Global Imbalances: past, present and future

Marcello de Cecco Scuola Normale Superiore di Pisa and LUISS

Introduction

After the inception and, hopefully, the passing of the most dangerous phase of the international financial crisis, economists have returned to the long favoured subject of global imbalances. Because of the outbreak of the crisis it had been momentarily set aside after it had been very fashionable since at least the late sixties and even more in the decades after the oil crisis and the demise of the Bretton Woods system. The issue had continued to be hotly debated also in the early years of the new millennnium.

In what follows I shall try to look at global imbalances first in a historical perspective, in order to understand how we got where we are. I will then turn my attention to causal links between the formation of global imbalances and the outbreak of the international financial crisis. I will also consider the likelihood that global imbalances, after showing, because of the crisis, a sizeable decrease in size, may go up again in the near future. Within this context I will also analyse the problem of current account imbalances inside a monetary union, and the consequences for the union and for the rest of the international economic and financial system.

"External positions of systemically important economies that reflect distortions or entail risks for the global economy" This is the definition of global balances economists Bracke, Bussiere, Fidora and Straub suggest in their 2006 ECB Occasional paper. It is an eminently acceptable one, as it underlines the principal features of global imbalances.

Following this definition, it is useful to remark straight away that global imbalances may be outward signs of inner disequilibria, located in one or more of the large national economies whose behaviour is of systemic relevance. Those disequilibria must be identified and analysed, if we want to be able to assign blame and ask for correction. That, of course, if we believe that blame can be apportioned to individual protagonists of the world economy and correction of individual disequilibria will be enough to remove the whole problem of a global imbalance. It is possible, however, that disequilibria are present in more than one systemically relevant economy. The fact that to have surplus somewhere you must have deficit somewhere else, leads to the difficulty of apportioning blame among protagonists. But this is only true in a symmetrical international monetary system. If the country which issues the international means of payment is allowed to enjoy "exorbitant privilege", i.e., if it can preempt the world output, structurally coming first in the pecking order, with everybody else dividing among themselves what is left, the issuer of the world currency

can run deficits as big as it finds fit to, and the rest of the world will just have to run as big a surplus, its resources being preempted by the center country. I prefer this old fashioned definition of exorbitant privilege, which Jacques Rueff introduced in the mid sixties, to that proposed by recent writers, according to whom it is the privilege the center country has "of a higher return on its external assets than that on its external liabilities" (Gourinchas, Rey, Govillot, 2010).

In such a system, the center country is easier to blame, and to other countries only the pseudo-solution of allowing world inflation to break out is left, which cannot, by definition, prevent the center country from pre-empting world output, but only serves to distribute the effects of the pre-empting among the other participants to the world economy. It is frequently the case that to large deficits run up by the country that issues the world currency, which we call the "center country", there correspond large surpluses run up by only a few peripheral countries. Sometimes the surplus countries have the largest economies in the world. Germany also has a very large surplus, compared to its GDP. But its surplus is earned mostly with a number of medium sized and small economies in Europe. With a large net surplus country, the People's republic of China, Germany, although it has been able to grow its exports of luxury cars and machinery quite spectacularly, regularly shows a sizeable deficit (while Europe has a deficit with China in absolute terms almost as large as that of the US (See fig.9 in Obstfeld and Rogoff, 2009). Germany, as a result, may be said to pose a global imbalance problem only within Europe, if Europe is taken as the universe of discourse. The oil producing countries, which together run one of the largest net surpluses, certainly do not have, even if summed together, a very large GDP and do not concentrate their exports towards net deficit countries, but spread them over a large number of countries.

We may therefore ask whether a global imbalance problem can be said to exist even if there is only one large deficit/surplus country facing a series of countries with small imbalances. Or is it necessary that one or more large deficit countries face one or more large surplus countries? Does size of imbalance matter by itself, or does it matter only if large imbalances exist on both sides of the world balance of payments?

There are other definitional problems. Do current account imbalances originate as the result of large trade surpluses or deficits, inducing reserves accumulation or decumulation or is the factor income account important and independently motivated, too? Factor income was, for instance, extremely important before the first world war, when the British could well be called a nation of rentier, as the British current account was dominated by foreign dividends inflow , which were the yield of past foreign investments. Many countries, like Italy , Spain and the Habsburg empire in the past, India, Pakistan, Egypt, the Philippines, today, show that emigrants' remittances dominate their current account, balancing the trade deficit.

Many recent commentators on global imbalances limit their analysis to the latest couple of decades of world economic history. They underline the rapid build up of the US deficit and the Chinese surplus in the years immediately before 2007. While this is certainly a reasonable thing to do, following the concentration of public opinion on present problems, if we push our sight back another couple of decades, we discover that, as percentage of

world GDP, the American deficit was higher in the 1980s that it has been ever since. According to the very useful Figures 1 and 2 provided by DeMello and Padoan in their paper (De Mello Padoan, 2010), which are reproduced at the end of the present paper, US current account deficit reached in 1986 more than 2% of world GDP, a record never touched again in following decades. In 2006 the maximum level reached was 1.5%. This figure is also interesting because it shows that, while a lone US played all along the role of main deficit country, the surplus countries changed. Only Japan persisted in the surplus role it acquired in the 1980s, when it became the protagonist of most of the trade and currency wars with the US. Again, no surplus country in subsequent years had imbalances as high as Japan, as percentage of world GDP.

Other countries showed large surpluses in later decades, while Germany and Japan decreased in relative importance. The new players in recent years were the oil exporters, China and other Asian countries. It is worth noting that oil exporters never showed positive current account balances in all the years we associate with the oil crisis. Their serious imbalances only showed up in the statistics in the years immediately before the current crisis, and have not meaningfully decreased since 2007.

While the US thus seems to be the only country really permanently capable, at least since the demise of Bretton Woods in 1971, of truly global imbalances, other countries appear as sporadic players of the game. Japan dominates the 1980s and early 1990s on the surplus side, China starts to play an important part only in the first three years of the present crisis. The Dragon, however, does not come near to being as powerful a generator of external surpluses (as a percent of world GDP) as the Samurai used to be and still is.

A short historical retrospective on imbalances, bilateral and global

While the above considerations concern truly global imbalances, reflexions on trade and trade policy have traditionally been dominated by a preoccupation with bilateral trade imbalances. Only in the last one hundred years multilateral and global imbalances have risen on the horizon of economists and statesmen, after international trade and financial relations acquired systemic form in the eyes of analysts and policy makers, and the expression "rules of the game" began to be associated with them.

