

A NEW CRISIS MECHANISM FOR THE EURO AREA

2.1 The European debt crisis

The European debt crisis followed the US financial crisis with a delay of one and a half years. While its first signs were visible in November and December of 2009 when the rating agency Fitch downgraded Ireland and Greece, it culminated on 28 April 2010 when the intra-day interest rate for two-year Greek government bonds peaked at 38 percent. Since then capital markets have been extremely unstable, showing signs of distrust in the creditworthiness of the GIPS countries: Greece, Ireland, Portugal and Spain. The European Union reacted by preparing voluminous rescue plans that, at this writing (January 2011), have been resorted to by Greece and Ireland.

2.1.1 The rescue measures of May 2010

Between 7 and 9 May 2010, the EU countries agreed on an extensive rescue package targeted on fiscally distressed countries in the euro area. At the same time, the ECB, referring to Article 123 TFEU (Treaty on the Functioning of the European Union), began to purchase government bonds of distressed countries. Table 2.1 presents an estimate of total financial commitments, including ECB interventions, disentangling the amounts of liabilities to be borne by Germany and France, the two biggest guarantors of the system.

As part of the European Financial Stability Facility (EFSF), which was set up as a special purpose entity in Luxembourg, credit aid is made available, outside

the EU regime, for up to a total of 440 billion euros. Of this amount, Germany and France guarantee up to 147.4 and 110.7 billion euros, respectively. The prerequisite is unanimity in the diagnosis of impending insolvency among the aiding countries and the IMF.

Under Article 122 TFEU (natural disaster paragraph), additional loans for up to 60 billion euros may be granted directly via the European Commission. The German and French contributions to these loans are also included in Table 2.1, on the basis of the contributions by these countries to the total EU budget in 2009.

In addition, the table accounts for the contributions that Germany and France indirectly grant through the IMF, in proportion to their respective ownership shares. Germany, for example, contributes 6 percent or 14.9 billion euros via this channel. Of the partly disbursed loans to Greece, the country bears a share

Table 2.1
Amounts of liability (in billion euros)

	Country alliance	Germany	France
EFSF	440	147.4	110.7
EFSM	60	11.3	11.1
IMF aid (parallel to EFSM und EFSF)	250	14.9	12.3
EU aid Greece	80	22.3	16.8
IMF aid Greece	30	1.8	1.5
ECB government bond Purchases (14 January 2011)	76	20.7	15.5
Total	936	218.5	167.9

Notes: 1st line: ECB capital quotas (euro area without Greece), raised by 20 percent. 2nd line: Share in EU budget 2009. 3rd line: current IMF capital quota (5.98 percent for Germany and 4.94 percent for France). 4th line: ECB capital quota (euro area without Greece). 5th line: like line 3. 6th line: ECB capital share (euro area).

Sources: *EFSF Framework Agreement*, 7 June 2010, www.bundesfinanzministerium.de, 5 July 2010; EU, *The European Stabilization Mechanism*, Council Regulation (EU) No. 407/2010 of 11 May 2010 establishing a European financial stabilisation mechanism, www.eur-lex.europa.eu, 7 July 2010; European Commission, *EU Budget, 2009 Financial Report* (Luxembourg 2010), p. 62; ECB, 1 January 2009 – *Adjustments to the ECB's Capital Subscription Key and the Contribution Paid by Slovakia*, Press release 1 January 2009; ECB, *Consolidated Record of the Eurosystem*, several press releases, www.ecb.int; IMF, *Updated IMF Quota Data – June 2010*, www.imf.org, 5 July 2010. Ifo Institute calculations.

of 28 percent (ECB quota) and 6 percent of the parallel IMF aid for Greece, according to its IMF quota. The corresponding shares for France are 21 percent and 4.9 percent.

By the same token, these two countries participate in the ECB government bond purchases, amounting to 76 billion euros, according to their respective quotas in the ECB capital. These are potential liabilities, for which, if the bonds end up not being serviced, the ECB will suffer write-downs that will reduce the seignorage dividends paid to the finance ministers of the euro-area countries or force the ECB to demand a capital increase.

As a consequence of the decisions of the ECB and the EU countries of 7 to 9 May 2010, by January 2011 Germany's potential liabilities amounted to 218.5 billion euros and France's liabilities to 167.9 billion euros (out of 936 billion euros in total).

As a special purpose entity, the life of the EFSF was initially limited until 30 June 2013. Of course, loans given before June 2013 could have been brought to maturity, de facto extending the effects of the EFSF beyond its initial statutory end-point (the maturity of the EFSF loans is not officially restricted). However, on 17 December the EU countries agreed to extend the EFSF indefinitely under a new name and with new governance rules and not to use the EFSM at all. This will be discussed below in Section 2.5.2.1. Similarly the activities by the ECB have no official time-limit constraint. This will be discussed in Section 2.6.2.

2.1.2 Interest spreads

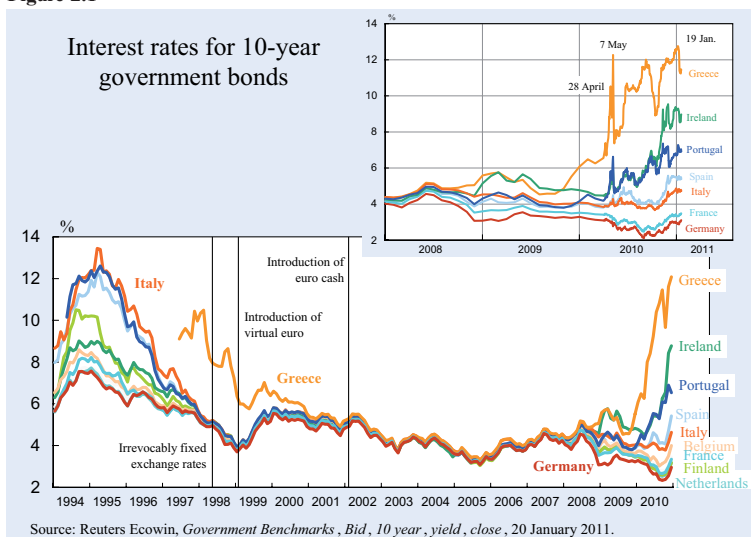
The extensive rescue measures were caused by rapidly rising interest spreads on government bonds, as shown in Figure 2.1. This figure reports interest rates on 10-year government bonds of several euro-area countries before and after the introduction of the euro. It is evident that interest rates were widely dispersed before the plan to create the euro became completely credible, between 1996 and 1997, at which point they converged rapidly and sharply. Only after 2007, as a result of the financial

crisis, have they been again drifting apart, as can be seen on the right-hand edge of the graph. In 1995, the weighted average of the Spanish, Portuguese and Italian bond rates were exactly 5 percent above the German rate, because the buyers of these bonds wanted to be compensated for the combined risk of depreciation and default. The convergence phase began around 1996, when the Stability and Growth Pact was agreed upon, and expectations grew that the euro was imminent and the exchange rate risk would vanish. During this phase, the vanishing depreciation risk was associated with a vast underpricing of default risk. This phase ended in autumn 2008, when after the demise of Lehman Brothers, doubts about the creditworthiness of individual European countries emerged.

Investors recognised that the euro did not (and could not) guarantee that the interest payments promised to investors would actually be paid in full by the debtors, and started to revise their assessment of default risk of bonds issued by different governments. In a well-functioning capital market, of course, default risk must be compensated for with an interest surcharge, since the expected interest payment is below the rate agreed in the loan contract, as a function of the probability and the size of default.

The rescue actions agreed between 7 and 9 May 2010 were initially successful in reducing the interest spreads, but their success was short-lived. The political and institutional context of the rescue could do nothing but feed fundamental doubts about the credibility and the overall extent of the commitment by EU countries. In any case, actions were limited to a three-year intervention

Figure 2.1



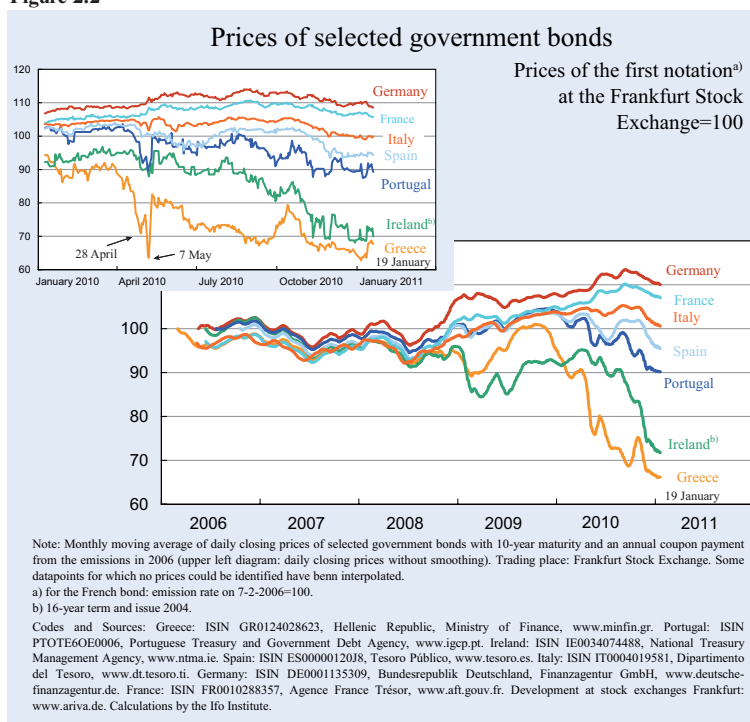
horizon. Even if fully credible, they could not really protect 10-year bonds. When investors realised the deficiencies in the rescue plan, spreads increased again and on many days even rose above the level reached before the agreement of the EU countries. On Friday, 7 May 2010, the average interest spread over Germany's for the countries protected by EFSF (all euro-area countries except Greece, weighted by the GDP of the respective country) amounted to 1.08 percentage points. Thereafter, the average spread declined for several weeks, but as early as June it had increased again to 1.10 points. In September it averaged 1.08 points, and in November 1.27 points. These spread levels are way above those experienced during the initial, stable period of the euro. In this initial phase, the average spread was only 0.4 percentage points. Thus, relative to this early benchmark the new spread levels were considered as an ominous crisis.

However, at no time were the spreads even close to those of 1995, i.e. before the final negotiations on the introduction of the euro. That year the spread over Germany of the countries protected by EFSF had averaged 2.60 percentage points. That was considerably higher than the peak in 2010, and more than double the average spread on 7 May (1.08 points), when the rescue packages were quickly assembled on the grounds that this was the only way to prevent a systemic crisis.

2.1.3 Who was hit and who has been rescued (so far)?

The large and volatile interest spreads emerging in 2010 in the euro area were considered particularly dangerous not only because they sharply raised borrowing costs in many countries but also because a substantial share of the troublesome debt was held by commercial banks in core European countries, which thus found themselves potentially exposed to large losses. As shown in Figure 2.2, the potential magnitude of the write-off losses was quite large. On 7 May 2010 10-year Greek bonds, issued four years before the crisis, were traded at a discount of more than

Figure 2.2

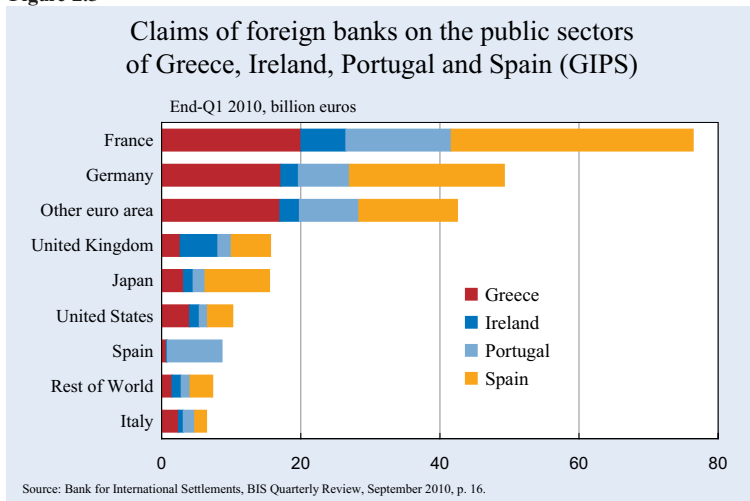


30 percent; longer-term Portuguese and Irish bonds were traded at discounts of about 10 percent. A few months later, the discounts on the Greek, Portuguese and Irish bonds were substantially higher. By November 2010, the discounts on Irish bonds were approaching 25 percent.

