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# The Debt of Nations: Prospects for Debt Restructuring by Sovereigns and Banks in Advanced Economies

Willem H. Buiter  
Chief Economist  
Citigroup  
London

*For the first time since World War II, sovereign debt sustainability is affecting advanced economies rather than emerging markets and developing countries. It will remain an important market driver in Europe for 2011 and the following few years, as well as become a key market driver in Japan and the United States around 2013 or later.*

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**I**n Europe, the sovereign debt crises in the periphery of the euro area are inextricably intertwined with a “zombie bank” problem and an undercapitalized bank problem. Zombie banks are banks that would be considered insolvent if their existing losses were recognized; but they are kept alive by regulatory forbearance and by posting collateral with, in the case of the eurozone, the European Central Bank (ECB). Undercapitalized banks are banks that would not be insolvent if existing losses were recognized but could be brought to a seriously undercapitalized, insolvent state if a sovereign debt restructuring of any magnitude were to occur in the euro area.

A key in understanding public sector finance and the prospects for a sovereign is looking at public sector balances. The future possibility of assets and liabilities migrating from the private to the public sector, or vice versa, has to be considered. The boundaries are fluid between the state and the sovereign and between the sovereign and the private sector. The socialization of losses in private entities that are either too systemically important to fail or deemed too politically connected to fail has become a well-established feature of the current reality.

The global financial world is adjusting to a world without AAA rated sovereigns. In Europe, Germany may be the last large country whose sovereign debt has a bona fide AAA rating, but even that is a stretch. If Germany had tried to join the eurozone in 2010 or earlier, it would not have been able to do so because it did not meet the perfect debt or deficit criteria. The United States no longer has,

and has not had for some time, a bona fide AAA rating. Unless the U.S. government can reach an agreement on a sustainable tightening of fiscal policy by at least 8 percent of GDP, or more than \$1 trillion a year on a permanent basis, the negative outlook of Standard & Poor’s (S&P) is likely to be followed by a negative credit watch and ultimately by a sovereign downgrade early in 2013.

In the United Kingdom, which is in bad shape in terms of debt and deficits, the government is implementing fiscal tightening of 8.5 percent of GDP, which includes 6 percent in spending cuts and 2 percent in tax increases. As long as the ruling coalition government survives and a program of this severity is adhered to, the market should accept it. If the coalition falls, then the United Kingdom could face the same difficulties as Spain did in 2010.

## Sovereign Vulnerability

I anticipate that the eurozone will experience at least three sovereign debt restructurings because of a mixture of large unexpected deficits and fiscal austerity as well as fiscal adjustment fatigue in those countries that are suffering the effects. Another consequence of these factors is bailout fatigue in the northern eurozone countries that are having to support the Mediterranean states.

**Table 1** shows the general government debt and deficit of some advanced economies. Greece stands out with net debt of 97 percent of GDP at the end of 2010, as does the United States with net debt of 68 percent of GDP. On a gross basis, if the Fannie Mae and Freddie Mac debt is included, then U.S. debt is around 130 percent of GDP, which is similar to Greece’s gross government debt.

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**Table 1. Government Debts and Deficits as a Percent of GDP for Various Countries, 2010**

Type of Debt or Deficit	Eurozone	United States	United Kingdom	Germany	Japan	Greece	Ireland	Portugal	Spain
General government debt	92	93	81	80	198	129	105	93	72
General government net debt	59	68	51	50	114	97	61	63	43
General government receipts	44	32	41	43	33	40	34	40	36
General government expenditures	51	42	51	47	41	48	66.1 <sup>a</sup>	48	45
Balance	-6.3	-10.6	-9.6	-4.0	-7.7	-8.3	-32.3 <sup>a</sup>	-7.3	-9.2
Primary balance	-3.8	-8.9	-7.5	-1.8	-6.5	-3.0	-26.8 <sup>a</sup>	-4.4	-7.5
Cyclically adjusted primary balance	-1.8	-7.3	-5.2	-0.08	-5.5	-0.4	-21.2 <sup>a</sup>	-3.2	-4.3

<sup>a</sup>Value includes recapitalization of the banking sector.

