

Debt Restructuring versus Monetary Easing: The Eurozone Experiment

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1. Introduction

Since the outbreak of the Greek debt crisis at the end of 2009, the Eurozone finds itself in an unprecedented debt crisis. It is trying to simultaneously save the failing public budgets of an increasing number of member states, and the future of the monetary union. Among the many actions, the ESM was created, a fund to mutually guarantee the members' debts, with a 500bn.€ capitalization and the possibility to lever up its capital several times for increased firepower. Another layer of debt pooling is currently added in form of a banking union that effectively introduces joint and unlimited liability in the case of bank failures, and potentially joint liabilities far bigger than those of the ESM.

When the Euro was launched in the 1990s, the project was set on a different course. The risk that member states could free ride on the effort of others and, freed from the threat of a currency crisis, relax their fiscal discipline was anticipated. In a historic first, the Maastricht Treaty of 1992 introduced debt limits, and practically invented scrutiny for debt-to-GDP ratios. The Treaty also introduced clear provisions that prohibited any mutual guarantees for sovereign debts.

10 years on, the reality looked very different. Instead of converging, the competitiveness of the economies had diverged and internal imbalances were building up. Instead of using the opportunity to borrow cheaply as a chance to modernize their economies, much of the private and government borrowing in the weaker member countries went into consumption or public pet projects, thus increasing public deficits and fuelling housing booms.

In early summer 2012, after the successive rescues of Greece, Ireland, Portugal, Spain and Cyprus, the Eurozone resembled an embattled fortress in which the onslaught of bond markets took out one member after the other. The financial and political outlook in the key member countries Spain, Italy and France was increasingly bleak, and yields were shooting up. The futile Greek debt restructuring and the botched Cyprus bank bailout added to the pain.

Then, in July 2012, a sudden turnaround occurred. It was brought about by the European Central Bank with the “Draghi put”, immortalized by ECB chairman Mario Draghi’s word that the ECB would do “whatever it takes” to save the euro. It was followed by the announcement of the Outright Monetary Transactions (OMT), a new form of unconventional monetary policy that declared the ECB ready to purchase bonds to provide relief to embattled sovereigns. Effectively, the ECB was offering to provide a monetary solution to sovereign debt problem.¹

If one believes in the verdict of capital markets, the policy of the European Central Bank is working. At the time of this writing, 20 months later, yield spreads of practically all countries relative to the German Bund are at their lowest level since the start of the European debt crisis. Portugal’s 10 year bond spreads are again below 4%. Several countries are accessing capital markets again, albeit they are still on life support via the European guarantees.

The Eurozone is indulging in this respite and tempted to forget the unsolved problems and imminent danger. The official position of the Eurozone’s political elite is that the debt problem of the member countries will be tackled with fiscal rigor, and that the Eurozone will be acting fast to close all remaining holes in its umbrellas and system of unified economic and regulatory policies so that no speculative attack against individual member countries can ever succeed again. A debt default in any of the member countries, after the historic accident of the Greek default, is squarely ruled out. The IMF subscribes to this vision and goes even further: it says the only solution for the Eurozone is to create a full-fledged political and monetary union (Enoch et al. 2014).²

¹ OMT was billed as a temporary patch, but the only logically possible conclusion is that the patch will have to be in place until the Eurozone has put in place a full federal union of its economic policies. Thus, knowing the speed of European policy convergence, this is a patch for a very long time.

² The plea for a rapid process to full federalism is one of the few intellectually truly consistent policy positions heard in Europe – even though it is anathema for most elected politicians who do not see much political gain in promoting a federalist agenda.

Meanwhile, the level of public debt in key member countries is increasing, not decreasing. In March 2014, the newly appointed governments of Italy and France, key countries whose reform progress is crucial for the future of the Eurozone, have effectively announced that they will flout the commitments made to their partners to bring down their fiscal deficits.

It is worth recalling this timeline of events to illustrate how much the Eurozone is pinning its hopes to avoid of sovereign default on the effectiveness of monetary policy.

In this, Europe is not alone. The United States and Japan are also currently seeing the combination of record sovereign debt with unconventional monetary policies that are bringing down borrowing costs and acts as a crucial factor in facilitating sovereign borrowing. Unlike the ECB's OMT, the actions of the central banks in Japan and the United States are not explicitly framed as monetary support for unsustainable government debt. But the effects are still the same.

This paper takes the current prominent role played by monetary policy in the management of sovereign debt problems as its starting point. Can monetary policy really solve excessive debt? In principle, yes. It can do away with any need for a sovereign to default. The reason is simple: a sovereign can always try to take recourse to the currency that is the accepted means of payment. Hence, the sovereign does not depend on the goodwill of lenders. This has been known ever since the French kings in the 13th and 14th century repeatedly took recourse to currency debasements. In modern times, the capability of "printing money" is the ultimate insurance against the prospect of a sovereign default.

However, all is not well in the countries that exhibit a policy combination of high public debt, high public deficits, and extremely accommodating monetary policies. There are lingering concerns about deflation. From the point of view of the quantity theory of money, this should be surprising: lax monetary policy should lead to inflation, not deflation. The stubborn path of price levels that refuse to go up has many causes, among them supply side forces linked to globalization and rapid technological change. But clearly, debt overhang and debt deflation play a prominent role. If only supply side factors were to blame, deflationary pressures should be roughly the same in all countries. Instead, they are strongest in many countries with high debt levels, such as Spain and Japan.