The losses caused Ireland to be the first country to apply for help from the EFSF in November 2010. This was clearly a relief both for commercial banks and for Ireland, as the country could then save on interest payments on newly issued government debt and keep its rescue promises. Against an ongoing market rate of interest between 8.3 percent and 9.4 percent charged by private investors on Irish government bonds with a maturity of 5 to 10 years, towards the end of November Ireland was given the opportunity to borrow funds with a similar maturity from the EFSF at the substantially lower rate of 5.8 percent. It is debatable whether Ireland really was in a crisis that justified the help from the rescue funds. After all, Ireland has very low labour taxes in comparison to other EU countries that it could easily have increased to solve the country's liquidity problems without jeopardizing the country's own "business model" explicitly based on low corporate (not low labour) taxes.

The ownership of government bonds issued by the crisis countries is shown in Figure 2.3, aggregating

Figure 2.3



data by banks' nationality. France is clearly leading the league. The French banking system went scot-free through the first wave of the financial crisis because it had invested relatively little in structured US securities. Whereas German banks had lost almost one quarter (23.9 percent) of their equity by 1 February 2010 due to write-downs on financial products, the corresponding loss by French banks amounted to only one tenth (10.5 percent).¹ However, the French banking system was much more exposed to the European debt crisis. Before the rescue operations, the stock of government bonds issued by GIPS countries held by the French banking system was 55 percent bigger than that of German banks when measured in euros. In relation to GDP it was actually 95 percent bigger.

The key question is of course the extent to which the banking systems of countries exposed to the European debt crisis were actually put at risk by the large write-off losses on government bonds. It turns out that the answer to this question is far from obvious. The reason is that commercial banks in core European countries typically hold a large amount of bonds issued by their own governments, which, as an effect of the crisis, generated huge capital gains. During the financial turmoil, in fact, the flight to quality not only raised the spread charged to crisis countries; it also reduced the level of interest rates that markets charged to virtuous countries. As shown in Figure 2.2, capital gains on bonds issued by countries in good fiscal standing were on the order of 10 percent relative to the par values. Unfortunately, detailed information on the banks' holdings of gov-

¹ Sinn (2010a), p. 177, Figure 8.6.

ernment securities from virtuous countries is not available. However, a back-of-the-envelope calculation based on the information in Figure 2.2 suggests that aggregate capital gains on German and French government bonds were twice as large as the aggregate capital losses on the bonds issued by the GIPS countries – accounting for the fact that the outstanding stock of debt issued by Germany and France is about three times as large.²

In addition, it may well be that during the crisis aggressive investors laid the foundations for considerable profits. Whoever purchased bonds of the GIPS countries at very low prices at the peak of the European debt crisis is bound to enjoy considerable capital gains if rescue packages end up offering full protection to their investments. On Greek bonds, for instance, investors' profits could amount up to 50 percent of their investment if the rescue packages of May 2010 are extended indefinitely and unlimited – bringing the prices of these bonds back to the neighbourhood of par.

2.2 Monetary unification, capital flows and housing bubbles: an interpretation of the events

To fully understand the nature of the crisis and the implications of alternative rescue strategies, it is important to have a clear picture of how the introduction of the euro affected the economies of the countries that adopted the new currency. With the creation of the euro, for the first time in history there was a true European capital market, freed from the burden of currency risks. By demolishing the barriers between the capital markets, a common currency in a single market allowed capital to flow almost frictionlessly from rich to poor countries. This speeded up the convergence process, boosting the growth of the countries that had previously lagged behind.

² By the end of 2009 the outstanding stock of German government bonds was 1.76 billion euros, that of France 1.49 billion euros, of Spain 0.56 billion euros, of Greece 0.30 billion euros, of Ireland 0.10 billion euros and of Portugal 0.13 billion euros. If their respective appreciation and depreciation relative to their nominal values was the same as those considered in Figure 2.2 for the end of November 2010, the government bonds of Germany and France had a value of 316.1 billion euros above and those of the GIPS countries a value of 148.6 billion euros below their emissions volumes.

Figure 2.4

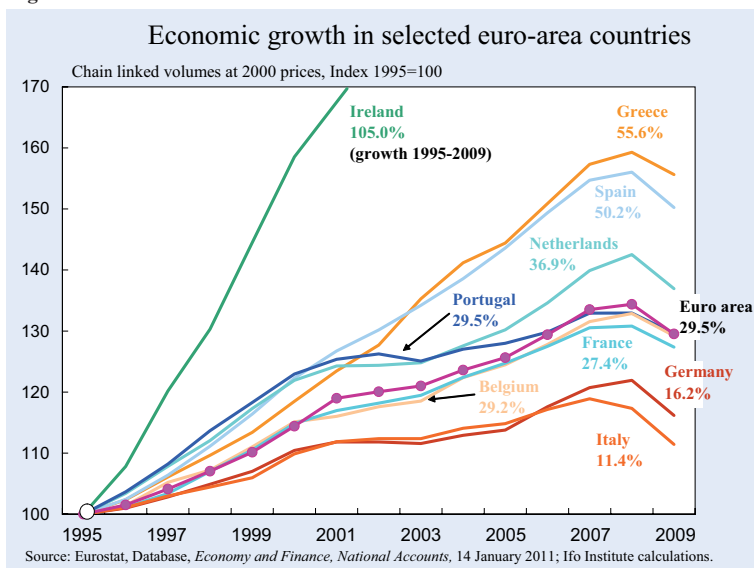


Figure 2.4 shows that from 1995 to 2009 Ireland grew by 105 percent, Greece by 56 percent and Spain by 50 percent, while the euro area on average was growing by 30 percent. Portugal matched the average of the euro area. Germany and Italy, on the other hand, grew only by 16 percent and 11 percent, respectively. The two countries were the laggards not only of the euro area but of Europe as a whole, including all countries up to the Russian border.

The creation of the common capital market not only led to the sharp interest rate convergence shown in Figure 2.1, it also fostered the creation of new segments of the capital market that formerly did not exist. By way of example, in Spain before the euro it was impossible to obtain fixed-rate loans with 20-year maturity. Over long maturities, interest rates were variable and, most importantly, extremely high. With the euro, rather abruptly, long-term loans at fixed interest rates became widely available, at rates that were strikingly lower than before, both in nominal and real terms (see Chapter 4, Figure 4.4). The opportunity to borrow for long durations at low rates fuelled the real estate market, generating a housing boom which in turn created new jobs and raised incomes. Spain went through a period often called the “Golden Decade”. In Spain and

Ireland the boom was so large that it triggered a wave of immigration which in part relaxed the supply constraint on construction services. At the same time, rising house prices not only made owners of real estate richer; it also provided them with more equity capital against which they could borrow even more. Foreign funds flowed abundantly into these countries to finance new enterprises, within and outside the construction sector.

The sustained rise in house prices, however, also fuelled expectations of persistent appreciation, way beyond what could

have been reasonably predicted based on fundamentals. What could have evolved as a healthy convergence process deteriorated into mispricing and turned into a bubble that ultimately burst, leading to the current debt crisis. The development of house prices in selected countries is shown in Figure 2.5. House prices typically grew much faster than GDP (see Chapter 4, Figures 4.5 and 4.6).

Households’ expenditure plans were driven by expectations of sustained high real growth, and they kept borrowing under the mistaken belief that their real income would at least keep up with their rising interest bill. Except for Ireland, aggregate savings rates

Figure 2.5

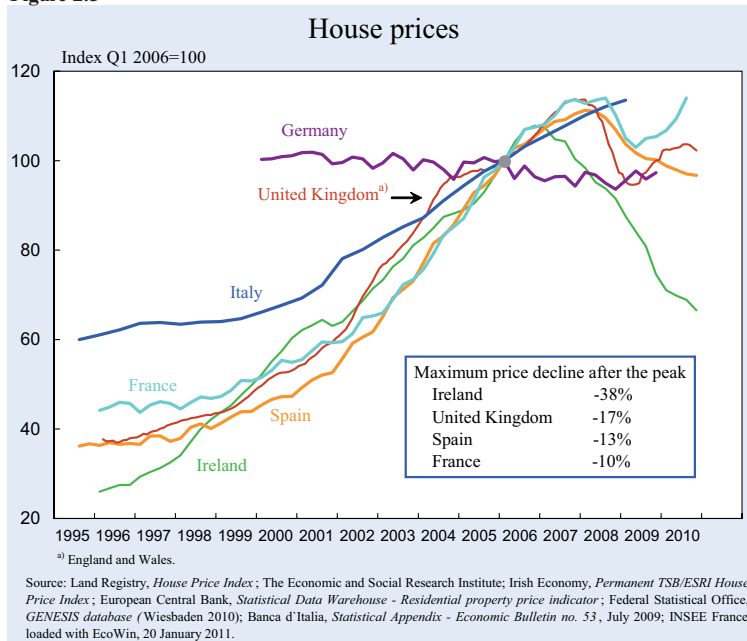
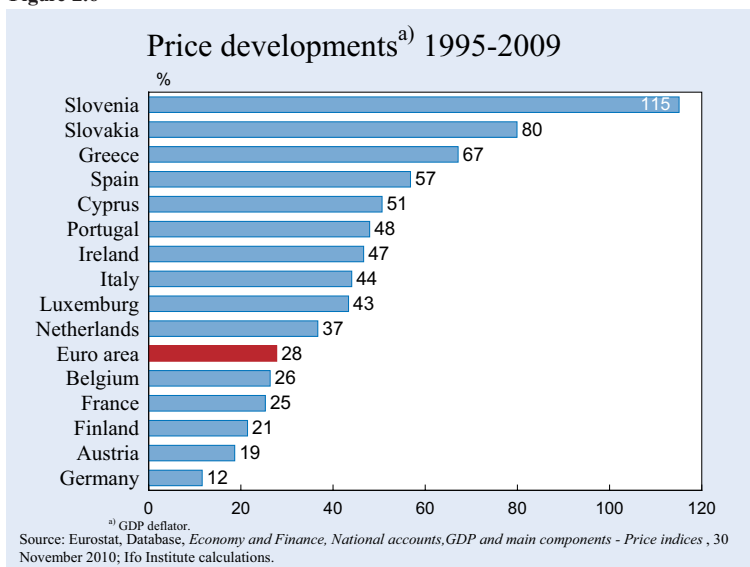


Figure 2.6



dropped sharply in the GIPS countries, and became even negative in Greece and Portugal, approaching minus 12 percent and minus 8 percent respectively relative to GDP in 2009 (see Chapter 3, Figure 3.11).

As high demand created persistent overheating in these economies, rapidly rising wages and prices soon undermined competitiveness, especially in those countries that had enjoyed the greatest benefits from the interest rate convergence. Figure 2.6 shows the rate of growth of the GDP deflator in selected euro-area countries in the 14 years from 1995 to 2009. It is apparent that Greece, Spain, Ireland and Portugal increased their prices much faster than the average of the euro-area countries. In trade-weighted terms the real appreciation was 23 percent relative to their trading partners. From a foreign trade perspective, had national currencies still been in place, this would be equivalent to a sizeable nominal currency appreciation for unchanged prices.

