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From the Stability Pact to ESM – What next?

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From the Stability Pact to ESM – What next?¹

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May 2012

Abstract

Europe is struggling with the resolution of the severe debt crisis and is in the process of overhauling its institutional set up. One element of the reform agenda is the European Stability Mechanism (ESM) which is intended to provide liquidity assistance to countries in case financial stability in the Euro Area is at stake. The ESM shall enter into force in July 2012, following ratification of the member states. It will have five instruments at its disposal: direct loans to countries, purchases of assets on the primary or secondary market, contingent credit lines, and funds for bank recapitalization. In this contribution, it is argued that establishing an explicit crisis resolution mechanism is in principle useful. However, the ESM is defined too broadly, and its scope should be limited to the provision of emergency liquidity assistance only under narrowly defined circumstances. Using the option to recapitalize banks might help addressing a potential debt overhang problem. Yet, the current framework has deficiencies in this regard and lacks the necessary backing by complementary institutional reforms, notably a regime for cross-border bank resolution.

Keywords: Euro Area, ESM

JEL-codes: E610, E630, F550

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1 How It All Began

The introduction of the Euro marked a decisive moment in the process of European integration. Before the adoption of the Euro, focus had been on deepening the Union through increased integration and the creation of a Common Market and on widening the Union by accepting new member countries in Central and Eastern Europe. In 1999, a core group of eleven member countries (Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain) formed the European Monetary Area and adopted a common currency. Greece (2000), Slovenia (2006), Cyprus and Malta (2007), the Slovak Republic (2008), and Estonia (2010) joined later on.

It was well understood that the sequence proposed by many, i.e. to form a monetary union only after a political union had been achieved, had not been followed. Yet, there was the hope that the requirements of the new currency would induce governments to pursue policies consistent with the common monetary regime. The facts that only countries fulfilling the Maastricht Criteria could join the Euro and that member states had to adhere to the Stability and Growth Pact was considered to be a sufficient precondition for stability-oriented fiscal policies.

Insufficient consideration was given to the potentially devastating feedback loops between misaligned incentives in the financial sector, overborrowing of the private and the public sector, and the evolution of persistent current account deficits. Yet, past experiences with currency and financial crises could have told a lesson: turbulence in the European Exchange Rate Mechanism and the speculation against the British Pound had happened less than a decade ago, and severe banking and exchange rate crises had just shaken the Asian countries as well as other emerging markets in the late 1990s. In fact, the Delors-Reports is quite explicit about the constraints financial markets can impose on economic policy.²

Now, more than a decade later, the European sovereign debt and banking crisis has revealed three main fault lines of the European institutional architecture.

First, incentives for structural reforms have been insufficient and, as one consequence, price and wage convergence has been limited. While nominal interest rates had converged across countries, relative prices and real interest rates have differed persistently. The resulting

² The Report states that “*However, experience suggests that market perceptions do not necessarily provide strong and compelling signals and that access to a large capital market may for some time even facilitate the financing of economic imbalances. Rather than leading to a gradual adaptation of borrowing costs, market views about the creditworthiness of official borrowers tend to change abruptly and result in the closure of access to market financing. The constraints imposed by market forces might either be too slow and weak or too sudden and disruptive. Hence countries would have to accept that sharing a common market and a single currency area imposed policy constraints.*” Committee for the Study of Economic and Monetary Union, Jacques Delors, Chairman, Report on Monetary and Economic Union in the European Community (April 1989), p. 10.

diverging trends in competitiveness and low risk premia have led to persistent current account imbalances in the Euro Area and have created incentives to overborrow.

Second, links between sovereign risk and banking stability have not been addressed adequately. The Stability and Growth Pact was intended to create incentives for governments not to overborrow and to keep the official budget deficit in line with the Maastricht criteria. Yet, between 1999 and 2008, there have been 60 violations of the debt criterion and 33 violations of the deficit criterion.³ Microprudential regulation of banks was used to keep checks and balances on private sector borrowing, but without adequately addressing feedback channels between private and public sector risk. Yet, recent experience particularly in Ireland and Spain has shown that financial sector stress can spill over into the fiscal sphere. Many banks in the crises countries have a significant and highly concentrated exposure to sovereign risk. Hence, the rescue measures that have been launched since May 2010 were motivated by the risk of contagion of sovereign risk into the banking sector – not only in the crises countries but also beyond.

Third, the no-bail-out clause has lacked credibility. Article 125 of the Treaty on the European Union „The Lisbon Treaty“ (2007) specifies a no-bail-out clause.⁴ Article 100 of the EC Treaty stipulates that financial assistance might be granted, but only under exceptional circumstances.⁵ Notwithstanding this modification, the strict adherence to the no-bail-out principle is one cornerstone of the institutional framework in the Euro Area. Yet, recent experience shows that diverging trends in competitiveness and weaknesses in the financial systems can lead to speculation against the weaker countries in the Euro Area which may ultimately render the no-bail-out principle to be time inconsistent. Since May 2010, several rescue measures have thus been launched, including bilateral loans to Greece, the successive support packages of the newly established European Financial Stability Facility (EFSF) for Greece and Portugal and the liquidity support provided by the European Central Bank (ECB). New rescue schemes have been established as well. Up to now, total support measures amount to approximately 800 billion € consisting of 53 billion € of bilateral loans, 49 billion € (European Financial Stabilisation Mechanism or EFSM), 440 billion € (EFSF), and 500

³ These figures have been calculated on the basis of Eurostat data.

⁴ “The Union shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of any Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project. A Member State shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of another Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project.” Source: Consolidated version of the Treaty on the Functioning of the European Union, Article 125 (ex Article 103 TEC).

⁵ “Where a Member State is in difficulties or is seriously threatened with severe difficulties caused by natural disasters or exceptional occurrences beyond its control, the Council, acting by a qualified majority on a proposal from the Commission, may grant, under certain conditions, Community financial assistance to the Member State concerned.” Source: Treaty establishing the European Community (Nice consolidated version) Article 100, second paragraph/ Article 103a - EC Treaty (Maastricht consolidated version), second paragraph.

billion €(ESM) with the latter two being limited to a combined lending of not more than 700 billion €

Correcting the imbalances that have built up in the Euro Area requires deep structural reforms, involving labor market and product market reforms, lower national and international barriers to the entry of (new) firms, and measures to enhance the productivity of firms. In addition to policies improving the competitiveness of firms, reforms are needed that create a more credible framework for financial markets. These reforms should reduce incentives for private and public sector overborrowing while, at the same time, providing a mechanism to deal with financial stress in countries that have sound fundamentals but that come under pressure from financial markets.

In short, Europe stands at the doorstep of encompassing institutional reforms, and the ESM is one part of this reform package. In the following, I briefly summarize the scope of the ongoing institutional reforms, the structure of the ESM, and the conditions under which countries can draw on these funds (Section 2). I then discuss the process of economic convergence in the Euro Area and the mechanisms that have led to external imbalances (Section 3). Section 4 discusses the implications for the ESM. I focus on four aspects: the extent to which the ESM can and should address the debt overhang problem, the extent to which the option of bank recapitalization should be used, the need to focus the ESM on a mechanism that provides liquidity only under very narrowly defined circumstances, and the complementary reforms that are needed in order to strengthen the credibility of the ESM. Section 5 concludes.

2 The European Stability Mechanism (ESM)

The European Stability Mechanism (ESM) is a permanent mechanism to ensure financial stability. When designing the conditions under which countries can draw on funds provided by the ESM, two main questions need to be answered: First, how can the available funds be used most effectively, and which instruments should be at the disposal of the ESM? Second, how can financial assistance be provided without reducing the effectiveness of market signals for structural reforms?

These questions cannot be answered without taking into consideration that the ESM is part of an encompassing reform program that the EU has initiated in response to the (sovereign) debt crisis. This program aims at reforming the Stability and Growth Pact, enhancing competitiveness and growth, and stabilizing financial markets.

As regards fiscal policy, the so-called Six Pack, which went into force in December 2011, consists of five regulations and one directive addressing improved fiscal surveillance as well as a new program of macroeconomic surveillance and coordination. The fiscal part of a new “Treaty on Stability, Coordination and Governance (TSCG)” is called the Fiscal Compact, signed by 25 EU member countries. It will enter into force after ratification by at least 12

countries of the Euro Area. These amendments to the Stability and Growth Pact include the obligation for all contracting parties to introduce balanced budget rules at the national level, preferably in the national constitution, stricter surveillance and enforcement mechanisms with regard to the 3% deficit criterion of the Maastricht treaty for Euro Area countries, mandatory debt reduction plans (i.e. a reduction of the differences between the 60% debt ceiling and the actual debt level), and sanctions in case of non-compliance (BMW 2012: 18). As preventive measures, EU member countries must submit annual programs defining medium-term budgetary plans; the corrective arm consists of measures aimed at limiting excessive deficits. Sanctions can be imposed by the Ecofin-Council through simple majority votes (in the preventive arm) or through reverse majority voting (in the corrective arm). In the future, it will be necessary to have a majority *against* recommendations of the European Commission concerning the decision of whether an excessive deficit exists or whether, in case of non-compliance, further actions are needed. Furthermore, a new macroeconomic surveillance and coordination mechanism as well as the Euro-Plus-Pact include measures aimed at promoting growth and enhancing competitiveness. And, finally, comprehensive financial sector reforms are under way.⁶

All these policy measures aim at the prevention of crisis in the future. In parallel to that, the EFSF provides a temporary rescue scheme, which will be succeeded by the ESM as a permanent rescue scheme from mid-2012 onwards. The purpose of these rescue schemes is to provide financial assistance in times of crisis and under strict conditions of conditionality. For this purpose, the following paragraph is added to Article 136 of the Treaty on the Functioning of the European Union "*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*".⁷

Current policy discussions on the ESM have focused primarily on the volume of funds that are available to support Euro Area countries. The effective lending capacity of the ESM is 500 billion €, while this amount initially also represented the original combined lending capacity of the EFSF and the EFSM. On March 30, 2012, it was decided to keep the EFSF operational until July 2013 and raising the combined lending capacity to a total of 700 billion €, of which approximately 200 billion € consists of the already agreed adjustment programmes in Greece, Portugal and Ireland, thereby raising the maximum additional lending capacity available as of now from 300 billion € to 500 billion €⁸ Generally, only countries

⁶ A comprehensive review of these initiatives would be beyond the scope of the present paper. See the homepage of the European Commission for an overview of the state of the legislative process (http://ec.europa.eu/internal_market/bank/index_en.htm).