Bilateral imbalances, however, observed from a purely national viewpoint are, as we said at the start, as old as trade and always worried informed observers. From the beginning, these worries have been asymmetrical, in the sense that concern was expressed almost exclusively by deficit countries. This is because if a country cannot pay for its imports with its exports, it is not certain that it will be able to attract foreign capital to defray the costs of imports.

If one of the trade partners involved in a big imbalance was a large empire, that imbalance could ex post be considered to be a global one, according to the definition we have borrowed from the ECB economists. Take for instance what can be considered perhaps the earliest expression of worry about trade imbalances, the famous one Pliny the Elder made in his Naturalis Historia about the Roman Empire's loss of precious metals to the Far East,

to pay for imports of luxury goods:

"More than one hundred million sesterces -he wrote- India and the Seri (Roman name for a people which lived somewhere east of Persia, perhaps called after their most famous product, the silkworm, in Greek, ser) and the Arabic Peninsula subtract to our Empire: such is the cost of luxury and women". He lamented the loss of specie used as payment for luxury imports, to meet the expensive tastes of Roman women who requested silk, precious stones and perfumes, none of which were Empire-made.

The Romans, moreover, did not make anything that the more sophisticated easterners could fancy and was light-weight and precious enough to be trasported on long distance trade. Only gold and silver were left as means of exchange. Their use to pay for imports directly reduced the Roman empire's money supply. Hence Pliny's worried remarks. The Roman empire did not have important gold and silver mines on its territory. It thus relied on imports for its metallic money supply, especially the treasures its generals managed to bring home from their victorious campaigns.

This state of affairs, the silver drain to the East, was going to last until the eighteenth century, long after the Roman empire had disappeared. The West still had a permanent trade imbalance with the more civilized countries of the East. Silver was needed to pay for imports. How to get it was the permanent worry of the western countries. To close the trade gap, opium was ultimately forced on the Chinese, in exchange for their precious wares. It was an extreme method of rebalancing chosen by the deficit partner, faute de mieux. A milder one was introducing tea production in India. The latter country became the "Jewel in the Crown" of the British Empire: in the 15 years before 1914, it ran a very large trade surplus with the rest of the world, which persisted even after accounting for its imports of manufactures from the Metropolis and the payment of pensions to British administrators and dividends to British investors in factories and plantations in India. The positive balance was invested in London, in the form of deposits in London banks and purchases of British Treasury bonds.

Trade imbalances could also appear nearer home, and still worry those who had to pay cash for their imports. Here is Daniel Defoe on British trade with some European countries: "Tis better for England- he wrote- that we should drink all Turnip wine or any wine, than that we should drink the best wine in Europe and go back to France for it. At the present the Gust to French wines is laid by and the gross Draght of the whole nation is upon Portugal wines. These the Portuguese sell us for our Manufactures...all that ready Money we us'd to pay the French for their Wine, Brandy, and Winegar is sav'd in our Pockets" (A Review of the Affairs of France, n.86,1704, quoted in Foley, 1893).

This shows that Ricardo did not use an imaginary example, when he wrote about Portuguese wine and English cloth. On the contrary, he started from a real life situation, the one depicted with satisfaction by Defoe, (who echoed the opinion of British merchants and statesmen), and built a general theoretical base for it, the principle of comparative advantage, which showed the superiority of free trade over protectionism, at a global level, and also coincided with the rebalancing solution British mercantilists had arrived at a

century before, as testified byDefoe's gleeful comment: "all that ready Money which is...sav'd in our Pockets".

Imbalances could also take the form of unilateral transfers of precious metals. Either internal ones, as when Pericles deprived Athenian temples of their gold to finance the construcion of public works. Or external ones, like the already mentioned foreign treasures victorious Roman generals brought back from their campaigns. Sophisticated contemporary observers noted the effects Pericles' policies produced on output and employment in Athens and foreign treasure on Roman prices, especially asset prices, like those of land and houses. With a bit of exaggeration, their remarks have been considered as forerunners of the multiplier and of the quantity theory of money.

A huge imbalance, and a truly global one, was experienced by Europe after the discovery of America, when gold and especially silver began to flow from Peru and the Potosi mines in Bolivia. It led to much first class economic analysis, as to its effects on European output, employment and prices, especially by Jesuits in Spain and people like Malestroit and Jean Bodin in France, and Bernardo Davanzati in Florence.

In times nearer to our own, the indemnity payments made by France to victorious Prussia after 1870 made it possible for the new German Empire to adopt the Gold Standard. The dire immediate consequences that decision had on the German economy prompted Bismarck, allegedly, to quip that had he known them in advance he would have ordered Germany to pay an indemnity to vanquished France.

When it was France's turn to win, in 1918, Bismarck's post factum wisdom was lost on the victors. The instinct of revenge prevailed, with the French attempting to get their own back from the Germans, the British and Italians also joining in eagerly in requesting reparations. It was then Keynes who suggested that, while after 1870 the French had been able to pay the indemnity out of accumulated financial assets, sold for gold on international markets like London, after 1918 Germany had no liquid or readily liquefiable foreign assets that it could use to pay reparations, and therefore had to achieve a huge annual export surplus until reparation debt was repaid. Winners would thus shoot their foot, as German exports would probably repay the victors' products and exports thus reducing output and employment in their countries.

The reparations problem became a truly huge case of global imbalance when the war-time debt incurred by the Allies with the USA was brought into the picture. The Americans let it be known that they wanted their money back."They hired the money, didn't they?", was president Coolidge's not so rethorical question.

Britain and to some extent France, however, had spent most of the capital investments they had accumulated in the USA before the war to pay for war imports from that country. When that source was exhausted, they had received credit from the US government, which, in turn, issued domestic national debt to finance its loans to the Allies. As to Italy, it went into debt from the start, as it had no accumulated foreign assets to liquidate. It sent its gold to London, as a guarantee, and had trouble getting it back, after the war.

At the end of the war, therefore, the global imbalances that had arisen because of it, could have only been eliminated by a coordinated effort by all countries involved in it. The need to devise rebalancing methods stimulated the analytical powers of economists, but real life solutions had to take more circuitous routes, which paid due respect to political and business interests in the countries involved.

Coolidge's attitude was highly representative of that of the majority of his fellow citizens. The US president probably did not know about Bismarck's remarks 50 years before. Bismarck certainly knew that Napoleon, when he had conquered the German states, had extorted large war indemnities from them. The Corsican had boasted that he was the only general to contribute to the national Treasury more than he had taken from it to finance his campaigns. Bismarck, however, at least post factum, was able to think freely in macroeconomic terms, overcoming the obfuscation that came from the desire of revenge and affected many of his countrymen and which he had satisfied by ordering the French to pay a giant indemnity.