Conversely, relative to its euro trading partners, Germany underwent an internal real depreciation as large as 18 percent – its domestic price development being compounded by those (with an opposite sign) in the GIPS countries. Relative to the GIPS countries only, indeed, Germany's prices depreciated by

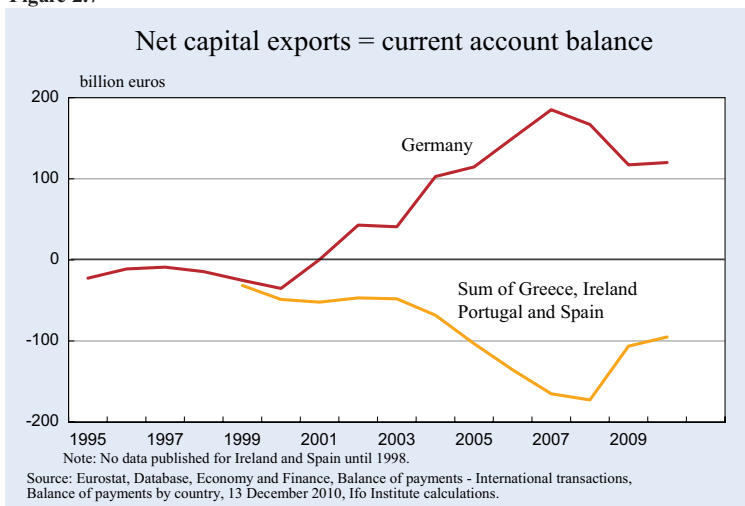
³ See Sinn (2003).

28 percent. Diverging inflation rates gradually improved the competitiveness of the German economy and undermined that of the GIPS countries. Moreover, the stagnation caused by the capital exports that were to a large measure induced by the euro kept imports down. This resulted in growing current account imbalances in the euro area, which, comparing Germany with the GIPS countries, eventually grew to the order of 200 billion euros a year, as shown in Figure 2.7. French finance minister Christine Lagarde and others argued in this context that Germany was taking advantage of the currency union,

bearing a substantial responsibility for this development. "It takes two to tango", she said.

While the tango analogy is certainly a correct description of what happened, its moral connotation is misleading as it overlooks the mechanisms that brought the divergences about. Namely, it overlooks the fact that Germany's depreciation was the result of a slump of its economy, making Germany the laggard of Europe, creating mass unemployment and raising the need for far-reaching reforms of the social system.³ These reforms were aimed at taking away rights of the unemployed, which at that time were perceived as permanent entitlements. They were painful enough to terminate a government and ignite an arduous political discourse, which placed great strains on society. These recent economic and political developments in

Figure 2.7



Germany hardly square with the notion of a country that had benefited from the euro more than others. Germany recorded the second-lowest growth rates in Europe and experienced a deflation of the real estate market. A country drawing particular profits from the euro can hardly be expected to fall from the third to the tenth rank in GDP per capita terms, as Germany did in the period from 1995 to 2009.

The tango analogy also overlooks the fact that the current account balance is the mirror of the capital balance. By definition, a current account surplus is a net capital export and a deficit is a net capital import, as capital and goods flows balance out. Both the current account and the capital balance are determined simultaneously in the economy. Sometimes the goods-flows take the lead and determine the capital flows as residuals, as is described in conventional models of the business cycle. Sometimes, however, the capital flows determine the goods flows via supply-side effects. Due to the perceived reduction of uncertainty surrounding the introduction of the euro and the interest convergence this brought about, the capital flows dominated the goods flows in the first few years in the life of the new currency. The interest convergence implied a huge capital export from the German economy into the economies of the GIPS, which overheated the latter and cooled down the former. The overheating reduced the competitiveness of the GIPS countries via a real appreciation, while imports surged in line with real incomes. In Germany, by contrast, the cooling of the economy improved the competitiveness via depreciation, while low growth rates slowed down imports.

While the interest convergence resulting from the introduction of the euro quickly triggered an investment boom in the GIPS countries, it took, as always, a few years until the current accounts reacted sufficiently to actually result in net capital inflows (J-curve effect). Before imports could rise, the interest-driven expansion of real and nominal incomes had to take place. And export quantities could only react after the rise in export prices, which itself resulted from the wage increases that the economic boom brought about (with ambiguous implications for export values). Nevertheless, the pressure of the desired capital flows eventually opened the current account deficits in a measure necessary to actually allow for net capital inflows. In the years preceding the crisis, all GIPS countries developed sizeable net capital imports. In the years from 2005 to 2008, Greece had a current account deficit of about 12 percent of GDP, Portugal

11 percent, Spain 9 percent and Ireland about 4.5 percent. Only Ireland and Spain have now managed to reduce this deficit significantly.⁴

In line with this interpretation, Figure 2.8 provides an updated picture of capital flows in and out of the euro-area countries along with long-term net investment rates, totalling up both private and public investment. The figure shows that investment is bigger in capital importing countries: obviously these countries had abundant and cheap funds to nourish high investment rates. By contrast, Germany had the lowest rate of all European countries. In fact, in the period from 1995 to 2008 Germany had the lowest net investment share of all OECD countries, while being the world's second largest capital exporter after China. German banks collected domestic savings and invested them elsewhere in the world, including the GIPS countries, the United Kingdom and of course the United States. From 2002 to 2009, Germany had aggregate savings (net savings by households, firms and government) of 1,621 billion euros. While this was the amount of money available for net investment in equipment, buildings, homes, roads and other public infrastructure, in fact only one third – 562 billion euros – was invested at home. Two thirds – 1,058 billion euros – was exported to other countries. Four fifths of this capital export was financial investment and one fifth was direct investment.

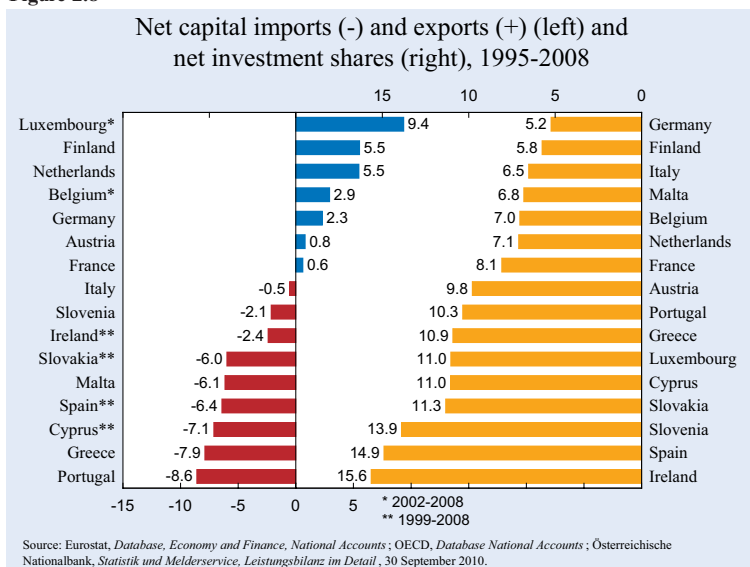
While these patterns in principle also characterize a fundamentally stable convergence process,⁵ our analysis above suggests reasons to believe that the observed imbalances were ultimately excessive and led to a vast misallocation of resources. Abundance of cheap funds brought a period of “soft budget constraints” to capital-importing countries, to cite a concept that Janós Kornai once used to predict the fall of Communism.⁶ The soft budget constraints meant that a credit-fuelled internal boom was spreading from the construction industry to the entire economy, pushing wages, prices and incomes from the provision of non-traded goods above the level sustainable in the long-run, creating the bubble that ultimately resulted in the

⁴ While in the case of Greece, Portugal and Spain, the current account deficit went along with substantial trade deficits, Ireland is an exception inasmuch as it always maintained a trade surplus. However, as Ireland had already imported very much capital in earlier years, it had to pay substantial interest and profit income to foreigners, which also needed to be financed with capital imports, primarily with directly “imported” capital in the form of profit retentions of existing foreign firms operating in Ireland.

⁵ For a formal analysis and prediction of these developments in the sense of a beneficial convergence process, see Sinn and Koll (2001). A less optimistic analysis of the same theme 10 years later can be found in: Sinn (2010b).

⁶ Kornai (1980).

Figure 2.8



European debt crisis. By the same token, Germany suffered from overly tight budget constraints as resources were withdrawn, entering a period of low growth rates and near stagnation under the euro, which ended abruptly when the debt crisis suddenly changed risk perceptions.⁷

The imbalances in the capital-importing countries do not necessarily take the form of outstanding current account deficits. Even if Ireland had not had a sizeable current account deficit, mispricing and misallocation might have been dangerous for economic stability, if they led to unchecked risk-taking by financial intermediaries. If the government does not supervise and appropriately regulate financial intermediaries ex ante but lets them operate with the expectations of public sector guarantees on their balance sheets, the resulting imbalance may also take the form of excessive risk-taking, which systematically endangers both public and external solvency ex post, when uncertainty about returns is

⁷ Of course these imbalances are not specific to the euro area – large mispricing in the real estate market at the root of the crisis was also experienced in Anglo-Saxon countries, for instance. See Sinn (2010a) and Sinn, Buchen and Wollmershäuser (2010) for a related interpretation. Yet the introduction of the euro in the single market undoubtedly played a key role in determining the magnitude of the imbalances. Moreover, consistent with the constitutional foundations of the euro, as discussed below, one would expect euro-area countries to have used appropriate policies to avoid the imbalances in the first place.

realised. This was indeed the main lesson from the crisis in the East Asian countries in 1997–98. Economies that were apparently sound in regard to their public and external outlook before the crisis, succumbed to large speculative flows against their assets and currencies, driven by the investors' realisation of the large implicit commitment by the public sector.

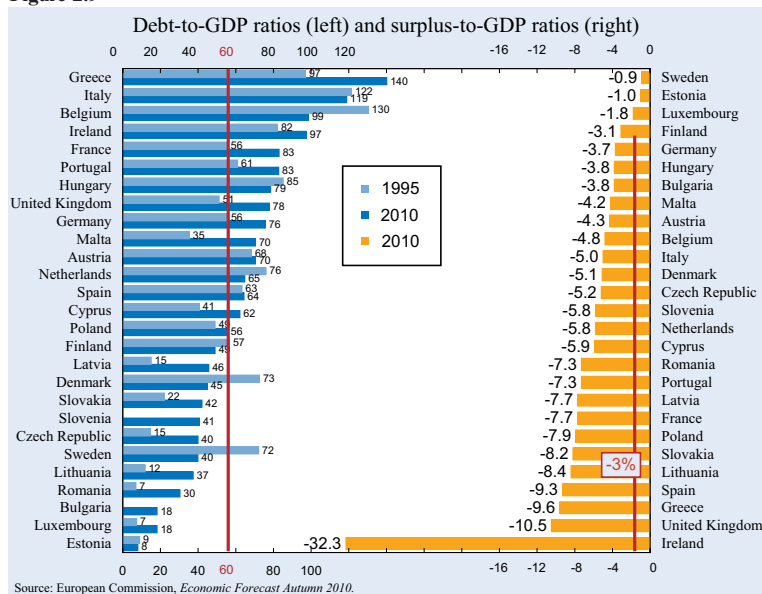
The Irish case is, however, a reminder of the strict interconnection between external, fiscal and financial imbalances. Each crisis country has its own mix of imbalances in these three dimensions, depending on specific circum-

stances. For the euro area as a whole, however, the question is to make sure that its institutional system can address potential sources of instability in all of them.

2.3 Excessive public debt despite the Stability and Growth Pact

In countries that benefited from the capital inflows, private budget constraints were soft and financial intermediaries took on too much risk, arguably creating hidden public liabilities. But even independently of hidden liabilities, governments also showed little fiscal discipline under the euro, in spite of the

Figure 2.9



Stability and Growth Pact agreed upon in 1996, which (following the Maastricht Treaty) imposed a 60 percent threshold for the debt-to-GDP ratio and a 3 percent threshold for the deficit-to-GDP ratio.

As Figure 2.9 shows, in nearly all euro-area countries the debt-to-GDP ratio has increased considerably since 1995, and many countries that were below the 60 percent threshold are now above it. Between 1995 and 2010, only 8 out of 27 countries (Sweden, Belgium, Denmark, Netherlands, Finland, Hungary, Italy and Estonia) managed to reduce their debt-to-GDP levels. All other countries, even those that underwent a rapid growth process, have now more debt relative to GDP than when the euro was announced. In 2010, 14 countries had a debt-to-GDP ratio above 60 percent, with the average ratio for all EU countries reaching 79 percent. In the euro area, this average stood at 84 percent.

