Introduction by

Hans-Werner Sinn

Professor of Economics and Public Finance,
University of Munich; President of the Ifo Institute

Ladies and Gentlemen,

I would like to start with a diagram of the crisis. The left-hand side (see Figure 1) reveals the dispersion of interest rates before the euro was introduced. After the euro was introduced exchange rate uncertainty disappeared and the interest rates converged. This triggered a process of rapid economic growth because cheap money was available to the southern countries. On the right-hand side of the same figure you can see how the interest rates have once again spread significantly in the past few years, with Greece paying the top rate and Germany the lowest rate (see the red curve). By Wednesday the 28th of April 2010, the interest rate for Greece had risen to 38 percent. That was basically the day on which Greece went bankrupt.

What happened next? By 7 May 2010, a Friday one week later, the interest premium had increased even further, and on Saturday and Sunday the EU designed its rescue package, basically obliterating the no-bail-out clause of the Maastricht Treaty, because otherwise, it was claimed, the world would fall apart. The idea was that we had to be generous, that this would be the solution, and that the markets would calm down – which they did, but only for a while (until 1 June). The interest rate fell to 8 percent in Greece.

Unfortunately, the rescue package simply did not work. The situation now is more extreme than when the EU designed the rescue package; and the world still has not fallen apart, although we might be close to this in a sense. We are in the midst of a crisis in Europe. How the European countries react will have implications for the new shape of Europe; a new European entity will emerge out of this crisis, but we do not really know what it will look like.

What happens over the course of this year will be decisive. The European Financial Stability Facility (EFSF) in Luxembourg will have to be finalized by the end of this year, as the European countries agreed. And that will bring us a new Europe.

Role of the government

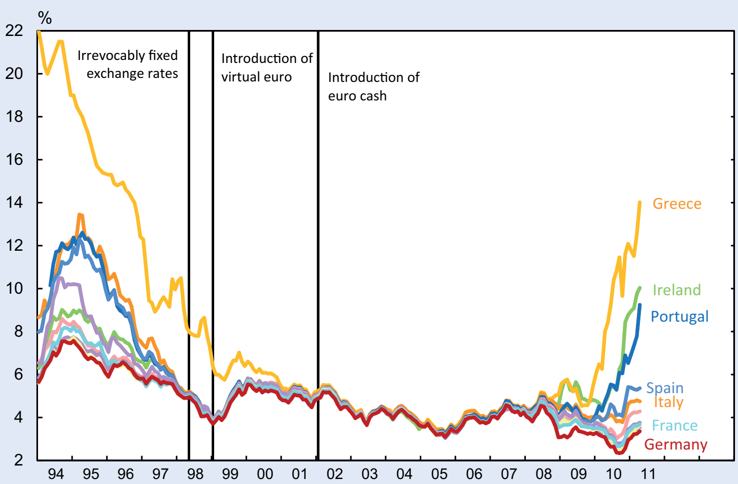
The role of the government can best be understood in Musgrave's terms of allocation, distribution and stabilization, which I will go into. I will also talk about the public debt problem resulting from the crisis and whether Europe will turn into a transfer union or not.

Allocation

What economists mean by allocation is that the government provides goods that the private sector cannot produce, for example, infrastructure. These are so-called *public goods*, which are not divisible, but are consumed commonly by the people and therefore cannot reasonably be provid-

Figure 1

Interest Rates on Ten-Year Government Bonds



Source: Reuters EcoWin, Government Benchmarks, Bid, 10 year, yield, close; Eurostat.

ed privately. Today Europe has to provide some of these goods in terms of cross-border traffic lines. A broadband network, for example, could be a government function. It is not too profitable; we don't need too many overlaying networks, and the government has to subsidize it at least.

Regulation is one of the government functions. The market economy is not a system in which everyone can do whatever they want. On the contrary, a market economy is a game with clearly defined rules, and these rules have to be made by the government. Among the rules that obviously did not function were those set out for the banking sector. The Basel system failed miserably because it required far too little equity for risky assets like Greek government bonds. The risk weights for government bonds were zero, and this was one of the reasons why the banks invested so heavily in government bonds and why so much capital flowed into the southern European periphery, which is now stuck in a crisis.