⁷ See ESM Treaty, p. 3 http://www.efsf.europa.eu/attachments/esm_treaty_en.pdf.

⁸ See European Financial Stability Facility (EFSF), Frequently asked questions, http://www.efsf.europa.eu/attachments/faq_en.pdf, accessed on May 1, 2012.

that have ratified the Fiscal Compact qualify for funding under the ESM, and financial support can be granted only upon approval of a qualified majority of 86% of the votes.

The total subscribed capital of the ESM will be 700 billion € which consists of 80 billion € paid in capital and 620 billion € callable capital. Due to its overcollateralization, the ESM shall obtain a top rating.

The ESM is activated upon application of one of its member countries for financial assistance. With this application, the specific financing instrument is specified as well. Details on the use of each instrument are defined by the directorate of the ESM in a set of guidelines. Generally, five instruments are available:

1. *Precautionary Conditioned Credit Line (PCCL)*: According to Article 14 of the ESM treaty, countries can draw on a PCCL (a) if they fulfil certain preconditions including measures to correct structural weaknesses, and (b) if they adhere to sound macroeconomic and fiscal policies. Countries which meet only criterion (b) get access to an Enhanced Conditions Credit Line (ECCL). Conditions that countries have to fulfil are specified in a memorandum of understanding (MoU).⁹
2. *Financial assistance for the re-capitalisation of financial institutions of an ESM Member*: According to Article 15, the ESM can provide loans to the respective government that can be used to recapitalize financial institutions. Countries that qualify for such support must sign a memorandum of understanding which emphasizes financial sector restructuring. Financial assistance for recapitalization may also be granted to non-programme countries, i.e. it is not necessarily conditional upon a full macroeconomic adjustment program.¹⁰
3. *ESM loans*: According to Article 16 of the ESM treaty, the fund may provide loans to support a macroeconomic adjustment program. Details of this adjustment program must be specified in a memorandum of understanding. ESM loans have preferred creditor status, similar to IMF funds. This is in contrast to EFSF loans, which have the same seniority as other holders of sovereign debt.
4. *Primary market support facility*: According to Article 17, the ESM may purchase securities on the primary market in order to ensure market access for one of its member countries or to ease a country's return to the capital market.

⁹ The PCCL and ECCL share similarities with new credit lines that the International Monetary Fund (IMF) has established after the Asian crisis. Use of these so-called Flexible Credit Line and the High Access Precautionary Credit Line has been limited because of the requirements of strict ex ante conditionality and the fear of a stigmatization effect for countries under these arrangements. See John and Knedlik (2011) for a discussion of the experience.

¹⁰ See "EFSF Guidelines on Recapitalisation of Financial Institutions (FIs) via loans to non-programme countries", downloaded from <http://www.efsf.europa.eu/about/legal-documents/index.htm> accessed on May 1, 2012.

5. *Secondary market support facility*: According to Article 18, the ESM may buy securities on the secondary market in order to prevent financial contagion to other member countries and in case of the “*existence of exceptional financial market circumstances and risks to financial stability*”, as defined by the ECB. A memorandum of understanding again specifies the conditionality for the country affected.

Private sector involvement, an issue which has been highly contentious in the negotiations of the treaty, is mentioned only in the preamble of the ESM Treaty. Departing from the original drafts of the treaty, which had been agreed upon in July 2011, private sector involvement is not the rule, but “*In accordance with IMF practice, in exceptional cases an adequate and proportionate form of private sector involvement shall be considered in cases where stability support is provided accompanied by conditionality in the form of a macro-economic adjustment programme.*” (ESM Treaty, version as of 23.2.2012, p. 8). Financial support from the ESM is thus not conditional upon the initiation of debt restructuring negotiations. It is also not conditional upon a write down of debt, which would require bridge financing in order to maintain access to finance in times when access to private financial markets is temporarily shut off. Moreover, according to Article 12 of the ESM Treaty, collective action clauses shall be included in all new Euro Area government securities with maturity of more than one year, beginning in January 2013.

3 Real Economic Developments in the Euro Area¹¹

The ESM is intended to stabilize financial markets resulting from sovereign risk and banking sector instability. But understanding the potential of the ESM to contain financial instabilities also requires a thorough understanding of the underlying state of the real economy and of the mechanisms that may lead to a build up of unsustainable debt positions. In this section, I take a step back and discuss the economic developments that are behind the current crisis in the Euro Area. I review trends in income and productivity in Europe (Section 3.1), the evolution of interest rates and prices (Section 3.2), the current account and capital flows (Section 3.4), and the role of fiscal transfers in existing currency unions (Section 3.5).

3.1 Income and Productivity

Many view the convergence of per capita incomes as a precondition for a functioning monetary union. Yet, economic convergence is a rather gradual process, and differences in per capita incomes are very persistent even within existing monetary unions.¹² In the case of

¹¹ The following argument is a shortened and updated version of a report of the Academic Advisory Council BMWi (2011b).

¹² Historic evidence shows that, on average, incomes per capita converge by about 2 percentage points annually (Barro und Sala-i-Martin 1991, Sala-i-Martin 1996).

Europe, an important issue has been whether the increased integration of markets through the Single Market Program has speeded up or slowed down convergence. If technological progress is largely exogenous and if there are no significant barriers to the movement of capital and labor across borders, then market integration could increase the speed of economic convergence. If, in contrast, agglomeration advantages such as proximity to suppliers and customers are important and if this leads to endogenous technological progress, enhanced integration may rather lead to economic divergence.

Empirical evidence from the European Union (EU) as a whole shows that differences in per capita incomes have decreased gradually up until the 1970s (Boldrin und Canova 2001, Giannone et al. 2009). Convergence has slowed down in recent decades, while differences at the regional level have increased (Sapir et al. 2003). Since the 1980s, differences in per capita incomes of the core countries of the Euro Area have remained relatively stable with a coefficient of variation of about 0.28.¹³ These differences are slightly below comparable numbers for the US states (0.38).

Differences in unemployment rates are much more pronounced in Europe than across the individual states in the US. Prior to the financial crisis (in the year 2007), the average unemployment rate in Europe stood at 6.5% and thus above the US rate (4.6%); in the year 2011, average unemployment rates were 10.2% in the Euro Area and 8.9% in the US.¹⁴ Yet, dispersion of unemployment rates is much higher in Europe. While the coefficient of variation of regional unemployment rates was 0.25 in the US, the corresponding number was about twice as high in 2010 in Europe (0.47). Or, in absolute terms: while the highest unemployment rate in the US was registered in Nevada (13.5%)¹⁵, the highest rate in Europe was recorded in Spain (more than 20%). There are many explanations for these differences, but insufficient regional mobility of labor, together with large inter-country variation in structural weaknesses on European labor markets, are certainly important factors.

In addition, productivity and innovation activity differ across European countries. According to *Eurostat*, labor productivity has diverged considerably across the Euro Area with numbers for Greece (18€), Spain (24€) and Portugal (14€) lying below the values for the Euro Area as a whole (33€) (data are for the year 2010). In terms of expenditure for research and development, European countries fall into three main groups. The highest expenditure relative to GDP are recorded in Germany and in the Scandinavian countries (about 3% of GDP), followed by Austria, the Benelux countries, Estonia, France, Ireland, Slovenia, and the UK

¹³ The coefficient of variation of real GDP per capita is the standard deviation relative to the mean of real GDP per capita for each individual year in US dollar. The Euro Area comprises Austria, Belgium, France, Germany, Greece, France, Italy, Ireland, Netherlands, Portugal, and Spain. The numbers given in the text are based on (for Europe) International Monetary Fund, World Economic Outlook Database, April 2011, and (for the US) Bureau of Economic Analysis, Regional Economic Accounts.

¹⁴ These numbers are based on *Eurostat* and refer to the annual average unemployment rates.

¹⁵ This number refers to September 2011 and has been calculated by the *Bureau of Labor Statistics*.

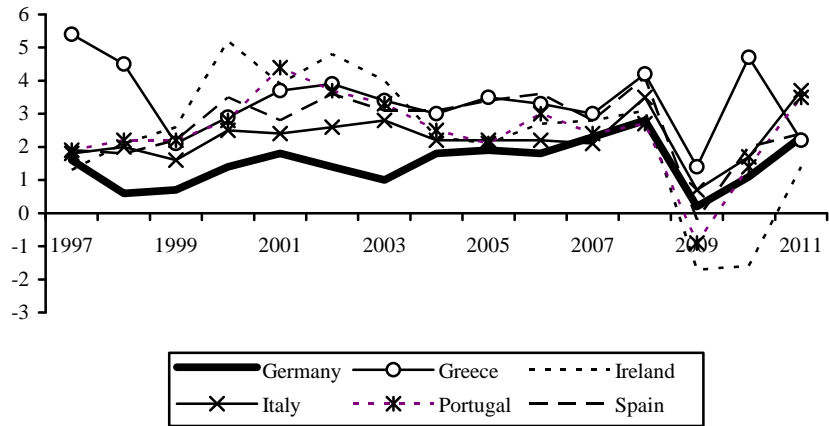
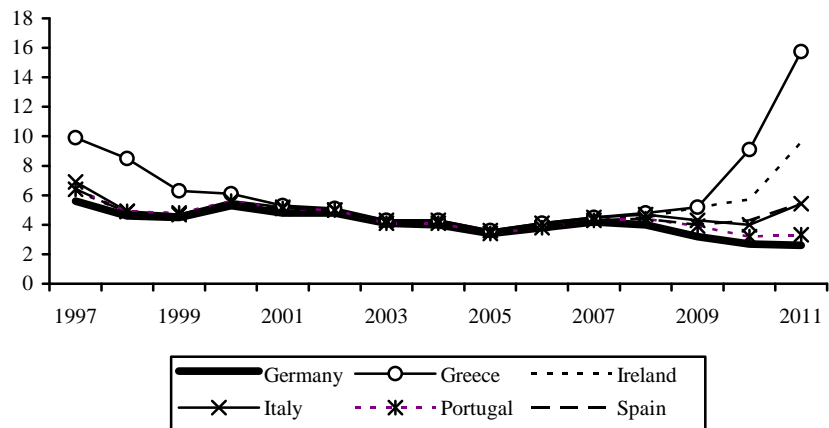
(about 2% of GDP), and the southern and Eastern European countries with less than 1% (OECD 2011). Using the number of patents or employment in R&D gives a very similar picture. Interestingly, in countries with a low share of R&D investment, a relatively high share of these investments comes from the public sector.

