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Ending the Euro Area Crisis: Crossing the River by Feeling the Stones

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ABSTRACT

We review the solutions put forward between May 2010 and September 2012 by European policymakers to address the four aspects of the euro-area crisis: (i) the sovereign debt crisis, (ii) the banking crisis, (iii) the competitiveness crisis and (iv) the governance crisis. We show that progress has been uneven in each of these areas. We highlight the key issues that need to be addressed for a comprehensive solution to be found. These include more realistic, coordinated deleveraging, more ambitious structural reforms, prioritization of macroeconomic surveillance, the revamping of fiscal policymaking, effective bank supervision and restructuring, the recognition that the risk of "fiscal dominance" cannot be completely eliminated, and the introduction of a European-level social initiative.

CO-EDITORS « Ending the Euro Area Crisis… »

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EXECUTIVE SUMMARY

This paper first analyses the key causes of the euro area crisis. It underlines that the crisis resulted from the underestimation by national policymakers of some clearly identified risks, such as real interest-rate divergence or the possibility of sovereign debt crises, and the failure of the community to correctly identify some other risks, such as the problem of "too-big-to-fail" banks. These failings can partly be understood by the fact that, at the time of the creation of the euro area, those who designed the euro focused mainly on the risk of inflationary monetary policies. Together with the political necessity of reaching an agreement, this led to the adoption of an incomplete and ill-designed treaty.

Because the treaty lacked clear crisis-management guidelines, national governments and European institutions had to invent new mechanisms in a trial-and-error process. This process has been severely criticized by financial markets and foreign countries. However, it should be acknowledged that the euro area remains a unique experiment of regional monetary integration, and ready-made solutions to this sort of crisis were not available, especially within the framework of institutions that are consensus-based such as the European Council. It has therefore taken time to address the four aspects of the crisis: (i) the sovereign debt crisis, (ii) the banking crisis, (iii) the competitiveness crisis, and (iv) the crisis of governance. At the time of writing (autumn 2012), the euro area was still far from a comprehensive strategy that would show the way out of the crisis. However, the beginning of such a strategy was slowly emerging out of the various debates, and from the pieces of the puzzle that were already on the table.

Perhaps the most advanced axis of crisis containment by autumn 2012 concerned the sovereign debt crisis, through the creation of a permanent rescue fund financed by EU member states, and the complementary European Central Bank programme announced in September 2012. On the banking crisis, the steps taken towards a "banking union" and common crisis resolution procedures were encouraging but still very preliminary. The European banking sector still lacks adequate capital and there is a risk of the perpetuation of "zombie banks", a phenomenon that cost Japan dearly in the 1990s. As for the competitiveness crisis, the programmes in crisis countries that aimed at simultaneously achieving the deleveraging of the over-indebted economic agents and an internal devaluation risks creating self-fulfilling depressions.

Finally, the strengthening of fiscal surveillance and its extension to macroeconomic imbalances, although very welcome, has still not been tested. There are doubts that the decisions made in this respect (the "six pack", the fiscal compact and the "two pack") will provide appropriate surveillance, not least because of their high complexity and reliance on sanctions. The combination of provisions at European level and of more stringent restrictions at national level will add to the complexity while, subject to the interpretation of certain rules and the macroeconomic context, the actual implementation of the Compact by the countries to which it applies will be challenging. We argue that surveillance should be prioritized more clearly and that efforts towards further national ownership should be pursued.

In addition, at the time of writing there was still a disagreement among Europeans on a number of key issues, notably: (i) the short-term adjustment strategy, (ii) debt restructuring and mutualization, (iii) and new transfers of sovereignty, especially in the areas of fiscal policy and bank supervision.

Looking forward, we recommend:

On deleveraging and macroeconomic adjustment

The process of macroeconomic adjustment in crisis countries should include scrutiny of the evolution of domestic demand so that a deflationary environment is avoided. Indeed, allowing domestic demand to plunge makes deleveraging self-defeating. Something like an aggregate fiscal policy at the euro-area level should be designed, with fiscal retrenchment being delayed in those countries not in crisis when demand falls at the euro-area level. The process of macroeconomic adjustment should also consider the restructuring of debts to a sustainable level with adequate safeguards so that a new systemic crisis is not triggered.

On enhancing the competitiveness of the peripheral countries

A firm ECB commitment to keep a loose monetary stance over a significant period of time could help to weaken the euro and foster the rebalancing of competitiveness within the euro area through inflation differentials. Suppressing rents in the non-tradable sectors would help create jobs in these sectors and encourage capital to move towards the tradable sectors through relative price adjustment.

On debt mutualization

We argue that the partial mutualization of sovereign debts could help fiscal surveillance to switch from *ex post* to *ex ante*. We however recognize that there may be too much debt and not enough trust among member states to allow for the mutualization of existing stocks of debts, except maybe through a debt exchange with haircuts on the secondary market. We also argue that bundling national government bonds (with no mutual liability) could be considered as a first step towards fully-fledged eurobonds.

On Banking sector and banking union

The provision of liquidity to the banks was necessary in order to avoid a new crisis. It is however of utmost importance that European banks are adequately recapitalized, in particular through the retention of profits. The supervision of banks at euro-area level (banking union) is necessary in order to align supervisors' strategies with the interests of the euro area as a whole, to limit regulatory capture and to reverse the current withdrawal of banks to their home countries. However, this should not be considered as a substitute for strict and simple prudential regulation, or for effective restructuring when needed.

On transfers

Some sort of transfers between member states will be inevitable for at least two reasons. In the short run, official sector involvement will be unavoidable in Greece. In the medium term, the willingness of EU citizens to move forward will critically depend on the ability of governments and institutions to manage adjustments in a socially-acceptable way, and to rebuild lost confidence. In the long term, since a monetary union allows production factors to agglomerate where marginal productivity is highest, less productive regions should consistently be compensated to a certain extent. A Euro-wide unemployment benefit system could play this role.

On policy mix and institutional reform

We argue that there is a need for a profound revamping of fiscal policy-making in the monetary union, with a “euro-area government” given the authority to design a sensible aggregate fiscal policy at euro-area level and allowed to be more intrusive in national affairs when rules are infringed.

As for monetary policy, the ECB will have to take the narrow passage between the risk of not doing enough for the preservation of the euro and the risk of being tied up by fiscal policies that are not sustainable.

All steps taken towards a new architecture for the euro will help solve the short-term challenges by providing the markets with a long-term perspective. This is why governments and European institutions should not scale back their euro-area crisis resolution efforts.

CONTENTS

Introduction

Since the beginning of the euro-area crisis, national governments and European institutions have been on a constant quest for solutions. Up to autumn 2012, most initiatives were taken in emergency situations. Such a trial and error process has been severely criticized. There are some explanations for this: the construction and management of a single currency among developed and less developed countries, in parallel to the development of complex financial channels, necessarily has an experimental dimension. The economic, intellectual and political contexts both at the inception of the euro and when the crisis developed and the difficulties in acknowledging the flaws in the monetary union's design have played their part. Finally, the consensus culture and the institutional nature of the European Union have burdened the management of the crisis.

Still, partial decisions successively taken by the Europeans have progressively led to a comprehensive strategy out of the crisis. It is this strategy that we want to assess in this paper in order to highlight remaining flaws and what could be done to correct them. We first come back to the various causes of the euro-area crisis (part 1), before analyzing how this crisis was addressed (part 2). Then we turn to the different ways of addressing the remaining inconsistencies of the European strategy (part 3), before specifically addressing the short-run risk of a euro-area break-up (part 4). Concluding remarks are provided in part 5.

1 The origins of the crisis

It is certainly unfair to argue that the crisis of the Euro area came as a complete surprise. Indeed, a number of risks had already been identified well before the inception of the euro. But the causes of financial imbalances that built up during the first decade of the euro were not properly analyzed. Furthermore, the Euro area was ill-equipped to respond to the crisis.

1.1 Many risks had already been identified before the euro's inception

The euro-area crisis did not come as a complete surprise to many analysts.[1] In particular, it was long noted that monetary unification would bring three major challenges:

- The risk that fiscal profligacy would put monetary stability at risk;[2]
- The risk that, due to persistent inflation differentials, the convergence of nominal interest rates would result in a divergence of real interest rates, in a pro-cyclical way;
- The risk that some countries would experience cumulated losses of price and cost competitiveness, which would be difficult to correct within the monetary union.

The first challenge was supposedly addressed by the Stability and Growth Pact (SGP). For the other two, national governments were considered to have understood the new regime created by a monetary union and the need to strengthen counter-cyclical policies at national level. These policies should have been coordinated (Art. 121 of the treaty).[3]

Beyond the context of the global financial crisis of 2007-2009 and its implications for public deficits and debts, the euro-area crisis can be considered the direct consequence of the Euro area's failure to tackle these three challenges.

A failure of the SGP

As it is now widely recognized, the SGP proved ineffective for preventing several countries from running excessive deficits; furthermore, it did not take into account the fact that fiscal rectitude was not enough to ensure fiscal sustainability, as exemplified by Ireland and Spain. These two countries complied with the pact during the first decade of monetary union. However they accumulated imbalances in the private sector. Excess leverage in the banking and household sectors (in relation to housing bubbles) ultimately turned into sudden increases in public indebtedness (Figure 1).[4]