Coolidge, on the other hand, and the US in general after the first world war, was faced with an altogether new phenomenon, that of deficit countries asking the largest creditor country to participate in a rebalancing policy coordination in order to prevent the world from falling into a vicious circle of deflation and devaluation, as a result of individual efforts by deficit countries to generate export surpluses to repay their war debt to the US.

This recriminating attitude prevailed among deficit countries because the United States, which was becoming the new world economic hegemon, was still a structural surplus country. There was a world scarcity of the hegemon's currency, and the latter was asked to lower its interest rates, even if that endangered its internal macro stability, to raise domestic US prices and to allow capital to flow towards deficit countries.

The old hegemon, Great Britain had been transformed into a deficit country and a large debtor by the sale of its huge foreign investments to pay for war supplies imported from the US. It devised and tried to put into practice a complex strategy whose aim was to allow it to remain at the center of the world payments system. Launched at the start of the 1920s, it was an attempt to achieve a return to the gold standard with a minimum of gold reserves, which were to be shifted around the coutries, which agreed to return to convertibility one after another, in a pre-defined queue. This scheme, hatched by Montagu Norman and by the British Treasury, required a high dose of coordination and cooperation spirit on the part of the participants. Moreover, the US, the new hegemon, which was still in the happy stage of power without responsibility, being the main surplus country, and holding most of the world gold, did not like this attempt to achieve coordinated rebalancing whose principal aim was yo use as little gold as possible and to raise the exchange rate of the Dollar, while trying to put most of Europe back on convertibility and prevent a deflationary spiral and a further escalation into depression and protectionism. Using as little gold and as much of "key currencies" as possible was against the interest of the United States, which had ended the war with most of the world gold stock in its reserves and also wanted to acquire a leading place in the business of international finance. By attempting to reduce the role of gold in world payments, the British scheme tried to maintain Britain at the center of the

world monetary system, in spite of the fact that the country had become a structural debtor, from a current account point of view. In the years before the war, after the early XIXth century decades when Britain had been in a structural visibile trade surplus, it had gradually become a structural trade deficit country, which balanced its external accounts using its sales of services and especially the yield of its huge and growing stock of foreign assets. After the end of the war, when most of its foreign assets had been sold to the Americans to finance war time imports, there began talk of Britain's exorbitant privilege, describing the essence of the phenomenon without yet using the actual expression, which would only be coined by Giscard d' Estaing in 1965, and in reference to the US.

But the state of affairs in which Britain found itself after 1920 was exactly that: its currency was still the primary world payments medium, the vehicle currency par excellence, still part of many currency exchange pairs, but countries did not gladly accept it into their reserves, much preferring gold or, increasingly, hard to get dollars.

It was therefore a state of affairs where reserve currency plurality, and the persistence of gold in its monetary status, made global rebalancing extremely difficult. It could not occur without involving the US, which was the main creditor country, and the US did not want to be involved except as a creditor which demanded to be repaid in full and on time.

This being the background attitude of the new hegemon, however, there was a time, in the second half of the 1920s' when the US agreed to play its part as provider of credit to deficit countries, but on purely commercial, and therefore expensive, terms. And a good part of it was short term, without long term commitment. Americans in government or in business showed little Bismarckian awareness of the need to provide concessionary finance. Thus the Dollar, being a scarce currency, was not able to replace sterling. Before the war the British had perfected a system by which they supplied long term finance to foreigners, to be used for long term projects8 the funds were kept by British banks as deposits which could be drawn upon as construction expenses had to be met. But while not used, they were mobilised by the banks which bought short term liquid assets on the London money market. Thus, most of the original loans never left London(Withers,1908). After the war, the British no longer had the funds to make long term loans to foreigners. Thus the prewar financial virtuous circle collapsed.

US investment banks, to which it fell to provide long term finance to the rest of the world in the 1920s, belonged to a country which ran a huge trade surplus and whose currency was as a result scarce on world markets. Triffin's Paradox thus began to show, although the dollar was only one reserve currency. When, in the late 20s, US investment banks stopped supplying credit to Europeans and Latin Americans and repatriated the funds to invest them in the US stock exchange (and housing) boom, the patched up and fragile rebalancing, which had become vital for European deficit countries, stopped and crisis broke out in Europe .

The consequence was that in the 1930s rebalancing would be achieved by other methods. Free trade was sacrificed to bilateral balancing, clearings and other planned trade methods, which had first been applied in the years of world war one and then to some extent discontnued after the return of peace. World trade went into a negative spiral, which began to invert itself only after the end of the Second World War.

A return to free trade and free capital movements, however, had to wait until the late fifties. Before that, the immediate postwar world was plunged into another grave global imbalance, an even greater "Dollar Gap" or "Dollar Famine" than that experienced in the interwar years. It was solved by a momentous switch of the US government from a Coolidgean attitude to one which represented a mix of Bismarck plus Roosevelt and Keynes. Europeans needed Dollars to buy imports to reconstruct their war-torn economies and to restart a mechanism of peacetime development. They had very little to export to the US to pay for their imports. The new international regime which the US had imposed on the world at Bretton Woods had to be jump-started. It would not go into operation, as it were, by itself, because it had no mechanism capable of eliminating what was a case of serious global imbalance, even with the large devaluation the US requested from European IMF members in 1949.

The US government, still in a Coolidgean frame of mind, had designed and imposed on the world a new international monetary system without providing it with a reliable source of cheap and abundant liquidity, because it was all entrusted to the structurally scarce Dollar and to an even scarcer gold. IMF assistance was modest and linked to a member's own contribution to the Fund. The US government was nevertheless able, only three years after Bretton Woods, to devise the Marshall Plan and bring it into full function in a short time. The Marshall Plan and the Mutual Security Agreements which followed it, can be seen as a huge case of concessionary bridging finance, exactly what had been missing in the 1920s and 30s and even in the Bretton Woods Agreements. Admittedly, in the prewar decades the Soviet threat had been low on the horizon. In the late 1940s, after the Soviets' decisive victory in Europe and Stalin's openly expansionist attitude, the US had come to perceive it as a vital one. The chance of "losing" Europe to Communism, because of its present state of economic and social prostration, was considered a very realistic one. The US understood that the Euro-American imbalance was one of the main causes of high unemployment in many countries, especially in the vanquisehed ones, Germany and Italy. General dollar scarcity could not be alleviated by relying on the functioning of the Bretton Woods system. The Marshall Plan was in its essence unilateral, but its form was multilateral. The US paid the piper and called the tune, but requested the help of the European governments to administer and distribute the resources it provided. After a tough civil war was fought in Greece, and Great Britain abandoned the defense of South East Europe, which was considered as part of its sphere of influeence according to the Yalta agreements, the Cold War escalated into open warfare in the Korean peninsula, and a state of acute conflict became permanent between the two Blocs. It is not clear how the Bretton Woods system would have been able to achieve the rehabilitation of Europe after the end of the Marshall Plan. The Mutual Security Agreements, another substantially unilateral US decision, had to come into the scene immediately after, to make the outflow of government dollars to Europe and the Far East permanent. The Dollar Gap, which was eminently an economic imbalance, was closed by the Marshall Plan and the MSAs, which were a form of politically motivated rebalancing. The new hegemon understood that superpower politics was fundamentally different from the balance of power game among