Source: Based on data from the Organisation for Economic Co-Operation and Development.

General government receipts and expenditures vary considerably among advanced economies. For example, U.S. government expenditures are about 42 percent of GDP compared with receipts of 32 percent of GDP. These figures are significantly lower than the average of the eurozone area, although in the eurozone, the difference between expenditures and receipts is less pronounced.

Another important statistic in Table 1 is the cyclically corrected primary balance. If a country has a net debt, then a necessary condition for solvency is running a large primary surplus in the future. This number has to be positive. The minimal correction as a share of GDP that a country must make permanently is to turn the cyclically adjusted, underlying primary deficit into a permanent, structural surplus. For the United States, that figure is a -7.3 percent primary deficit, which is what I used to determine that an 8 percent or more correction of fiscal tightening is necessary in the United States.

A recent IMF (International Monetary Fund) publication supports this view as shown in **Figure 1**. To achieve a 60 percent ratio of gross general government debt to GDP by 2030, significant fiscal tightening is necessary in many advanced economies. For example, in the United States, that translates to a tightening of slightly more than 10 percent of GDP between 2020 and 2030. The United States has the third largest required correction after Japan and Ireland. The required fiscal adjustment (gray bars) in Figure 1 does not take into account the age-related fiscal spending, such as Medicare and Social Security in the United States, that countries will be facing under existing rules and regulation. The white bars indicate the additional adjustment needed.

The market, therefore, does not just consider existing debt and the current underlying noninterest primary deficit. The market also considers the likely future capacity of a country to inflict fiscal pain—to extract taxes, raise taxes, and cut public spending.

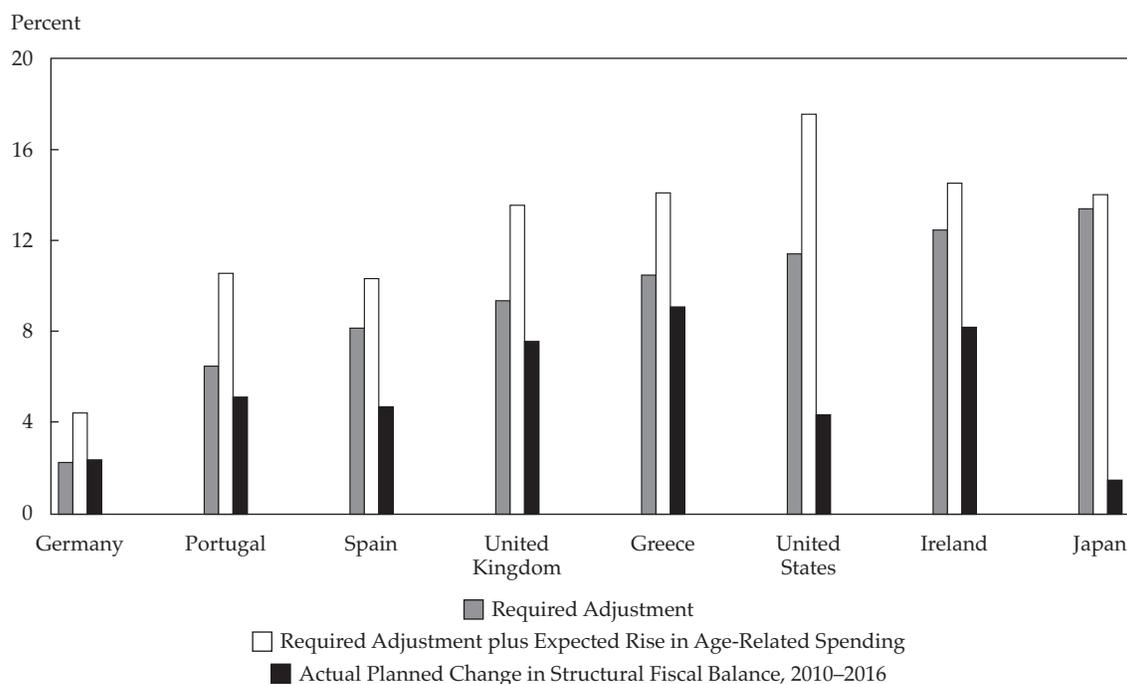
Government solvency is a forward-looking concept; it depends on a country's political willingness and ability to inflict pain on its citizens.