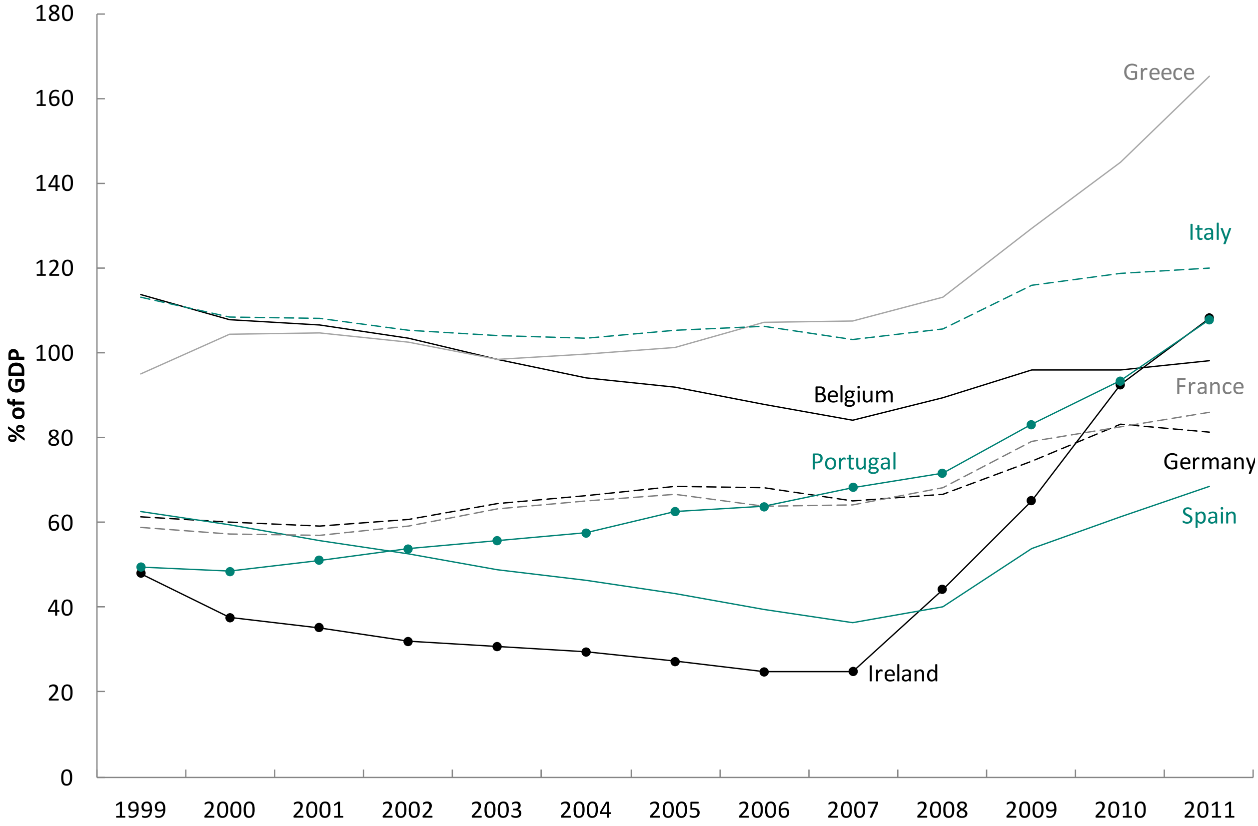
[1] Perhaps the most alarmist economist was Martin Feldstein, predicting that European monetary unification would raise rather than reduce the risk of intra-European conflicts, that could even take the form of a military conflict: "The American experience with the secession of the South may contain some lessons about the danger of a treaty or constitution that has no exits" (Feldstein, 1997, p. 7).

[2] See Eichengreen and Wyplosz (1998).

[3] In this paper the article numbers refer to the consolidated version of the Treaty on the Functioning of the European Union (TFEU).

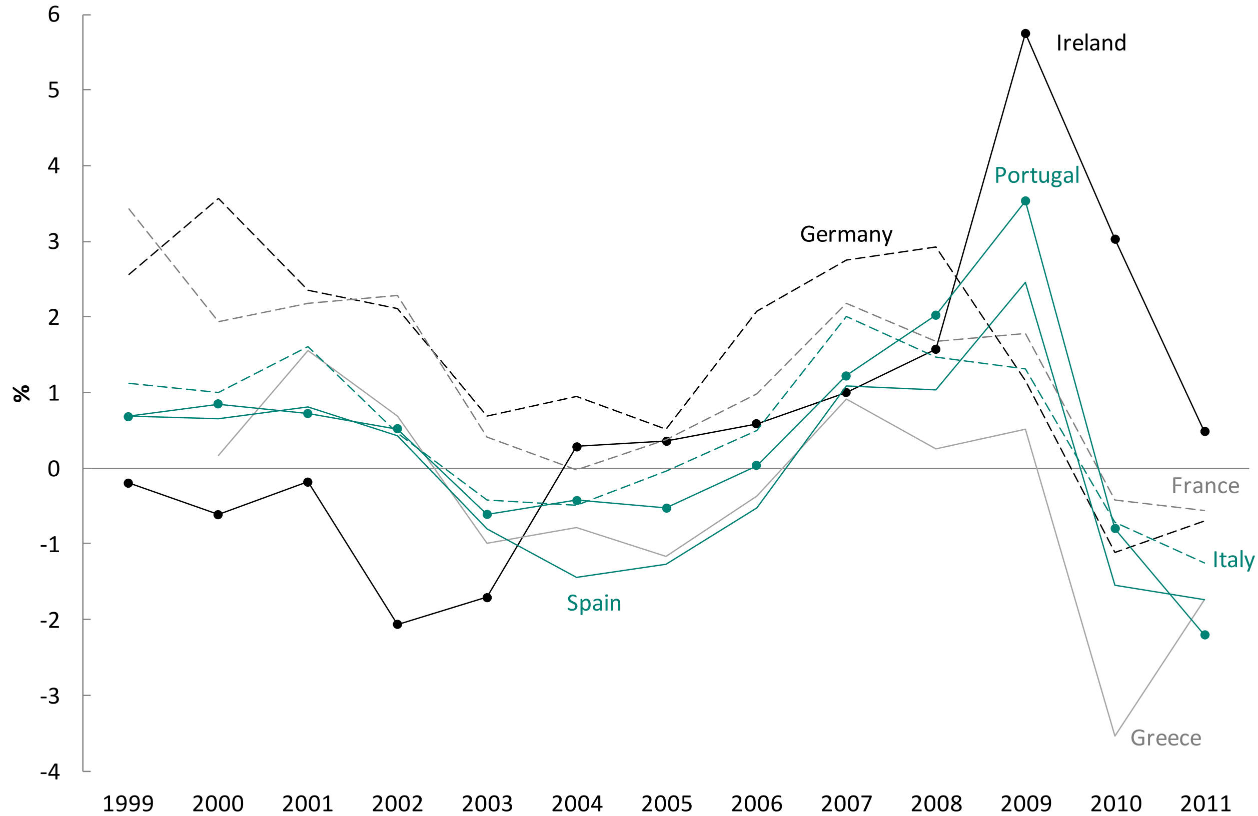
[4] Bénassy-Quéré and Roussellet (2012) show that it is possible to incorporate the fiscal risks related to "too-big-to-fail" financial institutions into a standard assessment of fiscal sustainability. Doing so would have completely changed the picture of fiscal sustainability in several Member states.

Figure 1 – Gross public debt



Source: Ameco.

Figure 2 – Short term real interest rates



Source: Ameco. Three-month nominal interest rate deflated by consumer price inflation.

A failure of national policies and of their coordination

Several countries experienced negative real interest rates during the first decade of the euro (Figure 2). To counteract this strong incentive for leverage (Figure 3), national policies should have been made more counter-cyclical. One case in point is Ireland in 2000, when the Council recommended some fiscal retrenchment to the Irish government (on the basis of a perceived overheating of the economy), but did not follow up the recommendation after Ireland pushed forward its compliance with the SGP. According to Monti (2011), the European Council has functioned like a "club" of excessively polite governments. It never addressed a recommendation to a member state pursuing economic policies that were not in the interests of the Union, in violation of Art. 121 of the treaty.[5]

A neglect of cumulated price divergences

Price divergences were incorrectly attributed to economic catching-up (Figure 4). During the pre-crisis period, the steep rise in Italian or Portuguese prices relative to Germany did not accompany any significant catch up in terms of GDP per capita; in Greece, the observed catch-up was largely unsustainable and did cancel during the crisis. Price divergences were largely neglected during this period where peer surveillance did concentrate on fiscal balances.

1.2 The causes of financial imbalances that built up during the first decade of the euro were not properly analyzed

Simultaneously, it seems that economists overestimated the detrimental impact of asymmetric shocks in the Euro area, while completely underestimating the dangers of large balance-of-payment imbalances, and of financial integration without euro-level financial supervision and crisis resolution schemes.

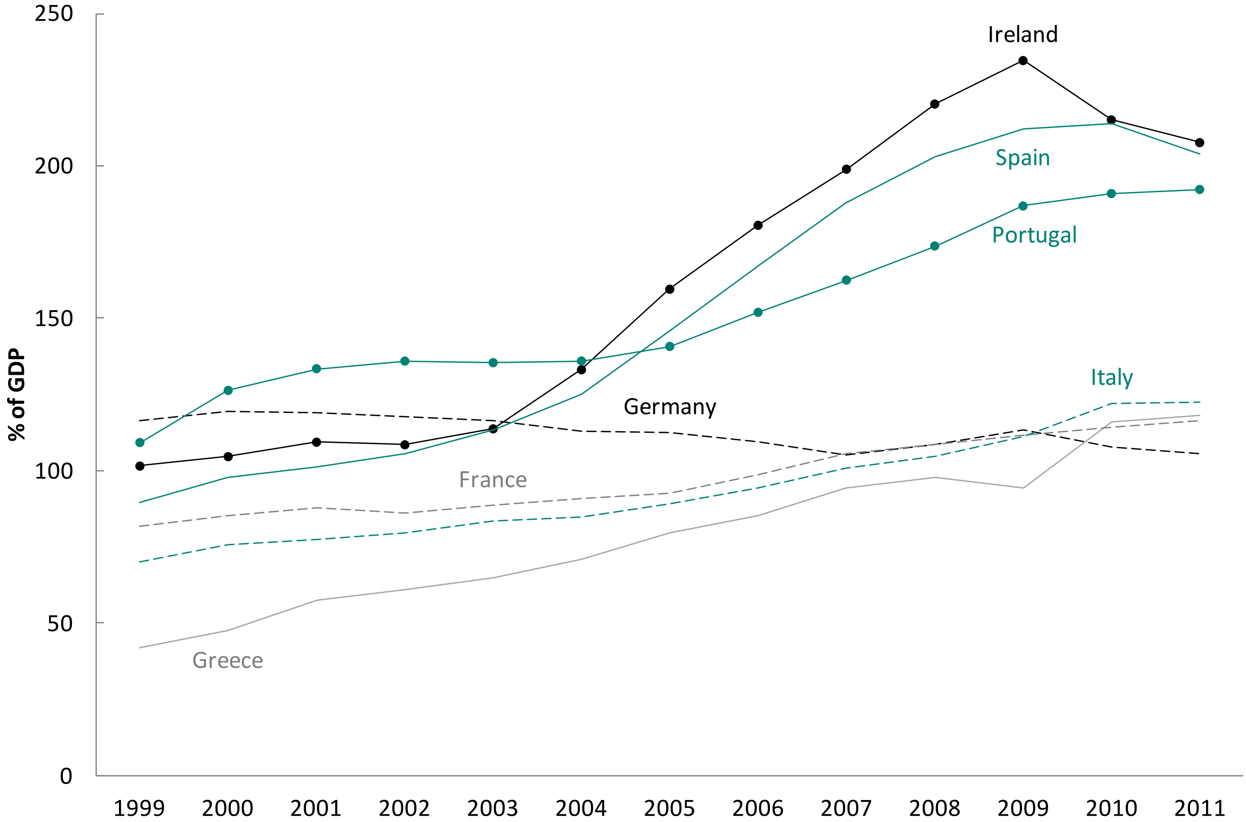
The role of asymmetric shocks was over-estimated

The euro-area crisis did not result from large, asymmetric shocks, the risk of which had been emphasized by the theory of optimum currency areas (Mundell, 1961). From 1999-2008, the correlation of GDP growth with the Euro17 aggregate (17 members of the Euro-area by 2012) exceeded 80% in 10 of the 17 countries, and only in four countries was it less than 50% (Figure 5).[6] Prior to monetary unification, it was feared that asymmetric shocks could become endogenously more prevalent due to an increase in industry specialization (see Krugman, 1993). Using a Grubel and Lloyd measure of intra-industry trade, there is

[5] "Member States shall regard their economic policies as a matter of common concern" (TFEU, Art. 121.1).