This paper will refer to default as debt restructuring if it occurs in agreement with the lenders, or according to an orderly procedure that was known to or acknowledged by the creditors

when they extended their credit. What we count as a sovereign default is a matter of debate. It is possible, as Reinhart and Rogoff (2010) do, to include massive inflation episodes and episodes of currency devaluations into the list of default events. Sui generis debt default occurs when the sovereign reneges on debt obligations, either unilaterally or in agreement with the lenders. One of the points made in this paper is that, without denying that massive devaluations and hyper inflation are consequences of sovereign overindebtedness, it is worth distinguishing between these scenarios because their consequences and their wisdom is different.

The goal of this paper is to expose the fallacies of the “Brussels consensus”, the policy pursued by the European policy elite, and to sketch some elements of a different European policy.

The paper is organized as follows. Sections 2 and 3 introduce the concepts of debt overhang and debt deflation that are needed to appreciate the need for restructuring. Sections 4 and 5 discuss issues with monetary policy and mutual guarantees that have similar effects. In Section 6, we discuss the cost of restructuring, and argue in Section 7 that fears of contagion are misplaced. Section 8 elucidates the political economy of the refusal to restructure debt. Section 9 presents policy proposals, and Section 10 concludes.

2. Debt Overhang

The problem of sovereigns at the brink of insolvency is a frequent situation, as documented by Reinhart and Rogoff (2010). How much sovereign debt is sustainable? Wise rules have emerged about the critical debt ceiling, the level of sovereign debt level (stock) that is critical, in the sense that too many fiscal resources are tied up for debt service, that is interest payments. The Maastricht criteria put this limit at a debt to GDP ratio of 60%. Reinhart and Rogoff (2010) put the limit at 90%, based on empirical evidence that is certainly perfectible but not unreasonable.

Before discussing such proposed debt ceilings, it is useful to distinguish between two radically different concepts of what we mean by unsustainable debt. The first concept is linked to the point when sovereign default (in a broad sense) becomes inevitable. The second concept refers to the point when the debt service is so severe that it imposes substantial real losses on the economy. Borrowing terms from corporate finance, the first concept of a debt

ceiling tries to determine the bankruptcy threshold, whereas the second concept refers to the threshold of financial distress. Financial distress occurs prior to bankruptcy, so the second concept refers to a lower debt ceiling. The limit of 90% suggested by Reinhart and Rogoff (2010) refers to the first threshold. Many countries, including the US, have currently higher debt-to-GDP ratios and are not at the brink of default, but perhaps already in the grip of debt overhang effects.

Financial distress refers to all the distortions that occur because of the high level of debt. Again borrowing terminology from corporate finance, the financial distress brought about by excessive debt is a problem of debt overhang, one of the most powerful, and most underappreciated, concepts when discussing issues of high sovereign debt. In corporate finance, debt overhang refers to all the distortions in a company's decision-making that occur because a substantial portion of the benefits accrue to debt holders rather than to shareholders. The typical example presented to students is that of a positive NPV project, i.e. an investment decision that produces value and adds positive future cash flow. Much of these cash flows, however, are owed to debt holders. The positive-NPV investment increases the recovery rate of lenders in default states, and makes debt safer, but it is unattractive for equity holders who are unwilling or unable to carry it out. The problem is that the investment decision, if undertaken, would transfer value from equityholders to debt holders. Hence the investment will not be undertaken, or too little of it. Corporate finance models show that debt overhang is a gradual problem: the more debt, the more of the benefits of good decisions accrues to debt holders, hence the larger inefficiencies. Debt overhang leads to other distortions, like delayed decisions, excessive payouts, excessive risk-taking, etc. In a company, the nature of the problem is relatively easy to identify: we can represent the problem by saying that managers act in the interest of their own remuneration, which is usually linked to the interest of equityholders.

Nobody is an equityholder in a state or government (at least that is what we believe) so applying the concept of debt overhang to sovereigns does not seem straightforward. However, it is not hard to understand the analogy. A country has its expected future income or GDP, which is analogous to the future cash flows that a company expects. Debt service on the sovereign debt takes a slice out of these future cash flows, just as debt financing does from company's cash flow. The residual acts like the people's combined equity stake in their economy from which they also have to subtract their private debts. Every decision maker in a country, politicians, companies, and households, will make decisions relative to this residual

cash flow, after all debt payments are deducted. Excessive government debt will lead to inefficient, distorted decisions. Government will have an imperative of generating a large primary surplus, in order to be able to prevent a further increase of the debt. The ensuing fiscal rigor will dominate policy-making, and via the government multiplier affect the macro economy. Companies will make distorted decisions: they will expect high future taxes and will tend to not invest or invest in other countries. Households will be affected: they will save more to optimally adjust to expected higher future tax payments, and rationally add precautionary savings in anticipation of the coming turmoil from a sovereign default. Anticipating a depressed economy with little growth and jobs, they will start to emigrate more, etc. All of these effects in the wake of high government debt are debt overhang effects.