Some people claim that, because we opened up the borders within Europe, we now need minimum wages. Economists do not see this sort of regulation as being a government function. If high-wage countries seek to protect their wages from immigration from Eastern Europe with minimum wages, then immigration will fuel unemployment in the domestic population. The immigrants will come, take jobs, and drive their domestic incumbents into unemployment. This is a dangerous development, and yet some people in Germany nevertheless would like to see the introduction of a minimum wage. Millions of people will migrate within Europe over the next decade. Many of those who moved to Spain – 6 million in the last decade – are unemployed now. Those who went to Ireland and Britain largely face the same fate. However, this group represents a mobile stock of people who have already decided to migrate, so they may well now travel to other parts of Europe, where the economy is booming. Minimum wages would be the worst thing to implement. We need the migrants urgently, but in order for immigration to be a success story downward wage flexibility is necessary to generate jobs for the immigrants.

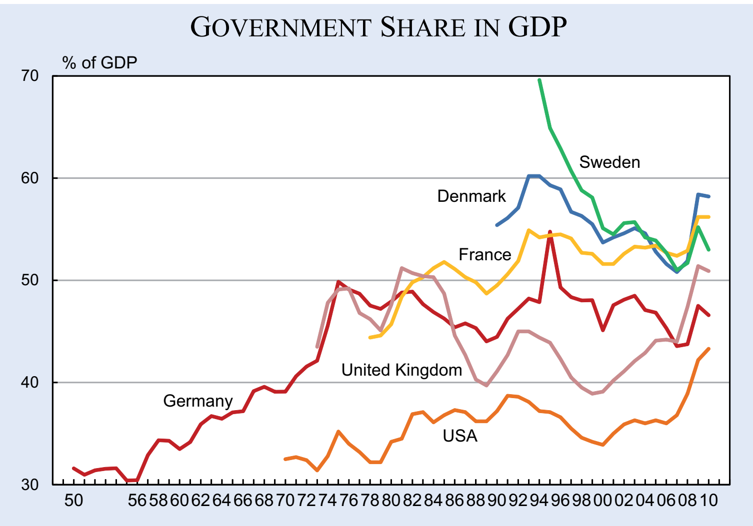
Opinions are divided about the role of *firms run by the government.* Water provision is clearly a government function because you cannot establish competition in this sector. A comprehensive study of the success of European privatization suggests that privatization makes sense where you can establish competition (Köthenbürger, Sinn and Whalley 2006). If there is no competition, a regulator appears to be needed who, however, can never be perfectly independent, but may also be inclined to follow the preferences of the industry. There are good examples of government firms that have failed, such as the German state banks. Conversely, there are private toll roads in Europe that do not work, for example in Italy. Moreover, the private railways in Britain were a nice idea in principle, but are a catastrophe if you use the system. The Thatcherite period is over, and we now have to rethink and rebalance our approach with regard to excessive privatization.

There is currently considerable discussion about green energy, and the government wants to decide how the market should provide the energy we need. I agree fully that we need a post-Kyoto agreement in which all countries participate, so as to control what Nicholas Stern called "the greatest externality ever", namely global warming. But what countries are doing at the moment is not exactly the right thing. We have feed-in tariffs in addition to an emissions trading system. This feed-in system is completely useless. It has no impact on the aggregate CO_2 output, since we already have full control *via* the emissions trading system. Feed-in tariffs in Germany not only lead to green energy crowding-out, but also to an emigration of emission certificates from Germany to other countries, allowing them to emit exactly as much additional CO_2 as Germany saves due to its feed-in tariffs. Thus the feed-in tariffs exert a zero-point-zero effect on CO_2 output in Europe. They are simply a waste of money. German electricity consumers spend 12 billion euros on feed-in tariffs, with 17 billion forecast for next year and the figure rapidly projected to exceed 20 billion euros.

It is also not the function of the government to decide to replace nuclear power with wind turbines. Given that we have the emissions trading system, the market can make this decision. Even if we replaced nuclear power plants with fossil fuel plants, there would not be any additional CO_2 output as a result of the emissions trading system. The market will find the optimal allocation. Wind turbines will be erected in the places best suited for them, like Brittany for example, where there is a lot of wind, rather than in Germany. Moreover, solar panels will be put up because the price of emission certificates is being driven up, but not in Germany where the sunshine is comparatively rare. They will be set up in the Extremadura in Spain, which is a much more efficient location.