3.2 Interest Rates and Relative Prices

While there has been no distinct trend towards real convergence in the Euro Area in recent decades, nominal interest rates have quickly converged following the introduction of the Euro (Figure 1b). This nominal interest rate convergence has not only affected wholesale markets but also retail interest rates. Figure 2 shows that the standard deviation of interest rates on time deposits has been below 0.1 until the outbreak of the financial crisis in 2007; standard deviations of loan rates have been a bit higher. The graph also shows that the convergence of nominal interest rates has come to an abrupt end leading to a widening of spreads due to the sovereign debt and banking crises.

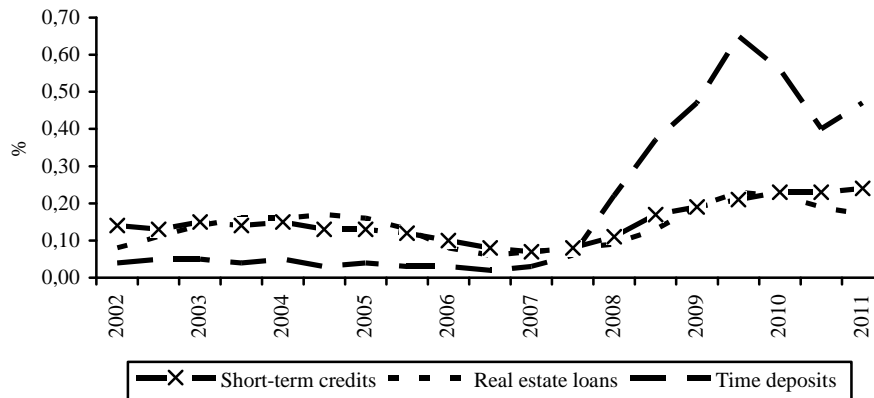
Nominal interest rate convergence reflected the elimination of exchange rate risk and a convergence of inflationary expectations (Ehrmann et al. 2011).¹⁶ Interestingly, default risk has been priced in only after support measures have been granted, perhaps because these measures have been deemed insufficient. The widening interest rate spreads since the start of the financial crisis in the year 2007 certainly reflect increased risk premia. Over time, bail out expectations have changed, but quantifying these effects empirically is hardly possible. There is evidence that the factors driving the pricing of government debt have differed before and after the crisis: before the crisis, sovereign risk in the Euro Area was systematically underpriced; during the crisis, it was systematically overpriced (De Grauwe and Ji 2012).

¹⁶ This study does not capture the effects of the sovereign debt crisis. Schuknecht et al. (2009) also analyze interest rates and risk premia in the Euro Area. Buiter und Sibert (2005) argue that the refinancing policies of the ECB have affected risk premia in the Euro Area.

Figure 1: Inflation and Nominal Interest Rates**(a) Inflation (%)****(b) Nominal Interest Rates (%)**

Nominal interest rates are the annual average rates of return on fixed rate government bonds with a residual maturity of at least 3 years. The inflation rate refers to the harmonized consumer price index.

Sources: Sachverständigenrat, ECB *Statistical Data Warehouse*, own calculations.

Figure 2: Divergence of Nominal Retail Interest Rates in the Euro Area

The graph shows the coefficient of variation, i.e. the standard deviation relative to the mean interest rates, across Euro Area countries. Short-term credits are those with a residual maturity of less than one year. Data for the year 2011 are as of September.

Sources: European Central Bank (ECB) *Statistical Data Warehouse*, own calculations.

Nominal interest rate convergence can be problematic if real economic developments diverge. Together with diverging price and wage developments, nominal interest rate convergence leads to differences in real interest rates. In countries where prices increase faster than in the rest of the currency area, real interest rates are low, and firms, households, or governments have incentives to borrow. Table 1 shows the evolution of private and public sector debt in % of GDP. In the Euro Area as a whole, public debt has increased from about 73 to 81% from the second half of the 1990s until the crises years (2008-2011). Developments across countries differ. While the steepest increase occurred in Greece (from 96 to 138%), public debt in Ireland or Spain has been below the 60% threshold before the crisis but increased during the crisis because of the instabilities in the financial sector. Private sector debt increased by almost 20 percentage points as well for the Euro Area as a whole (from 47 to 66%), with above-average values in Greece, Ireland, the Netherlands, Portugal, and Spain.

The central bank, in turn, has limited means to counteract such diverging developments because it sets its policy interest rates for the currency union as a whole. Hence, it cannot counteract diverging regional price and wage developments. Just as the ECB lacks instruments to affect regional prices and wage developments, it also lacks tools to directly supervise the banks that take recourse to its refinancing operations. Since the beginning of the European debt crisis in May 2010, the ECB has successively changed the conditions under which banks can obtain access to central bank refinancing by changing the collateral framework and the margin requirements. Several banks, the so-called “persistent bidders”, rely on ECB funding almost exclusively.

Table 1: Private and Public Debt in the Euro Area (in % of GDP)

	Public debt			
	1995-1999	2000-2003	2004-2007	2008-2011
France	58.2	59.0	64.8	78.9
Germany	59.1	61.1	67.1	76.3
Greece	96.3	101.6	103.0	138.2
Ireland	63.7	33.8	26.5	77.5
Italy	117.1	106.4	104.5	115.1
Netherlands	69.0	51.8	49.2	61.9
Portugal	54.4	52.4	63.2	89.0
Spain	64.7	54.1	41.3	56.0
Euro Area (total)	72.7	68.6	68.6	80.6
	Private debt			
	1995-1998	1999-2002	2003-2006	2007-2010
France	41.1	44.2	50.8	60.7
Germany	66.5	73.3	70.8	63.1
Greece	13.2	21.8	38.6	58.3
Ireland	n.a.	53.7	81.6	118.6
Italy	22.0	29.5	38.4	48.4
Netherlands	67.2	89.3	111.6	126.3
Portugal	48.0	73.7	88.6	102.5
Spain	43.2	55.4	75.0	90.0
Euro Area (total)	46.5	53.0	59.5	65.8

This table shows average sovereign debt to GDP ratios (in per cent). Data for the Euro Area start in 1995. Private debt to GDP ratios (in per cent) are measured as household liabilities to GDP. Data for Ireland start in 2001.

Sources: Eurostat; own calculations.

The discussion about the role, the interpretation, and the possible policy implications of the Target II (im)balances is one facet of this debate. These balances are related to the underlying weaknesses of the real economies, i.e. current account imbalances within the Euro Area which are not financed entirely by private capital flows. They also reflect weaknesses in the financial sector that leads to capital flight. Several commercial banks in the crisis countries cannot fund their operations on private capital market and thus resort to liquidity support from the ECB.¹⁷

Diverging price developments not only lead to differences in real interest rates but also to changes in relative prices. Even within a currency union, in which nominal exchange rates are irrevocably fixed, relative prices (the “real exchange rate”) can diverge. If prices, say, in Greece increase faster than in the rest of the Euro Area, exports of Greek firms become relatively more expensive while imports from the Euro Area into Greece become relatively cheaper. The Greek real exchange rate has thus appreciated in real terms, which corresponds to a loss in competitiveness of Greek firms on international markets.¹⁸

¹⁷ See Sinn and Wollmershaeuser (2011) and the references in *ifo* (2011).

¹⁸ Neary (2006) discusses the link between the real exchange rate and the „competitiveness“ of a country.

Differences in unit labor costs have been one main driver of these developments. In the run-up to the crisis, unit labor costs increased by 2.9% annually between 2001 and 2009. This number has been below average in Germany (1.8%) but above average in Greece (3.9%), Spain (4.5%), Italy (3.3%) or Portugal (3.1%),¹⁹ reflecting structural differences on product and labor markets (Lebrun and Pérez 2011).

Figure 1a shows the evolution of consumer prices in selected Euro Area countries. On average, consumer prices in Germany have increased by 0.5 percentage points less than in the rest of the Euro Area; in the crises countries, consumer prices have increased by 1.28 percentage points more in Greece or 0.81 percentage points in Spain. Hence, these countries have appreciated in real terms vis-à-vis the other countries in the Euro Area. Note that real exchange rate appreciation does not necessarily imply that the real exchange rate becomes overvalued. If price increases reflect an increase in (relative) productivity, there would be no misalignment of prices (the so-called Balassa-Samuelson effect).²⁰ But increasing and highly persistent bilateral current account imbalances in the Euro Area are strong signals of an overvaluation of the real exchange rate.

There are two main adjustment mechanisms to realign real exchange rates. In the short-run, prices and wages have to adjust (internal devaluation) or the nominal exchange rate can adjust (external devaluation). In the medium- to long-term, productivity needs to increase.

Countries that are members of the Euro Area cannot use the nominal exchange rate to achieve the needed realignment of the real exchange rate. Hence, adjustment has to fall on prices and wages. The ability to achieve the required revaluation of wages and thus of real incomes depends on the political support for such measures and the institutional framework. In fact, many factors which obstruct internal devaluation could also prevent sustained effects of an external devaluation. (Kohler (2012), for instance, makes this point.)