Despite the signs of recovery in 2010, the fiscal outlook is disturbingly far off the boundaries of the Pact: in 24 of 27 cases, the deficit-to-GDP ratios exceed the 3 percent mark. The Stability and Growth Pact obviously has not been respected.

In fact, the Pact has never been taken seriously. Until 2010, the records for the European Union show 97 (country and year) cases of deficits above 3 percent. Less than one third of these cases (29) coincided with a significantly large domestic recession, hence in principle could even be justified on the basis of the original definition of the Pact.⁸ Still, there was no ground for justification in the remaining 68 cases. Member states were ready to “reinterpret and redefine”, again and again, to make the conditions softer as to match ex post the fiscal development in some countries with strong bargaining power.

Whatever remains of the Pact, it is generally considered to be

⁸ Resolution of the European Council on the Stability and Growth Pact (1997), pp. 1–2. Only during a severe recession or if the deficit is caused by unusual events outside its own control is a country allowed to increase its debt by more than 3 percent of GDP (Council Regulation (EC) No. 1467/97 of 7 July 1997, Article 2).

⁹ Council Regulation (EC) No 1056/2005 of 27 June 2005, Article 1.

¹⁰ Council Regulation (EC) No 1467/97 of 7 July 1997, Article 13.

¹¹ Council Regulation (EC) No 1467/97 of 7 July 1997, Article 12.

toothless.⁹ The Pact foresaw severe sanctions for violation of the deficit criterion, involving the breaching country having to put down a non-interest bearing deposit equal to 0.2 percent of GDP, convertible into a fee if the excess deficit persisted for more than two years.¹⁰ Moreover, it was to pay a variable fee equal to one tenth of the excess deficit-to-GDP ratio, constrained to a maximum of 0.5 percent of GDP.¹¹ Up to this day no sanction has ever been imposed on any of the EU countries.

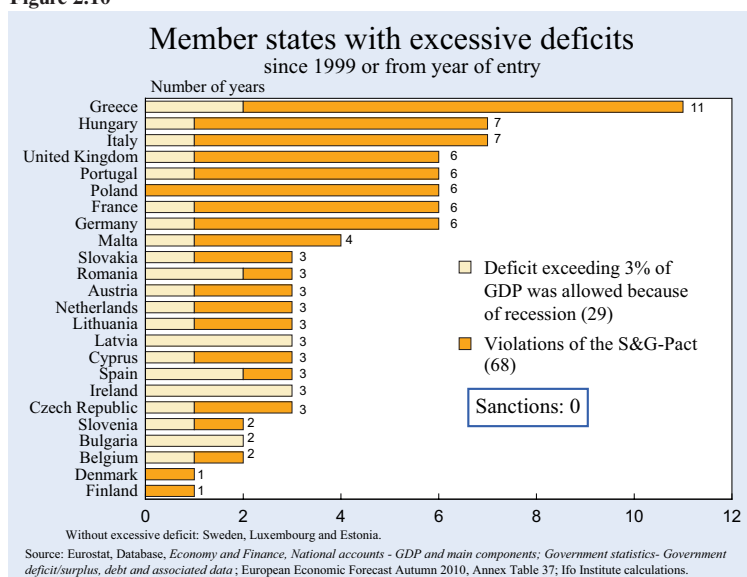
With the widespread failure of surveillance exposed by the Greek crisis, it became clear that the Pact had been ignored in virtually all its dimensions.

2.4 The role of the Basel system

It would be too simplistic to only blame the crisis on the lack of “debt constraints” in the capital-importing countries. After all, similar problems emerged in other areas of the world. Arguably, one of the main drivers of the European sovereign debt crisis was the inefficient and insufficient banking regulation provided by the Basel system, whose rules were actually responsible for many types of distortions, but in particular created strong incentives for banks to lend to the government sector.

In the Basel system, banks must meet minimum equity requirements, above all the so-called Tier 1 ratio, which is defined relative to the sum of risk-weighted assets in the banks’ balance sheets. The risk weights in

Figure 2.10



this system are, for example, 0.5 for loans to normal firms of the real economy and 0.2 for interbank loans, thus forcing the banks to hold corresponding amounts of equity capital. For government bonds, on the other hand, the risk weights were zero, which meant that there was no constraint at all on the banks' lending operations. Theoretically, banks were allowed to leverage the loans given to the government sector infinitely. There were some exceptions for countries with extremely bad ratings, but these did not apply in Europe. Even for loans to Greece, which had never enjoyed an AAA rating from rating agencies, banks had not been required to hold equity capital before the outbreak of the crisis.

The missing debt constraints were particularly problematic insofar as there were reasons enough for banks to leverage their operations excessively. These reasons range from tax advantages of debt over equity finance to explanations of why holders of bank deposits and bank securities did not punish high leverage by demanding higher interest rates. The latter include the opaqueness of banking operations and the implicit bailout guarantees of governments. Chapter 5 discusses such reasons in more detail.

Small wonder that under these conditions the credit flow from Europe's savers into countries that lacked internal debt constraints expanded rapidly in recent years and that European banks had such an enormous exposure to the sovereign debt of the GIPS countries, which made the rescue measures of May seem inevitable to politicians (recall Figure 2.3).

2.5 A new economic governance system for the euro area

As explained above, the trade and financial imbalances of the euro-area countries followed from excessive capital flows which themselves were the result of soft budget constraints. Arguably, without the euro the extent of misallocation from excessive capital flows would have been more contained. Persistent interest differentials, dictated by the risk of depreciation and default, would have deterred capital flows within the area.

Under the euro the natural constraints of currency premia on excessive capital flows no longer exist. A country cannot inflate its debt away because its bonds are denominated in a common currency whose value cannot be manipulated by national policymakers. Initially, the apparent immunity to a devaluation risk

led market investors to virtually eliminate interest spreads, leading to excessive capital flows and trade imbalances, as described above. After the financial crisis that swept from the United States to Europe, it became clear, however, that risk within the euro area was not as small as investors believed, as a rising risk of default was taking the place of depreciation risk.

To be clear, some widening of interest rate spreads relative to the excessively low levels before the crisis is to be welcomed and, as argued below, should be an objective of European economic policy. In a well-functioning capital market, interest spreads are the price of country-specific differences in creditworthiness. When spreads are not adequate, despite different repayment probabilities, mispricing causes countries with lower repayment probabilities to import too much capital (as explained above).

The problem is that in crisis periods the self-correction mechanism through which spreads balance out excessive borrowing and lending may typically come into effect not only too late but also too sharply, with spreads swinging from too low to prohibitively high levels in a matter of weeks – as often described by the literature that stresses the danger of “sudden stops” in international capital flows. Brakes that block the wheels of a car may actually cause accidents instead of preventing them. What Europe needs is an anti-lock braking system for capital flows. This is the goal of a much-needed new economic governance system for the euro area as a whole.

The new economic governance system needs to address the deficiency of the current institutional arrangements. As discussed above, misallocation and mispricing create imbalances in three interconnected dimensions: fiscal, financial and external. The new economic governance needs to address the roots of misallocation and mispricing in all these dimensions.

What is the main deficiency of Europe's current economic constitution? To put it simply, markets found ample reasons to disregard government defaults as a real possibility. Investors knew that, at the end of the day, the euro-area countries would go out of their way to come up with resources to keep a troubled government afloat, disregarding the no-bailout clause of the Maastricht Treaty.

The lack of credibility of the no-bailout principle can be attributed to different factors. Commentaries on the Greek crisis, for instance, often stressed that cred-

itor countries would intervene with rescue packages mainly to guarantee their own banking systems, which were likely to lose money in a debt-restructuring episode.¹² There is also a more general formulation of the same issue.

As already examined in detail in early analyses of the Maastricht Treaty, a key factor systematically undermining the credibility of the no-bailout principle is the fear of contagion and systemic consequences from default.¹³ Greece was not abandoned in 2010 because, in the perception of policymakers, Europe (and as a matter of fact, the whole world) could not run the risk of “another Lehman”.

Whether an early Greek restructuring would have created another wave of panic at a global level is debatable. Probably the fears were vastly overstated given that bank rescue programmes worth 4,900 billion euros that had been created in the autumn of 2008 after Lehman Brothers to unfreeze the interbank market were still in place. Because of Lehman, a second Lehman was unlikely to happen. Europe’s stable countries all had enough reserves to help their banks directly rather than indirectly via a bailout of the unstable ones. Nevertheless, the risk of another breakdown of the interbank market was enough of a political argument to keep default always last in the list of the policy options under consideration.

This is how unchecked fears of contagion can create a deadly chain of events within the euro area. Fears of contagion underlie the too-big-to-fail doctrine: banks and countries are saved because their default may result in a liquidity and credit crisis that could strangle the real economy at a national and international level. Protected by the implicit insurance, then, financial intermediaries take on too much risk, governments issue too much explicit and implicit debt, with the result of raising the likelihood of a crisis and therefore of generalised bailouts.

With fears of contagion, governments feel compelled to insure the liabilities of their banks. Here the issue is complicated by the fact that, at the wholesale level, large financial intermediaries operate cross-border. Before the crisis, the issue of which government would pick up the bill was often discussed. In light of the crisis, we know that, no matter how international the financial intermediaries are, without a proper institu-

tional setting some government will eventually save them. In Europe, international banks were broken up in different institutions along national boundaries, each institution saved by one government. In other cases, some form of war of attrition – with each government waiting for the other to take the lead in bailing out the bank – may have actually exacerbated the crisis, raising the bill to be footed with taxpayers’ money.

It is thus the fear of contagion that leads euro-area countries to bail out member states in crisis. A fiscal crisis in one country potentially affects the whole area through different channels. A fundamental channel operates via the exposure of international investors to default risk depending on their portfolio of government bonds and private assets issued by firms and residents in the defaulting country. As is well understood, in case of sovereign default, there are strong spill-over effects from the government to the private sector, apparent in the correlation of risk premia charged by markets to both. Threat of government default in fact raises the riskiness of private firms operating in the jurisdiction, as these may be taxed, and in any case face a disrupted domestic market for goods and credit. The empirical evidence however suggests that the strength of these spill-over effects varies, depending on features of the firm: all else being equal, firms with large export markets appear to be less affected than firms relying heavily on the domestic market. On the other hand, in a panic fundamental risk assessment may be swamped by other, liquidity-related considerations.

Unfortunately, however, with governments intervening to prevent a contagion via the banking system, the bailout itself becomes a channel of contagion. The Irish case demonstrates this clearly. The Irish government, with a stellar fiscal record in previous years, ran into trouble in autumn 2010 and was forced to seek help from the European rescue fund because it had promised to bail out its banking system with guarantees two-and-a-half times the Irish GDP. Because Ireland gave a practically unlimited bailout promise rather than erecting a firewall around its banks, the Irish banking crisis became a crisis of the Irish state. In a similar way, the bailout of endangered European countries may in future spread the risk of insolvency to governments that otherwise would be sound. Intergovernmental bailout systems in Europe risk opening up additional contagion channels through which the crisis of a single country could in the end endanger the euro system as such.

¹² One can also imagine financial help that is linked to political alliances and converging voting strategies on other issues.

¹³ Buiter et al. (1993).

This problem is exacerbated insofar as bailouts create the moral hazard effects explained above. The governments of over-indebted countries continue borrowing and creditors continue providing cheap loans recklessly. The interest spreads that would normally limit the incentive to borrow if investors feared a default risk are artificially reduced and hence there are excessive international capital flows, perpetuating the trade imbalances that led to the current crisis.

For Europe, there is no alternative but to create rules and institutions that induce market discipline. Credibility of the no-bailout clause is the essential prerequisite. As we emphasised in our analysis above, Europe cannot afford to abandon market discipline vis-à-vis debtors; this is the cornerstone of its common currency and common market. But this requires setting up rules and institutions that address the fundamental issue of containing the fears and thus the risk of contagion via the banking system.

A plausible system could stand on two pillars. One is an EU-controlled public surveillance and supervision process for public debt and the banking system. The other is a credible crisis mechanism that strengthens market discipline by reducing the implicit bailout guarantee that characterised the previous situation under the euro while protecting the markets against speculative attacks and panic.