There are lots of useful things for governments to do, as first described by the German economist Adolf Wagner in the 19th century. According to Wagner's law, the government's share of GDP gradually increases with industrialization (see Figure 2). Around 1900, the German government share of GDP was around 10 percent, whereas it is now approaching 50 percent. Even in Germany's post-war period, Wagner's law can be observed very clearly. There is a gradual increase of the government share of GDP from 30 percent in 1950 to today's 50 percent. Even the United States, which used to have a low government share of GDP, is now approaching the level of Germany and other European countries. This is due to fiscal rescue operations and the stagnation of the US economy. When I wrote my book on the Germany economy in 2003, I observed that a few years earlier Britain had a government share of only 39 percent of GDP, while Germany's was 49 percent. However, all that has now changed: Britain has a government share of GDP of over 50 percent, while Germany's share has now been reduced to 47 percent. In Sweden – an amazing development – the share decreased from 70 percent to about 54 percent. While France, with 56 percent – 9 percentage points more than Germany – has now overtaken Sweden. Sweden is no longer the primary example of a socialist state in Europe: this role is now played by France. There is only one country in Europe with a larger government share of GDP: namely Denmark, with 59 percent. If one thinks of a range between 0 and 100 and calls 0 a pure market economy and 100 a pure communist country, what are these countries closer to?

Figure 2



Source: Statistisches Bundesamt; Eurostat.

Of course, pure communism has never existed. The market always played some role in Communism. Similarly, there has never been a pure market economy; the government has always accounted for a share of GDP.

Distribution

Another function of the government is distribution. The government provides social security, which Bismarck introduced in the 19th century to pacify the left. The United States has finally realized that it needs a mandatory health and pension insurance system. Europe, on the other hand, certainly needs co-funded pension systems. Since Europeans suffer from a seriously low birth rate, they cannot simply rely on their children to pay for them. Given that there are too few children, pensions will be too meagre – unless there are more savings. Granted, saving is not that easy, considering that investments are very risky at the moment.

Taxation is also an important issue. Hidden progression is an on-going theme. Inflation and normal growth automatically increase the government share in GDP, which thus provides support for Wagner's law. It is not, however, appropriate for the government to participate to a greater extent in economic growth than the private sector. This is why the tax schedule should be adjusted automatically every year. This is an important reform that needs to be implemented. The high marginal tax rates on labour are a big problem in Germany. The overall marginal tax rate on the value-added produced by labour is two-thirds. For a normal worker, two-thirds of what s/he generates in value with his own work is captured by the state. Another important issue that needs to be discussed is capital income taxation vs. consumption taxation.

How we deal with tax-financed social benefits is also important. Germany and most other western countries, for example, largely rely on the idea of replacement incomes – incomes which the government provides if you don't have a job. This action turns the government into a competitor in the labour market, since the money the government provides under the condition that the recipients do not work is a kind of minimum wage. The private sector will not find workers unless companies pay as much as the government. That was a huge drawback for Germany until Chancellor Schröder introduced the Agenda 2010, which changed the system by reducing the replacement incomes and abolishing the second tier of the unemployment benefit system *(Arbeitslosenhilfe)*. There are now 1.5 million wage-subsidy recipients in Germany. These are working people who receive additional money from the government. This is the idea behind the so-called 'activating' of social assistance.

Another topic to discuss is how we treat immigrants. It is a sacred cow in Europe that we stick to the residence principle. If someone moves from one EU country to another he receives the social benefits according to the rules of his or her new country of residence. But why aren't such benefits based on the country that he came from? After all, all EU countries adhere to the EU's social norms, and all have social systems providing minimum income guarantees. Why don't we give every EU citizen the right, if he is poor, to collect social welfare from the government and consume it wherever he wants? When it comes to welfare benefits, I think we should consider changing the residence principle to the home-country principle, because if we don't, there will be competition between the welfare states and erosion of welfare benefits.

Stabilization

The third big function of the government is stabilization. For a long period of time many people thought this function was superfluous because the markets are stable or governments would even destabilize the economy further. But now the general opinion is that governments might be useful after all. Only few economists denied the role of Keynesian demand management at the peak of the crisis in 2008 and 2009. Thus, there was general agreement that the one-trillion euro debt incurred by governments around the world to fight the crisis was justified. Incidentally, a further 4.9 trillion euros was granted as credit facilities for banks. These were strong interventionist measures to help the world recover more quickly from the most severe recession of the post-war period.