Previous empirical work on the degree of wage flexibility in Europe hints at potential institutional shortcomings. Dickens et al. (2007) analyze the degree of wage flexibility in 16 OECD countries. According to their study, Greece, Italy, and Portugal have a low while Ireland has a comparatively high degree of wage flexibility. This may be one reason for the fact that, so far, Ireland has adjusted relatively successfully to the crisis. The study by Dickens et al. also provides information on the causes of wage (in)flexibility. Wages are relatively rigid in countries with strong employment protection legislation and with high minimum wages relative to the mean wage level. Wage flexibility is relative high, in contrast, in countries where union density and the degree of centralized wage bargaining are high. These

¹⁹ Based on *Eurostat*.

²⁰ The link between real exchange rates and per capita incomes as a measure for productivity has been analyzed in detail by Berka and Devereux (2010). They show that, in Europe, this link has become stronger with the introduction of the Euro and that it is stronger for tradables than for non-tradables.

results indicate that deep structural reforms are required in the Euro Area in order to realign prices and wages with economic fundamentals.

3.3 *Current Accounts and Capital Flows*

Although public discussions describe the current situation in Europe as a (sovereign) debt crisis, it can in fact also be seen as a full-fledged intra-European balance of payments crisis. Diverging patterns of real interest rates and of real exchange rates have been associated with widening current account imbalances in the Euro Area. Generally, current account imbalances and the corresponding capital flows are one adjustment mechanism to shocks and to differences in real incomes. During a longer-term catching up process, poorer countries or regions should be expected to import foreign capital (and thus to run current account deficits) and to repay their foreign debts through current account surpluses in the future. Access to international capital markets can also provide countries with a short-run insurance mechanism, allowing them to buffer short-run fluctuations in incomes. Hence, in integrated financial markets, income shocks have a weaker impact on consumption patterns than in a closed economy.

Yet, reaping the benefits of international financial integration in the form of faster economic convergence and of insurance against income fluctuations is possible only if financial frictions and incentives to overborrow are limited. In addition to informational frictions that are prevalent on domestic capital markets as well, sovereign risk adds an additional friction on international capital markets: here, the borrower remains sovereign, and the collection of collateral in the case of default is often not possible. Hence, in an international context, it is not only the ability of borrowers to pay but also their willingness to pay that matters (Eaton et al. 1986). The threat not to repay and to default increases the borrower's bargaining power (Bulow and Rogoff 1989). The implicit price borrowers have to pay for this sovereignty is the risk of a *sudden stop* of capital flows in case creditors expect a sovereign default. The quite significant reversal of capital flows to some European countries suggests that these mechanisms have been at play in the Euro Area.²¹

It is a key challenge for empirical research to disentangle the extent to which current account imbalances in the Euro Area reflect a normal adjustment process and are thus a signal of increased market integration and to what extent they reflect excessive borrowing and lending on international capital markets. Table 2 shows that current account deficits in the Euro Area have tended to widen since the introduction of the Euro. Partly, these deficits reflect increased financial integration, but partly they also reflect excessive borrowing. While the current account of the Euro Area towards the rest of the world has largely been balanced since 1999, there are two distinct groups of countries. The capital exporters comprise the northern

²¹ See Kohler (2012) for a more detailed discussion of the situation in Europe as balance of payments crises. Merler and Jean Pisani-Ferry (2012) show that sudden stops of capital flows have occurred in the Euro Area.

European countries, Germany, the Netherlands, and Austria. The capital importers (with current account deficits) comprise the southern European countries Greece, Italy, Portugal, and Spain. In the case of Spain and Ireland, capital imports have been accompanied by increased investment rates; in the case of Greece and Portugal, they were driven by an increase in consumption (Deutsche Bundesbank 2010). In the course of the crisis, the current account deficits in the Euro Area have to some extent narrowed down. This adjustment has been driven primarily by a reduction in domestic demand rather than an adjustment of relative prices.

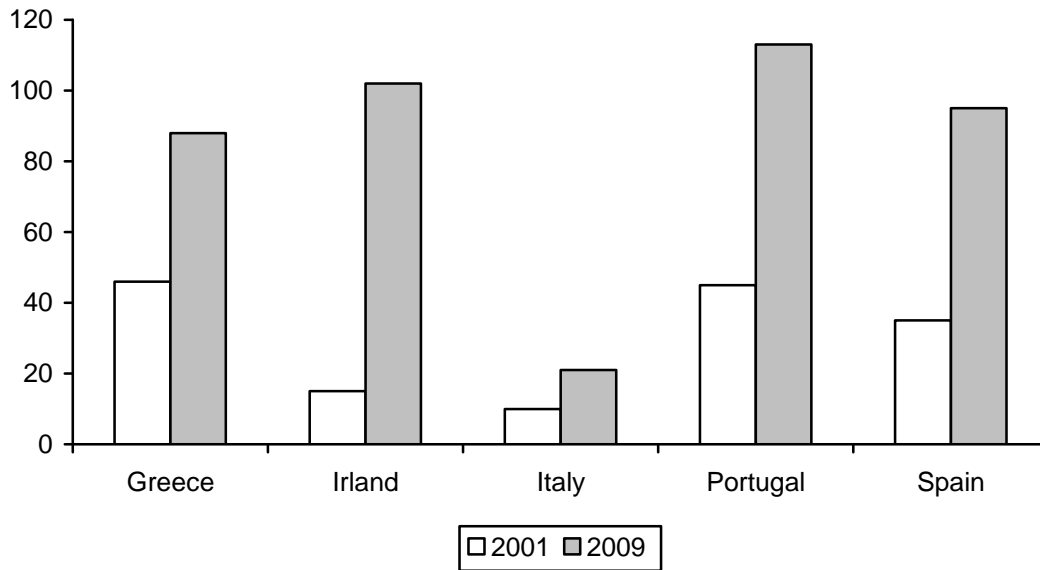
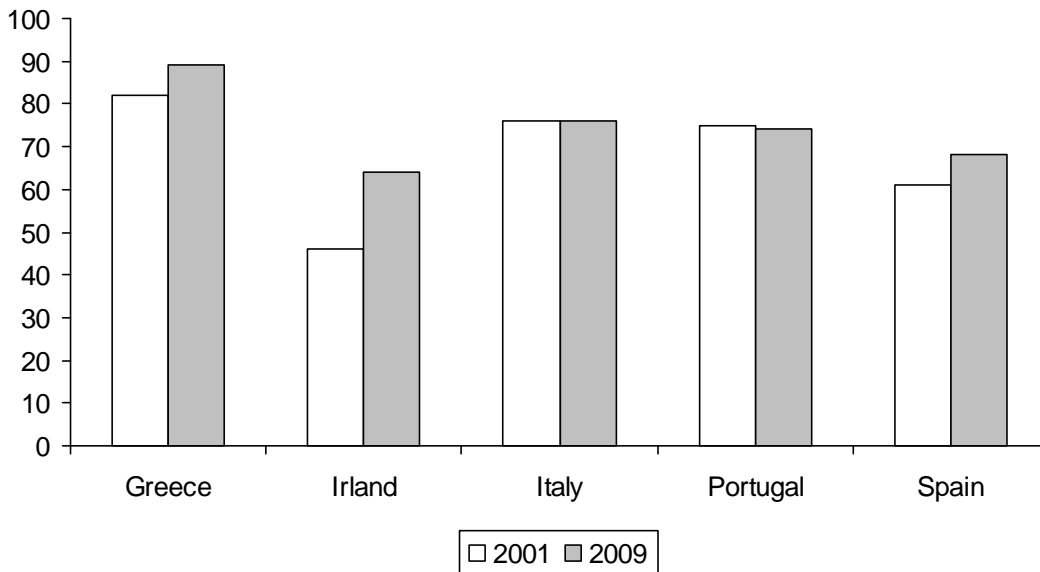
Table 2: Current Accounts in the Euro Area (in % of GDP)

	1990-1995	1996-2000	2001-2005	2006-2010
France	0.12	2.26	0.86	-1.43
Germany	-0.51	-0.95	2.74	6.20
Greece	-1.74	-4.57	-6.72	-12.23
Ireland	1.46	1.43	-1.15	-3.33
Italy	-0.43	1.56	-0.94	-2.92
Netherlands	3.74	4.10	5.04	6.61
Portugal	-0.57	-7.01	-8.23	-10.12
Spain	-2.19	-1.68	-4.66	-7.78
Euro Area (total)	n.a.	0.48	0.53	-0.02

This table shows average current account deficits relative to GDP. Data for the Euro Area start in 1997.

Sources: *International Monetary Fund (IMF) World Economic Outlook*; own calculations.

The international indebtedness of the crisis countries has thus increased in recent years. Some countries carry a net foreign debt burden of a magnitude similar to their GDP (Figure 3). Italy with a high debt burden of the government vis-à-vis domestic residents is an exception. The bulk of foreign liabilities is in the form of fixed income assets (bank debt plus bonds). The share of foreign direct investment and of other equity investments is relative small, and it has declined over time.

Figure 3: Foreign Liabilities of Selected Euro Area Countries**(a) Net foreign liabilities (stocks) relative to GDP (%)****(b) Share of fixed income securities in total foreign liabilities (%)**

Net foreign liabilities are the difference between total foreign liabilities and assets as the sum of foreign direct investment, portfolio investment, and bank credits. Fixed income securities are bonds and bank credits.

Sources: International Monetary Fund, International Financial Statistics; own calculations.

Recent studies conclude that the introduction of the Euro has promoted capital market integration in Europe.²² However, most of these studies do not cover the crisis period. Empirical studies show that the tendency of lower-income countries to import and of higher-income countries to export capital has become stronger after the introduction of the Euro (Schmitz and von Hagen 2011). In line with expectations, capital flows have contributed to a higher degree of economic convergence. There is also evidence that capital flows have helped countries to cushion negative shocks and to smoothen consumption over time (Artis and Hoffmann 2008, Gerlach and Hoffmann 2010). But, not only have capital flows increased, international borrowing patterns have also become more persistent (Berger and Nitsch 2010), indicating capital flows in excess of sustainable long-run positions. Consistent with this interpretation, Berger and Nitsch find that lack of structural reforms drives external imbalances. Countries with inflexible labor and product markets, with strong job protection legislation, with high fiscal deficits, and with volatile business cycles have had high external deficits.