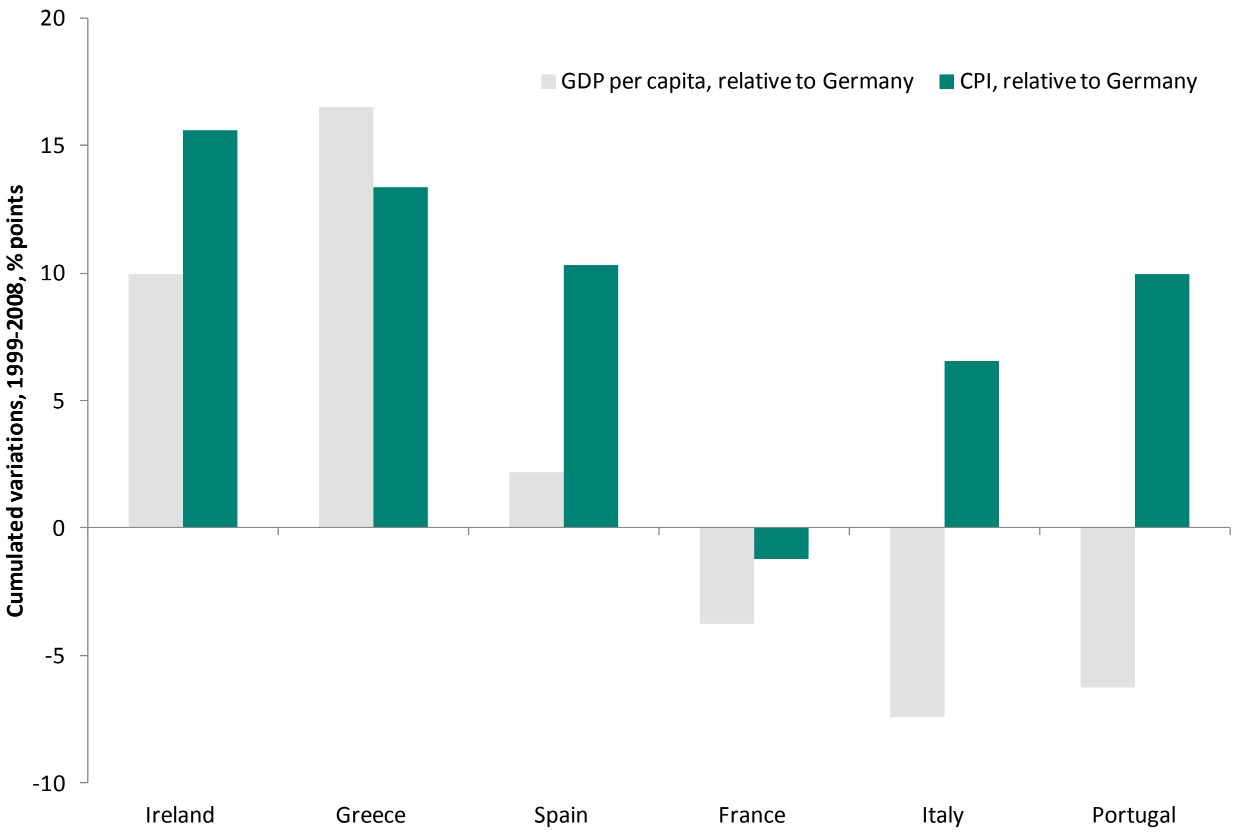
[6] By construction, larger countries display higher correlation with the Euro area aggregate. This is an advantage of large countries which will enjoy monetary policies that are more likely to match their needs.

Figure 3 – Credit to the private sector



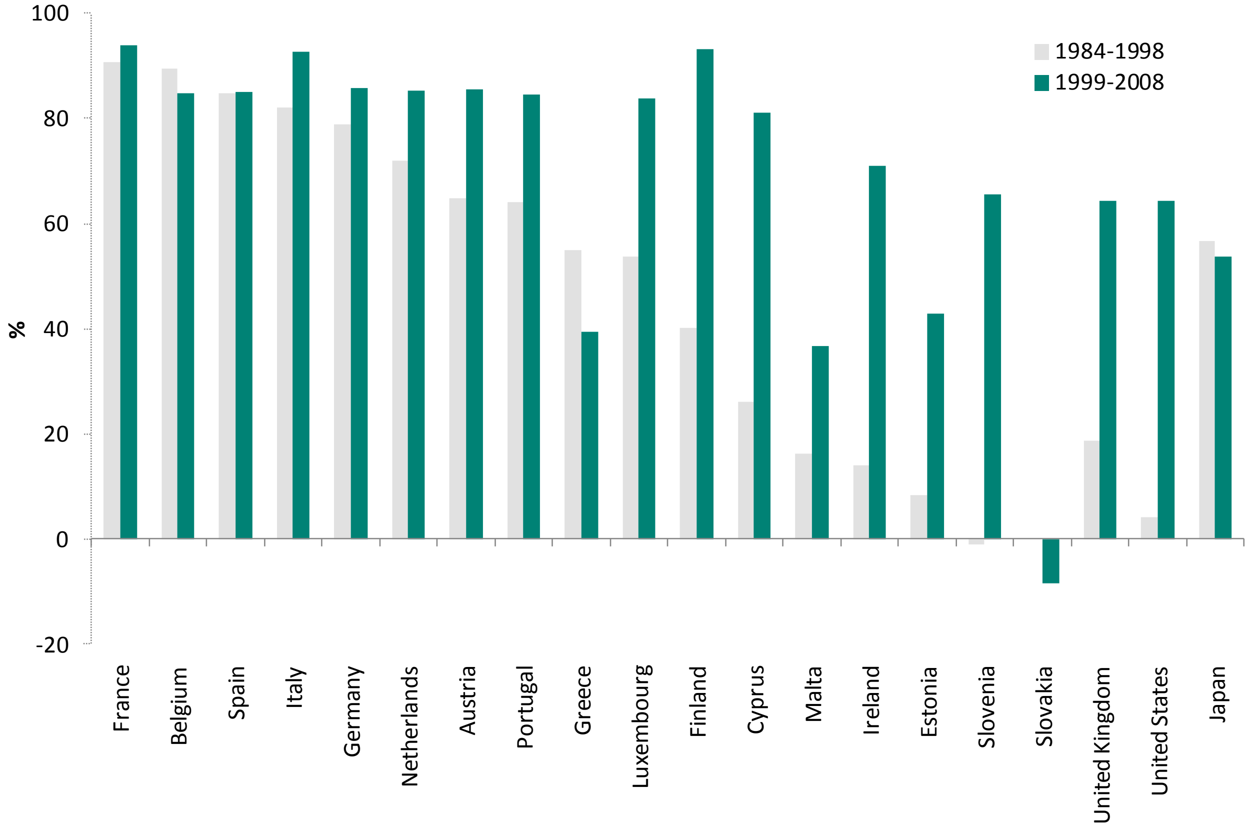
Source: World Bank.

Figure 4 – Economic catch-up and relative price increase



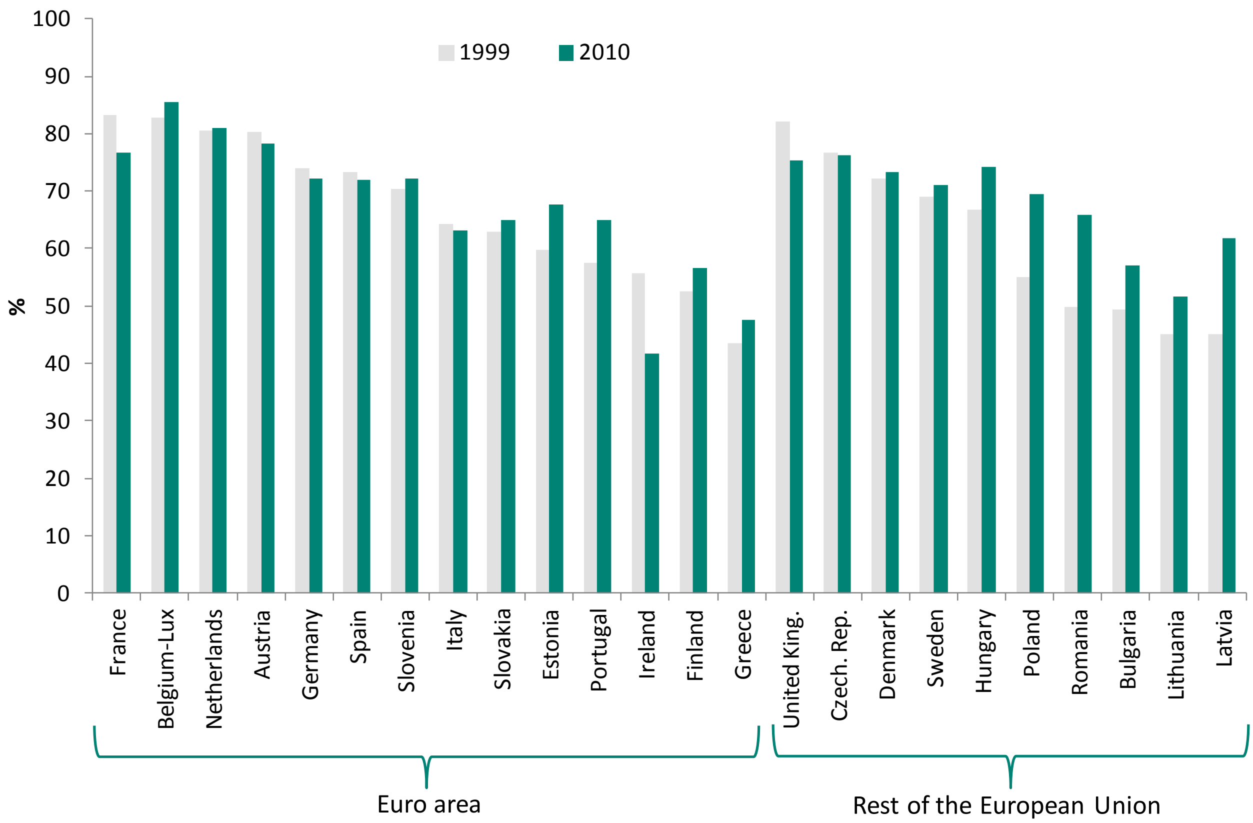
Source: Ameco, ECB. GDP per capita in PPP; harmonized consumer price index.