We economists are often blamed for not having predicted the crisis, but no one gives us credit for the quick recovery from it. In fact, the actions taken during the crisis were largely in line with the formula described in most European textbooks on macroeconomics: deficit spending. If we managed to recover so quickly, instead of repeating what happened between 1929 and 1933, it was thanks to economists.

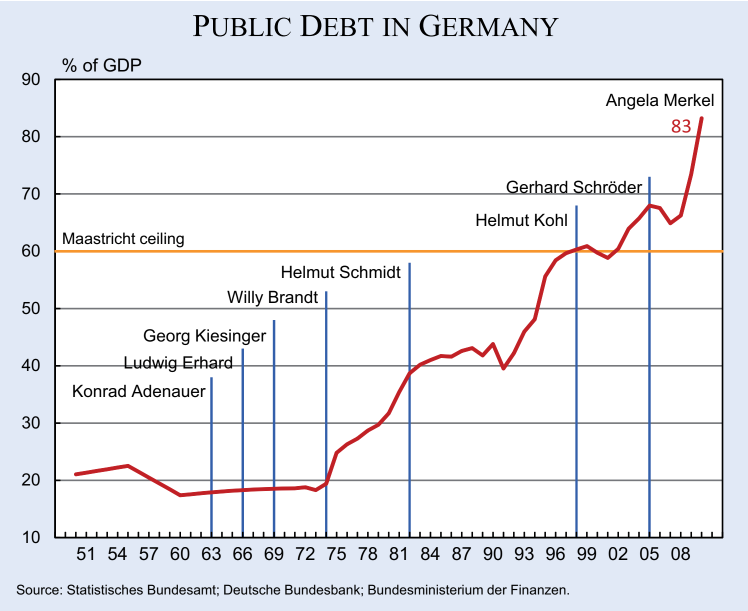
And now we have country bail-outs. The bank bail-outs cost a lot of money. It was not that the 4.9 trillion euros were completely spent; this was a facility which, to a large extent, was not made use of and is still available. That is one of the reasons why we do not have to be afraid that another Lehman Brothers will occur. These rescue facilities could easily be activated to prevent any systemically relevant bank from failing.

The country bail-outs provided liquidity, but they have also been used to shore up solvency. This is not a matter of semantics. A country can also be temporarily unable to service its debt, so it has a financial problem and requires help. This does not mean, however, that the financing of a country should continue forever. Greece has an aggregate consumption level – government and private sector combined – that is 17 percent higher than its aggregate income level – with income here being defined as disposable income, including transfers from the EU to Greece. If we continue to finance this level of consumption for a longer period, we will not be providing liquidity help. This will constitute help to maintain a living standard and to prevent insolvency, even although the country is effectively bankrupt. I said a year ago at this conference when Claude Trichet was sitting here in front of me that Greece is insolvent; I repeat that now. The longer we wait to acknowledge this fact, the more difficult the situation will become.

Public debt problem in detail

Let me now turn to the public debt problem. Milton Friedman said that with every crisis – even minor ones – government debt will continue to rise because of deficit spending during the crisis, while the reverse does not occur once the situation has improved. Figure 3 shows how the public debt-to-GDP ratio has evolved in Germany. It was 20 percent until 1970, when Willy Brandt came to power. During his government, decisions were made that laid the foundation for this enormous increase. Then came Helmut Schmidt's period, but he was just carrying out the policies of the previous social-liberal coalition. During this period, the German debt-to-GDP ratio doubled from 20 to 40 percent. Now we are at the record level of 83 percent. The curve is steeper than it

Figure 3



Source: Statistisches Bundesamt; Deutsche Bundesbank; Bundesministerium der Finanzen.

now saving, because its deficit is no longer 15 percent, as it was last year. In fact, if you have a deficit of 10.5 percent, you are not saving: you are increasing your debt. Spain and Portugal, in turn, have a 9.2-percent deficit.