3.4 Fiscal Transfers

In discussions about the future of the Euro Area, it is often argued that successful currency unions have strong fiscal transfer systems which help cushioning shocks to short-term income. If a member country (or region) of a currency union is hit by an adverse shock, the nominal exchange rate cannot adjust to realign prices. Hence, fiscal transfers may be needed in order to provide a short-term insurance mechanism and to ensure a certain degree of burden sharing. Such fiscal insurance systems must be distinguished conceptually from long-run redistributive mechanisms which help reducing differences in per capita incomes. Such redistributive transfers are not necessarily motivated by the special conditions of a monetary union. But, of course, any transfer system will also have some redistributive elements, and it is thus a political question how much redistribution and risk sharing is desired.

Existing systems of interregional fiscal burden sharing differ. In the US, ad hoc transfers are relatively important. Here, transfers between the federal level and the level of the individual state account for about 3% of GDP or 15% of federal spending.²³ These shares have increased slightly during the crisis. In Germany, rule-based transfers dominate, but the federal transfer system (*Länderfinanzausgleich*) reached magnitudes similar to those in the US (2.4% of GDP in 1990, see Büttner 2002). This mechanism is used to redistribute the proceeds of value added taxes (*Umsatzsteueraufkommen*), but there are also horizontal and additional federal transfers (Büttner 2002, 2009).

²² See, e.g. Baldwin et al. (2008), Demyanyk et al. (2008), Kalemli-Ozcan et al. (2007), or Okawa and van Wincoop (2010).

²³ See US Census Bureau, Statistical Abstract of the United States 2011, Table 429, p. 268 "Federal Grants-in-Aid to State and Local Governments".

Empirical studies analyze whether fiscal transfers serve the main purpose of insuring against short-term shocks or if they are contributing to narrower income differentials in the longer-run. These studies start by distinguishing short-run from long-run fluctuations of income and then ask to what extent households can shield consumption from such fluctuations of income, i.e. “insure” against them. In the US, only about 16% of short-term income fluctuations across states affect consumption while the corresponding number of long-run fluctuations is higher (49%) (Becker and Hoffmann 2006). But only a relative small share of this consumption risk sharing is achieved via fiscal transfers; the bulk of insurance comes through the integration of capital and labor markets.²⁴ Cross-state-border ownership of firms and thus a relatively high degree of integration of equity markets, for instance, plays an important role. In addition, it is important to note that the no-bail-out principle has been adhered to quite strictly in the United States. Most US states have constitutional balanced budget rules, and the states are treated as sovereign entities.

In Germany, the importance of different adjustment channels has changed over time. In the years 1970-1994, fiscal transfers have accounted for a share of 50% of consumption risk sharing across state borders (Hepp and von Hagen 2011). Factor and credit markets accounted for insurance against about 36% of income shocks. In the post-unification period, about 63% (53%) of shocks have been smoothed via markets in West Germany (East Germany) and only 15% (19%) through fiscal insurance mechanisms. These numbers are roughly comparable to those observed for the US (Astrubali et al. 1995).

3.5 *Summing Up*

This section has shown that countries can share the same currency even though there are differences in per capita incomes. Real economic convergence is not a necessary precondition for a monetary union while, of course, a higher degree of convergence eases the adjustment to adverse shocks. Tensions can arise for the following reasons: First, diverging price and wage developments within a currency union can lead to persistent divergence in competitiveness. Second, because nominal exchange rates cannot be used as a buffer against adverse business cycle fluctuations, alternative mechanisms such as sufficiently integrated and flexible factor markets or fiscal transfer system are required. Third, if market participants expect bailouts by other members of the currency area, interest rates may not fully reflect the underlying risk premia, which may create incentives for overborrowing.

These considerations have several implications for the environment in which the ESM will operate. The ESM per se will not affect the real economic conditions in the Euro Area, but its institutional design may affect the incentives to engage in the structural reforms that are necessary to realign real developments. Moreover, the impact of ESM funding on financial

²⁴ See Artis and Hoffmann (2011) or Becker and Hoffmann (2006).

market stability will depend on the credibility of establishing a new institutional regime for the Euro Area addressing existing structural weaknesses.

4 The Role of the ESM

Financial markets can contribute to greater economic convergence and to a smoothening of shocks across countries, thus bringing capital flows in line with underlying patterns of the real economy and stabilizing a common currency area. However, financial markets may also overreact with regard to fundamentals and thus have destabilizing effects. What are the options that are available for economic policy to strengthen the stabilizing and to weaken then destabilizing forces? While encompassing financial sector reform programs and the necessary fiscal and structural reforms have been proposed elsewhere,²⁵ this section focuses on the potential contribution of the ESM.

I will argue that, in the current situation, financial stabilizing requires taking account of the stock problem of non-performing assets (Section 4.1), that bank recapitalization and restructuring can play an important role (Section 4.2), that the role of the ESM should be confined to the provision of liquidity under well-defined criteria for countries restructuring their debt (Section 4.3), and that complementary reforms of the financial system are needed (Section 4.4).²⁶

4.1 *Dealing with Debt Overhang*

The scope of the ESM is defined fairly broadly. Article 18 states that “*Decisions on interventions on the secondary market to address contagion shall be taken on the basis of an analysis of the ECB recognising the existence of exceptional financial market circumstances and risks to financial stability*”. At the same time, the ESM shall providing financial support under well-defined criteria only: “*The granting of any required financial assistance under the mechanism will be made subject to strict conditionality.*”²⁷

One potential use of ESM funds is to deal with debt overhang. While the exact amount of debt overhang in Europe is not known, the mechanisms that have been described so far have caused excessive borrowing of the private and of the public sector. Some of this excess debt has been written off, but an excess debt burden is also likely to be carried forward on banks’ and other investors’ balance sheets. Quantifying potentially non-performing assets is difficult: information on loan forbearance is scarce, the quality of banks’ assets crucially depends on the state of the economy and on interlinkages in the financial system, and there may be

²⁵ See, e.g., Academic Advisory Council BMWi (2011a, 2011b), Sachverständigenrat (2011), or Academic Advisory Council BMF (2012).

²⁶ For a discussion of policies aimed at stabilizing the real economy and promoting growth, see, e.g. Academic Advisory Council BMWi (2011b).

²⁷ See Treaty Establishing the European Stability Mechanism, p.3 / ESM treaty, p. 3.

multiple equilibria. Hence, there might be situation where economic fundamental do not differ but, depending on the beliefs of market participants, a crisis may or may not occur. Not least, incentives of debtors and borrowers matter.

Hence, the ESM will become effective at a time when a large part of the bad debts are still outstanding. Inevitably, the ESM will deal not only with the flow but also with a stock problem of bad debts. However, if the ESM aims at preventing a fundamental revaluation of assets in the Euro Area, it is hardly conceivable how this goal could be achieved. Recent experience rather suggests that there will be continued pressure on the ECB to support malfunctioning financial markets and banks through the provision of liquidity support. It has in fact been argued that the ECB is the only institution in Europe which can prevent a melt down of asset prices in case the financial crisis worsens by, for instance, announcing that it will buy up all government bonds up to certain percentage of a country's GDP.²⁸ The ESM may not only lack the funding to buy up a sufficient volume of assets and thus to stabilize asset prices, decision making will also be too slow in times of acute financial stress. This limits the potential for the ESM to act as a lender of last resort. (Kohler (2012) makes a similar point.)

The decisions of the ECB to purchase government bonds directly or to relax collateral standards indicate its willingness and ability to act as a lender of last resort. According to the so-called Bagehot principle, however, a lender of last resort should lend at a sufficiently high penalty rate to solvent but illiquid banks that have adequate collateral. In the current crisis, both of these conditions have been violated: the ECB currently lends at a low rate, and the quality standards for collateral in ECB refinancing operations have been weakened over time.

There is thus a growing concern that risks have been shifted from the financial and from the public sector onto the ECB's balance sheets. Recent announcements of the ECB to tighten lending standards and to induce governments to restructure banks essentially acknowledge these risks. At the same time, the ECB has practically no instruments at its disposal to enforce strict fiscal rules or to impose prudential regulations on banks. Hence, the task of stabilizing the banks should gradually be moved from the ECB to the fiscal authorities.

With the ESM having limited funds to address the stock problem of outstanding debt and the adoption of additional risks through the ECB being problematic, alternative solutions need to be found. One proposal of how to deal with the public debt overhang has been made by the German Council of Economic Experts.²⁹ Its redemption fund has two core elements. First, eligible countries would transfer their outstanding public debt in excess of the 60% debt

²⁸ According to these proposals, support from the ECB should be granted only under the conditionality that the country in question adheres to strict fiscal discipline in the future. See, e.g., Charles Wyplosz <http://voxeu.org/index.php?q=node/7031> or Paul DeGrauwe <http://www.voxeu.org/index.php?q=node/6884>.

²⁹ See, e.g., the proposal by the German Council of Economic Experts to establish a debt redemption fund (Doluca et al. 2012, SVR 2011).

ceiling of the Maastricht treaty to a common redemption fund. Second, a clear repayment schedule would have to be defined, and countries need to credibly transfer tax proceeds or other financial sources to the Fund as collateral in order to repay their debts. Hence, the proposal includes a limited transfer of sovereign rights to the Fund. As regards the potential debt overhang problem in the private sector, additional measures would be required though.

4.2 Bank Recapitalization and Restructuring

There is a long-standing tradition of discussing whether conditions in the real economy affect conditions in the financial sector, or vice versa. In the current situation in Europe, this discussion is largely an academic one. Clearly, problems on European debt markets cannot be addressed without, in the long-run, improving the underlying real economic conditions while, in the short-run, ensuring a sufficient capitalization of European banks is crucial in order to prevent negative feedback effects for the real economy. Evidence from other world regions, in particular from Japan during the past two decades, shows that delaying a solution might be costly in terms of misaligned incentives in the financial system that can lead to a misallocation of real resources (see, e.g., Caballero et al. 2008, or Peek and Rosengren 2005). Recent policy decisions to improve the capitalization of banks are thus a step into the right direction, although care should be taken that regulations are not tightened during the crisis and that banks have a sufficient adjustment period.