equally sovereign countries of the XIXth century and from its much less convincing continuation, in the first forty years of the XXth century. Now there was a new game, where the hegemon started from such a height of economic and financial power accumulation that it could afford not to worry about spending it at a very fast clip. The Americans also understood that the three vanquished countries had to become the bulwarks of the new Western world, and that they had an industrial potential which, far from having been destroyed by the war, only needed cheap raw materials, abundant finance, and above all, open export markets to get onto a fast and long growth path, which would have allowed them to get rid of all prewar and war time trade barriers.

It is, however, important to note, that all three defeated countries were ordered by the US to adopt seriously devalued exchange rates against the dollar. They resisted this imposition as much as they could, as few in their governing elites had elasticity optimism about their exports. Even fewer agreed to free their economies from the fetters imposed on them during the thirties and the war years.

It was thus the US which actively fostered export led growth on Germany Italy and Japan, by throwing open its markets and imposing devaluations (see de Cecco, 1979). It is quite amusing to recall how reluctantly the US recipe was accepted, because it was soon to become the standard under which phalanxes of industrialists from these countries would march, in following years, to the conquest of world markets. Export-led growth became the credo of the new ruling elites in the same countries, replacing the prewar one of self sufficiency and organised trade. Their obdurate persistence in the recently embraced faith would in later years create serious problems as the US trade surplus was replaced by an ever increasing deficit and the world moved to a state of dollar glut.

"Exorbitant privilege" was the expression then coined, in the decade leading to the demise of Bretton Woods, by a French nationalist government which objected to keeping in its vaults unwanted dollar stocks. But behind the broad shoulders of Charles de Gaulle hid Germany, Italy and Japan, the countries responsible for the largest part of the problems the US authorities encountered in their attempt to keep the dollar at the Bretton Woods parity.

The international monetary system inaugurated at Bretton Woods had eminently fixed exchange rates. Devaluations were nevertheless not excluded, but expressly conceived as possible, the only rule being that they ought to be agreed upon, in the IMF, by its member states. This in addition to the fact that the system allowed exchange rates to go up and down in a very narrow range, was bound to generate a return of international speculation, especially because foreign exchange controls were supposed to be gradually phased out with the liberation of at least the current accounts of member countries.

The system's final years were thus marked by rising expectations that first the lingering former hegemon's currency, Sterling, and then the Dollar, would be devalued vis-a-vis the currencies of the former Axis countries, on whom the exportled model of growth had been fostered by the US.

It had proved so successful that the new exporting interests in those countries did not want

to endanger it at all by revaluing their currencies. Nor did the US authorities want to devalue the dollar.

In the end, as is known, it was Richard Nixon who cut the gordian knot by declaring, on August, 15th, 1971, the end of the dollar's convertibility into gold, as he wanted to be able to run an expansionary policy before the elections without having to deal with a dollar crisis.

The roots of global imbalance, however, were not extirpated by his move. Perhaps because of the cogency of John Connally's famous unilateralist remark "the dollar is our currency and your problem", surplus countries did not really allow their exchange rates to go up enough to make their exports uncompetitive with respect to American ones. Nor did the US central bank really move its policy rates as if Connally's quip was its guiding light. "Fear of floating" setting in as a strong motivating force of national authorities, global imbalance thus persisted in spite of the world monetary revolution Nixon's move had unchained. What increased was uncertainty as to future exchange rates and speculation ensued, mobilizing large quantities of increasingly mobile short term funds.

A global imbalance could now arise not only as the result of a trade surplus in a large and systemically relevant country, but also of an inflow of short term funds betting on a sizeable exchange rate change. Thus a trade deficit would not be followed by a balancing capital inflow, but by an unbalancing capital outflow, which made the imbalance bigger. J.M. Keynes, in volume two of his "Treatise on Money" had noticed in 1930 exactly the same phenomenon that afflicted the new edition of the gold standard some countries had tried to make viable in the second half of the 1920s.

Since 1973, the world has witnessed several deep oscillations in the dollar exchange rate and many oscillations in global imbalances. From 1982 to 2010 the US current account has been permanently in the red, and this marks a remarkable difference from gold standard days, when Britain showed a permanent current account surplus until the suspension of sterling convertibility in 1914. One can detect a cyclical pattern in US current account deficits. They went up in the second half of the 1980s and receded in the early 1990s. In the new millennium, they have grown again and become much larger, until the outbreak of the present crisis marked a reduction in their size, so that the deficit shrank to less than one per cent of world GDP in 2009. In 2010, there is a new and marked worsening of the US trade balance, in spite of the less than vigorous growth of US GNP. A return to pre-crisis deficit levels of the US current account can, as a result, not be discounted as improbable (see table at the end of this paper).

The net foreign asset position of the US moved from a long positive succession of years before 1986, to an increasingly negative one in subsequent years.

Thus, if we really want to compare the US situation since the 1980s to a previous historical one, it is perhaps better to compare it to that of the old hegemon, Great Britain, in the 1920s, when it had sold most of its foreign assets and tried to run a new edition of the gold standard without sufficient gold reserves and with a weak current account. There are, however, important differences from the British position in the 1920s and the recent

American one: the US economy is and will still be for a number of years, the largest in the world. The present US position is made much stronger than the British one in the 1920s, because the dollar link to gold was severed in 1971 and the dollar can only be converted into other national currencies or into the currency of the European monetary union, the Euro, since 1998.

It is however, reasonable to say, as Michael Bordo and Barry Eichengreen often have, that in the almost forty years since the end of Bretton Woods, none of the large surplus countries has tried to get rid of global imbalances by selling the dollar till it falls to a level low enough to allow the US to be again in a current account equilibrium.

This has become particularly true since the list of large surplus countries widened to include China and the rest of the BRICS and the Asian tigers. Japan and especially Germany were, in the seventies and eighties, much more nervous owners of dollars, than more recent surplus countries have shown to be.