To address the danger of excessive capital flows analysed in the first part of this chapter, some political voices in Europe have advocated a strategy of direct controls on trade flows, with sanctions if these flows deviate from politically determined target levels. The idea is that these controls would automatically force countries to adjust their wages (to enhance or reduce competitiveness) and use Keynesian policy measures to boost or dampen aggregate demand, when this is too low or too high. We find such proposals naive and dangerous, because, by attempting to mimic through controls the outcome of market discipline, they are bound to confuse symptoms with causes and direct the attention to policy tools that are entirely inappropriate as remedies against long-term structural deficiencies of market economies. An important lesson from the ongoing crisis is that trade flows resulted from capital flows and there is simply no way to agree on what excessive trade and capital flows actually are.

Other voices advocate eurobonds, i.e. a procedure for jointly borrowing for normal purposes in the capital

market by pooling the creditworthiness of the euro-area countries. We can only warn that taking the direction of issuing common eurobonds will exacerbate the problems we see as being at the root of the crisis. Eurobonds could do nothing but strengthen incentives for opportunistic behaviour on the part of debtors and creditors, given that they prevent the emergence of fundamental risk premia, by acting as full-coverage insurance against insolvency. Eurobonds entail an across-the-board equalisation of interest rates regardless of the creditworthiness of each debtor country and, for that reason, would be tantamount to a subsidy to capital flows to those countries. Even if issued in small quantities, Eurobonds would give new debt excesses *carte blanche*, de facto reproducing the problem at the root of the current crisis. The euro area would then surely collapse in a system of soft budget constraints and face a similar destiny as the regimes for which Kornai once made his predictions.

2.5.1 Political debt constraints

The Maastricht Treaty and the Stability and Growth Pact centred around the idea that there would be no bailout and that surveillance and numerical rules could be enforced with pecuniary sanctions to prevent fiscal crises altogether. This approach failed entirely. There was a bailout, and despite 68 violations, sanctions were never imposed.

Despite or because of this frustrating outcome, the euro area has to try again, and now harder than before to overcome the deficiencies. A new Stability and Growth Pact should provide tougher and more rigorous government debt constraints, and in our judgement the proposals of the Van Rompuy Commission are worth pursuing. Some of the measures advocated by the Van Rompuy Commission had indeed already been proposed by the EEAG in an earlier report.¹⁴ Our suggestions for a revised Pact still hold.

- The deficit limit should be modified in accordance with each country's debt-to-GDP ratio, in order to demand more debt discipline early enough from the highly indebted countries. As an example, the limit could be tightened by one percentage point for every ten percentage points that the debt-to-GDP ratio exceeds the 60 percent limit. A country with an 80 percent debt-to-GDP ratio, for instance,

¹⁴ See EEAG (2003), Chapter 2.

would be allowed a maximum deficit of 1 percent of GDP, while a country with a 110 percent debt-to-GDP ratio would be required to have a budget surplus of at least 2 percent.

- Sanctions for exceeding the debt limits must apply automatically, without any further political decisions, once Eurostat has formally ascertained the deficits. The sanctions can be of a pecuniary nature and take the form of covered bonds collateralised with privatisable state assets, and they can also contain non-pecuniary elements such as the withdrawal of voting rights.
- In order to ascertain deficit and debt-to-GDP ratios, Eurostat must be given the right to directly request information from every level of the national statistics offices and to conduct independent controls on site of the data gathering procedures. They should also be held responsible for failure to control.
- In case all the above assistance and control systems fail and insolvency looms, the country in question may be asked to leave the euro area by a majority of the euro-area members.
- A voluntary exit from the euro area must be possible at any time.

2.5.2 A credible crisis mechanism

While we endorse the attempt to rewrite the Stability and Growth Pact, we are much more confident about the discipline that markets would impose on debtor countries. It is true that markets overreacted in this crisis. But unlike the political debt constraints, the market constraints were eventually put in place in the end, limiting abruptly a non-sustainable development course. No political mechanism would have been able to force Greece, for example, to carry out the present austerity measures in a way similar to what has now been enforced by market reactions, even though these reactions were mitigated by political influence.

The challenge to the euro area consists of defining a crisis mechanism in which a credible rescue strategy stringently binds private investors (they need to have to bear some responsibility in case of losses) while at the same time preventing a panic-like aggravation of market turbulences. In addition, this mechanism should contribute to the stabilisation of the banking system in order to avoid a spiral of actual or alleged emergencies, raising the need, or the temptation, for further rescue actions.

In view of the decisions at the EU summit of 16–17 December 2010, we propose a three-stage procedure that distinguishes between different degrees of a crisis: illiquidity, pending insolvency and actual insolvency.

Step 1: A procedure to provide Community loans to a country that faces a temporary liquidity crisis because of dysfunctional markets, assuming this country will soon be able to help itself.

Step 2: A procedure serving the function of a breakwater structure for a country that is threatened by insolvency, though not yet insolvent, giving grounds to hope that it will eventually recover and become solvent again.

Step 3: An insolvency procedure in the full sense of the word.

We place particular emphasis on the breakwater procedure, which we design in a way that comes close to a liquidity help and makes a piecemeal approach to a country's problems possible without it defaulting on its entire outstanding government debt. Given this breakwater procedure, liquidity help according to Step 1 can be provided under very strict limitations, excluding countries that are merely threatened by insolvency.

2.5.2.1 The EU decisions

On 16–17 December 2010 the European Union decided to extend the life of the Luxembourg rescue fund EFSF (European Financial Stability Facility) from the previously foreseen three years to an indefinite length of time and to give this fund a new name: ESM (European Stability Mechanism).¹⁵ The EFSM (European Financial Stability Mechanism) that allowed the European Union to borrow up to 60 billion euros (see Table 2.1) to fight what was perceived as a systemic crisis of the euro area in May 2010 will no longer be used.

Like its predecessor, the ESM is supposed to borrow internationally at favourable rates, given that it is jointly guaranteed by all countries of the euro area. However, to satisfy the requirements of the German Constitutional Court, which is expected to declare the decisions of May 2010 unconstitutional, a change in the Union treaty is necessary before Germany can actually provide the expected guarantees. The heads

¹⁵ European Council (2010).

of state agreed on the following amendment of Article 136 of the Union Treaty:¹⁶

“The Member States whose currency is the euro may establish a stability mechanism to be activated if indispensable to safeguard the stability of the euro area as a whole. The granting of any required financial assistance under the mechanism will be made subject to strict conditionality”

An important change relative to the EFSF is that “in order to protect taxpayers’ money”, the Community loans provided will be senior to any privately held country debt, though junior to IMF claims.¹⁷

Moreover, unlike the EFSF, a “case-by-case participation of private sector creditors” in line with IMF rules is foreseen, without any more detailed specification being given.

From 2013 onwards all euro-area countries must endow their government bonds with Collective Action Clauses (CACs) that make majority decisions between an insolvent country and its creditors possible, which then become binding for all other creditors.

A country that appears to be insolvent must negotiate a comprehensive restructuring plan with its creditors. The ESM may provide liquidity help during this period if debt sustainability can be reached through these measures.

Decisions about help coming from the ESM must be unanimous, as was the case with EFSF decisions. Given that the use of the EFSM (the 60 billion euros in Table 2.1) which would have been possible after a qualified majority decision has been ruled out by the Council (it probably is illegal), the unanimity rule for the ESM means that in future all help will have to be unanimously decided. A systematic redistribution of funds from minorities to majorities is therefore ruled out.

Assistance will, moreover, only be provided to a troubled member state if the IMF, the European Union and the ECB have come to the conclusion that the state will be solvent again after a stringent internal restructuring programme.

In the following we both interpret as well as modify the EU decision so as to generate a workable economic governance system for the euro area.

2.5.2.2 Basic requirements for the crisis mechanism

To comply with the above-mentioned goals, a credible crisis mechanism must meet a number of prerequisites:

- It should not mutate into a transfer mechanism.
- It should foster efficient risk pricing by markets, ensuring that adequate interest spreads prevent further distortions in international capital flows.
- It should enable a country in need of help to continue fulfilling its governmental responsibilities and to initiate a reform programme that will return it onto an economically sustainable path.
- It should predetermine and limit investors’ maximum losses.

Concretely, we propose the following modifications to and specifications of the Council decisions:¹⁸

1) Liquidity help

Along the lines of the current operations of the EFSF the new ESM should be able to provide short-term loans to a country that faces a mere liquidity crisis without creditors participating at this stage. As liquidity and impending insolvency cannot easily be distinguished, we propose a strict and short time-limitation for this type of help. By its very definition, a liquidity crisis cannot last forever.

As foreseen in the decision of 17 December 2010, the loans provided by the ESM should be senior to any private claims. In addition the loans could be collateralized with marketable state property. This is a safeguard against the liquidity help turning into a resource transfer. It also makes sure that private creditors continue to bear the default risk so as to show prudence and charge an interest mark-up to cover the risk.

There is no point in having huge or even unlimited credit lines for liquidity funds as is sometimes proposed. What is required are facilities large enough to cover the debt that needs to be replaced in the period under consideration plus possibly an allowance for a limited budget deficit, not more. The funds needed for that purpose are contained. Larger funds would only be necessary if the task of the fund was to support the market value of outstanding government bonds. That,

¹⁶ European Council (2010), Annex I, Article 1.

¹⁷ For this and the following see European Council (2010), Annex II.

¹⁸ In doing this we make use of a proposal by Sinn and Carstensen (2010), extended in Sinn, Buchen and Wollmershäuser (2010).

however, cannot be the function of the ESM because it would be effectively equivalent to bailouts.

II) Replacement bonds

The crisis mechanism should help a country that is acutely threatened by insolvency by guarantees of the ESM to continue refinancing itself on the financial markets, albeit at higher rates of interest properly reflecting the country's default risk. Toward this end the concerned country can offer its creditors, after a limited haircut, newly created replacement bonds, to be partially guaranteed by the ESM, in exchange for maturing bonds. The term "haircut" refers to the lowering of the value of a bond and a corresponding relinquishing of claims on the part of the creditor.

Limiting the haircut and partially guaranteeing the replacement bonds will prevent a panic on financial markets without allowing the protection by the ESM to become a full-coverage insurance against insolvency.

III) Modified collective action clauses (CAC) for all government bonds

The guarantees preceding the haircut are not to pertain to the government securities currently in circulation (for which the haircut would be tantamount to a breach of contract), but to all newly issued government securities, including the replacement bonds. All new public debt contracts will include a CAC for this purpose. The receipts from the sale of new securities with CACs is to serve the orderly servicing of the old credits, which may also include loans by the ESM granted under the current or new rescue programmes (EFSF and ESM).

As foreseen by the Council decision of 17 December 2010, the CAC permits a majority agreement of the creditors that will then become generally binding. The creditors will already agree at the time of purchasing their debt claims to subject themselves to a majority rule (e.g. a 75-percent majority) with respect to all securities maturing at the same time.

However, in addition, the new clauses should make it possible for a country to find an agreement with only those creditors whose debt matures at a particular point in time without the owners of debt instruments with other maturities being able to call in their claims prematurely. Correspondingly, the majority rule is to

apply only to those creditors whose debt is maturing simultaneously, and of course the decision is only binding for them. Creditors with later maturities will have to cross the bridge when they come to it.

Waiving the right to call in the claims prematurely is indispensable for the crisis mechanism, because it permits solving the payment problems step by step as they emerge. It prevents a temporary payment crisis from becoming a sovereign bankruptcy. A crisis mechanism that defines a procedure that applies only to either a liquidity crisis where no haircut is imposed or a full insolvency where the full outstanding debt is at risk is not credible and therefore as useless as the no-bailout clause of the Maastricht Treaty. Before it applies there will always be new bailout activities to prevent the insolvency from occurring. Creditors will anticipate that and will thus return to the careless lending behaviour that triggered the current crisis. The interest spreads will disappear under such a regime, and the excessive capital flows and trade imbalances that caused this crisis will continue.

We warn the heads of European states not to repeat the fundamental mistake they made when designing the Maastricht Treaty.