3. Debt Deflation

Ever since the asset price bubble of severely overvalued stocks and real estate of the 1980s burst, Japan the country is in the throes of a severe debt problem. It started out with overindebted companies and financial institutions. The debt overhang produced a persistent trend of stagnation. Gradually, successive attempts to restart the economy by fostering aggregate demand have depleted the state coffers, and led Japan to become the OECD country with by far the highest debt-to-GDP ratio, of an estimated 230% in 2014.

What the example of Japan shows is that high levels of leverage will exert a negative influence on economic activity that will create a downward pressure on prices. This is one of the costly real effects of an untreated debt overhang situation. As we have seen, there are several channels through which these effects operate. The consequence is an old and well-known problem that Irving Fisher called debt deflation (Fisher, 1933). By debt deflation, Fisher had in mind that asset sales pressure leads to deflation which in turn aggravates the excessive debt problem because the real value of nominal debt claims increases when the price level decreases. Thus, ironically, the attempt of economic agents to increase savings so as to be able to reduce debt will make the problem worse: the macroeconomic effect of increased savings will be a recession and deflation.

In the case of Japan, the phenomena of debt overhang-induced distortions have been very visible. Their predominant effect has been called balance sheet recession (Koo, 2003), or

sometimes also balance sheet deflation. In the Japanese balance sheet recession, overindebted companies have shifted their priorities to repairing their balance sheet, by deleveraging. That is, companies are saving, and since a large fraction of all companies in the economy is attempting to do so at the same time, the joint attempt to save weakens aggregate demand, which in turn leads to a severe deflationary pressure. In Japan, the downwards spiral of excess savings, sluggish demand and deflation has been an ongoing reality for almost 25 years. The ensuing deflation produces the opposite effect from that the decision makers intended by attempting to save and deleverage. Deflation will increase the real value of outstanding debt, and hence make the problem worse. The root cause for the protracted balance sheet recession in Japan is the massive overindebtedness in the economy, and the unwillingness to tackle debt overhang head on by bringing down debt levels via debt restructuring.

At the time of this writing (March 2014), entering the spiral of debt deflation looks as one of the potentially most pernicious risk that the Eurozone faces, largely because of its refusal to tackle the problem of overindebted sovereigns head on. As we will argue next, debt reduction is certain to avoid the danger of debt deflation, whereas monetary resolution attempts are shrouded in uncertainty about the outcome.

4. Problems With A Monetary Resolution of Sovereign Debt Overhang

When sovereign debt reaches an unsustainable level, there will be a resolution of some sorts. Roughly speaking, this resolution will occur in one of two forms: repudiation of the sovereign debt claim, through outright default or agreed restructuring. Or there is a monetary or currency-based solution to the problem, when the real value of the outstanding debt is brought down through inflation or devaluation, or if there is debt monetization.

Reinhart and Rogoff (2010) in their taxonomy of types of debt crises include both forms. Adopting from their discussion, sovereign debt crises take the form of external or domestic debt default or debt restructuring, whereas hyperinflation, currency debasement or devaluation belong to the latter.

The money-based solutions are often lumped together, typically by saying that the sovereign is “printing money”, “inflates away” its debt, or “monetizes” its debt. These terms are not

terribly precise. It is not automatic that money-based solutions are available. Instead, several conditions need to be met: the quantity of money must be expandable, and the sovereign must have command over the issuance of money. The latter could be a problem with the present-day independence of central banks. But a central bank can be independent and completely separated from and still buy heaps of government debt, as the US Federal Reserve, the BoE, the ECB have all been doing in the last 5 years, or much longer in the case of the Bank of Japan.

Currently, unconventional monetary policies get a lot of explicit and implicit support among economists. In Europe, where OMT and its predecessors have been the only effective instrument in keeping the sovereign debt crisis at bay over the past 3 years, those vehemently opposing the policy of quantitative easing are in a minority.

In the following I argue that attempts of a monetary or currency-based sovereign debt resolution have three major disadvantages compared with debt restructuring. The first advantage of debt restructuring is that it allows to target the selective reduction of only excessive debt. The second advantage is that it provides relief from debt overhang that can be precisely fine-tuned, whereas in the case of monetary policy the outcome is uncertain. The third advantage is that it offers a permanent solution with certainty.

To understand the first advantage, that debt restructuring offers a targeted solution, it is easiest to think in terms of the inflationary outcome of monetary expansion. The expectation shared by many economists is that if government debt gets monetized, it should eventually lead to an increase in the price level. The quantity theory of money supports this view: the consequence of an increase in the quantity of money in circulation is a rise in the price level, and there is also empirical support for this claim in the fiscal theory of the price level (Woodford, 2001) as well as in the study of debt crises (Reinhart and Rogoff, 2010). Inflation then reduces the real value of all liabilities, including the excessive government debt.