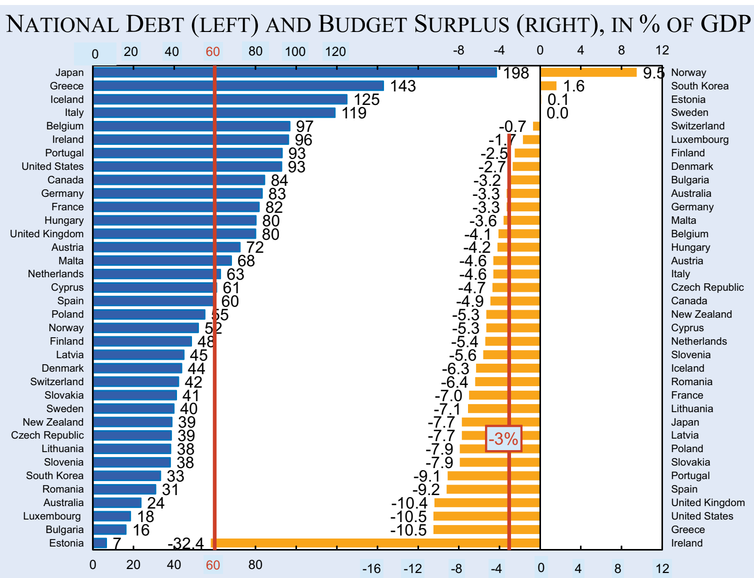
In terms of debt-to-GDP, Italy is at 119 percent, compared to the United States at 93 percent, which is rapidly approaching the 100 percent line. The similarity between the southern European countries and the United States is rather striking. The origin of their problems is also similar: the United States was, and is, living beyond its means, importing foreign capital to the tune of 5 percent of GDP per year. If you add that figure to the explosion in money supply, this is an extremely dangerous situation. The United States cannot continue in this vein year after year. Italy was a relatively good performer throughout the crisis but is now under pressure, and Germany, with 3.3 percent growth, looks good, but I will come back to that later.

has ever been in the history of Germany. Other countries are not doing much better.

Figure 4 depicts the debt-to-GDP ratio for the OECD countries at the end of 2010. The 60-percent Maastricht Treaty criterion was never taken seriously in Europe: Greece's ratio has soared to 143 percent, Ireland's to 96 percent and Portugal is about the same. Spain, despite its huge labour problems, actually looks fairly good. Looking at the deficit-to-GDP ratios last year, we can see that the 3-percent line of the Stability and Growth Pact was breached quite significantly: Ireland had a deficit ratio of 32 percent and Greece of 10.5 percent. Some claim that Greece is

The violations of the 3-percent limit are not new. Since the euro system was established, there have been 96 cases of a country exceeding the 3-percent deficit limit. In some cases this was allowed because of a recession, but even allowing for these exceptions, there were still 67 cases of breaches of the 3-percent rule. According to the original formulation of the pact, some sort of sanction should have been applied. In reality, no sanction was ever levied. This is not surprising. The 'sinners' and the 'judges' were one and the same: the judges were the Ecofin Council, and the sinners the finance ministers of Europe, members of the same council. A system of self-control will never work. This is already alarming, but the truth is that there is also a lot of hidden debt in the system that is not shown in the statistics.

Figure 4

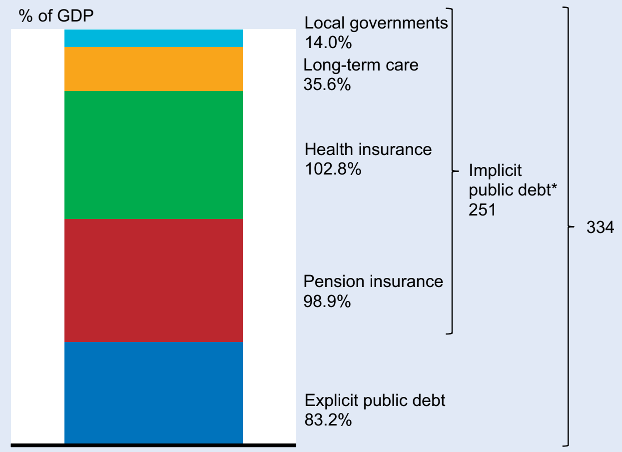


Source: European Commission; OECD Economic Outlook.

The deficits we referred to do not capture the whole situation.

Figure 5

GERMANY: EXPLICIT AND IMPLICIT PUBLIC DEBT IN 2010



* 2008
Source: Deutsche Bundesbank, database; Raffelhüschen and Moog (2010), "Ehrbarer Staat? Die Generationenbilanz".