In fact, in the last ten years, all the newcomers to large surpluses have adopted policies which have allowed them to build a strong protective wall of reserves (Dollars but also Euros) around their currencies, after having experienced, at the end of the 1990s, very disturbing deflations and devaluations due to the outbreak of the Asian crisis, to the rapid withdrawal of recently arrived foreign capital from their financial markets and to the measures they were ordered to take by the IMF when their lack of sufficient reserves made it imperative to ask for its help. The last decade bears a partial resemblance to the 15 years before 1914, when many important countries built a wall of foreign exchange reserves to protect their currencies' gold convertibility, to smooth domestic demand, but also against the increasingly politically motivated forays of international speculation leading to massive capital inflows and withdrawals(See de Cecco, 2008).

The saving glut

Before the crisis broke out, it became fashionable to consider the rapid build up of foreign exchange reserves especially, if not exclusively, by Asian countries, as the result of an excessive saving propensity by surplus countries, leading to a world saving glut. Ben Bernanke led the way with his Asian "saving glut" 2005 speech. It is likely that the "saving glut" theory was put forward as a reason for the US not to act on its own just as glaring "saving gap", which was motivated by the lax monetary policies of the Fed to spur banks into "politically correct" mortgage and consumer lending, the onus thus being on the excess savers to upvalue their currencies if they wanted the imbalances to recede.

This was, of course, aimed at the new protagonist in the international monetary arena, the People's Republic of China. It was not China's global surplus that really worried the Americans, but its bilateral trade surplus with the US.

Undoubtedly, the increase in Asian saving rates in the new millennium did take place, as IMF data show. The same trend shows up in the data returned by Middle eastern countries, aka, oil producers.

But was there really a world saving glut? More than a glut, there was a not phenomenal

increase in the world saving rate from 20.7 per cent in 2002 to 24.5 in 2007. This means, as noted by Whelan(2010) that Asian increases were effectively offset by lower saving rates in advanced countries.

And, in any case, were the saving excesses of the Asian countries, which are supposed to have resulted in global imbalances, the cause of the US housing bubble which ignited the subsequent world financial and economic crisis? This is really, if confronted with the facts, a tall story. All Asian countries did was massively to increase their holdings of US Treasury and other public issuers' bonds. US toxic assets were bought on a grand scale by banks located in countries like Germany and the UK. Altogether, it can be safely maintained that the US subprime bubble was caused by low interest rates induced by lax US monetary policy and by the so called liberalization of financial supervision and not by inflows of foreign, especially Asian, capital. This is maintained by many recent papers.

Global imbalances and the crisis

In spite of this logical and factual inconsistency, many respected economists, public servants and central bank governors have publicly pointed their fingers at global imbalances as prime causes of the crisis. Karl Whelan, in a perceptive note written for the EU Commission, quotes, for instance Lorenzo BiniSmaghi(2008) as stating that the financial imbalances and the crisis were "two sides of the same coin". Mark Carney, governor of the Bank of Canada, wrote that "current account imbalances across majopr economic areas were integral to the build up of vulnerabilities in many asset markets". Obstfeld and Rogoff, in a very influential paper, argued in 2009 that imbalances and the financial crisis were "intimately connected". Finally, Richard Portes, President of CEPR, stated, also in 2009, that "global macroeconomic imbalances are the underlying cause of the crisis" (references in Whelan, 2010).

A shortcoming common to most of these analyses is the failure to notice that we live now in a context which is no more one of international financial and economic relations, but of transnational ones, meaning that in the globalised world in which we live financial actors in advanced countries actuate global investment strategies in a regime of complete freedom of capital movements. Economists recognizing a causal link between global imbalances and crisis seem to think, on the contrary, that Orioka-Feldstein still rules, and saving and investment more or less coincide in each country. In today's world, on the contrary, German banks could freely decide to buy US toxic assets without having to reflect on whether Germany had enough foreign assets to pay for them. The Euro is a convertible currency, so German banks and other investors could freely choose between home and foreign assets. The same is true of US financial institutions, which made equivalent decisions between home and foreign assets. It mattered little that Germany had a current account surplus and the US a current account deficit. What counts are these private financial flows among advanced countries' institutions, which take place in what really has become a globally integrated financial market. Of course, there are institutions in very large and rapidly growing countries, like China and India, which cannot behave as freely, and in their case the reasoning of the mentioned economists makes sense. But the crisis occurred because of actions which took place on the open financial markets of advanced countries. how could it happen because Chinese authorities bought US public bonds and held on to them?

If one does not get this difference, it is not possible to really understand what happened and what caused it.

Therefore, it may very well be that a search for the crisis' culprit ought to concentrate on the fast and sweeping liberalization measures which were taken in most advanced financial systems in the years leading to 2007. In addition to US monetary policy, they may bear most of the responsibility for the outbreak and the deepening of the crisis. What is the meaning of comparing Asian government sponsored reserve buildup and private financial outflows from the United States and Europe? In the present regime of total convertibility and freedom of capital movements in most advanced countries, do we really believe that the US or, say, German private financial institutions would be encouraged in or deterred from, investing or divesting abroad by their country of location's surplus or deficit status? Still this is what economists do when they link global imbalances and the crisis. Extending what I already noted, EU banks, operating from an area which was in current account equilibrium with the US, bought massive amounts of US toxic assets, while China, which had a huge current account surplus with the US, purchased only TBs and Fannie and Freddie bonds. This only means that the US bubble, because the Chinese were only buying TBs and semi government bonds, could grow less and last less than it would have if even Chinese investors had been free to buy toxic US assets. One hates to think about the size of the rescue operations the US authorities would have had to mount if the Chinese had not invested their surplus so conservatively.

Current account imbalances within the European Monetary Union

The same reasoning is necessary if one wants to form an opinion about the current account imbalances which in the same period accumulated among the countries which are part of the European monetary union. In the Euro financial space, whose integration has substantially increased since 1998, not much attention was paid by national authorities and by the ECB to the accumulation of current account imbalances in member countries. After all, it was one of the reasons why the EMU was pursued for many years, that economic agents belonging to the various national jurisdictions did not have to worry any more about intra European trade balances and to find financial resources exclusively within their countries. The comparison was repeatedly made with the unified US financial market or with the national financial markets which had replaced the regional ones after the formation or the reunification of national states. State current account balances in the US and regional current account balances in European countries lost meaning after unification. The same would be true for the EMU. And it was, the rising current account imbalances of the individual member countries with the rest of the Union almost never being mentioned as a problem, always as proof of the success of the EMU in such a short time having fostered rapid financial market integration and a weakeing of the Feldtein Orioka paradox

(Blanchard and Giavazzi 2002).

exports and bolstering imports.