An examination of the banking system reveals that the claims of banks on the public sector are very large in some countries, which is why debt restructuring is a serious matter in many European countries. The fiscal viability of the public sector, however, cannot be understood without knowing how healthy the private sector is. Significant differences exist between countries that have similar public debt in terms of the position of the private sectors, the nonfinancial private sector, and the country as a whole.

For instance, Greece's net external liabilities are almost 100 percent of GDP, but Belgium, where government debt is almost 100 percent of GDP, has vast private financial wealth to counterbalance the debt. In fact, Belgium (as well as Japan) has a net external positive position. Italy is not generally regarded as being highly publicly indebted; it has a rather small external net liability of 20 percent. But the government debt is where the problems are, with its gross debt of 120 percent of GDP. The United States is comparable to Italy in that its net external debt is only 19 percent but its gross government debt is 100 percent. The household net debt figures also vary noticeably among countries: Greece, Ireland, and Spain are not positioned as well as the United Kingdom, the United States, Japan, and even Italy. Finally, bank leverage ratios are higher in Europe than in the United States and slightly higher than in Japan.

## Sovereign Debt and Effect on Banks

There are two kinds of problems in Europe relating the public sector to the private sector. Greece, for example, is a sovereign that has been fundamentally insolvent since the beginning of 2010 and is at risk of

**Figure 1. Required Fiscal Adjustment to Achieve 60 Percent Ratio of Gross General Government Debt to GDP by 2030**

Note: Target for Japan is 80 percent ratio of net gross government debt to GDP.

Source: Based on data from the IMF "Fiscal Monitor," April 2011.

dragging down its banking sector, which has very few problems other than its exposure to its sovereign. Iceland and Ireland have the opposite problem.

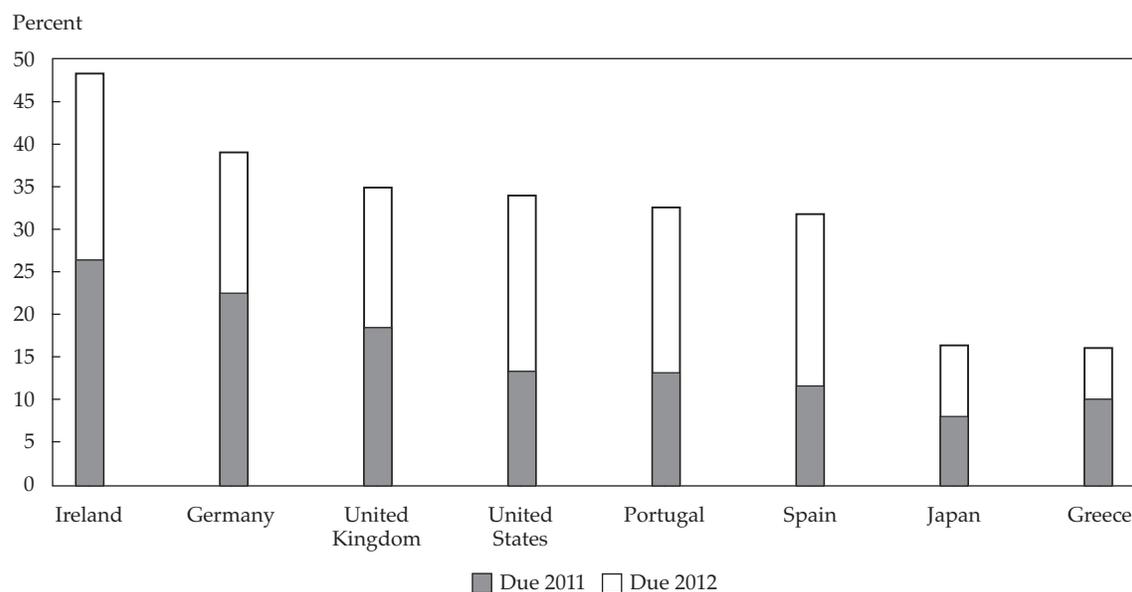
In September 2008, Iceland's government discovered that its banking sector was too big to save with more than 1,000 percent of GDP on its balance sheets and decided to let it default rather than risk its sovereign creditors by attempting to bail out the banks. Ireland also faces a disproportionate banking sector. In Ireland, even narrowly Irish banks have around 500 percent of local GDP on their balance sheets. In contrast to Iceland, Ireland's government did not see them as too big to save and basically guaranteed most of the balance sheets. As a result, the Irish banking sector is now at risk of dragging down into insolvency a sovereign that would have been solvent except for incurring this exposure.