Figure 5 – Correlation of GDP growth rates with Euro17 aggregate



Source: Ameco. West-Germany before 1992; correlation non available for Slovakia over 1984-1998; correlations starting in the early 1990s for Cyprus, Estonia, Malta and Slovenia.

Figure 6 – Grubel-Llyod index of intra-industry trade



Source: CEPII-CHELEM, 72 industries. The Grubel and Llyod index is equal to 0 if all trade flows are inter-industry and 1 if all trade flows are intra-industry.

little evidence of such industry specialization over the period, except for Ireland and, to a lesser extent, for France (Figure 6). This feature is consistent with the increase in the correlations of GDP growth rates between the 1984-2008 and the 1999-2008 periods (Figure 5). Only in Greece did this correlation diminish.[7]

The role of external imbalances was misunderstood

Within a monetary union, monetary flows automatically top out private capital flows. Hence there is no risk of a balance-of-payment crisis like in a fixed exchange-rate regime. However this does not involve the hollowing out of risks related to the imbalances. The sudden building-up of TARGET2 imbalances during the crisis (Figure 7) actually raised a vivid debate about the risks involved for creditor countries. In fact, all countries hit by the crisis had large current-account deficits during the decade prior to the crisis (Figure 8).

The dangers of financial integration were underestimated

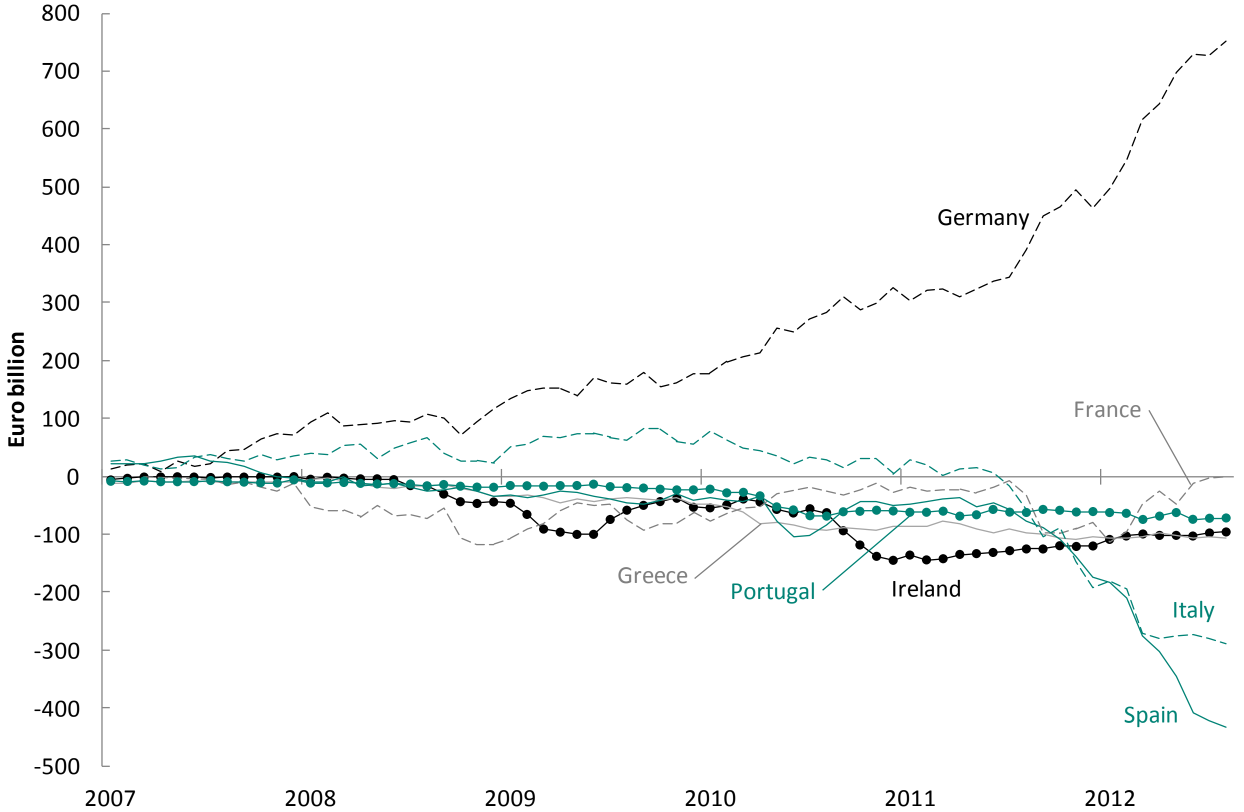
Financial integration is welfare-enhancing to the extent that it fosters efficient capital allocation (Blanchard and Giavazzi, 2002). However, when there are asset bubbles, capital flows can be attracted by short-term returns in non-traded goods sectors (such as construction) with low potential in terms of productivity gains and exports. This is largely what happened in Ireland and especially Spain: the conjunction of negative real interest rates and free capital movement triggered an easily-financed housing bubble. Figure 9 illustrates how capital investment expenditures were skewed towards construction in these two countries during the first decade of the euro.

Negative real interest rates were also an encouragement for the government to spend. Continuous external financing of sovereign debts was encouraged by the inertia of rating agencies, the non-credibility of the no-bailout clause, and by capital requirements (with low requirements for sovereign bonds whatever their rating) and the ECB collateral policy that relied on rating agencies (hence sovereign bonds were refinanced without any haircut, whatever their origin).

In the absence of strong counter-cyclical fiscal and regulatory policies in the member states, monetary unification encouraged the build-up of excess leverage and asset price bubbles. Indeed, the monetary architecture was devoted to price stability in the Euro area as a whole. National discrepancies were disregarded and monetary instruments were not designed to tackle them. For instance, collateral requirements for repurchasing agreements were not tailored to national specific situations, and all government debts were treated the same way by the Eurosystem.

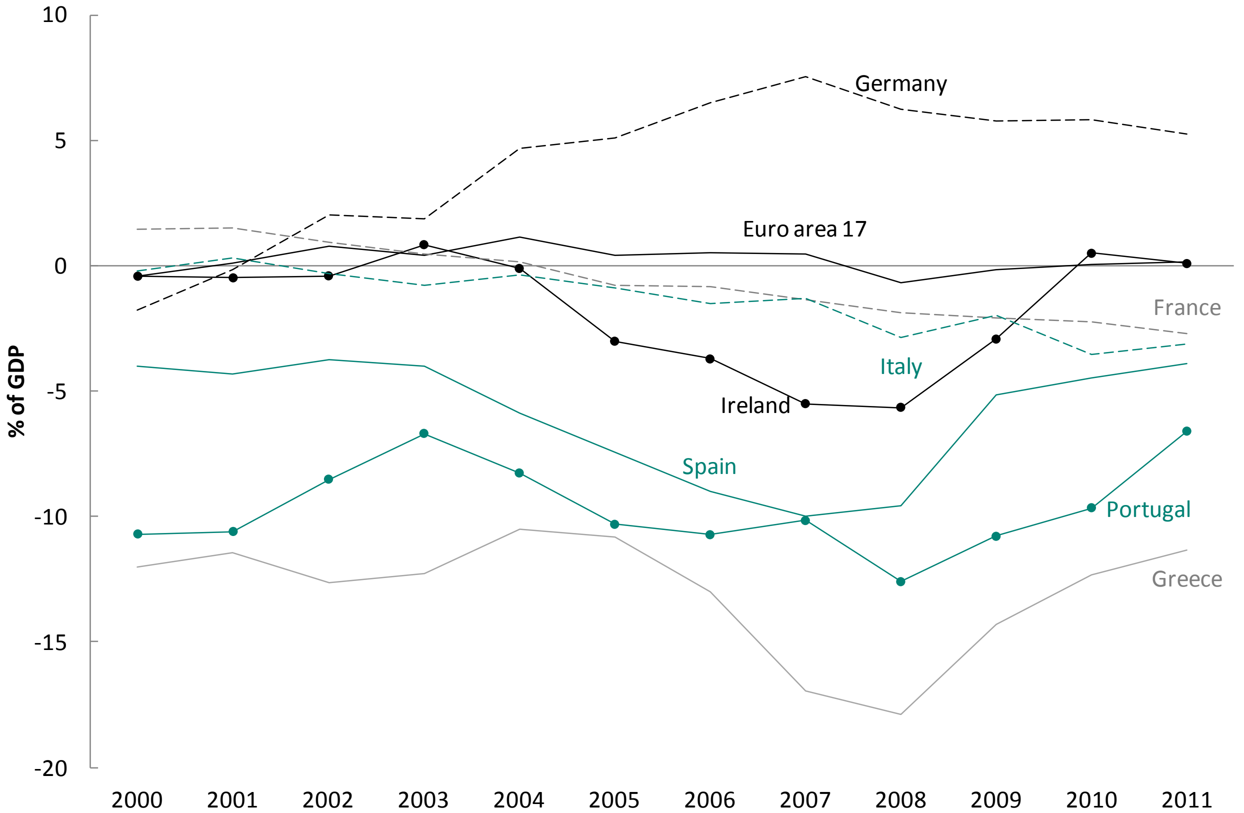
[7] Note that there was also a large increase in the correlation between the Euro12 aggregate and the UK or USA.