The persistence of national fiscal policies was justified by the need to offset possible negative effects of Alan Walters' "one size fits all" monetary policy the ECB would necessarily adopt. Some attention was dedicated by economists, at the start of the EMU, to the transformation that national public debts would undergo, once they could not be backed by a sovereign central bank acting as lender of last resort increasing the supply of national currency at will and without limits. Economists were quick to remark that national debts would become the responsibility of national fiscal authorities, which, no more able to monetize the debt, would have to raise taxes to service it or to pay it back. Nevertheless, all these considerations were left in the background until well after the outbreak of the international financial crisis, while the integration of the Euro area seeemed to withstand the rough times prevailing in the international economy. We had got used to reasoning in terms of one money but also of one interest rate structure. Convergence, in the case of national debt yields, had really been most impressive. Italians, including this writer, who had favoured Italy's membership of EMU especially as it would mean a smaller bill for the huge Italian public debt, were particularly pleased with themselves. Some worrying signs, however, appeared and were relatively played down, like the rapidly increasing real exchange rate vis a vis Germany and the productivity differential that were ravaging Italian

We had forgotten that while we had created the EMU we all still lived in the globalised financial market and the EMU area was not secluded from it. And it was in the center global finance, the US, that the crisis exploded, with consequences that were immedialtely felt in the EMU. European banks, especially those of some countries, had fully taken part in the US subprime bubble, by buying the toxic assets with which it was financed; sometimes as in Ireland and Spain, replicating it at home. European banks, even in otherwise solid countries like Germany, were therefore hit by the maelstorm and had to be rescued by their national authorities and later by the ECB, which even more than the FED had to recant on its much vaunted principles and interpret its statute finely in order to operate as lender of last resort.

The massive intervention to rescue banks was successful, but the cost was the sinking of public accounts in most countries, which had already been damaged by the lower fiscal revenues resulting from decreasing GNPs. The convergence of national interest rates then stopped and began to reverse rapidly, as some countries appeared less able to withstand the storm than others. Zero sum games reappeared as national policies, stronger countries trying to appear worthy of lower interest rates on their national debt in the eyes of investors and of what Barry Eichengreen has called the "international senate", made of investment banks, rating agencies, international economic organizations.

Can we credibly say that it was the intra euro area current account imbalances which were run up before the crisis, and not the sinking of public accounts, that caused the crisis? Besides, as we already said, the EMU had been created to allow countries to accumulate current account balances with other members of EMU without having to deflate their national economies, just as it happens in states of the US or in regions of national economies. Had countries of the European South been told from the start that they not only

had to bear the costs of a "one size fits all" monetary policy influenced by Germany, which was the result of monetary union, but would not be able to benefit from interest rate convergence and disregard of current account deficits, they would have probably never agreed to be members of the EMU, and to shelter strong Germany behind their weakness, with a Euro much weaker than the Mark had been and would be without EMU. The cause for the accumulation of intra-EMU imbalances can be found in the excessively lax monetary and fiscal policies which France and Germany imposed on the ECB and other member governments in the early years of the EMU, when Germany and France even colluded with the Italian finance minister, Mr. Tremonti, to transform the stability pact into a farce. Rapidly growing countries, like Spain, Ireland and Greece, would have needed a more restrictive policy mix, to deflate the housing and public works boom thet were experiencing.

Moreover, it is a contradiction to strive vigorously towards monetary union and at the same time demand that national current account deficits and surpluses still be considered as important policy variables. Who knows or cares about Wisconsin's current balance with the rest of the US or Magdeburg's with the rest of Federal republic of Germany? I have deliberately quoted a land in former East Germany to stress the fact that its current account with the rest of Germany has rightly become uninteresting and unknown to most Germans since re-unification.

The outbreak of a crisis most Europeans had not seen coming and did not consider themselves responsible for induced panicky reactions by the European political class, which responded to frightened public opinions in the member states. This explains the return to zero sum policies on the part of the stronger countries, which also have to face public accounts radically worsened by faltering growth rates and try to minimise the bills they have to pay to service their public debts.

Zero sum behaviour is not exactly the best policy to deal with the twin crises, the one inside and the other outside the EMU. Strong leadership by a homogeneous political class ought to be exercised in days like the ones we have lived through in the last three years. On the contrary, each country seems to be left to fend for itself, and the stronger use their strength to try to elbow themselves out of problems, which by their nature can be faced successfully only by appropriate collective behaviour.

If we study the graph of current account balances in the Eurozone reproduced at the end of this paper, we are struck by one glaring feature. As we proceed towards 2010, more countries line up in the deficit half of the graph, while the surplus half gradually but securely comes to be occupied by only one country, Germany. France and Italy, for instance, in the 1990s still showed a surplus. Italy lost it at the start of the new millennium. France put up a resistance for another three years, then went decidedly into the deficit half of the graph and is still there, the OECD forecasting that it will stay there also in the immediate future. After the start of the Millennnium, however, there is a change in the rankings of deficit countries. The top spot comes to be occupied by Spain, a country smaller than either France or Italy.

From the German Bundesbank trade statistics we learn that Germany in 2010 sent two thirds of its total exports to European countries, while one third of total was sent to EMU

countries. 60% of total German trade surplus was however obtained with those countries (Deutsche Bundesbank 2011).

This trade domination in the EMU has been obtained by Germany since the inauguration of the common currency. It has no equivalent anywhere else in the German trade accounts. If we remember that Germany is the first (or second) trading country in the world, the fact that it sends more than 30% of its exports to and earns 60% of its total surplus with, an area which has less than 250 million (admittedly affluent) inhabitants is definitely remarkable. More remarkable is the fact that this feature of German trade is a product of the European monetary unification, or at least that it happened since its inception. A study by the Bundesbank, published as late as October 2003 in their Monthly Report, showed a much greater balance in German trade with the EMU. The fact that German exports to Italy were more or less equal in 2010 to German exports to China in absolute value, that German exports to France were almost twice as large and that those to Spain were one third of German exports to China, indicates that true trade regionalisation has really occurred in the EMU. We are obviously no longer dealing with proper international trade. At the same time, the outbreak of a crisis centered on the US has meant a sudden diverging of interest rate spreads among European countries, after public accounts were devastated by the rescue of large national banks and the radical slowing down of GNP growth in countries like Greece, Spain and Ireland.