Germany, for example, had a deficit of only 3.3 percent in 2010, but if you calculate the increase in its debt and divide it by GDP, this figure is not 3.3 percent, but 12.8 percent. Why is this figure so large? Basically as a result of the bad banks that were set up to rescue the German banking system and because some so-called toxic assets were taken over by the government in exchange for government bonds. It is claimed that these toxic assets have the same value as the government bonds, so they do not contribute to the deficit. But what happens if these toxic assets have to be written off upon maturity? Would they show up in the deficits? No, by the rules of Eurostat they will never show up in Germany's recorded deficit, as write-off losses will only be counted if they occur before maturity, but no one forces the government to show these losses prematurely. No rule in Europe that refers to the deficit criterion, including the German constitutional rule recently adopted, is able to impose any limit on this sort of operation.

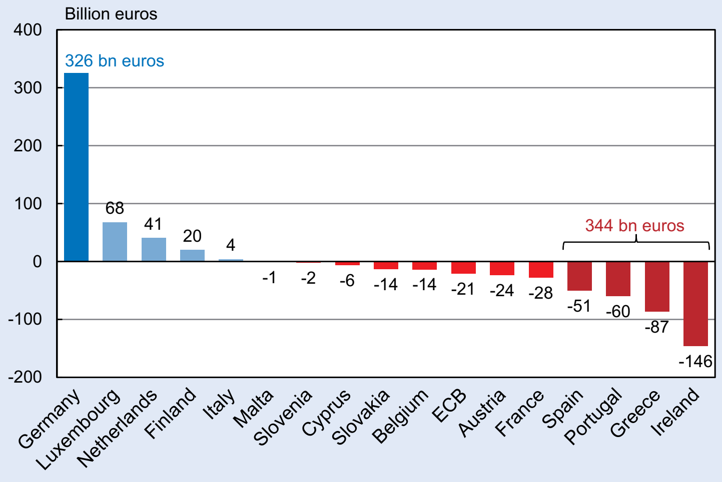
The next problem is the hidden debt in the social security system. Whether a person holds a government bond and the government has to pay back that bond, or s/he pays into the social security system and has a claim against the government, against future generations, this amounts to the same thing. In economic terms it is an implicit government debt. How big is this debt? In Germany the official debt amounted to 83 percent of GDP in 2010 (see Figure 5). The pension insurance debt as calculated by Raffelhüschen and Moog is 99 percent. The health insurance debt is even bigger. So it is an intergenerational transfer. When you are young and pay into the system, you implicitly build up a claim against the next generation to provide medical care for you without you having to pay for it in full at that time. This claim is a government debt for the public health insurance system. Long-term care and other obligations of local governments amount to an implicit public debt of 251 percent of GDP, as calculated by Raffelhüschen and Moog (2009) for Germany. Thus, the country's total debt-to-GDP ratio is not 83 percent, but 334 percent.

The next hidden debt item is the European Central Bank's Target debt. The function of a central bank is to create money and lend it to the private sector. During the European crisis, the peripheral countries borrowed more from their central bank than they needed in terms of currency for circulation in their respective countries. They used the funds to cover their balance-of-payments deficits. In the last three years, lots of extra euros were created in Spain, Portugal, Ireland and Greece and lent to commercial banks, which then lent them to private borrowers who bought goods and/or assets from the eurozone's core countries. The extra euros moved to the core countries, crowding out the money normally created there by way of giving refinancing credit. It was not an inflationary exercise, but it meant that part of the money circulating in Germany originated from credit in Greece. These cross-border net money flows are measured by the so-called Target accounts. If money comes to Germany *via* this route and the Bundesbank has to issue this money, because the Greeks buy goods from Germany, the Bundesbank does not receive a claim against the banking sector as is normal when it issues money, but gets instead a claim against the ECB, and the ECB in turn gets a claim against the Greek Central Bank. The Bundesbank is effectively granting loans to the Greek Central bank. In total, the loans granted by the Bundesbank to other eurozone countries to date amount to over 320 billion euros. Ireland, Greece, Portugal and Spain have also taken on liabilities. Germany's claims on the ECB amount thus to 326 billion, while the liabilities of the GIPS countries to the ECB have soared to 344 billion (see Figures 6 and 7).