Spain's problem is a more moderate version of Ireland's, although the growth prospects of Spain are not as good as those of Ireland. In terms of the banking problem, while qualitatively similar, its magnitude is much more limited. There is sovereign exposure to the banking sector, but the banking sector is much smaller as a share of GDP than Ireland's is.

As a result of the perception in Europe that the peripheral sovereigns are at risk, foreign banks have been reducing their exposure to peripheral sovereigns. In Greece, Ireland, and Portugal, foreign banks have been significantly reducing their exposure. The same reduction is not happening in countries where people do not have the same concerns about the sovereign, such as Belgium and Italy. Domestic institutions, particularly in Portugal and also in Ireland, have been the lender of last resort, and they buy the public debt when others will not. As a result, in the most exposed peripheral countries, the domestic banking sector's exposure to the sovereigns has been increasing, thus intertwining their fates even more.

Figure 2 shows the medium- and long-term rollover requirements as a percent of total outstanding debt of banks in various countries. Countries that have limited or no access to market funding, such as Ireland, Portugal, and Greece, have large amounts to roll over. Although Greece, compared with the other countries, does not have massive bank rollover requirements, the amount it does have can be too much if the market has lost faith in the sovereign.

**Figure 2. Medium- and Long-Term Rollover Requirements as a Percent of Total Debt Outstanding of Banks in Various Countries, 2011–2012**



I believe the leadership in the euro system is beginning to recognize that sovereign debt restructuring will have to take place in the euro area; such restructuring has not happened since 1948 when West Germany's debt was restructured.

### Plan to Decrease Sovereign Debt

Sovereign debt turmoil in Europe will likely remain a theme in 2011 and will become a theme for the United States and Japan no later than 2013. Greece, Ireland, and Portugal are going to be restructuring their sovereign debt and will likely start with maturity extensions, which is actually no longer called "restructuring." If the coupon remains constant and the principal is not reduced, then it is called "reprofiling." Reprofiling helps and may be sufficient if the underlying problem is liquidity. But if it is a problem of solvency, then haircuts are necessary. Significant net present value (NPV) losses, larger than those that can be achieved simply by lengths in maturity, can be achieved by cutting the coupons, the interest rates, or the notional principal values via buybacks or exchanges. The word "voluntary" is supposed to be coercive in financial restructuring, but it is a highly elastic concept. For example, Anglo Irish Bank offered its subordinate debtholders 20 cents on the euro. It was voluntary, but the alternative was nothing.