The problem with the inflationary solution of the debt problem is that it will not only affect the value of excessive sovereign debt. It will at the same time devalue the value of *all private and public* liabilities in the country that has engineered inflation, including credit extended to companies, households, as well as future (and often unaccounted) social security liabilities. Thus, inflationary resolution is a very indiscriminate instrument to bring down the value of a specific debt, that of the government. In the developed OECD economies except Japan, government debt accounts mostly for between 40% and 120% of GDP, and in most countries

it is well below 100%. By contrast, the total value of all liabilities typically stands at 200% and 350%. Thus, inflation will devalue about three to four times more debt contracts than those of the government. Of course such a blanket approach to debt devaluation creates many distortions and is costly. It is reasonable to assume that the distortions that unexpected price level shocks create for the value of ongoing debt contracts is one of the major costs of unexpected inflation.

Thus, inflationary resolution is like carpet bombing where a surgical operation that specifically targets the debts in need of adjustment would be called for; it is like a farmer who sprays Round-up on his fields and kills all plants instead of using a less lethal herbicide that takes out only the bad weeds. By contrast, debt restructuring allows to specifically target and reduce debts that are excessive and fraught by a debt overhang problem.

The second advantage is that debt restructuring offers the option of a precise dosage of the debt relief to debt overhang problems that be precisely targeted. The same is not true for monetary resolution attempts. The triggers of inflation are poorly understood. Even when central banks would like to see a moderate increase in the price level and its rate of change, engineering it through the instruments of monetary policy is a surprisingly inexact science as the recent history of quantitative easing in the US, UK, and more recently the Eurozone shows. The experiment of Japan to avoid deflation over 25 years demonstrates this more drastically. Central banks are effective in manipulating interest rates, but much less so in inflation targeting, at least in engineering a moderate uptick of inflation.

As discussed, debt deflation and balance sheet recession are serious risks for countries with widespread debt overhang or an overindebted sovereign. Thus, if an attempt of monetary resolution of sovereign debt overhang fails to provide inflationary relief, a likely outcome is continued deflationary pressure and the emergence of phenomena of balance sheet recession. Thus, uncertainty about inflation outcome creates a true cost for monetary debt overhang resolution.

A very similar argument to that developed above for the case of inflation also applies if a monetary resolution of government debt overhang brings down financing costs rather than generating inflation. This is the outcome of the experiments of quantitative easing for the past 5 years and the Japanese experiment for more than 20 years show. Namely, quantitative easing in this case works through the central bank's impact on the interest rates, bringing down nominal and also real interest rates. This is the prime operating channel of central bank

policy. It makes sovereign debt more sustainable by lowering the interest burden. But at the same time, it creates unwanted and costly distortions by also unnecessarily reducing the financing cost of all private debts. Thus, the disadvantage of monetary debt relief is that its exact impact, whether it brings down interest rates or also produces inflation, is highly uncertain.

The third disadvantage of monetary resolution is that it is not clear whether monetary policy really can produce permanent debt relief. There are two conflicting views in economics about the determinants of interest rates. The first view, popular in monetary in macroeconomics, is that interest rates are largely dependent on monetary policy. The second view, going back to Wicksell's theory of the natural rate of interest, holds that the interest rate is the equilibrium price that balances the supply and demand for capital. There is no doubt that monetary policy is pretty effective in manipulating interest rates, and that its impact is immediate. The question is for how long this effect will last. Economists have not been very good at explaining how the two conflicting views can be reconciled. But their contrast illustrates that monetary policy probably does not have a permanent effect in lowering interest rates in spite of present day appearances.

Of course, in countries with a sovereign debt overhang problem, there are often also many excessive private debts with debt in a situation of debt overhang and in need of adjustment. The linkage between private and government debt can have many reasons, but this becomes clear when one thinks of the causality that is frequently behind sovereign debt problems: governments step in to resolve financial crises through massive bailouts of financial institutions and by massive deficit spending to mitigate the macroeconomic blow if the crisis. The recent crisis offers many examples, the most pernicious ones no doubt in Europe, with Spain, Ireland and Cyprus being leading examples. But also Japan belongs here (Acharya, Drechsler and Schnabl, 2012). Still, not all private debts are in need of restructuring, and a targeted approach restructuring only those debts that are excessive, if possible in a simultaneous approach, is less intrusive and more efficient than the inflationary approach.

There is an apparent problem with all attempts to define the debt ceiling in terms of an absolute level of debt: some countries seem to defy gravity. Japan has a debt-to-GDP ratio of 230% and there is no immediate expectation of default. Portugal and Ireland defaulted at just 100% debt-to-GDP, and several developing countries have defaulted at much lower boundaries. A debt-to-GDP ratio of 230% would be unsustainable for any other advanced

economy except in Japan. In Japan, the government debt is almost exclusively domestically owned, and a huge debt pile is sustainable with real interest rates of only 0.5%. Such low interest rates over an extended period of time are not possible without an accommodating central bank.

Abenomics, the program of economic expansion by Prime Minister Shinzo Abe in 2013, takes the same logic to an even more explicit and aggressive level: it targets simultaneously expansionary fiscal policy which will increase the deficit, competitive devaluation, and jawboning the central bank in favor of a policy of quantitative easing that will bring down already low real interest rate even further. Since the policy also targets the creation of a moderate uptick in inflation, with first encouraging signs at the time of this writing (March 2014), real interest rate will have been manipulated even further downwards, making the disproportionate level of public debt and more easily palatable.

