answer may really be the right one.

I.3C. [Inapplicable.]

I.3D. For the reasons just mentioned, the monetary guideline should not be chosen afresh each year. Doing that would subvert the idea of a stable policy.

No one, to my knowledge, recommends choosing a particular money growth rate and then sticking with it forever, regardless of experience. Supporters of the stable-growth rule are interested in finding ways to revise the target growth rate gradually and smoothly to eliminate any persistent trend in the price level that might develop. (Any such trend and the adjustment necessary to eliminate it would probably be slight, however, with money-supply growth fixed at any plausible rate.)

A steady monetary policy, adjusted only gradually if at all, should help ease the conflict between full employment and price-level stability, especially so far as the conflict is associated with "demand-shift inflation." Greater steadiness in policy and so in business activity would help reduce "cyclical" relative shifts in demand between consumer goods and capital goods and between durable goods and nondurable goods and services. A steady moderate growth of aggregate demand should aid the rise of productivity, so important in improving the unemployment-or-inflation trade off: it would help avoid general slumps in production that raise overhead costs per unit of output; it would favor the adaptation of jobs and labor skills to each other; it would favor the mobility of labor and the willingness of business firms to accept the risks of competition, innovation, and fixed investment; it would avoid wasting the unwillingness to bear risk on the quite unnecessary risk of shifts in monetary policy.

Gradual adjustment of the target rate of money-supply growth could take account of lasting changes in the economy's capacity for real growth at full employment and in other influences on demands for cash balances (including institutional changes, such as the spread of computerized checkless banking). Despite the debating tactics of its critics, there is a world of difference between a steady policy, even with the specific rate of steady growth subject to moderate revision, and the current zigzag policy of frequent major shifts in the strength and direction of monetary fiscal action in efforts to offset business fluctuations—fluctuations mostly caused, ironically enough, by earlier efforts of the same kind.

I.3E. A steady growth rate somewhere in the range of 3 to 5 percent a year should prove about right.

I.3F. Although I recommend allowing the gradual adjustment mentioned in answer I, 3D, I would not want frequent increases and decreases in the growth rate to suit transitory conditions; that would violate the very idea of a steady-growth policy. Some overriding consideration might require suspending the policy; in financing a major war, for example, the tax on cash balances implicit in inflation might be regarded as a necessary evil. And, of course, the policy should be abandoned if, after a full-fledged trial for several years, it should prove a clear failure. Failure would be shown by persistent inflation or heavy unemployment or by worse business instability than we have known in the past 10 or 20 years. However, I do not expect the policy to fail in any of these ways.

I.4. Debt management, together with Government budgeting, has some bearing on resource allocation, including the allocation between

consumption and investment, and on the apportionment of the costs of Government spending among groups of the population and among generations. Gradually retiring the Government debt might be one of the ways of putting into circulation the new money called for by the stable-growth rule. These are longrun considerations.

In my judgment, debt management has no role in stabilization policy; as a countercyclical weapon, it could be of fringe importance only. It is all to easy to think up clever ways of adjusting a great many Government activities countercyclically, but such ingenuity is unnecessary. The trouble in the past has not been any lack of weapons, but lack of proper guidelines for their use. A proliferation of countercyclical devices unnecessarily complicates the pursuit of economic stability.

I.5A. Open-market operations should be used defensively only to offset shocks that could cause unwanted changes in the money supply, such as a change in the currency-to-deposit ratio desired by the public. Understood in this limited sense, defensive open-market operations would serve the monetary steadiness recommended for the sake of the goals of the Employment Act, but would not serve other purposes.

I.5.B. Yes, open-market operations can do the job alone.

I.5.C. (*a*) Rediscounting should be abolished. It is an unnecessary complication. It breeds misconceptions, particularly about interest rates. It is a source of slippage in the control of bank reserves and thus of the money supply. The recommendations now under discussion in the Federal Reserve for making the discount window and discount-rate policy more active are aiming in the wrong direction.

(*b*) Reserve requirements should be fixed on the basis of longrun considerations and not changed for shortrun purposes. The possibility of changes in requirements is an additional contingency for bankers to worry about in managing their reserves; potentially, therefore, it loosens the gearing of the money supply to total bank reserves and so could cause the authorities unnecessary trouble in determining the money supply precisely.