Private funds either in the form of retained earnings or through new issuances of equity should certainly have priority in strengthening the capital buffer of banks. In line with this, funds for recapitalization are available under the EFSF and the ESM only if other, private and public, sources of funds are not available. Yet, these private funds may turn out to be insufficient, and a deterioration of the economic environment may require a higher volume of recapitalization. In such a situation, the case can be made that governments should stand ready to support ailing financial institutions in order to prevent contagion effects (Academic Advisory Council BMWi 2008). This would also reduce pressure on the ECB to support distressed banks. Bank recapitalization in the crisis countries may also be desirable from the point of view of overall financial stability. Hence, solutions for the Euro Area as a whole must be sought.

Bank recapitalization through the national government may not be forthcoming at a sufficient scale for several reasons though. Most importantly, countries in which banks are in need of capital support are also the countries in which governments have the least room to manoeuvre, given their own dire financial state. Therefore, governments in the crisis countries may be unable to support their banks on a stand alone basis. While funding for bank recapitalization is in principle available through the ESM, the incentives of governments to apply for bank recapitalization funds under Article 15 are thus limited. Taking up such support could be taken as a negative signal to financial markets concerning the financial state of the sovereign,

thus negatively affecting market access for banks and sovereigns.³⁰ Moreover, funding for bank recapitalization is conditional upon the specification of a plan on how to restructure the country's banking system. In order to be effective, such bank restructuring plan may require the consolidation of a country's financial system thus raising opposition by affected stakeholders. Finally, bank recapitalization in one country might induce competitive distortions. Banks in the non-crisis countries might thus lobby against support for crisis banks if they fear that such support measures might distort the competitive environment on European banking markets.

Hence, there is the risk that, although bank recapitalization may be desirable for overall financial stability, such considerations might prevent a concerted solution. These arguments speak in favour of taking concerted action at the EU level and of closely involving European competition authorities in order to prevent a distortion of market structures.

No matter whether bank restructuring and supervision is a national or an international task, the rules under which public capital support is granted must be clearly defined, and it must be clear that public ownership in the banks is a crisis management tool. The goals of any bank recapitalization program should be (i) to restore the functioning of financial markets as quickly and as broadly as possible, (ii) to generate the least possible distortions facing private market participants, and (iii) to keep costs to the tax payer as small as possible.³¹

In addition, the following aspects need to be considered.

First, bank restructuring and recapitalization should take place in the context of a well defined cross-border resolution regime for banks. In the medium- to longer-run, this also requires the establishment of a European deposit insurance and resolution fund.

Second, using the financial resources available under the ESM to recapitalize banks might solve the problem that a European solution requires sufficient funding in the short-run. By affecting the liabilities' side of banks' balance sheets rather than trying to support asset values through purchases on the primary or secondary market, a given volume of funds could be used more efficiently. Banks would obtain leeway to restructure their balance sheets and to write off non-performing assets, which may be loans to the private sector as well as government bonds.

Third, under the present legal framework, application for a specific financial instrument is done by the countries themselves. For reasons outlined above, the individual country may not have an incentive to apply for recapitalization funds. Markets could take such an application as a signal that the government has insufficient funds to support its country's banks. Instead, pressure to apply for bank recapitalization funds could come through the ECB or the EBA,

³⁰ Empirical evidence shows that the risk profiles of the sovereign and of the banks converge if the sovereign assumes guarantees or supports banks through other means (BIS 2009).

³¹ See Academic Advisory Council BMWi (2008) for details.

which already call for national governments to provide backstop facilities for their banking systems. As regards application for recapitalization funds, it could be considered to assign a more active role to the European Banking Authority (EBA).

Fourth, bank recapitalization is no panacea. Instead, it needs to go hand in hand with a thorough review of the quality of banks' assets, with a restructuring of banks, and, if needed, adjustment of market structures. Evidence from Japan is particularly instructive in this context.³² Hoshi and Kashyap (2010) review the experience from bank restructuring in Japan and derive the following lessons: banks often refrain from accepting capital support measures because they fear negative signalling effects and thus lack of access to private capital markets; rescue packages need to have a sufficient scale; asset purchase programs are of limited effectiveness; a thorough audit of banks' assets and a restructuring of non-performing assets are required; a powerful and adequate resolution authority must be in place; capital support measures through the government run the risk of promoting politically motivated lending; and, finally, macroeconomic growth is crucial for a recovery of banks.

Fifth, the conditions under which public support is given to banks should be clearly specified. Under a high degree of uncertainty about the conditions of public involvement, private investors are unlikely to provide sufficient additional funds. Moreover, if banks do not meet regulatory capital requirements, payments of dividends and other payments to shareholders should be restricted in order to prevent the depletion of funds.

Finally, institutions receiving financial support from their government should be supervised by politically independent institutions. Many governments in Europe face a conflict of interest: on the one hand, the domestic banks are important buyers of domestic sovereign debt. There is in fact evidence of a substantial degree of home preference in banks' (sovereign debt) portfolios, which has even tended to increase during the crisis (Giannetti and Laeven 2011, Hildebrand et al. 2012, Rose and Wieladek 2011). On the other hand, institutions linked to the government are assigned the task to supervise the banks and to disclose potential problems. These considerations strengthen the case for an independent European supervisor.

4.3 Limiting the Role of the ESM to a Crisis Mechanism

It has been argued above that the ESM lacks resources and sufficient speed in decision making to serve as a general lender of last resort. Hence, the question remains as to what the actual role of the ESM should be. The ESM is part of a new institutional framework which builds on strengthened fiscal surveillance, enforced fiscal policy rules, and strengthened banking regulations. But even if all these policies succeed, there is still the risk that situations of (fiscal) distress occur because of unforeseen shocks or changes in market sentiment. In

³² Misallocation of credit continued in some Japanese banks after recapitalization (Giannetti and Simonov 2009), and weak corporate governance and regulatory forbearance lengthened the recovery of the real economy (Kanaya and Woo 2000). See also Caballero et al. (2008) or Peek and Rosengren (2005).

order to avoid being taken by surprise, the credibility of the new framework can be enhanced by establishing clear guidelines of how to deal with countries in distress. This is, in essence, the purpose of an insolvency regime for countries. Such a regime needs to establish clear mechanisms for debt restructuring and a mechanism to provide bridge-financing for countries undergoing such restructuring. While outlining the details of an insolvency regime is beyond the scope of this contribution, most proposals that have been made involve some type of credit mechanisms providing such sources of finance. (See, e.g., Academic Advisory Council BMWi (2011a), Sachverständigenrat (2011), or Bruegel (2010).).

Such a credit mechanism as part of an insolvency regime must be distinguished from funds that are used to generally stabilize prices of government bonds of selected Euro Area member countries. Buying bonds on the secondary market in order to ensure the proper functioning of financial markets is likely to prove insufficient in situations of financial market distress. It is likely to generate speculation on further interventions, and eventually render the funds available to the ESM as being insufficient. The ongoing discussions about leveraging the ESM, to increase the firewalls, and to provide the ESM with direct access to central bank refinancing by giving it a banking license show that this mechanism is already at work. Unless the causes of the debt problems, i.e. the weaknesses of the real economies and the resulting banking sector problems are addressed, there will be continued pressure on the ECB to assume the role of a “lender of last resort”. Not least, overburdening the ESM might eventually also have negative effects for the borrowing capacities of the stronger Euro Area members.

Instead, lending through the ESM should take place only under strict conditionality and only in the context of a well-defined debt restructuring procedure. Lending through the ESM will always involve an element of moral hazard because it allows sharing the burden of excessive borrowing in the past. It is thus all the more important to ensure that creditors have the right incentives in the future.

The claim that ESM funding should provide short-term liquidity assistance only to countries undergoing debt restructuring is often considered unrealistic, given the difficulties with private sector involvement in the case of Greece. Yet, this argument overlooks that the Greek debt restructuring took place in a situation in which most outstanding government bonds did not include collective action clauses. Hence, such clauses had to be imposed ex post and in the context of a high degree of pre-existing uncertainty on financial markets. In future debt restructuring cases, collective action clauses would be the norm, thus reducing uncertainty on part of the creditors and ensuring a more orderly debt restructuring. Also, debt restructuring in the case of Greece was announced in parallel to other policy measures at the European level, such as the decision of the EBA in the fall of 2011 to increase capital requirements for banks. Hence it is difficult to isolate the impact of debt restructuring on bond markets and prices.

Limiting the role of the ESM to well-defined cases of liquidity support implies that the ESM would not play a major role as a redistributive or shock absorbing mechanism. It will not substitute for a system of fiscal transfers. There are several reasons why a higher volume of fiscal transfers – be it through the ESM, through a system comparable to the German inter-state fiscal transfer system (*Länderfinanzausgleich*), or be it through some form of Eurobonds is neither desirable nor necessary at the European level. It has already been argued above that fiscal transfers in existing currency unions play a limited role when it comes to the smoothing of short-run business cycle fluctuations (Section 3.4). In addition, there are four arguments which need to be considered when discussing the role of fiscal transfers in Europe.

First, there are good reasons to believe that the full potential for countries to insure against income fluctuations via capital and labor markets remains unexploited in Europe. Enhanced labor market integration and the opening up of protected sectors such as in services can provide additional flexibility. Enhanced integration of equity markets can provide an insurance mechanism through cross-border profit sharing. Obviously, market-based insurance mechanisms are not available to or not used by all households. For households not benefiting from direct participation in international capital markets, social security systems can provide the necessary within-country insurance mechanisms. Within-country insurance mechanisms can provide insurance against, for instance, unemployment to the extent that shocks hitting firms and workers are sector-specific or region-specific but not country-specific.

Second, enforcement of stricter fiscal rules through the Fiscal Compact and the strengthened Stability and Growth Pact will certainly limit the ability of governments to use anti-cyclical fiscal policies quantitatively. But these new rules do not prevent governments from running fiscal surpluses in goods times, which can be used to buffer adverse income shocks in bad times, and from allowing automatic stabilizers to work.