Figure 7 – TARGET 2 net balances



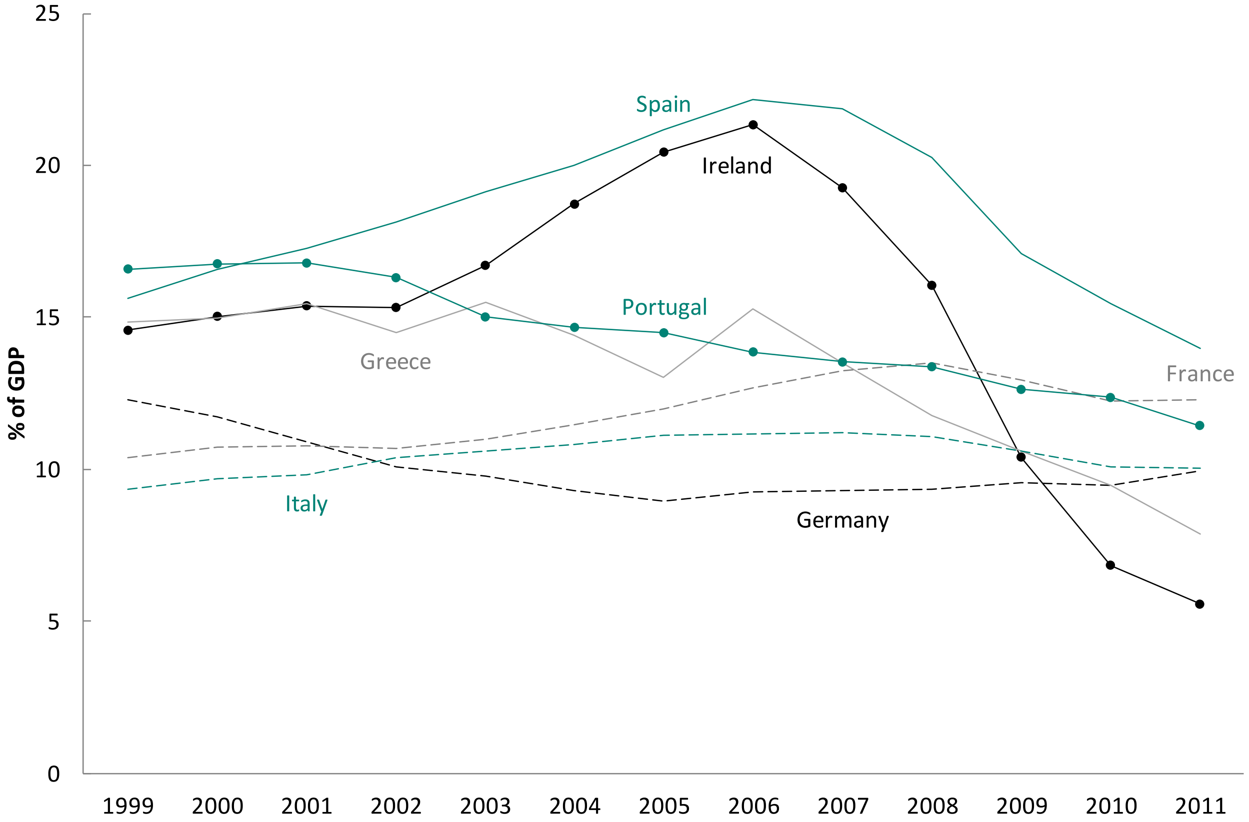
Source: Individual euro-area NCB's, International Financial Statistics (IFS), Universität Osnabrück.

Figure 8 – Current account balance



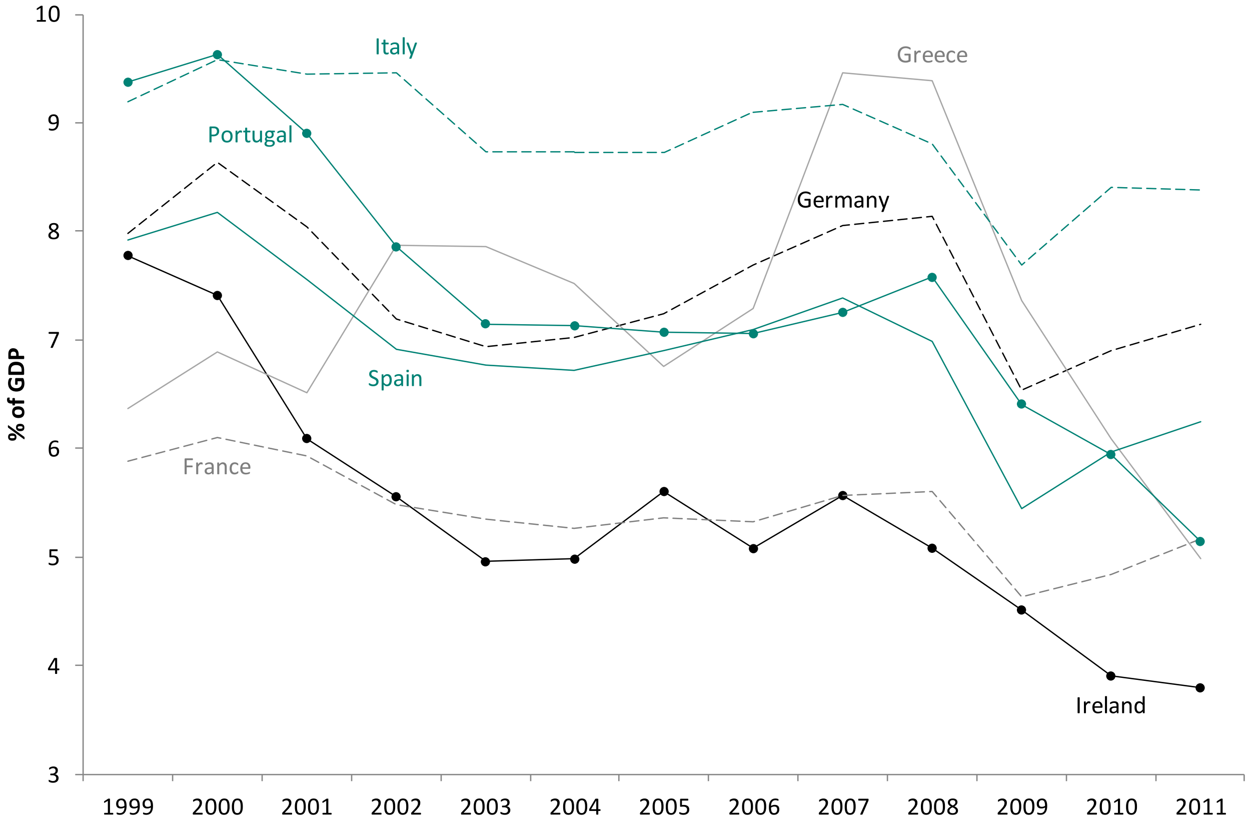
Source: Ameco.

Figure 9a – Gross fixed capital formation in construction



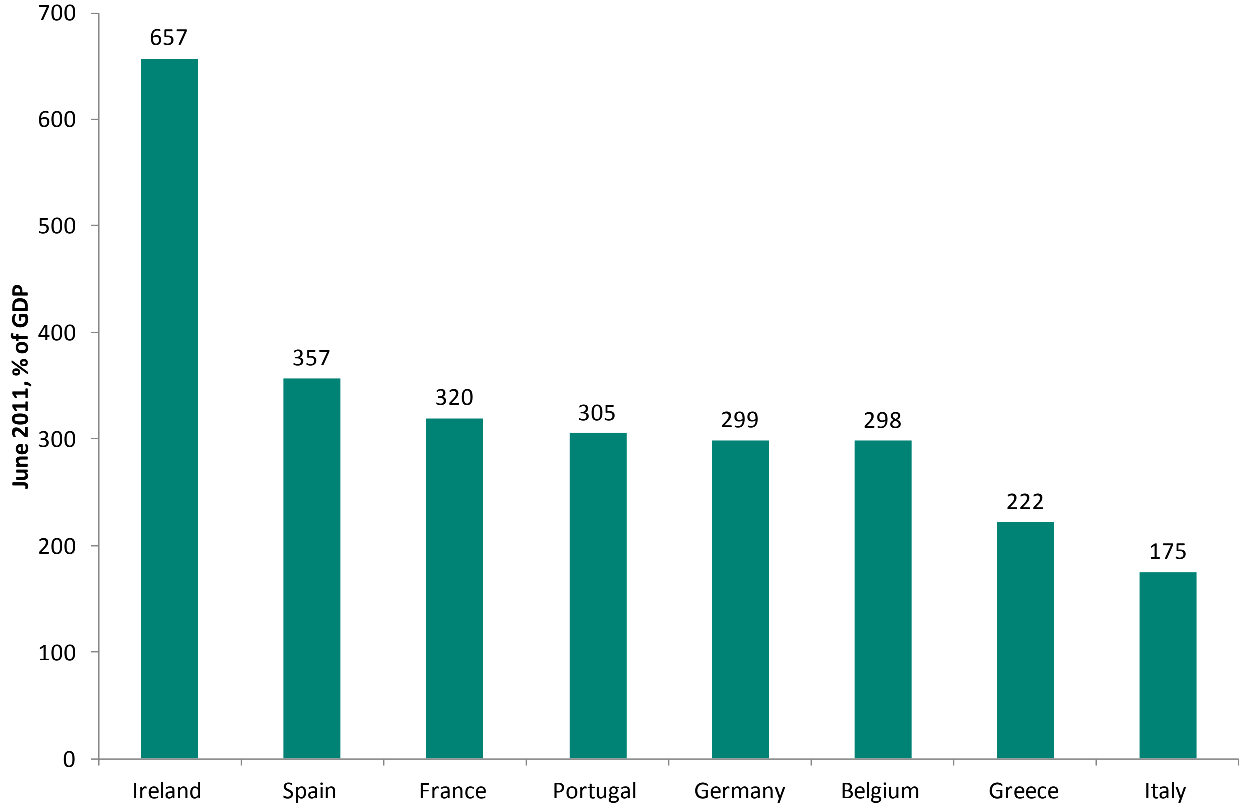
Source: Ameco.

Figure 9b – Gross fixed capital formation in equipment



Source: Ameco.

Figure 10 – Bank balance sheets per country



Source: ECB.

The risks related to the size of national banking sectors were underestimated.

As shown in Figure 10, bank balance sheets amounted to more than 600% of GDP in Ireland where banks were not only "too big to fail", but also "too big to be saved" by the government.

1.3 Institutions proved inadequate to manage the crisis

Finally, when the crisis erupted, the Europeans realized that they did not have the institutional tools to tackle it. While bailouts and monetization of sovereign debts were both prohibited by the treaty (Art. 125.1 and 123.1), there was no blueprint for an orderly sovereign debt restructuring in the Euro area. The question was supposed to never arise thanks to Art. 126.1: "Member States shall avoid excessive government deficits"; the possibility of a public bailout of private banks had not been contemplated. Worse, as already mentioned, financial investors had concluded from this institutional incompleteness that the no-bailout clause would not be applied in the event of a sovereign debt crisis.[8] This encouraged them to lend to profligate governments at low interest rates until the wake-up call came. Financial integration worsened the moral hazard since the spreading of the debts throughout the banking sector made it even less likely that a member state would ever be allowed to default.