(*c*) Regulation Q should be abolished. It is a historical relic that never had a good rationale in the first place. If effective—if low enough to hold interest rates below what they otherwise would be—an interest-rate ceiling interferes with financial intermediation. This interference narrows the opportunities open to both ultimate lenders and ultimate borrowers and probably makes credit more expensive or less available to borrowers, in general, than it otherwise would be. When an interest-rate ceiling is changed or even when an unchanged ceiling that had previously been too high to make any difference becomes effective as market rates of interest rise and press against it, something akin to a change in economic institutions suddenly occurs. That event can cause a sudden change in the relative growth rates of time and demand deposits, for example, and can affect the volume of bank reserves available to "support" demand deposits. It can stir up the problem of "disintermediation," embarrassing financial institutions by restricting them in competition for funds. It can take away some of the significance of financial statistics or complicate the job of interpreting them.

I.5.D. and E. I doubt that the question of detailed quarterly reports and outside observers at FOMC meetings is very important. Under the recommended steady monetary policy, there would be little new to report about or to discuss at the meetings. However, the reports and

observers would have some value in checking on conformity with the guideline and in enforcing responsibility. They would help reduce secrecy and studied ambiguity in monetary policy. They would help overcome the FOMC's current practice of specifying policy in cagily chosen words and with cryptic nuances rather than by definite numbers. (That practice ties in with the inclination of a certain brand of statesman to become infatuated with words and to mistake mere eloquence for genuine solutions to hard problems.)

II. For a reason similar to the one stated in the last answer, I do not think that the question of changes in the structure of the Federal Reserve is very important. Simplifying and sharpening its task, however, would create opportunities to streamline the system and save on the salaries of expensive manpower. I am inclined mildly to favor most or perhaps all of the changes listed in the questionnaire. While favoring these reforms of structure if made along with reform of the substance of monetary policy, I would not necessarily recommend them alone. (Compare the last paragraph of my answer to questions I, 1 and 2.)

III. (Comment on monetary developments since 1964.) The effect of the tax cut of 1964 is difficult to sort out from the effect of the stimulatory monetary policy that accompanied it and even began before. After the slowdown of late 1962, income and industrial production began expanding again after a rise in the growth rate of the money supply but more than a year before the tax cut. Accelerated monetary expansion continued until the spring of 1966. Price inflation began to show itself again in wholesale prices during 1964 and in consumer prices during 1965. The money supply abruptly stopped growing around April 1966 and held nearly steady for about 8 months, which apparently caused the credit squeeze of late that summer and the minirecession of 1966–67. An abrupt return to rapid monetary growth came early in 1967. The Federal Reserve and the policy of "leaning against the wind" gained in prestige, ironically enough, because the Federal Reserve shifted directions quickly and kept the minirecession mild that it itself had caused. The admiration so many people have for the Federal Reserve is just as ironic as their admiration for the International Monetary Fund when it spectacularly rescues some currency from one of the crises bred by the very international monetary system that the Fund itself sponsors and defends.

With the money supply expanding unusually rapidly since early 1967, price rises speeded up. The rate of money supply growth in both the half year and the full year ending in August 1968 was exceeded in only 2 or 3 percent of the periods of equal length in almost 20 years. Recently, and in fact for several years, expectations of continued inflation have been reflected in a historically high level of interest rates.

In short, the Federal Reserve has apparently been continuing its old habit of overreacting to each disturbance that it itself has caused, thus preparing for still another one. Part of the explanation may be that the Federal Reserve really does not understand the significance of the money supply and keeps on being distracted by much less suitable indicators and targets. Perhaps it thinks that the supposedly anti-inflationary tax surcharge makes unusually rapid monetary growth safe. We are now left in suspense wondering when the next switch in monetary policy—the next overreaction—will come (if,

indeed, it has not begun already). The Federal Reserve keeps the country *guessing* what its policy is, and the guesses must be subject to revision almost from week to week. In surrounding its activities with a veil of mystery, the Federal Reserve is implicitly claiming a kind of superexpertise whose current application Congress and the public should not presume to understand.

I do not want to be unduly critical. The Federal Reserve deserves credit for behaving in a much less harmful manner since World War II than between the two World Wars. But it could do better if it were more willing to take the lessons of monetary theory and experience to heart.

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