Suddenly, as we already noted, zero sum policies, mors tua vita mea, seem to be again highly patriotic in European countries, and self interested solidarity is on the vane in the countries that are doing better. Intra EMU current accounts have regained pride of place in Euro area debates, and the fact that it has become the sole surplus country in the EMU does not seem to induce Germany to play this peculiarity down. German politicians have taken to behaving as if they were really paying for everybody else in the EMU, while it is obvious that trade and payments regionalisation allows them to export relatively much more in the EMU countries than they manage to do elsewhere in the world. German banks were the largest buyers of EMU deficit countries' public bonds, but this was not an interstate decision to offset a balance of payments surplus, like the Chinese one to buy US Treasury paper. Each bank bought those bonds independently and freely, following the profit motive, because total freedom of capital movements is the rule in the EMU. The same type of decision led German banks to fill their balance sheets with US toxic paper.

As to the ECB, it has operated a lender of last resort policy not in order to rescue deficit states, but to prevent German, Dutch, French banks from going bust, i.e. like a real national central bank. Otherwise it would allow deficit states to take haircuts on the holders of their bonds, the creditor countries' banks. The same can be said of the EFSF and of its successor, the FSM, the huge funds put together by European states to bail out deficit states. This basic symmetry ought to be recognised, but the German attitude remains that of the generous rich man who reluctantly allows spendthrift friends and relatives to sponge on him.

One look at trade and payments statistics ought to be enough to convince Germans that they completely depend on Europe absorbing their exports for still several years to come. This ought to be enough to convince them that fostering deflation on the rest of Europe spells

great trouble for German output too, 50% of which is exported, with EMU countries playing the large part in absorbing it that we have already noted above. Political posturing by German conservative politicians to show severity towards Southern spendthrifts cannot be unfortunately be taken as tongue in cheek by the "international senate" and by public opinion in the Southern countries. It reverberates on interest rate spreads and on sovereign ratings. In spite of the hard trade facts just mentioned, German elites seem to think that the bright day when Germany mainly relies on demand from dynamic Asian and other emerging markets is tomorrow, while it is somewhat more remote. Besides, suppose that the Japanese earthquake plus nuclear dysaster had occurred in China. What would happen of that bright future? Perhaps even the Japanese tragedy may be enough to cast doubt on it. If China is the future hub of the Asian productive network, Japan is still the hub of the present. Its disruption disrupts the whole structure of Asian production, at least in the short term.

A further look at global imbalances and the crisis

We have already noted that several excellent economists seem to think global imbalances caused the crisis. We must immediately say, however, that the crisis which broke out was not the one many of them had expected as the Nibelunghian outcome of rapidly mounting global imbalances. There was no dollar crash, which was the central feature of the crisis many of these leading economists had foreseen. The dollar which, so they thought, was headed towards a massive devaluation because of a sudden loss of faith in it by the markets, actually experienced a revaluation, although the crisis definitely began in the US, had its epicenter in the US financial system, and was so serious that US authorities, to be able to deal with it effectively, had to resort to extremely unorthodox monetary measures. The US current account substantially improved. While US financial markets collapsed and had to be rescued by US national authorities with giant bailouts, which required an extremely expansionary monetary policy and almost zero interest rates for now almost three years, the dollar became significantly overbought. It weakened again only at a later sage of the crisis. The majority of economists have attributed that phenomenon to the "safe haven" effect, which benefits the dollar when the world goes into a serious political or economic turmoil. An alternative explanation could be one that sees US financial institutions, fighting for survival, liquidating all their foreign assets and repatriating the proceeds in order to decrease their leverage at home, while foreigners, who had borrowed in the US to bet on Wall Street or on the other speculative US markets, like the CDO and CDS markets, bought dollars in order to meet margin calls from their lenders when these markets began to fall.

To this we must add the huge fall in US imports caused by the crisis and the at least temporary end of the "US consumer and borrower of last resort" saga. It is less clear whether, as some economists seem to believe, the structure of domestic financial markets in countries like the US, the UK, Ireland and Spain, has changed for

good, with the disappearance of easy credit. This ought to mean not only that these countries can no longer play the part of consumers of last resort, but also that global imbalances should not be able to acquire their precrisis size again. But the last data on the US current account show that, after halving in size during the most violent phase of the crisis, it has recently started going up again. Perhaps the credit market has not after all undegone the structural change some people think it has because of bubble bursting and a return to a more disciplinarian attitude on the part of US supervisory authorities. It has been recently noted that the US financial sector significantly increased its lobbying expenses. Bonus payments are on the rise again, and bankers both in the US and in Europe seem to have had enough of eating humble bread, and are saying so in already very audible tones. However, if we cannot detect a clear causal link between rising global imbalances and excessive financial leverage, all these omens, though not positive, should not point to repetition of the crisis. If we believe it may have been more likely the effect of excessive liberalization, or even more, by the creation of important privileges for financial operators by Parliaments and governments, we have to look is in this direction to detect signs of another turmoil, of a mounting financial storm. Derivative products, for instance, are againon the increase, and in spite of interested parties declaring that this time they are only of the benign sort, we have heard such protestations in the past, and they turned out to be not very accurate.

Export-led versus import-led growth. Which of them is more likely to cause global imbalances?

In several very recent papers dedicated to problems of global imbalances that may arise again after the crisis, using a definition of global imbalance that is quite similar to that quoted at the start of this paper, distinguished economists examine the possibility that export-led growth be considered as equivalent to a strategy meant to distort competition and acquire unfair advantage, and that the piling up of an excessive surplus by the country which adopts this strategy may lead to a global imbalance.

Export-led growth is described, for instance by Blanchard and Milesi Ferretti (2011), as "a policy combination of a depreciated real exchange rate and enforced low domestic demand (through high saving and/or low investment)". After examining whether it is appropriate to draw a comparison between export led growth and a policy combination of tariffs on imports and subsidies on exports, which is illegal under WTO rules, they conclude that attributing an export surplus to a deliberate policy is much harder than doing the same for a case of open import tariffs plus export subsidies.

Afer these caveats, however, they feel confident to state that "there is a reasonable argument for revisiting whether, from a multilateral viewpoint, countries should be allowed to pursue export-led growth strategies; even if such a strategy allows them to catch up quickly, this happens partially at the expense of other countries". And this, they add, may not be a problem as long as countries practicing these policies are small, but not when they become large and systemically relevant.

They conclude that "proving intent - namely that surpluses reflect a deliberate strategy

designed to gain competitive advantage - is likely to be difficult. Ignoring intent may be politically unacceptable".

We have already advanced a view of export-led growth that sees the international hegemon actively fostering it on new members of the international economy (or on formerly errant members, like the Axis countries, returning to the fold after a serious military defeat). Economists may profit from going to see a performance of Nixon in China to appreciate the meaning of what I just said. In the XIXth century Britain had done exactly the same, first in Europe and later in other areas. The hegemon cannot blame anybody except itself if the newcomers to export-led growth become addicted to it and cannot stop performing it too well.