The plan was to postpone restructuring by funding the illiquid and potentially insolvent sovereigns—first Greece, then Ireland and

Portugal—until the middle of 2013. By then the European Financial Stability Facility (EFSF) and the European Financial Stabilisation Mechanism (EFSM) will have been replaced by the European Stability Mechanism (ESM). Banks facing difficulties could then sell some of their sovereign exposure to the ECB, which has been buying up sovereign debt. In fact, the ECB currently holds €76 billion in sovereign debt; estimates of the amount of Greek debt it holds are between €40 billion and €50 billion. Debt from less mature banks also ends up in one of the newly created lending facilities or the separate IMF facility in Greece with a capacity of €110 billion. So by 2013, about 50 percent of the Greek sovereign debt would be held either by the ECB or by these facilities, which is better than nothing.

As the banks restructure and raise capital, stress tests every three months conducted for regulators will reveal information about the banks' financial positions relative to each other as time goes on. In addition to the banks gaining more time to structure their balance sheets, the ESM will have preferred creditor status, which will make it less controversial politically. The ESM will include a sovereign restructuring mechanism with a mix of statutory and contractual approaches to restructuring debt.

Policymakers in Europe have the tools to end sovereign debt and banking crises, but they need to act decisively, which they have failed to do so far. By 2013, a special resolution regime for banks, similar to the one administered in the United States by the Federal Deposit Insurance Corporation, should

be in place throughout the European Union. By the middle of 2011, EU legislation will be passed that requires every country in the EU to have in place a similar special resolution regime for banks, designed according to a common European template. These special resolution regimes will then be transposed into national law, probably by 2012, but certainly by 2013. Ultimately, there could also be a European Resolution Authority (ERA) for all cross-border banks in the EU or the European Economic Area. Then all EU member states will have the ability to simultaneously restructure sovereign debt and bank debt.

Unfortunately, Europe's plan for restructuring is failing. One reason is that a combination of fierce fiscal tightening and ineffective monetary policy has led to a lack of growth. Also, the banks in the periphery were worse than expected. Another worrisome issue is that the facilities are not big enough to handle Spain. They can handle Greece, Ireland, and Portugal, but if Spain also defaults, the facilities are not going to be large enough.

One possible solution is to create a fiscal Europe with permanent fiscal transfers and a loss of fiscal sovereignty—a form of fiscal federalism. Another solution is for the ECB to inflate the sovereign debt away. Operations, however, will be restricted to monetizing the debt without creating excess inflation. The only alternative is to continue toward an EU with a sovereign debt restructuring mechanism, a bank debt restructuring mechanism, and a large liquidity facility. The current issues are that the liquidity facility has proven to be too small and the EU special regime and the sovereign debt restructuring mechanism are not in place yet; the latter two, however, will soon become a reality.

## European Sovereigns at Risk

Greece needs, under the original funding plan, between €25 billion and €30 billion from the markets in 2012, and it is not going to be able to get this from the bond markets. Greece could quickly privatize some assets; it has €50 billion scheduled for privatization over the next five years. So, privatization is a potential answer, but it is politically hard. The likely funding gap in 2012 may be bigger than the estimated €25 billion to €30 billion because Greece's 2010 deficit was 1.9 percent of GDP.

Apart from privatization receipts, Greece could try to sell its debt to other nonmarket parties. The Greek IMF facility is fully committed, so the debt could go to the existing EFSF (a euro area lending facility) and the EFSM (an EU lending facility). Going to the EFSF, however, would require unanimous consent of all 17 euro area member states. If

Greece cannot get to market, then it could try to sell its debt to the ECB. The ECB buys sovereign debt outright only when all else fails and when it is the only institution standing between bailing out Greece and multiple sovereign defaults in a European banking crisis.

The fact that central bank money is taxpayers' money is not politically transparent. But fiscal authorities prefer that the central bank take the exposure. The estimated loss absorption capacity of the ECB is at least €2 trillion and possibly €4 trillion. Its official regulatory capital is €10 billion; the euro system as a whole has €81 billion. Unlike a normal bank, the ECB can always pay its bills, even if it has €1 trillion of negative capital on its balance sheet. It would look disorderly, but it is not an impediment to its operations as a money-printing central bank.