Portugal had at the height of the sovereign debt crisis had a real interest rate of more than 15% compared to Japan's real interest rate of perhaps 0.5%. Thus, measured by interest coverage ratio, Japan's debt ceiling should have been 30 times larger than that of Portugal at the height of the European debt crisis in 2010/2011. Of course, the Japanese public debt will never get that far, because interest rates will show a convex increase long before that.

Therefore, the most accurate and sensible way to define the debt ceiling in this view is as the ratio of real interest payments to GDP, the (inverse of the) interest coverage ratio. This real yield is country specific and varies over time. Inconveniently, this definition is subject to the vagaries of the bond market, as the European debt crisis since 2010 has shown. Real yields can shift dramatically in a matter of weeks or days. 150% of debt/GDP looked reasonable for Greece as long as the real interest rate hovered at 2%, but even 50% of debt/GDP is too much when the Greek bond yield soared beyond 20%. It is seems clear that a country that needs a primary surplus of 5% or more just to keep its debt from increasing further is in an unsustainable position. Probably the debt ceiling, measured by financing costs relative to GDP (inverted interest coverage ratio), is substantially lower.

Financing costs are not linear in debt. The higher the risk of default, the higher will be the interest rate that lenders will require to make up for the anticipated default loss. Therefore, the ratio of interest payment owed relative to tax revenue or relative to GDP does not increase linearly in the stock of debt, but exponentially, leading to a spiral of excessive deb. At some

point the debt service becomes unsustainable, even if the government runs a large primary surplus.

5. Unconventional Monetary and Nonmonetary Policies and Debt Overhang

We have seen in the preceding section that there is not a single absolute level of the debt ceiling where sovereign debt becomes unsustainable; rather the level at which debt becomes unsustainable depends on the real financing costs.

An intriguing question to ask is whether intentionally low interest rates can act as a long-term remedy to the problem of sovereign debt overhang. One option is central bank policy. But the prospect is not limited to central banks' manipulation of interest rates. It can also occur if supranational institutions artificially bring down the financing costs of a sovereign, as the European mutual insurance mechanisms do, in particular the ESM.

The second bailout package for Greece agreed on in February 2012 reduced the nominal value of Greek debt held by private investors by more than 50%, and included a debt buyback. However, the debt-to-GDP ratio of Greece came down only by about 40% to 157% in 2012 (Eurostat figures), in parts because about half of the reduced debt needed to be plowed back into the recapitalization of Greek bonds. The rescue also guaranteed Greece a 30 year maturity and a low interest rate (Libor + 1%) on the newly issued bond to avert any new refinancing crisis. The high debt-to-GDP ratio also reflects the fact that the Greek GDP has shrunk by 23% from 2009 to 2013. The debt-to-GDP ratio is notching up again rapidly, passing the 175% threshold in 2013. A third rescue package looks inevitable, and speculation about is rife since the fall of 2013. Since almost all of the Greek government debt is now held by either the ECB or the European partner governments, notably via the ESM, new write-down looks utterly unattractive to the European governments but also the ECB. It would mean that the rescue system of the ESM would encounter a very real and severe loss for the first time, and that the European government that have written guarantees for the ESM scheme would have to account for this loss which would drastically increase their own deficits and debt stocks. To avoid this, there are press reports that the following alternative plan seems to be floated: avoid a write-down, but further extend the loans to 50 year bonds, and bring down the interest rate as low as is needed to maintain debt sustainability. The argument advanced in favor of this scheme, for example by the German finance minister

Wolfgang Schäuble, is that maintaining a high debt level on Greece was the best way to keep pressure on Greece and to discipline the Greek government.

This plan supposedly under discussion among European governments leads to the following intriguing question: isn't this a viable alternative to debt restructuring? That is, rather than bringing down reduce nominal debt, maintain the debt level but finance it in such a way that the financing costs remain sustainable, even if the debt is very high. In the extreme case, one could think of bonds being issued that have an infinity maturity (perpetual bonds, like consols) approaching and an interest rate approaching zero. The Greek government could issue such bonds if the European partner governments that act as guarantors and agree to hold that debt in the ESM, as they are doing with the Greek bonds of spring 2012. Note that the rumored terms of the third rescue package are not very far of such a perpetual bond with zero interest (50 years of maturity and an interest rate close to Libor are rumored). It sounds like a miracle plan. But note that perpetual debt with zero interest is no debt at all, it is a gift. The principal needs never to be reimbursed, and there is no cost involved for the credit.

More importantly, such a plan would not solve the Greek overindebtedness problem. It would avoid a default, but since the nominal debt level remains unchanged at a debt-to-GDP ratio of close to 200%, the country's situation remains extremely fragile. The slightest change in credit conditions – a threat that must be maintained if Mr. Schäuble's argument is right that the high debt serves as a disciplining device – would produce mayhem again. This prospect alone, however remote the chances that it will come to pass, will effectively produce havoc and kill all forward-looking incentives of government officials and private parties. In other words, Greece would still be stuck in the problems of debt overhang in exactly the same way.