[8] Based on the history of five federations (Argentina, Brazil, Canada, Germany and the US), Bordo, Markiewicz and Jonung (2011) show that the credibility of the no-bailout clause is key to ensure fiscal discipline by sub-national units.

Table 1 below summarizes the different ingredients of the crisis. Each needs to be tackled if a long-term solution is to be designed.

Table 1 – The main ingredients of the euro-area crisis (besides the global crisis of 2007-2009)

Well-identified risks of monetary unification	Underestimated risks	Institutional shortcomings
• Fiscal profligacy • Real interest-rate divergence • Cumulated losses in competitiveness	• External imbalances • Financial integration • Size of national banking sectors	• Lack of sovereign debt restructuring scheme • Lack of effective coordination of macroeconomic policies and bank supervision • Lack of credibility of the no-bailout clause

2 The management of the crisis

Because they were unprepared and initially unwilling to acknowledge their previous mistakes, European policymakers were forced to improvise measures to tackle the three aspects of the crisis: the sovereign debt crisis, the banking crisis and the competitiveness crisis. Step by step, they have moved towards a complete restructuring of the Euro area's architecture.

2.1 The sovereign debt crisis

The initial European strategy in the face of the sovereign debt crisis was to provide national governments with bridging loans against conditionality but with a relatively low interest rate in order to avoid an explosion of debt. These loans were initially granted bilaterally, before the European Financial Stability Facility (EFSF) and later the European Stability Mechanism (ESM) were introduced. Simultaneously with the first Greek rescue, the ECB launched its Securities Market Programme (SMP), which involved buying sovereign bonds on the secondary market (Box 1).[9] The SMP was put forward as a way to ensure that monetary policy would reach all parts of the monetary union. The idea was that the channels of monetary policy were impeded in some member countries by the freeze in the sovereign bond market, which failed to provide the usual risk-free interest benchmark. Hence the ECB would buy bonds to revive this market. However the SMP could also be viewed as a way to alleviate the debt snowball by counteracting the rise in sovereign spreads. Meanwhile, conditionality was handled jointly by the International Monetary Fund (which contributed to the emergency packages), the European Commission and the ECB – hence the troika label.[10] Conditionality consisted mostly of cutting public expenses, increasing tax rates and recovery rates, and privatizing what could be privatized.

Because of its negative impact on aggregate demand, fiscal adjustment is partly self-defeating. Indeed, assuming a unitary spending multiplier (which is broadly in line with the empirical literature) and a ratio of tax receipts to GDP equal to 50%, then a 1%-of-GDP spending cut reduces the deficit by only 0.5% of GDP. This is the main reason why, although the fiscal adjustment was accompanied with growth-enhancing measures (mostly supply-side), the fiscal adjustment has been painful and sometimes disappointing. Figure 11 shows that crisis countries had to increase their primary fiscal balance by several percentage points over a very short period, in a context of sluggish or negative GDP growth.

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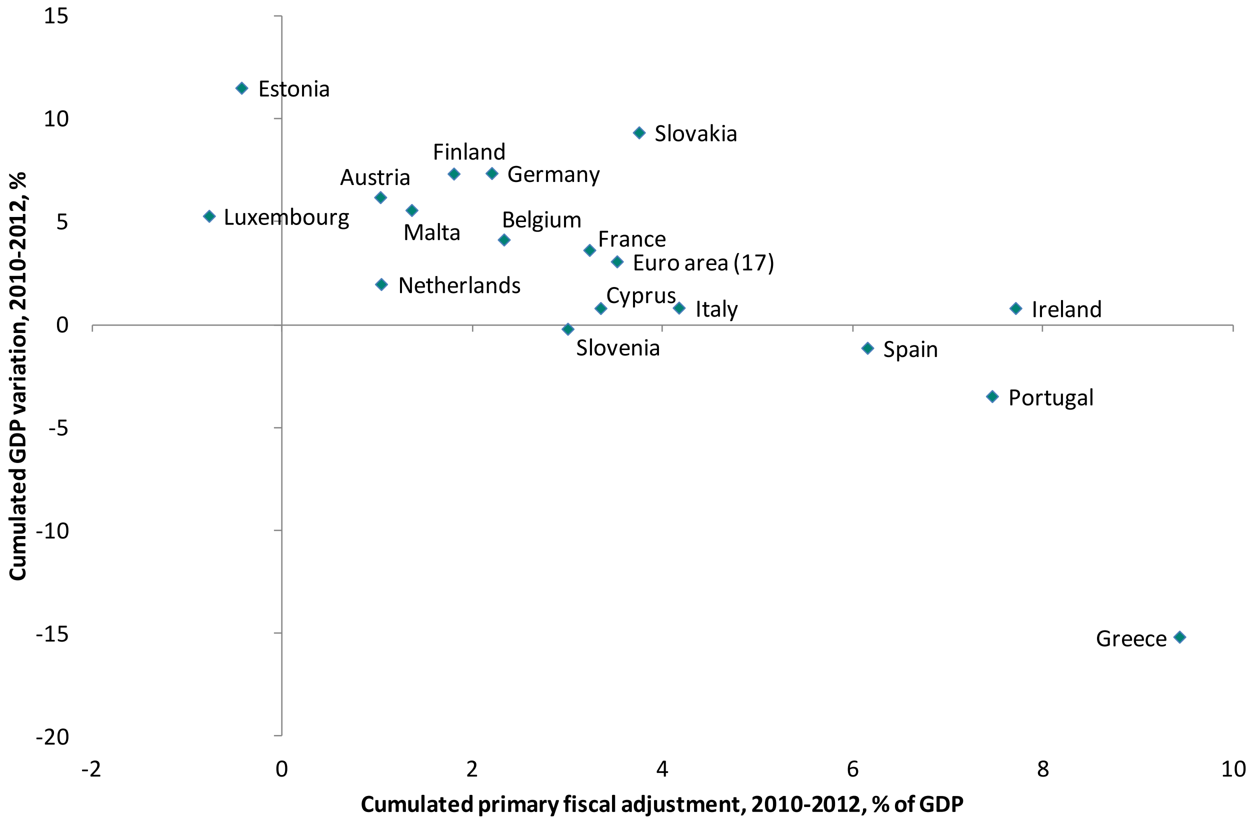
[9] Buying government debt bonds on the secondary market rather than on the primary market allowed the ECB not to breach the treaty, at least technicallly.

[10] The involvement of the ECB in fiscal surveillance was triggered by the risks incurred by this institution, both directly (through the SMP) and indirectly (through its role of lender of last resort to the banks). It was a strong signal of the failure to separate fiscal from monetary policy, as had been designed in the treaty.

Figure 11 – Fiscal adjustment and growth



Source: Ameco.

The literature on successful fiscal adjustments, which relies especially on the experiences of Denmark (1983-86), Ireland (1987-89), Finland (1992-98) and Sweden (1993-98), tends to contradict the view that a large fiscal adjustment can have no impact or even a positive impact on growth within the Euro area: successful adjustments were greatly helped by drops in domestic interest rates, depreciation of the home currency and a buoyant global environment, which enabled export-led demand growth.[11] For euro-area countries, none of these conditions is fulfilled, which means that fiscal adjustment is much more painful. Three elements could however alleviate the pain. First, it has been shown that the negative impact of a fiscal adjustment on growth is more limited in the medium term when the adjustment relies more heavily on spending cuts rather than tax hikes;[12] second, brutal fiscal adjustment should be avoided in those neighbouring countries that still have some fiscal space (e.g. Germany); third, a weaker euro would be welcome to the extent that it would weaken the real effective exchange rate of crisis countries.[13]

Against this background, and without a coordinated strategy for growth in the Euro area, financial markets have seemed unconvinced by the strategy of harsh fiscal adjustment.

[11] See IMF (2010), Perotti (2011).

[12] See IMF (2010), Alesina and Ardagna (2010).

[13] It has sometimes been argued that the euro-area crisis is a pure intra-area crisis that should be fixed by intra-area relative price adjustments, with no change needed in the value of the euro. However, a weak euro would facilitate the adjustment by boosting overall demand in the euro area and allowing relative price adjustments while avoiding deflation in crisis countries.

Consequently, they have persistently applied a risk premium to the corresponding bonds, which fed interest rate spreads and pushed fiscal balances into a “bad” equilibrium.[14] This increase in spreads was also fed by the uncertainty about the capacity of the Euro area to create a credible safeguard mechanism that would allow for purchases of sovereign bonds in case of market panic. Just as an illiquid bank can quickly become insolvent in the absence of the lender of last resort, a government can default if investors suddenly refuse to hold and roll over its debt. The EFSF/ESM cannot be considered a “buyer of last resort” of public debts since it has limited capacity, and because any intervention it makes needs formal approval by member states. This is why the decision by the ECB on 6 September 2012 to launch an “Outright Monetary Transactions” (OMT) programme was warmly welcomed by the markets. Unlike the EFSF/ESM, the ECB has unlimited capacity to buy sovereign bonds on the secondary market. Although no official cap will be put on spreads, the ECB can now prevent sovereigns from falling into a “bad” equilibrium, provided they commit to follow a reform programme agreed with the troika.[15]

Box 1 – Towards a lender of last resort to governments

Since the start of the sovereign debt crisis, European policymakers have groped for a way to lend to crisis countries that would not (i) infringe the treaty, (ii) involve too much risk, and (iii) create moral hazard. The following mechanisms were designed by euro-area governments (EFSF, ESM) and by the ECB (SMP, OMT).

The European Financial Stability Facility (**EFSF**) is a temporary financial institution with a total lending capacity of EUR 440 billion created following the May 2010 European Council. The facility issues high rating debt instruments (guaranteed by euro-area governments) in order to lend with long maturities to governments (loans, public debt purchasing on the primary and the secondary market), but is not a preferred creditor. The EFSF lends funds under conditionality, at the request of a country. Greece (up to EUR 144.6 billion), Ireland (EUR 17.7 billion), and Portugal (EUR 26.0 billion) were the first recipients. In June 2012, it was decided that Spain would receive loans for the recapitalization of its banking sector (up to EUR 100.0 billion), with conditions specific to the banking sector.

[14] Following de Grauwe (2011), and Jeanne (2012), the fragility of the euro area has led to two equilibria. In the “good” equilibrium, markets trust governments, interest rates are low, hence governments are solvent. In the “bad” state, markets distrust governments, interest rates are high, hence governments are insolvent. The extension of the crisis to Italy, in the summer of 2011, can be viewed as a jump from the “good” equilibrium to the “bad”, since Italian fundamentals did not change significantly during this period.