In fact, the ECB forced Ireland to use its lending facility because it did not want to keep funding Ireland's banks, which were all insolvent except for one. The ECB also pushed Greece to become a fiscal problem through the lending facility rather than a quasi-fiscal problem. Finally, it has forced Portugal into the lending facility by telling the Portuguese banks that they might not be able to repost sovereign debt to the euro system. As a result, the Portuguese banks refused to buy the sovereign debt and the government had no option but to use the lending facility. The ECB has played a central political role in each of these situations.

One other place that the ECB can get money if it cannot get it from the lending facilities, the ECB itself, or from privatization receipts is from its existing borrowers by extending maturities. I think the most likely scenario to occur before 2012 includes both the maturity extension and reprofiling and possibly some access to the EFSF if the euro area partners are willing.

It is possible that if maturity extension cannot take place, or if the ECB does not save enough money to carry it to 2012, and if unanimity cannot be achieved among the 17 euro members, then help may be sought from a European Union-wide facility. The reason the ECB could possibly get money from the European Union, which has 27 members, rather than the 17 members of the euro area is that the euro area requires unanimity; the European Union requires only a qualified majority.

Other sovereigns that are at risk include Portugal and Spain. Portugal has the poorest growth prospects of any European Union member state. Spain is not at serious risk of sovereign default if it sticks to its current program of structural reform and fiscal policy. It has to show that it can exercise fiscal control over the autonomous regions, such as

the Catalonias. There is a risk that Spain will be presented with a much larger bill for recapitalizing its banks than the €20 billion or €15.5 billion that the Spanish Treasury and central bank have said. It could easily be €120 billion, which could trigger a market response that pushes Spain to the lending facility because the EFSF cannot capitalize banks directly. It has to go through the government.

A breakup of the euro area remains unlikely even with all the sovereign risk. If a weak, peripheral country were to leave, it would be economic suicide for that particular country, not for the euro area. The only conceivable exception would be if Greece leaves to introduce a new drachma. Overnight, a 50 percent depreciation of the new drachma would occur, and Greece would instantly gain a competitive advantage. This move would be good if Greece were a Keynesian economy with rigid money wages and flexible real wages. The reality is that Greece is a distorted classical economy with rigid real wages and flexible money wages. The depreciation would make the situation worse and would be accompanied by higher inflation and the same uncompetitive equilibrium.

## Sovereigns at Risk Outside of Europe

The United States and Japan are two major economies where sovereigns continue to borrow at safe rates despite being fiscally unsustainable, which cannot last. The reason the United States can continue borrowing is the reserve currency status of the U.S. dollar. This status, combined with the size of its economy, gives it a unique depth and breadth of liquidity with its financial markets. The U.S. dollar also serves as a thick buffer against the bond market vigilantes. It is being eroded, however, by a \$1.5 trillion deficit for the foreseeable future.

A moment may arise when the United States moves from a safe haven equilibrium to an equilibrium based on fear: a situation in which democratic

public spending preferences clash with tax preferences. The difference can equal around 11 percent of GDP. The ultimate result will not be inflation or default but fiscal tightening and the application of market discipline through higher long rates and a sharp drop in the U.S. dollar.

The United States is at grave risk of being downgraded based on various scenarios. First, if the 2012 U.S. election results in divided control in the government, then a downgrade will occur and trigger a market response. Second, a subsovereign default could trigger the move from a safe haven equilibrium to a fear equilibrium (for example, if a large, highly visible U.S. city becomes fiscally defunct and is in a state that does not have enough fiscal reserves). With 51 percent of U.S. sovereign debt being held abroad, a sovereign wealth fund that reads a headline about a U.S. city on the edge of default will interpret that news as meaning that the United States is on the edge of default. The subtleties of fiscal federalism are not necessarily understood by the rest of the world. Third, another trigger could be the failure to raise the debt ceiling.