Some may fear that these proposals will increase the credit costs of all countries, including those that are relatively creditworthy. But this fear is unfounded. As empirical studies have shown, the introduction of such clauses has only moderate effects on the returns demanded from the financial markets. Interest rates may actually decline for debtors with good credit standing (as they did at the peak of the current crisis). Only debtors with poor credit standing will have to pay higher interest rates, on average; as explained above, this is indispensable for a functioning capital market.¹⁹

Because of the great importance of CACs for a meaningful design of an effective crisis mechanism, whatever this will eventually look like in detail, the heads of states are advised to agree that new government bonds issued from now on are to be endowed with the new provisions, rather than only from 2013 as is currently planned. Bonds with CACs should actually be issued even ahead of the end of the negotiations on the crisis mechanism. Postponing the issue of CAC bonds to 2013 would be a mistake in view of the fact that these bonds would greatly facilitate the resolution

¹⁹ See Eichengreen et al. (2003).

of any looming fiscal difficulty and that it will take years before they have penetrated the market.

The European countries should take action to enlarge the degree of market penetration for such bonds as quickly as possible. For that purpose they should at least agree that until 2013 only very short-term bonds can be issued.

It is moreover important that not only the euro-area countries but all EU countries immediately switch to the new type of bonds, because all of them have the right to join the euro and all but two are even obliged to do so, the exceptions being Denmark and the United Kingdom.

IV) Help only in a true liquidity or insolvency crisis

A crisis mechanism is meant to strengthen responsibilities and thus reduce the probability of a crisis. Thus, financial help does not have the function of avoiding crises but only serves to solve a crisis when it occurs. It is a separate issue whether new cohesion and stabilisation systems should be implemented that strengthen the performance of weaker economies in general and would thereby make a crisis less probable. Should an expansion be considered, this can be done with the use of EU funds outside the crisis mechanism.

By the same token, financial resources may be essential in stemming financial panics driven by self-fulfilling expectations and illiquidity. However, liquidity assistance during turmoil should be carefully designed so as not to degenerate into a hidden bailout or interest subsidy. This point is important insofar as there is the political risk that by bending the terms under which liquidity help is provided, the crisis mechanism may degenerate into eurobonds, which we have dismissed above because of the disastrous consequences they are likely to have for Europe.

It is debatable, as mentioned above, whether Ireland was really in a liquidity crisis that justified providing funds from the EFSF. The country was neither credit constrained nor did it lack the power to increase its taxes on immobile factors of production to solve its problems on its own. Possibly the country took advantage of the rescuing measures simply because it wanted to borrow at lower interest rates. Such reasons should be rigorously blocked by the rules to be specified.

V) Haircuts ahead of guarantees to ensure a correct pricing of risk (appropriate interest spreads)

The ESM guarantees the replacement bonds to be issued only after the private creditors have waived a substantial part of their claims. After all, one of the main purposes of providing support from the community of states is to reduce the stock of outstanding public liabilities.

In addition, however, the participation of creditors is absolutely necessary to ensure that they use caution in engaging in risky credit transactions and apply appropriate interest mark-ups ahead of time. The interest mark-ups in turn ought to restrain debtors from engaging in excessive borrowing, so as to prevent a new wave of inefficient capital movements and current account imbalances within the euro area.

We stress that in the case of impending insolvency under no circumstance should the countries in the euro area agree to a crisis mechanism that grants aid first and only afterward, when the aid is ineffective or turns out to be insufficient, require private creditors to share losses. For the participation of private creditors to be credible, it must complement official help in a legally binding form. And only if it is credible will the interest mark-up have the desired disciplining effect.

As explained above, this principle should not be violated by a misinterpretation of the Council decision of 17 December 2010. Liquidity help as described in Item I of our set of proposals does not require a haircut, but can only be provided under strict limitation in time and size, especially ruling out that the boundary of liquidity help is not trespassed by political initiative.

One might fear that interest mark-ups would actually translate into a higher, rather than lower, stock of public debt, since some governments will face higher borrowing costs. But it is precisely such a possibility that creates the right incentive for governments to implement fiscal corrections – ensuring that the deterrent effect of higher interest rates dominates over other considerations. In the negative, this is the important lesson to be drawn from the experience of countries like Greece and Portugal, who benefited from the dramatic interest rate reductions accompanying the introduction of the euro. These countries had the chance to contain and reduce their public debt because of the combined effect of lower interest rates and in part vigorous economic booms. But in view of the allure of the low interest rates, governments (and private

agents) took on even more credit instead. Only Ireland reduced its government debt temporarily to a significant degree, although the fall in explicit government debt corresponded to a mounting stock of implicit public liabilities accumulating in the financial sector (of course under the presumption that banks would be rescued).²⁰

VI) Limiting the total amount of guarantees

At any time, the total amount of guarantees and liquidity help must be limited to 30 percent of current nominal GDP of the aid-seeking country. If a country exceeds this limit, either because of failure to contain net borrowing (thus enlarging the numerator of the debt-to-GDP ratio) or because of a drop in economic activity (hence reducing its GDP), the ESM should no longer provide its help. Limiting the stock of loans and guarantees is necessary as a way to prevent an uncontrolled expansion of the burden for the guaranteeing countries with possible contagion effects to the whole euro area. It also serves as a threshold, the surpassing of which indicates that the country is in need of deeper and far-reaching measures of debt restructuring – that is, beyond the debt-reduction implicit in the CAC.

VII) Guarantees and liquidity only with collateral or at market rates

Guarantees should be granted against insurance premia at market rates, quoted in CDS prices, for example. Specifically, the interest mark-up charged to the debtor country should be equal to the (GDP-weighted) average interest rate in the euro area during the months before the state of impending insolvency is declared. The premium on the guarantees may be waived if the grantor receives ownership of collateral in the form of marketable state assets. Similarly, any liquidity help must come at normal market conditions for similar risk classes, unless the country offers collateral in exchange.

2.5.2.3 How the crisis mechanism operates

Building on these basic rules, we propose a multi-step crisis mechanism. The mechanism is based on the idea

that all the new bonds in the market issued by all EU countries include CACs of the described type, i.e. with the possibility of a piecemeal solution to impending insolvency problems.²¹ On the one hand, the CAC bonds make the risk of a haircut in case of threatening insolvency explicit and structured (de facto, all bonds bear the risk of a cut, although unorganised). On the other hand, in case of impending insolvency, these bonds have the advantage of being exchangeable for replacement bonds, guaranteed to a considerable extent (our proposal: 80 percent) by the ESM.

The term “impending insolvency” denotes a state of acute payment difficulty, which may be overcome, however, after a limited waiver of claims and with the help of partially guaranteed replacement bonds. This is to be distinguished from actual insolvency that has far-reaching consequences for the independence of the state and puts the entire government debt outstanding, no matter its maturity, at the creditor’s disposal. And it is not the same as a mere liquidity crisis, which does not pose the question of debt sustainability.

The following course of the crisis may be imagined after the CAC securities are in circulation.

Should a state be unable to service the CAC securities that are maturing, in the case of doubt it will first be assumed that it is merely illiquid. The ESM will provide loans of a limited size and for a limited time to countries whose debt-to-GDP level is not yet excessive.

If the loans are insufficient, the time has expired and the country continues to be unable to service its debt or the existing debt is already large, an impending insolvency can be assumed. The country then must negotiate a haircut with the holders of its outstanding state bonds. Net of the haircut, the holders of these bonds can then exchange them for replacement bonds that are partially secured by the ESM.

Securities of the same issuer, which will not mature until later, are not involved in this exchange, because this is what the CACs establish in their bond contract. The question of whether they are to be serviced in the regular way or also be converted may be postponed to their maturity date.

The haircut can be determined based on the discounts, observable in the market, on the nominal

²⁰ While Ireland even reduced its debt in absolute terms, Spain was able to substantially reduce it relative to GDP, from 63 percent in 1995 to a low point of 36 percent at the end of 2007.

²¹ In general, CACs can only be included in newly issued bonds. For this reason, a diminishing percentage of the bonds in the market over time have non-CAC status.

value of the bond during the whole three-month period preceding the announcement of negotiations about restructuring measures subject to maximum and minimum percentage constraints. This provision is aimed at preventing turbulence in financial markets. Since the relevant average for calculating the haircut covers three months, the discount naturally charged by markets at any point in time in anticipation of losses during a possible crisis will be self-stabilising within the limits. This should help prevent panic-driven losses of market values shortly before the expected restructuring or during the negotiations about restructuring.

Should the negotiating country find it impossible to service in time the replacement bonds in accordance with the contract, it must bring itself, in a final step, to negotiate an agreement regarding the entire outstanding debt.

Should it already face difficulties before having issued the CAC securities, it will be saved by the already existing rescue system EFSF, limited to three years, and should be enabled to refinance itself again.

If difficulties beyond a mere liquidity crisis emerge after EFSF has expired and if old securities without CAC clauses become due, the old creditors should be offered attractive restructuring into replacement bonds.

2.5.2.4 The procedure in case of a liquidity crisis and/or impending insolvency

For the case of a liquidity crisis or even an impending insolvency with an exchange of the CAC bonds into replacement bonds, the crisis procedure by nature follows the steps outlined below.

1st step: Liquidity crisis

Suppose a country is unable to service its debt but claims to face only a liquidity crisis. If this is unanimously confirmed by the guarantor states, the ECB and the IMF, a two-year liquidity help in terms of senior short-term loans of a maximum maturity of two years is provided for the debt that needs to be replaced in this period and for a deficit in line with what the renewed Stability and Growth Pact allows. Hopefully the country will again be able to service its debt after the two years, as it should have raised its

taxes or cut its expenditure sufficiently in the meantime. If not, it has to declare an impending insolvency and the second step applies.

Should the country be liquid again, it may call on the liquidity help a second time after a break of at least five years. A country that again becomes illiquid earlier or more than twice in 10 years also has to declare its impending insolvency.

A country that claims to be illiquid but has a debt-to-GDP ratio of more than 120 percent is unlikely to be merely illiquid. It also has to claim impending insolvency. According to this definition Greece, which has a debt-to-GDP ratio of 140 percent, is already threatened by insolvency and should therefore not receive the liquidity help.

2nd step: Market solution in the case of impending insolvency

If a country cannot redeem its debt, because it is threatened by insolvency rather than merely illiquidity, it must negotiate a debt relief programme with the corresponding creditors of a particular maturity on the basis of the CAC. Extensions of maturities, reductions of nominal values or reductions of the interest rate (coupon) may be the outcome of such negotiation. During the period of negotiations, which is not to exceed two months, newly emerging funding needs for current government activities (primary and secondary deficits) will be met by the issue of short-term, maximum one-year, cash advances by the ESM. The interest rate on these cash advances will be 5 percentage points above the average interest rate level of the member countries for loans of the same duration. The cash advances are also senior to private credits.

3rd step: Haircut and issue of replacement bonds

If no agreement can be reached at the second step between the debtor country and the creditors of the maturing CAC bond, the third step of the crisis mechanism is activated. The negotiation period is again limited to two months. The funding needs emerging during the negotiation period will again be met by the issue of senior cash advances at the interstate level.

Also participating in the negotiations are now representatives of the ESM, the ECB and the IMF.

There will be an automatic haircut on the nominal value of the redemption amount of the maturing CAC bond.

The size of the haircut will depend on the average market discount of the previous three months before the start of the negotiations with the creditors. It should, however, amount to at least 20 percent. A minimum limit is necessary in order to restrict the chance for strategic measures on the part of big creditors.²²

The maximum limit on the haircut is 50 percent of the nominal value of the contractually agreed redemption size of the bond. This limit is to guarantee that, while the market correctly anticipates the possibility of a crisis occurring, a true panic of the kind that would ensue if extreme or even total losses seem possible – is avoided. If the ceiling of the losses is defined and limited, the market may adjust to the risks in time.

The par value of bonds net of the haircut will then be exchanged with replacement bonds on a one-to-one basis. The replacement bonds in turn will be guaranteed by the ESM at 80 percent. The detailed design of the replacement bond (coupon, duration) is a subject of the negotiations.