The process was basically a transfer of credit through the ECB system. If a Greek wants to buy a car, he

Figure 6

TARGET2 POSITIONS IN THE EURO SYSTEM (DEC. 2010)



Source: Whittaker, John (2011), Intra-eurosystem debts, Monetary Research, Lancaster University.

goes to the bank. The bank has no money and can't borrow in the European banking market. So what does it do? It calls the Bundesbank and says, "Please send some money to Daimler-Benz so it can deliver the Mercedes". This is a caricature, but it's basically what happened. This is how the Bundesbank's credit developed. It was zero before the crisis, because everyone thought the market would finance any current account deficits, but the markets were unable to do this. Since the autumn of 2007 the southern countries have not only received money through the markets, but also through the Eurosystem.

Is the EU a transfer union?

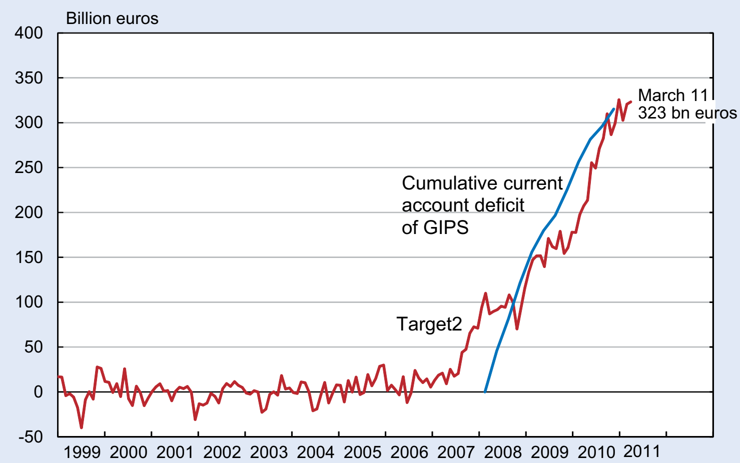
A current account deficit measures that part of the excess of imports of goods and services over exports that is not financed by gifts from other countries or other institutions. So it is the amount of capital import or external credit a country needs. Let us take the current account deficits of the peripheral countries into consideration. People say that Greece has to seek shelter under the rescue umbrella because the markets are no longer willing to finance it. This is wrong! It was not the markets that have financed Greece for the past three years; it was the ECB. And it does not want to continue doing so. Actually the ECB cannot continue this sort of financing without heavy distortions to the balance sheets of the national central banks. In fact, the stock of refinancing credit underlying the German monetary base is shrinking year by year, and the aggregate stock of refinancing credit in the non-GIPS countries in Europe amounts to a mere 180 billion euros. If they continue in this fashion for another two years, this stock of refinancing credit will be used up. Thereafter, the central banks will have to sell their gold or borrow funds from the commercial banks to sterilize the money flowing in from the periphery.

This is the reason why the second European rescue program (ESM) has been introduced: because the first bail-out system is drying out, at least in terms of the rules that constitute orderly balance sheets of the national central banks. As the ECB urged the eurozone countries to set up voluminous public credit programs for the periphery, it effectively paved the way towards a transfer union.

This is the story of Europe. Under the euro, interest convergence meant huge flows of credit to the southern countries, inflating their economies and leading to rapid growth and large current account deficits. Now these countries are too expensive and no longer competitive. That is fine if someone finances them, but the market has stopped doing so. The ECB stepped in for three years,

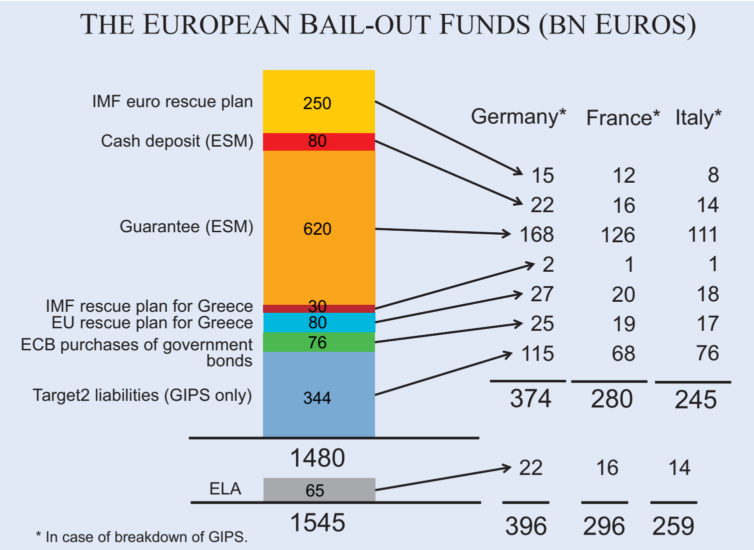
Figure 7

BUNDESBANK TARGET2 CLAIMS



Source: Eurostat; Deutsche Bundesbank.