[15] At the end of June 2012, purchases made under the SMP programme (see Box 1) had reached about EUR 215 billion. The reluctance of the ECB to buy sovereign bonds on similar scale as the Fed or the BoE is based on five main arguments: a legal one (the ban on debt monetization); a macro-policy one (the risk of the ECB falling into a trap from which it can no longer safeguard a low level of inflation); a fairness one (why give an advantage to one specific member state?); an incentive one (governments benefiting from asset purchases would no longer have incentives to adjust their public finances); and a risk-management one (in the event of a loss, the ECB would need to be recapitalized by its shareholders, which would entail transfers between member states).

The European Stability Mechanism (**ESM**) was decided by the European Council in October 2010, but its ratification by member states then took eighteen months. This permanent mechanism will replace the EFSF and will have a greater lending capacity (EUR 500 billion). The ESM will also lend under strict conditionality and issue instruments backed by a EUR 80 billion buffer in order to keep top rating by agencies. Unlike the EFSF, the ESM will enjoy a preferred creditor status junior only to IMF claims. However, ESM claims on countries that benefited from EFSF financing at the time of the signature of the ESM treaty will be *pari passu* with any other claim on these countries.

The Securities Market Programme (**SMP**) was activated by the ECB in May 2010 in order to buy government bonds on the secondary market. Bond purchase was at the discretion of the ECB, without any announced objective for bond prices (the interest rate) or intervention amounts. Consistent with this, no explicit conditionality was imposed on beneficiary governments. This feature was criticized for creating moral hazard.

In September 2012, the ECB announced an Outright Monetary Transactions (**OMT**) programme, consisting of sovereign bond purchases on the secondary market, conditional on the agreement of an EFSF/ESM adjustment programme. Such Memorandum of Understanding (MoU) could either cover a full adjustment programme (e.g. Portugal when it comes back to the market) or soft conditionality, in the spirit of IMF's Precautionary Credit Line. The OMT does not involve senior status, hence the ECB will not benefit from privileged treatment in the case of a default. The OMT has no limit *ex ante*, which makes it a powerful instrument for the avoidance of speculative crises.

Two and a half years after the start of the process, a two-pillar approach has been introduced in order to circumvent the limited amounts involved in EFSF and ESM schemes. On the one hand, European emergency funds have the ability to impose conditionality for direct lending in the form of policy requirements (fiscal surplus, reforms, etc.), but the decision-making process is long and the amounts involved are limited (and targeted to the primary market). On the other hand, the ECB has the ability to intervene quickly with large amounts, but is not able to lend directly to governments or to impose conditions. The combination of the two thus allows both unlimited amounts and conditionality. However the credibility of any ECB decision to stop purchases agreed under the OMT programme can still be questioned because such a "sudden stop" could have detrimental effects on financial stability across the Euro area. Hence the sanction in case of non-compliance with the MoU remains questionable.

2.2 The banking crisis

The treatment of the banking crisis has been even more hesitant than that of the sovereign debt crisis. The discussions have evolved around three crucial topics.

Bail-in versus bailout

In the first years of the crisis, it was believed that the bond holders of infected banks (especially senior ones) should *not* bear the cost of the crisis. This was the condition to stop the propagation of losses within the banking system and to reassure depositors. Consistently, not only depositors but also bond holders needed to be protected against losses. The most extreme decision along these lines was that of the Irish government, in September 2008, to extend a blanket guarantee to a large share of Irish banks' liabilities, amounting to approximately 300% of GDP.[16] Along the same lines, it was believed that, because of its disruptive potential, a sovereign default should be avoided at all costs. Former ECB president Jean-Claude Trichet was especially vocal on this point. In 2011, a reversal of this position began with the preparation of a plan for private-sector involvement (PSI), a partial default on Greek sovereign debt that was concluded in March 2012. The next step was taken during the summer of 2012 in relation to the emergency package to tackle the Spanish banking crisis, which made explicit the possibility of burden sharing between taxpayers and bond holders (see below).

Recapitalization

From 2009 to 2011, there was no question in the Euro area that bank recapitalization, should it be decided on, was a national responsibility. Given the large amounts involved, the fear of a credit crunch and the lobbying power of the banks in their respective countries, the governments adopted a light touch approach to this issue in contrast with the United States or Switzerland. The three vintages of stress tests published by the European Banking Authority (EBA)[17] were perceived to lack transparency and to rely on benign scenarios. A number of banks that were judged solvent by the tests were found to be severely undercapitalized shortly afterwards (Allied Irish Banks after the second round and Spanish banks after the third round of stress tests). This benevolent stance changed somewhat in October 2011, when the EBA imposed a requirement for European banks to reach a 9% capital ratio by the end of June 2012. A shortfall was identified in December 2011 for 27 banks, amounting EUR 76 billion. Six months later, banks were mostly able to meet their objectives, though four had to be restructured (EBA, July 2012).

[16] See McCarthy (2012), who calculates that these guarantees have resulted in a cost for the Irish government of 40% of GDP.

[17] September 2009; July 2010; July 2011.

European funding for bank rescue

Although the ”doom loop” connecting banking debts and sovereign debts was quickly identified,[18] it took more than two years before European leaders considered bailing out banks rather than their national governments. The first European support was decided in June 2012 for Spain, where it had become clear that the government could not itself borrow the amounts needed to bail out Bankia and possibly other banks without losing access to the financial market.[19] The EFSF/ESM will provide financial assistance of up to EUR 100 billion which will be earmarked for recapitalizing weak but viable banks and for the orderly resolution of non-viable institutions. However, the emergency plan still relies on the Spanish government to channel the funds, and the latter will add up to its debt. The European Council of 29 June 2012 also opened the way to a banking union, stating that the first step would need to be the unification of banking surveillance. However, strong divisions remain in this area.[20]

While policymakers took these hesitant steps, the ECB played its role of lender of last resort through three groups of non-standard measures: (i) exceptional liquidity provisions, (ii) collateral easing and (iii) asset purchases (see Box 2). The impact of these measures has been studied by Szczerbowicz (2012) using an event-based regression analysis. The results show that government bond purchases (the SMP programme) were most effective in lowering sovereign spreads in southern European countries. The effects, based on the one-day financial assets response, range from 45 basis points (Italy) to 438 basis points (Greece), suggesting that such measures are particularly effective when the sovereign credit risk is high.[21] The SMP also had a major impact on covered bond spreads (ranging from 121 basis points for Portugal to 26 basis points for Spain). Covered bonds purchasing programmes (CBPP 1&2) also contributed to covered and sovereign spread reductions, though to a lesser extent. Conversely, exceptional liquidity provision operations had no significant impact on bank refinancing costs, with the notable exception of the 3-year long-term refinancing operation (3Y LTRO) which reduced money market and covered bond spreads.

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[18] Because of a large home bias, each country's banks are heavily loaded with their own country's sovereign bonds. Consequently, when the government borrows to bail out its banks, its rating declines, which induces losses in the same banks it intends to help. This feature was accentuated by the crisis itself, through the observed fragmentation of the European capital market.

[19] The second Greek rescue plan (March 2012) also included a EUR 23 billion amount for bank recapitalization, but unlike for Spain this amount was included in the EUR 130 billion rescue package provided to the Greek government.

[20] See e.g. Sinn (2012).

[21] As a comparison, the US and UK sovereign spreads (measured as the difference between long-term government yield and risk-free interest rate swap) also fell following the quantitative easing implemented by the Fed and the Bank of England, but the magnitude of the effect was much smaller: 9 basis points on average.

Box 2 – Unconventional monetary interventions

Since the start of the sovereign debt crisis, the ECB has pursued three types of unconventional policy:

Exceptional liquidity provision. As the first signs of the sovereign debt crisis appeared, the ECB reacted promptly to satisfy banks' increased liquidity needs. In May 2010, it decided to reactivate the tender procedure for unlimited amounts (fixed-rate full allotment) in the regular 3-month operations and an extension of these operations up to one year. As the crisis worsened, the ECB lengthened the maturity of the loans to three years in two successive Long Term Refinancing Operations (LTRO) conducted in December 2011 and February 2012. Refinancing operations in foreign currencies (US dollar, Swiss franc, and sterling) were also made available to banks thanks to swap agreements with foreign central banks.

Collateral easing. As the ECB decided to satisfy all banks' liquidity needs, the quality of collateral was the only barrier to participation in refinancing operations that the banks faced. Given the particularly difficult circumstances, the ECB eased progressively its requirements in this area. In April 2010 it allowed banks to continue to use lower-rated investment-grade debt as collateral beyond the end of 2010. This decision was seen as a way to prevent Greek sovereign bonds from being excluded from the ECB's refinancing operations even though Greece was systematically downgraded by the rating agencies. Furthermore, in May 2010, the minimum credit rating threshold for the Greek government debt instruments was suspended (similar decisions were taken for Ireland and Portugal). Throughout the crisis, the ECB expanded the pool of collateral to include, among others: debt instruments issued by credit institutions traded on non-regulated markets (banks' certificate of deposit), a broad range of asset-backed securities (ABS) and residential and commercial mortgage-backed securities (RMBS and CMBS). Finally, the ECB authorized individual central banks to accept varying types of collateral in order to accommodate the specificity of their domestic banks.