Of course endangered states and their creditors will always argue that the risk of market turbulences is minimal if the haircut approaches zero and the guarantee of the replacement bonds approaches 100 percent. But in that case the incentives for opportunistic behaviour on their part would be correspondingly maximised, undermining the stability of the entire euro system. The conduct of several European countries and their creditors during the years of low interest rates, and the European debt crisis itself, has shown very clearly that the danger of excessive debt should not be disregarded. Otmar Issing, the former chief economist of the ECB, has called the idea that comprehensive insurance packages would increase the stability of the euro area “truly grotesque”.²³

The optimal balance between the goals of the long-term political stability of Europe and the short-term stability of the financial markets consists of neither eliminating all rescue measures nor setting up comprehensive, full-coverage insurance against insolvency

free of deductibles. A maximum haircut of 50 percent and the partial guarantee of replacement bonds at 80 percent is a meaningful solution for addressing the trade-off between the two goals. While it imposes a potential loss on the creditors, it limits this loss to 60 percent of the investment volume. Thus, a limited interest surcharge is sufficient to compensate investors for their risk.

If the negotiations between the ESM and the country threatened by insolvency are unsuccessful, i.e. the required 75 percent of the bondholders do not agree to the described exchange into replacement bonds offered by the debtor country and the Community states within the negotiation period, the debtor country on its part must declare a restructuring plan of the concerned bonds. But in this case the guarantees of the ESM are inapplicable.

4th step: Adjustment period

For an adjustment period of up to three years after an impending insolvency, the ESM may also permit the debtor country the issuance of partially secured replacement bonds that are guaranteed at 80 percent for new net borrowing – as long as the state complies with the framework of the (new) Stability and Growth Pact.

The total sum of guarantees granted for the replacement of the outstanding debt and new borrowing (on a net basis) is limited. As already explained, we consider it appropriate to set this limit at half of the debt-to-GDP ratio permitted by the Maastricht Treaty, i.e. at 30 percent of the prior year's GDP. There will be no guarantees beyond this limit.

2.5.2.5 Debt moratorium

The plan described above assumes that a country in crisis, after issuing partially secured replacement bonds and receiving a reduction of the creditors' claims on maturing bonds, will again be able to borrow in the financial markets. It could happen, however, that a state's guarantee limit of 30 percent of GDP is insufficient for the country to overcome its payment difficulties. Or the country may find itself in a situation in which it is no longer able to service the replacement bond, requiring the Community states to step in and pay the guaranteed amount to the creditors.

²² For smaller discounts on the market value, the crisis mechanism might not be activated anyway.

²³ Issing (2010).

In that event, the debtor country must declare a debt moratorium for its entire outstanding government debt. In this case it can by itself or after negotiations with its creditors restructure the bonds that are in the market. Here the ESM no longer offers protection against losses or risks.

During an adjustment period of up to three years after a comprehensive debt moratorium, the ESM can permit the debtor country to issue replacement bonds, which are guaranteed at 80 percent, for covering the current primary deficit (government expenditures – government receipts). A prerequisite for this is a strict conditionality within the Stability and Growth Pact.

2.5.2.6 The threat of insolvency before CAC bonds have penetrated the markets

The crisis mechanism described above applies to bonds that have a CAC. In the transition period before the new system becomes fully effective, bonds with and without CAC will coexist in variable amounts. The question arises therefore of how to deal with a pending insolvency involving bonds without CAC.

As long as the rescue packages currently valid (Greece and EFSF) are in force, the problem will not arise. But difficulties may occur in an interim phase, during which these rescue packages no longer work and the conversion of the old government debt into CAC securities has not been completed.

If a country defaults because it is unable to repay debt that has become due, nothing prevents owners of standard bonds without CACs that will mature at a later point in time from calling in their loans prematurely, thus exacerbating the crisis and forcing renegotiation of the entire debt. With a unanimity requirement, however, negotiations would be quite complicated.

Nonetheless the plan already provides a workable framework for negotiations between the affected creditors and the ESM. Creditors ought to be offered good terms, in order to reach agreement: it is conceivable that, after a haircut on the order of the market discount within the above-mentioned limits (at least 20 percent, at most 50 percent), for their remaining value bonds are exchanged into replacement bonds that are fully rather than only partially guaranteed by the ESM. This of course without violating the gener-

al rule that the sum of all guarantees and ESM loans must not exceed 30 percent of GDP. It is also essential that the principle that the haircut precedes the aid should not be given up, even in this, improbable, special case. Those who do not accept the thus-specified aid offer and call in their loans prematurely may try to recover their claims in court, but receive no guarantee whatsoever from the ESM.

However, the availability of the CAC bonds combined with the partially guaranteed replacement bonds has the possibility to nip a formal default in the bud. After all, these bonds provide endangered countries with a financial instrument that should be attractive to investors, because their maximum potential loss is limited to 60 percent of the investment volume in even the worst of all possible cases. Thus, a limited interest surcharge over safe assets should be sufficient for a country to be able to find the funds it needs.²⁴ We see it as one of the main advantages of our proposal that it offers a ready-to-use solution to the financial problems currently experienced by a number of euro countries without jeopardising the prospects of reaching a viable long-term solution that would permanently stabilise the euro area. In Chapter 3 we indeed suggest this solution to Greece's foreseeable financing problems after 2013.

While the EU countries agreed in December 2010 to introduce bonds with CAC clauses in 2013, we suggest that any euro country should have the right to introduce such bonds before that date, so as to benefit from the option of converting them into partially guaranteed replacement bonds should it be unable to redeem its debt. One reason for a country to be interested in such an option is that it may wish to carry out a voluntary debt repurchase programme. Market discounts (see Figure 2.2) for some countries are currently substantial. Investors may prefer to sell their bonds now rather than wait to maturity if they fear that the country may default on these bonds because the advantage of being exchanged into partially guaranteed replacement bonds is restricted to CAC bonds.

2.5.2.7 Stabilisation effects

After all old bonds have expired or have been exchanged into CAC bonds, the crisis mechanism is fully operative. It will instil more debt discipline and

²⁴ With a ten year bond an interest surcharge of 4.8 percent over a market rate of 5 percent would be enough to fully compensate for an overall loss of 60 percent of the assets nominal value.

will help stabilize the markets. The risk of domino effects, like those evoked in May 2010 in order to justify the discretionary rescue programmes amounting to billions of euros, will be effectively minimised. Our optimism rests on the following considerations:

- A strengthening of the Stability and Growth Pact, along the lines proposed by the Van Rompuy Commission and largely accepted by the representatives of the member states, ought to induce at least some countries to reduce their budget deficits and outstanding debt.
- The announcement of the crisis mechanism will induce investors to continue to demand interest spreads when buying new government bonds and to reduce credit granted to less solid countries. Higher interest rates will discourage deficit spending and lead to sounder government finances. This market-driven mechanism will have a stronger effect than all political debt limits.
- The protective shields agreed in Washington and Paris on 11 and 12 October 2008 following the Lehman bankruptcy of a volume of 4,900 billion euros remain intact. That alone makes a breakdown of the interbank market like the one that occurred after the Lehman bankruptcy on 15 September 2008 extremely improbable if not impossible. In Germany, for example, the SoFFin (Financial Market Stabilisation Fund) still has around 50 billion euros of unused capital aid available for a recapitalisation of the banks. Conditions are similar in other countries.
- The fact that a crisis mechanism exists, which in addition limits the maximum losses, helps banks and other investors in planning for a country's payment crisis. This should limit any possible turbulence in the financial markets.
- Since, in the third and decisive step of the crisis mechanism, a haircut is stipulated, which conforms to the average market discount during the last three months preceding the announcement of restructuring measures, the risk of market turbulence is limited. Whenever the prices threaten to diverge from the moving average of the last three months, profitable and stabilising speculation becomes possible that will push the prices back to this average. In addition, strategic purchases or sales will hardly be able to affect the maximum haircut during the negotiation period.
- A divergence of interest rates does not necessarily mean that the banks are losing capital, as in the normal case the interest rates of states with a good

credit standing will be pushed down and their bond prices will be pushed up. As shown in Figure 2.2, this was also the case in the current crisis. Holders of government bonds earned about twice as much on German and French bonds than they lost on GIPS bonds.

Related to the last point, we would like to emphasise that the haircut is not in itself a destabilising element of a crisis mechanism, as is sometimes claimed by interested parties. According to our proposed rule, the haircut is engineered such as to exert a stabilising effect, as its size reflects – within the limits set – the discount on the issue price already realised in the market. As shown in Figure 2.2, the discounts on long-term Greek securities amounted to about 30 percent in early November 2010 and also in May 2010. If a haircut had been applied in that month in such a dimension, no market turbulence would have been triggered, because the expectations of the market agents would have come true. In contrast, a continuation and expansion of the comprehensive insurance rescue, which was agreed in May 2010, would have resulted in a sudden increase of prices, speculation profits and a considerable destabilisation of markets. Not only downward swings are destabilising. Upward swings are destabilising, too, because they may create opportunities for opportunistic speculation.

2.6 Supplementary reforms are needed

The introduction of a crisis mechanism, which defines the participation of private investors in a possible restructuring of a euro-area country's bonds in a crisis situation, must be the core of the reforms of the body of EU financial rules. In order to be able to function in the desired way, it should be supplemented by two additional reform measures.

2.6.1 Bank regulation

To date, financial institutions can expect to be rescued by taxpayers in case of crisis, as their insolvency could lead to an undesired domino effect on the financial markets, which would be more costly in the end than the rescue of an individual institution. It therefore makes sense for individual banks to incur high risks, as they can appropriate the high returns in a good state of the world, leaving the possible losses to taxpayers. The potential risks of government bonds of

some south and west European countries may also be underestimated for the same reason.

The willingness to assume high risks when buying government bonds was boosted by the present equity rules of the Basel system. Accordingly, banks did not need to consider any risk weight for government bonds in determining their risk-weighted assets and therefore did not need reserve equity backing for them. This was one of the main reasons why banks invested so heavily in government bonds, and arguably this was one of the main drivers of the European sovereign debt crisis.

In the new Basel III system agreed at the meeting of the heads of government of the G20 countries in Seoul, the situation will be improved to the extent that in future banks must hold equity in relation to the sum of their risk-weighted assets and on the amount of 3 percent of their total assets. Since their stocks of government bonds are part of total assets, there will be the requirement, for the first time, of equity backing of government bonds held by banks. Yet, the risk weight of the government bonds in the risk-weighted assets will, as a rule, still be zero. Only if there is an extreme downgrading of a country's credit standing will higher risk-weights apply, as is already the case today.

It is appropriate to change the risk weights in such a way that lending to countries will also be reflected in the computation of the risk-weighted assets, since in this case the banks will become more circumspect in their lending.

Furthermore, it is necessary to develop a rescue system, funded by the banks themselves, which will come to the aid of a distressed bank by providing additional equity in exchange for stock in the case of crisis. Increasing the equity capital requirements, no matter how high, remains ineffective as long as evading these requirements induces policymakers to grant aid measures in order to prevent a shut-down of the banks (regulation paradox). In order to make sure that the equity capital of a bank can truly be liable without the need to shut down the bank, it is imperative that losses, which push the equity capital below the legal limit, are met by new outside capital. A bank rescue system that rescues the banks but not their stockholders would protect the banking system better against sovereign insolvencies and would thus deflate the argument that was put forth in the crisis of May 2010 in favour of the government rescue systems.

The rescue system can be set up at national level for banks operating locally. However, transnational banks that induce inter-country externalities should become part of international schemes. As the help comes as equity help in exchange for shares that the fund will own, the international redistribution would be limited.

As we have noted earlier (EEAG 2009, Chapter 2), it would also have been wise for the European Union to have set up a common system of deposit insurance for banks with a sufficient scope of international activity, when the risks to be insured had not yet materialised, i.e. before the crisis lifted the veil of ignorance. Some of the problems that, for example, the Irish banking system suffered in this crisis could then have been avoided. The deposit insurance scheme could also have played a role in restructuring (the US model is the FDIC, whose role in restructuring banks has been praised).