To bring that debt down according to the schedule agreed in 2012, Greece would need to generate primary surpluses of more than 5% that would be entirely transferred outside the country. Given the isolated state of the Greek economy, a further downwards spiral of the economy would be inevitable. Private parties will anticipate this. The high nominal debt burden makes any new economic activity in Greece, or even just maintaining the existing one, totally unattractive. Future tax increases loom, governments will take steps to sidestep to transfer all of the primary surplus out of the country, private parties will do the same in order to avoid anticipated confiscatory action by the government in search of new tax revenues. The foreseeable consequences are continued capital flight, depressed investment levels, and labor emigration. In short, the nefarious effects of debt overhang.

In effect, the current planning for the third Greek rescue package is not that different from the experiment in Japan discussed in the previous section. Both have in common that high debt is maintained while making the financing cost burden bearable with artificially low interest rates. Artificially low interest rates mean that they do not reflect the real long-run and actuarially fair assessment of the default risk, but are lower because of implicit or explicit guarantees. In the case of monetary policy (the case of Japan), the guarantee comes from the fact that the government debt becomes monetized. In the case of the European Stability Mechanism as illustrated in the case of Greece, the guarantee is an explicit guarantee subscribed by fellow governments.

6. The Cost of Debt Restructuring

Can a sovereign afford to default? What are the costs in terms of reputation, financing cost, internal adjustment?

There is a stigma attached to debt restructuring. There is no doubt that this stigma has driven, and is driving, a lot of the policy activity in Europe since 2008. In none of the overindebted countries was sovereign default ever a popular idea, not even in Greece where default finally did occur. In Greece, default eventually occurred but only because it was ordered by the European overlords. In other cases where default, or the resistance to bailouts, was massively advocated by economic advisory bodies such as the IMF, it stood no chance in the political process.

There is also a widely held belief that developed countries should all reach, and to a large extent already have reached, a stage where they “graduate” into the club of non-defaulting countries (Reinhart and Rogoff, 2010). Membership in this club, led by beacons like the UK (no default in 350 years) or the US (no federal government default ever) is widely seen the ultimately badge of being a fiscally responsible and politically developed nation. Membership in this club is a reputational gain that is hard earned over centuries of non-default. Jeopardizing it by a default means wiping out the fruit of hard labor won over decades or even centuries. Preserving the reputation as a non-defaulting nation, and avoiding the stigma of relegation to the club of defaulters, is a goal of supreme priority that is worth pursuing at almost any cost.

For this argument to make sense, it would have to be true that graduating to the club of non-defaulting nation confers economic advantages, like low real interest rates and low financing costs, as well as the possibility to massively import capital and boosting financial deepening, that are all sources of domestic growth.

This paper argues in favor of eliminating the stigma of debt restructuring. There is a substantial body of empirical evidence that the cost of default for the international reputation of a country is not as large or persistent as is feared.

Panizza, Sturzenegger and Zettelmeyer (2009) show that the cost of default are mostly domestic, and not external. Crucially, they and others also show that these costs are likely to be short-lived, and that the economic turnaround starts typically within a year. The economic cost of debt restructuring varies substantially and depends essentially on the implementation.

Countries whose economic fortune turned around, such as Russia after its default in 1998, Thailand and other Asian nations, Argentina 2003, have quickly found access to international capital markets again.

There is a simple economic argument why the cost of such restructuring is not higher. This argument can be rigorously developed in the context of corporate finance models of the capital structure. For a given cash flow available to serve debt obligations – cash flows in the case of a firm or household, tax revenues in the case of governments - the default risk is reduced after the debt has been reduced in a debt restructuring, and so is the economic inefficiency linked to debt overhang that further reduces the available cash flow. Hence the default premium that a sovereign borrower has to concede should also come down.

This argument stands in direct contrast to the idea that financing costs are mostly determined by reputation, in particular reputation of having graduated into the club of non-defaulting nations. But as all economic model of reputation show, reputation is most important in cases of severe asymmetric information. This is not the dominant problem between sovereign borrowers, even in small and poor nations, and international lenders. The problems of moral hazard and of political moral hazard, linked to the political risk of a (new) government in the borrower nation reneging again, is much more important.

Debt restructuring is not a desirable outcome, nor an outcome that political leaders or economists should aspire to or plan ex ante. It is only a best policy ex post in adverse

circumstances of unsustainable debt. In these cases, it should be accompanied by constitutional and political reform that diminishes the moral hazard and the political risk for international lender. The reinsurance that lenders seek is not that of a blind pledge to never default again, no matter what the circumstances. It is the building of institutions that prevent an unsustainable run-up of government debts in the future.

7. Contagion Fallacies

The argument against restructuring that had been much put forward during the heydays of the European sovereign debt crisis between spring 2010 and summer 2012 is that of a “sovereign debt contagion”. According to this argument, the fall of one sovereign would trigger a run on the securities of other sovereigns in a similar distressed situation. Bond yields would skyrocket, and force the second sovereign into default.