One further reflexion is perhaps worth adding, by introducing the concept of import-led growth. "Import-led growth" is the name I have given to a strategy, alternative to export led-growth, which has been favoured by several countries, the United States being the most important among them but by no means the only one. This is a strategy whereby a country's government decides to have a strong currency, perhaps in order to reduce inflation or to attract financial transactions and foreign financial assets towards the country's financial markets. At the same time it passes laws (for instance, to produce a cleaner environment), that in the short run increase the costs of producing in the country. As a result, the country's firms decide to relocate the more labour and pollution intensive processes used to produce manufactured goods to countries where labour costs, environmental regulations and taxes are lower. Factories or parts of factories are accordingly closed down and shifted to those countries. Locally produced goods, or parts and components, may also lose out to the ones produced by independent foreign companies.

After such a policy has been pursued for several years, a shift of output and employment towards the service sector takes place in the country that adopts the import-led growth strategy, as imports of manufactured goods replace locally produced ones. This may be the result of former local producers switching to the roles of whilesale dealers or retailers, purchasing goods abroad and reselling them locally, or of completely new commercial companies, like Wal Mart or Ikea, entering the market, employing the people that used to work in factories or young people who in previous years would have sought a career in manufacturing.

A large external deficit will probably be the result of this policy combination of an overvalued currency and a shift from manufacturing to services. The country in question will probably also show higher productivity than other countries that have stayed in manufacturing, as 50% of the higher productivity, at least according to Gordon(2002), is obtained in the retailing sector. A recent report by McKinsey Consulting, (McKinsey,2010) studying the US economy, also concludes that a shift from manufacturing to services increases productivity and another report by the same company (McKinsey, 2010A) advises Germany to proceed in that direction in the future to increase productivity.

So, if the gospel of import-led growth makes more converts and more developed countries

go for it, export surpluses are going to be replaced by import surpluses. Although ICT has made many more services tradeable, in fact, they represent a still small fraction of manufacturing trade and will probably do so for many years. In any case, traditionally non tradeable goods have already started being exported by developing countries to advanced ones.

Furthermore, what should we think of globalised production, which has made giant steps forward in recent years, and of the multinational corporations that mostly organise it? Are they going to make the global imbalances problem better or worse in the future? The trend towards globalised production seems to have been hardly affected at all by the present crisis. If we remember, for instance, that a large percentage of Chinese exports are actually produced by factories owned by(not necessarily American), multinational corporations, we may attribute to the adoption of the import-led strategy by countries like the US, the UK, Japan and several Continental European ones, at least a non marginal part of the surge in the export surplus of countries like China and those of emerging and developing Asia in the years leading to the crisis.

Thus, trying to apportion blame is probably even more difficult than what people taking the same line as Blanchard and Milesi Ferretti, , think, if we pay attention to the whole phenomenon of globalised production.

Concluding remarks

In this paper, an attempt has been made to review the subject of global imblances, to see whether they are something we ought to really worry about. We noticed that they are a large phenomenon, which has, however, existed, in various guises since the beginning of international economic relations. It always caught the imagination of people studying economic phenomena, but whenever attempts were made to prove that global inbalances were bad for world economic welfare, valid counter arguments were found. One conclusion that we can feel confident about is that there is neither theoretical proof nor factual evidence that global imbalances caused the present crisis. However, they can be associated with serious crises of the past, like the financial crisis which led to the Great Depression. In the historical perspective we also saw how a serious case of global imbalances like the dollar gap of the late nineteen forties could be brilliantly resolved by intelligent policies devised and implemented by the American government and led to the reconstruction of Europe and to several decades of export-led growth. We contrasted this solution with the zero-sum approach which now seems to pervade European leaders and the public opinion of their countries. The current account imbalances in the EMU debate we considered to be proof of this new European zero-sum approach to policy making, which will lead to very negative results. We also considered as persuasive the arguments that have been made to debunk the "saving glut" theory and submitted that perhaps reserve building by Asian and other emerging countries took away a lot of timber from the bonfire which leading financial institutions lit up in the advanced countries and which would, had that timber stoked it up, burn even more horrendously than it did. It is a sad but reasonable

conclusion that perhaps the only non liberalized large financial system played the part of keel to stabilize the markets of advanced, democratic and liberal countries.

BIBLIOGRAPHY

Thierry Bracke, Matthieu Bussière,. Michael Fidora and Roland Straub.(2010) A framework for assessing global imbalances, ECB, Occasional Papers Series No. 78 Frankfurt, January 2008

Exorbitant Privilege and Exorbitant Duty* Gourinchas, Pierre-Olivier Hélène Rey Nicolas Govillot (unpublished)

Obstfeld, Maurice & Rogoff, Kenneth, 2009. "Global Imbalances and the Financial Crisis: Products of Common Causes," CEPR Discussion Papers 7606, London, nov.2009

de Mello, L. and P. C. Padoan (2010), "Are Global. Imbalances Sustainable?: Post - Crisis Scenarios", OECD. Economics Department Working Papers, No. 795, OECD, Paris

Foley, Caroline A., 1893, Fashion, The economic Journal, vol.3, Sept. 1893

Withers, Hartley, The meaning of money, London, 1908

de Cecco, Marcello, 1979 Origins of the postwar payments system, Cambridge Journal of Economics* 1979, 3, 49-61

de Cecco, Marcello From monopoly to oligopoly: lessons from the pre-1914 experience in Helleiner, E, and Kirshner, (eds.), The future of the Dollar, Cornell University Press, Ithaca, 2008

Whelan, Karl (2010), Global imbalances and the financial crisis, Note, EU Directorate General for Internal Policies, Brussels, 8 March 2010

Blanchard, Olivier and Francesco Giavazzi (2002), Current Account Deficits in the Euro Area. The End of the Feldstein Horioka Puzzle? in Brookings papers in economic activity, Washington, 2002

Barnes, Sebastian, Jeremy Lawson, Arthur Radziwill, (2010) Current account imbalances in the Euro area, a comparative perspective, OECD Economics department, Working papers

Deutsche Bundesbank (2011), Spezialhandel nach Laendergruppen und Laendern, Zahlungbilanstatistik, stand vom 13.3.2011, p.18-19

Blanchard Olivier and Gian Maria Milesi-Ferrettii (Why) Should Current Account Balances Be Reduced? International Monetary Fund Research Department February, 2011

Tables and figures, still in provisional, unauthorised and therefore not reproducible form

HYPERLINK "http://blogs.ft.com/economistsforum/files/2011/01/Current-Accounts-Figure-11.gif"

Source: M. Pradan and A.P.Taylor:Current accounts after the crisis: war and peace? FTBlog, 27 Jan. 2011