Setting up such a scheme after the crisis is difficult and cannot be justified as insurance because of the foreseeable redistribution between countries that this would involve. Nevertheless, when the dust of the crisis has settled and the banking system has been stabilised, a new effort should be made to establish an actuarially fair deposit insurance system for banks with truly transnational business. The fees paid by banks in such a scheme should of course reflect their risk position according to objective measures.

Finally, national governments could also help their respective banks directly, given that no fund has yet been built up. In Chapter 5, we discuss the potential design of fees that would be able to provide the necessary revenue.

2.6.2 Detailing the responsibility of the ECB

Additional supplementary reforms concern the ECB. The crisis mechanism described above will become irrelevant if it is undermined by the ECB. By deciding independently to acquire government bonds, the ECB made its owners liable to rescue states. Acquiring the government bonds was not a monetary policy measure in the true sense, for – as emphasised by the ECB time and again – it sterilises the effects on the money supply by liquidity-absorbing actions. As the ECB even rescinded its earlier announced credit-standing criteria for repurchase agreements, it in fact is now pursuing a policy that potentially violates Article 125 TFEU, according to which one country is not liable for the debts of another country.

If the EU countries agree on a crisis mechanism that aims at the participation of private creditors in the payment crisis of a member state, the responsibilities of the ECB must also be detailed. In the course of negotiations about redesigning the EU Treaties, a change in the distribution of voting rights in accordance with the size of capital shares could be envisaged so as to protect the big European guarantor countries against excessive liability. If policymakers are not willing to go that far, it is at least necessary to supplement Article 123 (1) TFEU in such a way that the ECB may only acquire government bonds in the secondary market for purposes of monetary policy.

In this context it is advisable to look closely at the formulation of the relevant Treaty articles:

“Overdraft facilities or any other type of credit facility with the European Central Bank or with the central banks of the Member States (hereinafter referred to as ‘national central banks’) in favour of Union institutions, bodies, offices or agencies, central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of Member States shall be prohibited, as shall the purchase directly from them by the European Central Bank or national central banks of debt instruments.”²⁵

The formulation clearly states that the ECB may not grant direct loans to the states and may not directly acquire government securities. To the layman it sounds like a general clause that precludes misuse in the form of funding a government deficit by printing money. Purchases on the secondary market are not precluded, however. The fact that Greece sold its government bonds to its central bank using the detour via its commercial banks was permitted because it was not prohibited.

To be sure, such purchases may be necessary in given situations to fight a general deflation in the euro area, which is more than merely a remote possibility, as the Japanese example shows. This applies especially if the interest floor of 0 percent has been reached and there is still a direct risk of deflation, measured by the Harmonised Consumer Price Index for the entire euro area. But the ECB should not forget its credit-standing criteria, nor should it try to protect government budgets. Therefore, for a future amendment of the

Treaty the last sentence of the cited paragraph should be supplemented with this proviso:

“The indirect purchase of government bonds is limited to securities of high creditworthiness and exclusively permitted for purposes of monetary policy.”

In light of our proposal, there is already a lender of last resort providing liquidity help to states; relieving the ECB from responsibilities that are not appropriate for monetary authorities to bear is advisable.

An important issue is whether the ECB should nonetheless play a role in maintaining financial stability for the euro system as a whole. Technically, it makes sense for a central bank to provide liquidity support to financial intermediaries, according to sound principles, as discussed in a previous EEAG report (EEAG 2009, Chapter 2). Yet, in view of the fiscal implications of financial crises, discretion in the provision of liquidity help may be subject to undue political influence, creating a hidden channel of fiscal transfers in contradiction to the goals of the new European fiscal governance system. As the German experience of the early 1920s has shown, direct or indirect access of governments to central bank money would also risk financing government budget deficits with newly issued money, which could result in hyperinflation. Thus we consider it essential to limit such central bank policy strictly to the exceptional purpose of fighting a deflationary risk.

2.7 Concluding remarks

There were good reasons for the founders of the European Monetary Union to include a no-bailout clause in the Treaty. It basically means that the member countries must deal with their fiscal problems themselves and must not expect the help of neighbouring countries and their taxpayers. Knowing this, investors would require a higher risk premium of weaker debtors than for economically stable countries, which would then prevent excessive borrowing, mispricing and bubbles in the euro area. So the idea.

Past events have shown, however, that the no-bailout clause was not sufficiently credible, and that mispricing and bubbles occurred nevertheless. This was due to the fact that systemically important banks could expect to be rescued by their states, and the states in turn by the community of member states, to avoid panic reactions and domino effects. Obviously there

²⁵ Consolidated Version of the Treaty on the Functioning of the European Union (TFEU), Article 123, Section 1.

was speculation that in case of crisis enough pressure would be built up to induce the EU countries to provide help, even though they were violating the EU Treaty in doing so.

The problematic moral hazard effects that were created by the lack of credibility of the no-bailout clause was enhanced by the Basel system's deficiency of not requiring banks to hold any regulatory equity capital against government bonds. This deficiency is a major explanation of why French, and to some extent also German, banks were so heavily exposed to government bonds in this crisis and why they exerted sufficient pressure on their governments to agree on the rescue measures of May 2010.

The situation was exacerbated further in that the Stability and Growth Pact was never taken seriously. New borrowing by the European countries has exceeded the 3 percent ceiling of the Stability and Growth Pact 97 times. Only in 29 cases could the high deficits be justified by the exemptions provided in the Pact. In 68 cases, sanctions should have been imposed, but in fact, they never were. The rules developed by the European Union to harness government debt proved to be utterly ineffective.

For these reasons, in the initial period under the European Monetary Union, Europe was characterised by what Hungarian economist Janós Kornai once called "soft budget constraints" in making his famous prediction that Communism was doomed to fail. Soft budget constraints always lead to disaster. Although in the present crisis it was not the fall of the entire system, it was a crisis severe enough to threaten confidence in the future of the European Union.

In economic terms the soft budget constraints operated via a rapid interest rate convergence relative to pre-euro times. Before the introduction of the euro there were huge interest spreads, much bigger than today, to compensate for a perceived depreciation risk. With the launch of the euro, the implicit bailout expectations eliminated these spreads, inducing huge and unprecedented capital flows in Europe. The capital basically flowed out of Germany, which became the world's second largest capital exporter after China, and into the countries of Europe's south and western periphery, creating an overheated boom in the periphery and a severe slump in Germany. While in Germany the net investment share in output was pushed to the lowest level in the OECD, real estate prices declined and growth fell to the second lowest level in Europe, the

countries in the periphery experienced a housing boom with unprecedented GDP growth rates.

As a result of the slump, Germany's imports grew only little and its product prices stagnated, improving the competitiveness of German exports. Similarly, in the booming countries imports grew quickly, while exports were constrained by rapid price increases that undermined these countries' competitiveness. Via these mechanisms, trade imbalances developed that were large enough to match the capital flows induced by the euro from Germany to the countries in the periphery. As Christine Lagarde pointed out so rightly, EU countries were dancing the tango, but the music was coming from the capital rather than the goods markets.

The capital flows and the resulting trade flows eventually became excessive and unsustainable, triggering a bursting of real estate bubbles and the sovereign debt crisis Europe is now suffering.

Debt discipline only came into effect when, well into the global crisis, financial markets started to charge sizeable interest rates according to the different credit standing of each country. Only then did financial markets activate the debt brake that had been lacking in Europe for private and public debtors. Too late, one may argue.

For this reason alone, no crisis mechanism should be demanded for Europe that eliminates interest spreads again (as happened in the first years of the euro). In particular, the euro area should under no circumstances adopt eurobonds or similarly constructed community loans, as have been advocated by some European politicians. We can only warn that taking the direction of issuing such bonds will exacerbate the problems we see at the root of the crisis. Eurobonds will do nothing but strengthen incentives for opportunistic behaviour on the part of debtors and creditors, given that they prevent the emergence of fundamental risk premia by acting as full-coverage insurance against insolvency. Appropriate pricing of sovereign risk is an essential feature of well-functioning financial markets and this excludes joint liability mechanisms. It induces debtors and creditors not to exaggerate the capital flows and to exercise caution in lending. This is the essential prerequisite of removing the European trade imbalances in the future. Those who want to force artificially a convergence of nominal interest rates across government bonds by political measures, in spite of different probabilities of

redemption, de facto argue in favour of cross-subsidising the flow of capital into relatively unsafe countries. They advocate a policy that would again expose the euro area to periods of relative overheating of the countries with more fragile fiscal and financial foundations, and relative stagnation in the countries with better discipline, which would perpetuate the trade imbalances.

We do not want to be misunderstood, however. We argue neither against the provision of emergency liquidity to address panics, nor against rescue measures to help countries in pursuing their restructuring needs. In our proposal, the mandatory inclusion of collective action clauses (CAC) in all bonds sold by euro-area governments together with the provision of replacement bonds, guaranteed to 80 percent by the Community states and available in case of emergency, will grant considerable protection. The availability of these bonds will allow GIPS countries (or any country facing a looming crisis) to service existing bonds sequentially, as they come due at maturity, by the sale of bonds with CAC and in all likelihood to avoid insolvency. We warn against establishing a full-coverage insurance against insolvency, however, as some EU politicians are apparently contemplating.

The CAC bonds, backed by partially guaranteed replacement bonds, provide a possibility for troubled European countries to address their financing needs immediately. As these bonds define and limit the risk to investors, they provide a key instrument for countries to raise money from the market without having to resort to the funds of the ESM. For instance, issuing these bonds can make it possible for these countries to repurchase debt at today's discounted market values, with the goal of significantly reducing their debt-to-GDP ratios.

For countries that nevertheless face difficulties, we propose a three-stage crisis mechanism that distinguishes between illiquidity, impending insolvency and (full) insolvency. We place most emphasis on the second of these concepts, because it is a breakwater procedure that seeks to avoid full insolvency.

First, if a country cannot service its debt, a mere liquidity crisis will be assumed, i.e. a temporary difficulty due to a surge of mistrust in markets that will soon be overcome. The European Stability Mechanism (ESM) helps overcome a liquidity crisis by providing short-term loans, senior to private loans given to gov-

ernments, for a maximum of two years in a row. This time period should be long enough for the country to raise its taxes or cut its expenditures so as to convince private creditors to resume lending.

Second, if the payment difficulties persist after the two-year period, an impending insolvency is to be assumed. The ESM now provides help in terms of partially guaranteeing the replacement bonds that the country can offer the creditors whose claims become due, but only under the condition of a haircut for the respective loan maturities. The haircut will see to it that the banks and other owners of government bonds bear part of the risk of their investments. As the haircut will, within limits, be sized on the basis of the discounts already priced in by investors, it will clearly help stabilising markets. Providing financial resources from the community of euro states to investors, without ensuring a haircut as a precondition, in the amount of the actual discounts priced by markets, would be tantamount to shoving profits onto the speculators.

Third, should the country be unable to service the replacement bonds and need to draw on the guarantees from the ESM, full insolvency must be declared for the entire outstanding government debt.

The key prerequisite for maintaining the market discipline ensured by correct interest spreads (and for allowing capital markets to allocate aggregate savings efficiently) is the sequencing and relative size of the haircut and government aid in the case of impending insolvency. Before financial aid in the form of guaranteed replacement bonds may be granted, the creditors must initially offer a partial waiver of their claims. Only this order of events (with defined maximum losses for the investors) can guarantee that the creditors apply caution when granting loans and demand interest mark-ups.

There are reasons to hope that future crises of the euro area will not be as severe as the current one, given that some of the initially huge differences between the European economies have been reduced in the first decade of the euro. Despite their excesses, the recent capital flows within the euro area have indeed fostered the catching-up process in lagging countries. Because of the reduced distance, and the emergence of country risk in financial markets, the catching-up process within the euro area can be expected to be much slower in the future. At the same time, the crisis will necessarily cause real exchange

rate realignment, leading to a sustained rebalancing of trade and capital flows.

Nevertheless, the crisis has revealed severe deficiencies in the Maastricht Treaty and has now paved the way for a new economic governance system, ensuring the long-run stability of the euro area. The new system must address the core issue of complementarity between surveillance, supervision and regulation, on the one hand, and market discipline, on the other. The main mistake of the past, undermining the second pillar, should not be repeated.

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