This is of course an erroneous argument: a monetary union does not preclude the bankruptcy of individual states or member countries, or of other public entities such as social security institutions. The Maastricht Treaty never ruled it out. For a risk of contagion, there must be a connection between the defaulting entity and the entity at risk that creates a negative externality. In the case of banks or financial institutions there is undoubtedly a sizable risk of contagion spillovers that is evident from their mutual exposure, notably in the interbank market and the derivatives market. Such an exposure does not exist between sovereigns. Their only important exposure is that through economic integration: if one country were to suffer economically from defaulting there will be ripple on effects on the economies they are closely connected to, and hence an effect on tax revenues. But an orderly sovereign default that reduces debt overhang is likely to produce positive economic effects in the defaulting country, not negative ones.

A second possibility of contagion is that based on asymmetric information. If two entities are very similar but investors are less well informed than insiders, then the default of one conveys a negative signal about the prospect of the other, hence investors will rationally pull out and run. Again, this is very relevant for financial institutions and was the reason why regulators adopted a strategy forcing a bailout of all banks, so as to avoid any negative

inferences. But for governments, asymmetric information issues are a minor concern. Even if a government hides deficits for a protracted time, as the Greek government did until 2009, but there is no information spillover in this case.

Finally, the events of the European crisis itself demonstrate that the fear of contagion after a sovereign default is largely exaggerated: the Greek default negotiated in February 2012 did not trigger any contagion on other sovereigns or countries, not even on those that were geographically close or economically connected. After the Greek restructuring, there was no bank run in Cyprus for instance, Cyprus' bonds were not plummeting, even though the two economies are linked, and Cyprus' banks had a huge exposure to Greek bonds which contributed to Cyprus' need for a bank rescue.

8. The Political Economy of Denial: Why Debt Restructuring Seems Taboo

A salient feature of the European rescue operations of the past 5 years has been the stubborn refusal to seriously consider sovereign debt restructuring or default. Why? Economic arguments are frequently offered, prominently among them the fear of a widespread financial panic or lasting damage to the reputation of nations. These do not hold up to scrutiny, and are refuted by the European experience itself.

Why are political elites in Western democracies in stubborn denial about the possibilities of debt restructuring? Why are they tempted instead to rely on the illusory alternative of monetary policy easing? In my view, the reasons for this refusal are overwhelmingly political.

First, while unsustainable government debt is not limited to democracies, the emergence of democracies did not solve the problem, because of the political cycle of modern democracies. Voters even in highly educated countries are not good at enforcing the view that there should be Ricardian equivalence, and elected politicians act accordingly.

Second, reflecting on debt restructuring is also an exercise in political economy. Over the past decades, capitalism in a fast moving world created a trend towards rising income inequality. It is plausible that this trend is more robust than the brief trend towards more equality over less than half a century (Piketty and Zucman, 2014). With income inequality

comes inequality in political influence. Financing of lobbyists and of political parties and campaigns are among the main channels that explain why money can wield influence.

Clearly, debt restructuring has consequences distribution. It is a wealth redistribution from creditors to debtors, or in the case of sovereign debt from investors to tax payers. Investors in sovereign debt tend to be wealthier than the median voter affected by the tax payments needed to service debt. The political mechanisms that block debt restructuring are subtle: investors can strategically commit in actions that will commit their government to honor the debt rather than insist on restructuring (Mengus, 2013).

9. Decentralized Fiscal Responsibility in a Monetary Union

We have so far argued that monetary alternatives to the restructuring of excessive government debt are likely not to work, at least not on a long term basis. We have argued that debt restructuring is possible for sovereigns in a debt overhang situation, and that the costs for the economy and tax payers of a well-orchestrated restructuring are likely to be short-lived. We have argued that these costs can be reduced further by carrying out the restructuring plan efficiently.

The failure to seriously envision debt restructuring in Europe, with the only exception of the half-hearted restructuring of Greece, is one of the major explanations for the question why the aftermath of the financial crisis continues to be so much more severe in Europe than anywhere outside Europe.

This section tries to lay out an alternative policy route in Europe. The idea is that of a decentralized responsibility for the resolution of debt overhang, akin to the principles of fiscal federalism. It proposes a sizable restructuring of the debt of the most financially distressed countries (Allen, Eichengreen and Evans, 2014, and also Paris and Wyplosz, 2014). It proposes a single European-wide sovereign bankruptcy procedure, for the same reason that the US has a single federal bankruptcy code. It is essential part of an integrated capital market and enhances the transparency for investors. The need for a judicial procedure that leaves no room for free riders has become more important with recent adverse court rulings from holdouts of the Argentina debt restructuring.

It also proposes the creation of a public debt regulators that specifically targets local governments and similar entities. The creation of this body follows the observation that decentralized responsibility is not enough. In reality, the primary reason for government debt overhang is poor governance. Local governments for instance are vulnerable to the strategic use of debt and are prey for shady financial practices (Perignon and Vallee, 2013). It assumes the advisory functions that are currently (poorly) administered by some Public Accounting Offices, but has extended debt advisory functions similar to the CBO in the US. But the debt public debt authority has also executive power to intervene into irresponsible fiscal conduct of public entities, by imposing debt ceilings and overtaking unfavorable financial contracts. The executive power is mostly limited to that of local governments, and the member states themselves are largely free from the threat of supervision authority intervention. The purpose of the exemption for central government budgets is to respect the sovereign decisions of the sovereign, i.e. the elected parliament and government. It will do little against poor governance on the level of the central governance. This is an accepted democratic limit to the optimal fiscal constitution.