Figure 8



Source: Compilation and calculation by the Ifo Institute, numbers as of May 2011.

but is no longer enthusiastic about continuing to provide credit, to put it mildly.

The next step will undoubtedly be a European transfer union, because the stock of foreign debt is growing year by year and is no longer controllable. Given the parlous state of some countries' finances, we will have to give them our money so that they can service their debt. I firmly believe that, politically, there is no real exit possibility for Europe. We will definitely go in this direction. In total, 1,480 billion euros have been committed to supporting the countries in stress (see Figure 8). If the worst comes to the worst, Germany will lose EUR 374 billion, France EUR 280 billion and Italy EUR 245 billion. Of course, this is an extreme scenario. A sovereign default will probably not occur, but what will occur are further rescue operations: a transfer union to prevent the sovereign defaults from happening.

There is no easy way out of this problem. The only solution for countries in crisis is fiscal consolidation and real depreciation achieved by cutting wages and prices so as to become competitive and run current account surpluses.

The EEAG has proposed a three-stage crisis mechanism that combines generous liquidity help with a gradual closing of the credit tap as a country moves from a liquidity to a solvency crisis. Chancellor Merkel has emphasised many times that the Greeks should change their behaviour that they should retire later and so on. I think this is the false policy approach. Rather than telling the afflicted countries what to do, Mrs Merkel should gradually close the credit tap. If the money ceases to be available, the Greeks' behaviour will change. Opening the tap, letting the money flow and then tell the countries that they cannot use it is not an effective policy; but that is essentially what we are doing in Europe with the ESM and the Euro Plus Pact.

Some conclusions

As a result of the crisis, the United States is steadily, though slowly, moving towards the European governments' share in GDP. This development is actually useful, because the United States has an underdeveloped government sector and underdeveloped social security. It would do better if the country had more social stability. In difficult times social stability is especially necessary, and without a state social security system, there could even be riots in the United States.

We definitely need a new system of banking regulations; but at the same time we need much more flexibility in the labour markets, especially in the southern European countries. Wages have to be flexible in a currency union, because within the union there are no flexible exchange rates. If we now fix wages it will be a catastrophe. Flexible wages are the only possibility for the eurozone to survive. Those countries that run current account deficits must offer cheaper labour in order to be competitive, and Germany, which has a current account surplus, has to become more expensive. Fixing the wages at the level of the bursting bubble is a recipe for disaster.

The ECB's policy of providing generous refinancing credit was defensible in the crisis – but the world economy has recovered in the meantime. What remain to be solved are the idiosyncratic problems of individual countries. These problems have to be solved with fiscal measures, and not by the ECB. My prediction is that we are now at a stage in history where we are seeing the emergence of a new European state which basically is a transfer union. I see no other way out. It is not that I want it. As an economist I strictly distinguish between a prediction and a normative statement. The only possibility that could work would be the EEAG proposal for a crisis mechanism in Europe. Last year Chancellor Merkel repeatedly said that we need a crisis mechanism, an insolvency procedure, something that makes clear how much money is available, under what conditions, and to whom it will be disbursed. But if you read the documents that are now being prepared by the EU you will see that they are only about money provisions, with conditionality to be decided later. Given this situation, there is only one conclusion to be formed: the money will be used up, we will continue to throw good money after bad, and governments will say that we do not have any other option otherwise the world will fall apart. Thus we will collect additional money and continually postpone the problem until the next government takes over. Meanwhile the problem will become bigger and bigger, and the repayment probability smaller and smaller. In the end there will have to be a debt moratorium or, its equivalent, namely an outright transfer union.

References

Köthenbürger, M., H.-W. Sinn and J. Whalley (eds. 2006), *Privatization Experiences in the European Union*, MIT Press: Cambridge MA.

Raffelhüschen, B. and S. Moog (2009), "Ehrbarer Staat? Finanzpolitik in der Krise", *Zeitschrift für Staats- und Europawissenschaften* 7, 520–538.