Third, fiscal transfers bear the risk of reducing incentives to reform and thus to become persistent. Empirical evidence shows that fiscal transfers have tended to delay labor market adjustment (Boldrin und Canova 2001, Obstfeld und Peri 1998), that social transfers in Europe have contributed to a convergence of incomes only in some countries (Bouvet 2010), and that income levels in poorer regions tend to converge to those in richer regions while differences in productivity or in employment growth tend to persist (Becker et al. 2010a, Checherita et al. 2009).

Last but not least, adopting existing fiscal transfer systems in Europe to levels comparable to, for instance, the German situation would be very costly, and this is likely to lack political support. Across German states, about 90% of differences in per capita tax receipts are redistributed (Konrad and Zschäpitz 2011). Implementing similar system of tax equalization in Europe would imply a massive increase of the EU budget. This is likely to be opposed politically not only among the existing members of the Euro Area. It may also raise the issue

of whether increased fiscal transfers should be confined to the core Euro Area countries or whether other EU members – notably in Eastern Europe – should be included as well.

4.4 Improved Banking Regulation as a Complementary Reform

For the ESM to become part of an efficient and credible crisis resolution mechanism in the longer-run, it needs to be backed by a stronger and more resilient financial and banking system. In this regard, three reforms are crucial.

First, strengthening the capital base of banks not only reduces the probability of individual bank failures; it also strengthens the stability of the financial sector as such and reduces the probability of a systemic crisis.³³ Poorly capitalized banks, if hit by a negative shock, need to divest a large share of their assets in order to restore solvency and to prevent regulatory intervention in the short-run. If all banks are hit by similar shocks and adjust in a similar fashion, this will trigger downward spirals of prices and markets.³⁴ Hence, higher bank capital can reduce the large multipliers seen in the recent crisis that translate seemingly small initial shocks into system-wide distress of financial institutions.

Second, the current framework of calculating the capital requirements of banks on the basis of risk-weighted assets should be reformed. Risk weights are based on banks' internal risk models which, by definition, cannot take system-wide developments and counterparty risk sufficiently into account. Risk weights are backward-looking by their very nature because they are calculated based on past data. This suggests that a capital requirement, which is not based on risk weights, the so-called leverage ratio, should be implemented. In the context of the ESM, the current plans to maintain zero risk weights on governments bonds issued by Euro Area governments when translating the new Basel III regime into European Law (CRD IV) are particularly problematic. For a given set of assets with similar default probabilities, banks will have an incentive to invest into government bonds. Additional incentives to invest into government bonds result from liquidity regulations and from the ability to use these assets as collateral for central bank refinancing. Yet, the current situation shows that sovereign exposures are risky, and this should be reflected in risk weights. Moreover, applying zero risk weights to sovereign debt could prove inconsistent with future private sector involvement in debt restructuring.

Third, higher capital requirements alone will not make the banking and financial system more stable. Instead, complementary reforms are needed that include a special resolution regime for banks which eases the unwinding of balance sheet positions and imposes penalties on equity owners. Intervention and resolution mechanisms need to be coordinated internationally. Also, the Second Pillar of the Basel framework should be enhanced in order to strengthen

³³ See also Hellwig (2010) and Academic Advisory Council BMF (2010).

³⁴ For a more detailed discussion of this multiplier effect and the role of bank capital, see Academic Advisory Council BMWi (2010a).

discretionary power to detect and prevent regulatory arbitrage. This is particularly important in order to mitigate the incentives for regulatory arbitrage and for an evasion to the shadow banking system, which are inherent in any proposal for stricter regulations.

It is often argued that higher capital requirements are costly for the real economy because they increase banks' costs of funding, lower credit for the real economy, or increase the costs of borrowing for firms. Yet, higher capital requirements, being phased in gradually and backed by complementary reforms of the governance of the financial sector, need not be costly (see, e.g., Admati et al. 2010, or Kashyap et al. 2010). Banks can adjust to higher capital requirements not only by shrinking their balance sheets. They can also raise new equity to support unchanged or even higher total assets. When comparing the costs of debt and equity finance, it should also be taken into consideration that many tax systems favour debt finance compared to equity finance. If capital requirements are increased, the cost of equity finance might even fall: If, as a result of the regulatory change, banks invest into less risky assets, the risk premium on equity finance falls. Empirical studies show that the costs of higher capital requirements for the real economy in terms of higher lending rates are modest in the mid- to longer-term (see Kashyap et al. 2010 for a summary of the evidence). Moreover, these costs must be weighted against the benefits in terms of increased financial stability: for a given risk structure of assets, banking risks would be buffered by higher capital stocks. It is interesting to note in this context that, historically, capital levels of banks have been significantly above the levels currently observed (Alessandri and Haldane 2009) without impeding economic growth or innovation.

5 Summary: What Next?

The Euro Area is in the transition to a new institutional regime. Policy makers are currently setting the course for a future institutional framework combining more stringent crisis prevention tools with an explicit crisis resolution mechanism. In July 2012, the European Stabilization Mechanism (ESM) shall become operational with a maximum lending capacity of 500 billion € and a set of five financing tools. In this contribution, I have argued that a successful operation of the ESM has four key requirements:

First, in the medium- to long-run, the ESM should be restricted to being an institution that provides liquidity assistance to countries restructuring their (public) debt and thus losing temporary access to financial markets. In order to prevent the ESM from bailing out private investors, private sector involvement will be crucial. If financial support was not conditioned upon private sector involvement, the principle of liability in debt contracts would be violated. Under conditions of very tight ex ante conditionality, the case for access to precautionary credit lines has been made as well. Experience of the IMF with such credit lines as well as the difficulties of imposing ex ante conditionality suggests though that such credit lines are unlikely to be of much importance. In any case, measures to limit moral hazard associated

with any credit mechanism must be taken. It is thus important to condition access to ESM funds on the implementation of the Fiscal Compact and of the European surveillance framework. Also, countries' access to ESM funds should be conditional upon the enforcement of a strict regime of banking regulation and supervision. If, in contrast, the aim is to use the ESM as a general mechanism to stabilize financial markets and to buy securities on primary or secondary markets, this would eventually overburden even its stronger members.

Second, in order to make the transition to a new institutional environment succeed, clear mechanisms need to be specified that prevent the ESM from being burdened with legacies from the past in the form of debt overhang. In the short-run, policymakers need to find loss-sharing mechanisms in order to deal with the debt overhang problem. This will involve difficult political decisions, but delaying a solution is unlikely to diminish the problem. Letting the ECB take over the losses might seem an easy solution – but the potential loss of central bank credibility will have detrimental effects. Pressure on the ECB to provide liquidity is unlikely to subside unless the problem of private and public sector debt overhang is addressed.

Third, using Euro Area wide funds for the recapitalization of banks is one possibility to deal with non-performing assets of banks and the debt overhang problem. It would also allow the banks to write off of such assets. Yet, governments are unlikely to invoke the recapitalization option within the current framework of the ESM because they risk sending out negative signals regarding their own financial situation. Therefore, mechanisms should be sought that move the decision which banks to recapitalize at least partially away from the national level. At the same time, bank recapitalization can succeed only if banks' portfolios are carefully audited, if corporate governance structures of banks are reviewed, and, if eventually market structures adjust. All this involves close cooperation between supervisory institutions at the national and at the EU level. In order to effectively recapitalize and restructure Euro Area banks, the cross-border resolution regime needs to be improved.

Fourth, in order to address the underlying weaknesses and imbalances in the real economy, significant structural reforms are needed. This involves the removal of national and international barriers to entry, labor market reforms, and product market reforms. Enhanced fiscal rules need better enforcement than similar rules in the past. Complementary reforms in the financial sector are needed. In this context, zero risk weights in government bonds as currently envisaged in EU banking regulations are inconsistent with private sector involvement in future debt restructuring cases. Most importantly, better capitalized banks will contribute to enhanced financial stability, thus reducing the probability that ESM funds will have to be used in order to restore financial stability.

6 Literature

- Academic Advisory Council BMWi (German Federal Ministry of Economics) (2008). Brief an Minister Michael Glos "Zur Finanzkrise". 10.10.2008. Berlin
- Academic Advisory Council BMWi (German Federal Ministry of Economics) (2009). Brief an Minister Michael Glos "Zur Bankenregulierung in der Finanzkrise". 23.1.2009. Berlin
- Academic Advisory Council BMWi (German Federal Ministry of Economics) (2010a). Reform von Bankenregulierung und Bankenaufsicht nach der Finanzkrise. April. Berlin.
- Academic Advisory Council BMWi (German Federal Ministry of Economics) (2010b). Überschuldung und Staatsinsolvenz in der Europäischen Union. Berlin.
- Academic Advisory Council BMWi (German Federal Ministry of Economics) (2011). Realwirtschaftliche Weichenstellungen für einen stabilen Euro. Berlin.
- Academic Advisory Council BMF (German Federal Ministry of Finance) (2010). Brief an Minister Dr. Wolfgang Schäuble „Ohne Finanzmarktreforemen keine Lösung der europäischen Staatsschuldenkrise“. 20.9.2010. Berlin.
- Admati, A.R., P.M. DeMarzo, M.F. Hellwig, and P. Pfleiderer (2010). Fallacies, Irrelevant Facts, and Myths in the Discussion of Capital Regulation: Why Bank Equity is Not Expensive. Preprints of the Max Planck Institute for Research on Collective Goods. Bonn 2010/42. Bonn.
- Alessandri, P., and A. Haldane (2009). Banking on the State. Presentation delivered at the Federal Reserve Bank of Chicago twelfth annual International Banking Conference on "The International Financial Crisis: Have the Rules of Finance Changed?", Chicago, 25 September 2009. <http://www.bis.org/review/r091111e.pdf>
- Artis, M.J., und M. Hoffmann (2008). Declining home bias and the increase in international risk sharing. In: Lars Jonung, Christoph Walker and Max Watson (eds.) *Building the Financial Foundations of the Euro: Experiences and Challenges*, Routledge. 236-252.
- Artis, M.J., und M. Hoffmann (2011). The Home Bias, Capital Income Flows and improved Long-Term Consumption Risk Sharing between Industrialized Countries. *International Finance* (in Vorbereitung)
- Astrubali, P., Sorensen, B., und O. Yosha (1995). Channels of Interstate Risk-Sharing: United States. 1963-1990. *Quarterly Journal of Economics* 111: 1081-1110.
- Baldwin, R., V. DiNino, L. Fontagné, R.A. De Santis und D. Taglioni (2008). Study on the Impact of the Euro on Trade and Foreign Direct Investment. European Economic and Monetary Union Working Paper 321.
- Bank for International Settlements (2009). An Assessment of Financial Sector Rescue Programmes. BIS Papers 48. July. Basel.
- Barro, R. J., und X. Sala-i-Martin (1991). Convergence across States and Regions. *Brookings Papers on Economic Activity* 22(1): 107-182.
- Becker, S.O., Egger, P.H. und M. von Ehrlich (2010a). Going NUTS: The Effect of EU Structural Funds on Regional Performance. *Journal of Public Economics* 94: 578-590.