The ability of the governments in the United States and Japan to borrow at risk-free rates despite unsustainable fiscal fundamentals seems likely to end by a revolt from the bond market. I expect that, no later than 2013, they will be looking at rates 300 bps higher than what we see now.

## Conclusion

Sovereign crises are here to stay. In this environment, learn to understand economics without a safe rate; rate analysis and credit analysis will always have to be done simultaneously. Policymakers have the tools to create solutions, but a political capacity to choose the painful solutions is not there. The result is that restructuring will have to occur in a number of countries.

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# Question and Answer Session

Willem H. Buiter

**Question:** Is there a downside to a sovereign default not happening sooner rather than later?

**Buiter:** The downside risk is that if restructuring is postponed, then market paralysis occurs. A bank is not funded if it is expected to be restructured. New, unsecured senior credit is provided if it is expected that the senior credit will be restructured. The restructuring needs to be done as soon as possible or the country will have to rely on public funding.

Many think of restructuring as a bad thing rather than a redistributive issue among creditors, beneficiaries of public spending, and taxpayers. The ECB, of course, does not want a restructuring because it is the most exposed to the sovereigns in question. Its impartiality as a guardian of financial stability is compromised because of its multiple exposures to government debt offered as collateral as well as bank lending and government guarantees.

**Question:** What then is the catalyst for a restructuring to occur?

**Buiter:** New leadership at the ECB could certainly help. Any restructuring will need to be done in an orderly way, which means banks have to be ready or they will have to be restructured as well. I think the most likely trigger will be an unwillingness of the creditors to provide more resources for Greece, or Portugal, or whoever needs them next. The size of the lending facilities is

insufficient, and the ECB is unwilling to act as the sovereignty support of last resort.

**Question:** Is that fiscal role the right role for the ECB to be playing?

**Buiter:** It should not be playing a role, but if a central bank is forced into a quasi-fiscal position, it does not have much choice. The U.S. Fed did the same in the United States. In Europe, it has to be done because there is no fiscal Europe other than a few small facilities and the ECB. In the United States during the crisis, the U.S. Congress initially turned down the Troubled Asset Relief Program, just as Lehman Brothers, AIG, and Washington Mutual were going down.

As a result, panic set in and the Fed acted in a quasi-fiscal way and put its resources at risk. It created such facilities as the Term Asset-Backed Securities Loan Facility (TALF), although it did not use all of these facilities. The government guarantee on TALF, on the private securities that the Fed took on, was only 10 cents on the dollar if the facilities had been fully utilized, which could have been a nearly \$1 trillion exposure. The Fed took on the fiscal risk, and the U.S. Treasury also said no at times, such as in the case of Lehman.

I think it is not the appropriate task for a central bank to take this type of action. It should not act in a quasi-fiscal way; it should only take on risky assets. There is full indemnity or guarantee of the fis-

cal authorities, but Europe does not have the same setup. The ECB is forced to fill the vacuum left by a major design error in the European financial architecture.

**Question:** Do you think that there has been enough emphasis on stress testing of the eurozone banks?

**Buiter:** The facilities to either recapitalize or wind down the banks that are found to be lacking capital need to exist if the stress tests are going to be successful. The first stress test fit onto a half sheet of paper and basically said to not worry. The second stress test provided more information, but its conclusion was inaccurate. For example, it exonerated Anglo Irish Bank, which subsequently faced difficulties.

The stress test will not recognize a sovereign restructuring as part of even an extreme stress scenario. And most of the sovereign debt will not have to be marked to market when the capital loss on sovereign debt is calculated through losses in market valuation.

There is going to be a third stress test, and the good news is that some banks will be required to raise additional capital. In anticipation of the test, banks have been raising capital. Any additional capital that is raised for whatever reason will put a bank in a better position to deal with the sovereign debt when it comes.