The well-intended debt limits of the Maastricht treaty did not work: members were admitted who did not satisfy the criteria, and the large majority of Eurozone members who initially satisfied the criteria are now violating them. The Maastricht Treaty of 1992 never ruled out sovereign debt restructuring. The United States, which has a stable and longstanding federal constitution, always made it clear that the bankruptcy of individual states was absolutely possible. On the contrary, it has always been in the case of the US that there would be no bailout of states or local governments. The US Bankruptcy code has a specific chapter for the bankruptcy of local governments, Chapter 9. Without mentioning bankruptcy of member states explicitly it has always been clear that states are on their own in the case of insolvency and cannot count on a federal bailout.

Also, public budgets at risk need to be separated and compartmentalized. The current practice in Europe is to consolidate all public debts and social security debts into one figure European practice is also that the each sovereign is These entities are themselves subject to corresponding chapters of the European bankruptcy code. Thus, debt pooling is also occurring within each country, making the risks of default larger.

This policy proposal has the following key elements:

1. Simultaneous restructuring of the debt of all Eurozone members with debt in excess of 90% or deficits in excess of 5%.
2. Europe introduces a sovereign bankruptcy code for government debt. The most important chapter is that applying to the debt of the member states themselves, but the code has also chapters on subordinate entities, like local governments, etc. The purpose of the procedure is similar to that of bankruptcy of companies – getting rid of excessive debt via restructuring.
 - a. The decision to enter the bankruptcy procedure is triggered either by debt default, or the process is voluntarily initiated by the national government and parliament itself. Since the purpose is to protect overindebted countries, it cannot be initiated by European or foreign institutions.
 - b. The procedure is administered by an international panel of judges that assess the level of sustainable debt based on expert economic advice (including the IMF and the ECB). The code mandates the panel to do exactly that – adjudicate the sustainable level of debt. Not more, not less. There is no penalty for entering or exiting the restructuring procedure.
 - c. The chapters for subordinate entities (like local governments) have a similar structure. In their case, restructuring is triggered either by default or the decision of the national government or its delegated debt supervisory body, or in certain circumstances by the independent public debt supervision authorities.
3. European sovereigns and all other public entities can henceforth only issue debt securities that are subject to the European sovereign bankruptcy code. For the transition period, legacy debt subject to other laws is transferred to the European Stability Mechanism. The issuance of senior or secured tranches is banned.
4. Proactively, sovereign debt is confined to the core state function as much as possible. Each public entity can go bankrupt on its own, in the same way in which federal states and municipalities can do in the United States. Thus, the common European practice of implicitly or explicitly guaranteeing all public debts in a country, including that of municipalities, of regions, of social security institutions, etc. will be banished.
5. Banks and other highly levered institutions can only hold a statutory minimum of treasury bonds on their books, enough to guarantee their needs for liquid assets. They are

encouraged to hold a diversified portfolio of safe assets, including corporate bonds and bonds of several sovereigns.

6. Europe creates an independent Public Debt Authority, in a network structure similar to that of other Europe-wide financial regulators (ESMA, EBA). Its role is to oversee the fiscal conduct of all public entities. It assumes the advisory functions that are currently (poorly) administered by some Public Accounting Offices, but has extended debt advisory functions similar to the CBO in the US. It has also executive power to intervene into irresponsible fiscal conduct of public entities, by imposing debt ceilings and overtaking unfavorable financial contracts. The executive power is largely limited to that of local governments, and the central governments themselves are largely exempt from the threat of intervention of the public debt authority.
7. The power of the central bank to purchase government debt is limited to its monetary policy function. The central bank is fully exposed to the sovereign bankruptcy procedures, thus limiting the central bank's incentive to hold risky sovereign debt.

The last rule is particularly tricky to implement. The trade-off is between not infringing on the freedom of the central bank to conduct monetary policy while ruling out explicit or veiled policies of a monetary resolution of debt overhang, such as the OMT. The procedure above is not foolproof in this respect – only national governments and parliaments can trigger the bankruptcy procedure, but if the central bank mops up enough debt of a distressed central government, default will not occur. Conceivably, there is a loophole in that national governments can collude with the ECB and thus thwart the authority of the bankruptcy code. Such collusion leads to a debt spiral that is ultimately unsustainable. Thus, a possible stop gap would be to impose absolute limits on the ECB's power to buy government debt over, say a five-year period. If the limit is reached, either the ECB sell down its debt holding or the bankruptcy procedure is triggered.

10. Conclusion

In the political realities of Europe, debt restructuring is stalled because the “Brussels consensus” denies that it is feasible alternative. Instead, currently the Eurozone relies almost exclusively on monetary policy to resolve the debt overhang problems.

As our analysis based on debt overhang and debt deflation shows, these monetary approaches have clear disadvantages: they are untargeted, unreliable, and do not offer a permanent solution. This paper argues in favor of eliminating the stigma of debt restructuring, and shows that debt restructuring is possible. Its consequences appear to be manageable. The paper also briefly discusses the political obstacles that explain why the political elite is so reluctant to embrace this solution.

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