- Becker, S.O., und M. Hoffmann (2006). Intra- and international risk-sharing in the short run and the long run. *European Economic Review* 50: 777-806.
- Berger, H., und V. Nitsch (2010). The Euro's Effect on Trade Imbalances. International Monetary Fund. Working Paper 10/226. Washington DC.
- Berka, M., und M.B. Devereux (2010). What Determines European Real Exchange Rates? National Bureau of Economic Research. Working Paper 15753. Cambridge MA.
- Boldrin, M., und F. Canova (2001). Inequality and convergence in Europe's regions: reconsidering European regional policies. *Economic Policy* 16(32): 205-253.
- Bouvet, F. (2010). EMU and the dynamics of regional per capita income inequality in Europe. *Journal of Economic Inequality* 8(3): 323-344
- Bruegel (2010) (ed.). A European mechanism for sovereign debt crisis resolution: a proposal. Jürgen von Hagen, Jean Pisani-Ferry, André Sapir, Francois Gianviti, Anne O. Krueger. Brussels.
- Buettner, T. (2002). Fiscal federalism and interstate risk sharing: empirical evidence from Germany. *Economics Letters* 74: 195-202.
- Buettner, T. (2009). The contribution of equalization transfers to fiscal adjustment: Empirical results for German municipalities and a US-German comparison. *Journal of Comparative Economics* 37: 417-431.
- Buiter, W. H., und A.C. Sibert (2005). How the Eurosystem's Treatment of Collateral in its Open Market Operations Weakens Fiscal Discipline in the Eurozone (and what to do about it). Mimeo.
- Bundesministerium für Wirtschaft und Technologie (BMWi) (2012). *Jahreswirtschaftsbericht „Vertrauen stärken - Chancen eröffnen - mit Europa stetig wachsen“*. Berlin.
- Caballero, R.J., T. Hoshi, and A. Kashyap (2008). Zombie Lending and Depressed Restructuring in Japan. *American Economic Review* 98(5): 1943-1977.
- Checherita C., C. Nickel und P. Rother (2009). The role of fiscal transfers for regional economic convergence in Europe. ECB Working Paper 1029. Frankfurt a.M.
- De Grauwe, P and Y Ji (2012). Mispricing of Sovereign Risk and Multiple Equilibria in the Eurozone. CEPS Working Documents.
- Demyanyk, Y., C. Ostergaard und B.E. Sorensen (2008). Risk sharing and portfolio allocation in EMU. *European Economy - Economic Papers* 334. Directorate General Economic and Monetary Affairs. European Commission. Brüssel.
- Deutsche Bundesbank (2010). Zur Problematik makroökonomischer Ungleichgewichte im Euro-Raum. Monatsbericht, Juli, Frankfurt a.M.
- Dickens, W.T., L. Goette, E.L. Goshen, S. Holden, J. Messina, M.E. Schweitzer, J. Turunen, und M. Ward (2007). The Interaction of Labor Markets and Inflation: Micro Evidence from the International Wage Flexibility Project. Frankfurt a.M.
- Doluca, H., M. Hübner, D. Rumpf, and B. Weigert (2012). The European Redemption Pact: An Illustrative Guide. German Council of Economic Experts. Discussion Paper. Wiesbaden.
- Eaton, J., M. Gersovitz, J. Stiglitz (1986). The Pure Theory of Country Risk. *European Economic Review* 30: 481-513.

- Ehrmann, M., M. Fratzscher, R.S. Gürkaynak, und E.T. Swanson (2011). Convergence and Anchoring of Yield Curves in the Euro Area. *Review of Economics and Statistics* 93(1): 350-364.
- Gerlach, S., und M. Hoffmann (2010). The Impact of th Euro on International Stability and Volatility. In: M. Buti, S. Deroose, V. Gaspar und J.N. Martins (Hrsg.). *The Euro: the first decade*. Cambridge University Press: 648-670.
- Giannetti, M., and A. Simonov (2009). On the Real Effects of Bank Bailouts: Micro-Evidence from Japan. FEEM Working Paper 103.2009
- Giannetti, M., and L. Laeven (2011). The Flight Home Effect: Evidence from the Syndicated Loan Market During Financial Crises. *Journal of Financial Economics* 104(1): 23-43
- Giannone, D., M. Lenza und L. Reichlin (2009). Business Cycles in the Euro Area. ECB Working Paper Series 1010/February 2009. Frankfurt a.M.
- Hellwig, M.F. (2010). Capital Regulation after the Crisis: Business as Usual? MPI Collective Goods Preprint, No. 2010/31. Max Planck Institute for Research on Collective Goods. Bonn
- Hepp, R., und J. von Hagen (2011). Interstate Risk Sharing in Germany: 1970-2006. Fordham University and University of Bonn. Mimeo.
- Hepp, R., und J. von Hagen (2011b). Fiscal Federalism in Germany: Stabilization and Redistribution Before and After Unification. Fordham University and University of Bonn. Mimeo.
- Hildebrand, T., J. Rocholl, and A. Schulz (2012). Flight to Where? Evidence from Bank Investments During the Financial Crisis. Mimeo. Warwick
- Hoshi, T., and A.K. Kashyap (2010). Will the U.S. bank recapitalization succeed? Eight lessons from Japan. *Journal of Financial Economics* 97: 398-417
- ifo (2011). Die europäische Zahlungsbilanzkrise. *ifo Schnelldienst* 64 (16): 1-94
- John, J., and T. Knedlik (2011). New IMF Lending Facilities and Financial Stability in Emerging Markets. *Economic Analysis and Policy* 41(2): 225-238.
- Kalemli-Ozcan, S., B. Sorensen und B. Turan (2007). Where does Capital Flow? A Comparison of U.S. States and EU Countries 1950-2000. *European Economy*. Economic Papers No. 295.
- Kanaya, A., and D. Woo (2000). The Japanese Banming Crisis of the 1990s: Sources and Lessons. International Monetary Fund. IMF Working Paper 00/7. Washington DC.
- Kashyap, A.K., J.C. Stein, and S. Hanson (2010). An Analysis of “Substantially Heightened” Capital Requirements on Large Financial Institutions. University of Chicago and Harvard University. Mimeo.
- Kohler, W. (2012). Resolving Sovereign Debt Crises: Opening or Closing the Tap? University of Tübingen. Mimeo. Tübingen
- Konrad, K.A., und H. Zschäpitz (2011). Die Zukunft der Eurozone. *Ökonomenstimme* 11. Juli 2011.
- Lebrun, I., und E. Pérez (2011). Real Unit Labor Costs Differentials in EMU: How Big, How Benign and Hoe Reversible? IMF Working Paper 11/109. Washington DC.
- Merler, S., and J. Pisani-Ferry (2012). Sudden stops in the euro area. Bruegel Policy Contribution 2012/06. Brussels.

- Neary, P. (2006). Measuring Competitiveness. *The Economic and Social Review* Volume 37/2: 197-213.
- Obstfeld, M. und G. Peri (1998). Asymmetric shocks: Regional non-adjustment and fiscal policy. *Economic Policy*: 207-247.
- OECD (2011). *Main Science and Technology Indicators*. Volume 2011/1. Paris
- Okawa, Y., und E. van Wincoop (2010). Gravity in International Finance. Hong Kong Institute for Monetary Research. Working Paper 07/2010. Hong Kong.
- Peek, J., and E.S. Rosengren (2005). Unnatural Selection: Perverse Incentives and the Misallocation of Credit in Japan. *American Economic Review* 95(4): 1144-1166.
- Rose, A.K., and T. Wieladek (2011). Financial Protectionism: the First Test. National Bureau of Economic Research. NBER Working Paper 17073. Cambridge, MA.
- Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung (2011). *Jahresgutachten 2011: Chancen für einen stabilen Aufschwung*. Wiesbaden.
- Sala-i-Martin, X. (1996). The Classical Approach to Convergence Analysis. *Economic Journal* 106(437): 1019-36.
- Sapir, A., P. Aghion, G. Bertola, M. Hellwig, J. Pisani-Ferry, D. Rosati, J. Viñals, H. Wallace (2003). An Agenda for a Growing Europe: Making the EU Economic System Deliver. *Report of an Independent High-Level Study Group established on the initiative of the President of the European Commission*. Brussels.
- Schmitz, B., und J. von Hagen (2011). Current Account Imbalances and Financial Integration in the Euro Area. *Journal of International Money and Finance* 30(8): 1676-1695.
- Schuknecht, L, J. von Hagen und G. Wolswijk (2009). Government risk premiums in the bond market: EMU and Canada. *European Journal of Political Economy* 25(3): 371-384.
- Sinn, H.-W. (2010). Rescuing Europe. CESifo Forum 11. Special Issue. August. München.
- Sinn, H.-W., and T. Wollmershaeuser (2011). Target Loans, Current Account Balances and Capital Flows: The ECB's Rescue Facility. NBER Working Papers 17626. National Bureau of Economic Research. Cambridge MA.

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