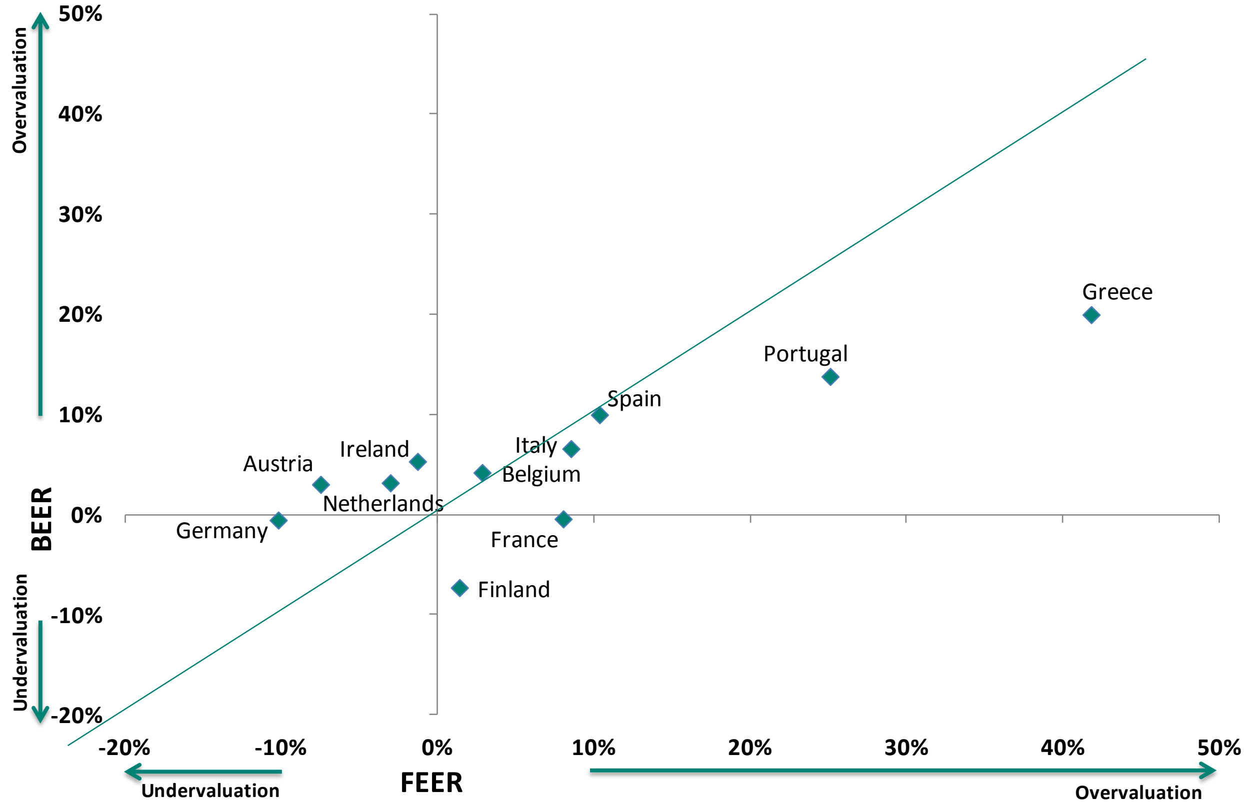
Asset purchases. Liquidity provisions and collateral easing were not sufficient to reduce tensions in financial markets. Indeed, the banks used central bank liquidity principally to secure their existing funding needs and were unwilling to distribute loans. To facilitate the monetary transmission, the ECB in October 2011 decided to directly purchase covered bonds on primary and secondary markets (covered bonds are comparatively safe debt instruments backed by mortgages and loans to the public sector).

2.3 The competitiveness crisis

As already mentioned, the euro-area crisis is not only a sovereign debt crisis but also an intra-EMU external debt crisis.[22] Debates have flourished about the origin of current account imbalances (see Chen et al, 2012 or Gaulier et al, 2012). Whatever the deep cause of current account imbalances (whether supply-side or demand-side driven), reducing them involves relative price adjustments. Based on two alternative methodologies, Figure 12 suggests that real effective misalignments were especially large in 2010 for Portugal (14-25%) and Greece (20-42%).

In this context, the strategy adopted by the troika to foster relative price adjustments within the monetary union has relied on internal devaluations in crisis countries, i.e. reducing domestic prices.[23] As argued in Box 3, however, there are few examples of successful internal devaluations.

Figure 12 – REER Misalignments in 2010 with FEER and BEER methods



Source: Carton and Hervé (2012) *for the FEER and* Coudert et al. (2012) *for the BEER.*
FEER: Fundamental Equilibrium Exchange Rate; BEER: Behavioral Equilibrium Exchange Rate.

[22] See Gros (2011).

[23] Fiscal devaluations (i.e. tax transfers from social contributions to the VAT) were also considered, but they can hardly produce a significant change in relative prices.

Box 3 – Internal devaluation

The concept of internal devaluation was first proposed in the beginning of the 1990s, when Finland and Sweden were considering the possibility of joining the euro. Within a hard peg regime (currency board, full dollarization or monetary union), bilateral price adjustments cannot be carried out through a devaluation of the nominal exchange rate: a rapid fall in domestic prices is needed. In a decentralized economy, the government has little direct impact on prices (although it can reduce public-sector wages and the minimum wage). It can however act indirectly by reforming the labour market to make wages more responsive to unemployment. It can also carry out reforms of goods and services markets, especially in non-tradable sectors, in order to foster competition and compress the rents observed in some sectors. A fall in prices in non-tradable sectors has no direct impact on the current account, but it shifts resources (capital and labour) towards the tradable sector, which raises the export capacity of the country.

Ireland and Latvia have been highlighted as successful examples of such a strategy in tackling their own imbalances since 2008. These internal devaluation processes are however controversial (see Bara and Piton, 2012). Substantial cuts in public wages (by 4.4% in 2010 in Ireland, by 13.2% in 2009 and 8.1% in 2010 in Latvia) and the reductions in public service payroll (a 19% cut between 2008 and 2010 in Latvia) had only limited impact on private sector wages and prices. Consumer prices fell by only 2.1% in Ireland between 2008 and 2011 while prices increased by 6% in Latvia over the same period. Latvia's current account showed a surplus in 2009 but, as early as 2011, swiftly returned to negative territory.

One major difficulty with internal devaluations is their impact on debt ratios: with falling domestic prices, private and public debts weigh more heavily on debtors. This can give rise to a debt-deflation loop (Fisher, 1933), in which higher indebtedness implies less aggregate demand, further reductions in prices, hence more indebtedness. Finally, the relative price adjustment is obtained at a very high price in terms of output and employment. This suggests that internal devaluations should be coupled with debt restructuring, when necessary, be it for public, bank or household debt. In March 2012, Greece benefited from a public debt restructuring which was announced as the only case ever in the Euro area. Refusing debt restructuring is incompatible with a successful strategy of internal devaluation, in a country with high indebtedness.

Curbing unit labour costs can be achieved either by reducing labour compensation or by investing in productivity. The first approach was firmly followed by Ireland and Greece (see e.g. Moody's, 2012). Due to downward wage rigidities, however, it is difficult to achieve this rapidly, and when it succeeds, falling wages impact negatively on aggregate demand, which makes fiscal adjustment more difficult. The second approach is to raise productivity. In fact, productivity mechanically rises when layoffs are concentrated in low-productivity sectors. [24] However unemployed workers weigh on fiscal balances. To genuinely raise the level of productivity, it is necessary to combine structural reforms and the attraction of foreign investment. The European strategy towards crisis countries has involved two instruments:

> ***Structural funds***
>
> Two initiatives were taken to improve Structural funds' effectiveness in the crisis, particularly in the so-called "programme countries" (Latvia, Portugal, Ireland, Greece and Romania). First, the European Commission increased its co-financing rate for nine member states. By July 2012, EUR 14.5 billion had already been injected into the European economy through this channel. Second, the Commission redirected about EUR 20 billion towards "growth-friendly" investments: R&D, renewable energy, SME financing and employment-enhancing initiatives. By the end of 2011, around EUR 82 billion had still not been allocated to specific projects, leaving some leeway for further action (European Commission, 2012).
>
> ***Project bonds***
>
> The "project bonds" initiative aims at attracting institutional investors to the capital market financing of some projects (transport, energy and information technology) by enhancing the credit quality of the bonds issued by private companies. When raising financing through a project bond, the company will issue senior and subordinated tranches of debt. By creating a subordinated tranche, which will take the first losses, the credit standing of the senior debt will be enhanced. The European Investment Bank (EIB) and the EU will share the risks involved. For the EU, this will take the form of an upfront capped contribution from its budget to cover its agreed share of the potential losses on the projects supported. The residual loss will be borne by the EIB. The pilot phase (2012-2012) started in summer 2012.

Although the productivity route is undoubtedly more attractive than wage adjustments, it takes more time. In the short run, internal devaluations must then rely on downward wage adjustment, and the more so since northern countries do not exhibit high wage growth.[25]

[24] See Wasmer, 2012. Such composition effect has been observed in Ireland (see Darvas, 2012).

[25] The IMF concludes: "With productivity channels having proven too uncertain and sluggish to rely on, unit labor cost improvements must be realized primarily through nominal wage reductions" (IMF 2012, p. 13).

2.4 The governance crisis

As argued in Part 1, the euro-area crisis is above all a crisis of the architecture and governance of the monetary union, namely the lack of a debt restructuring scheme and subsequent non-credibility of the no-bailout clause, and errors in the design of macroeconomic surveillance. During the crisis, the inability of governments to commit to medium-term adjustment paths reduced the room for manoeuvre of the ECB[26] and of governments, which had to frontload fiscal adjustments whatever their impact on growth. Finally, the lack of firm long-term commitments can be viewed as the main impediment to any debt mutualization within the Euro area.

The need to revamp macroeconomic surveillance and to strengthen government commitments was quickly understood at the level of European institutions, but it took time before national institutions started to adjust.

Revamping macroeconomic surveillance

The SGP was profoundly reformed. The reform process led to the introduction of the "six pack", a bundle of five regulations and one directive aiming at strengthening fiscal surveillance and extending the surveillance to macroeconomic policies. The six pack entered into force in December 2011 (see Box 4).

Box 4 – The six pack

The six pack adds to the Stability and Growth Pact the following features:

A reverse qualified majority voting procedure. In case a member state does not comply with its obligations under the Excessive Deficit Procedure (EDP), any sanction recommended by the Commission will be imposed unless a qualified majority votes against it in Council.

A new debt rule. A country displaying a gross public debt in excess of the 60% threshold will be put in EDP procedure, unless the gap between its debt ratio and the 60% standard is reduced by at least 5% annually, on average over three years.

An expenditure benchmark. The annual growth rate of public expenditures should not exceed medium-term GDP growth.

Sanctions under the SGP's preventive arm*.*

An Excessive Imbalances Procedure (EIP). The Council can adopt preventive recommendations or corrective sanctions in case of "excessive imbalance", the latter being assessed by the Commission based on a scoreboard that extends the surveillance to external imbalances, unit labour costs, private sector debt and house prices (see Table below).

[26] In a famous hearing before the European Parliament on 1 December 2011, ECB president Mario Draghi made an implicit link between the adoption, by euro-area governments, of a "fiscal compact" and further monetary support from the ECB.

Table – The EIP scoreboard

Indicator		**Accepted range**
Current account balance	*3-year moving average, % of GDP*	between +6 % and -4 %
Net international investment position	*% of GDP*	> -35%
World export share	*in current value, 5-year percentage change*	> -6%
Real effective exchange rate	*vis-à-vis 35 industrial countries, based on consumer-price indices, 3-year percentage change*	-/+5 % (euro-area) -/+11 % (non euro-area)
Nominal unit labour cost	*3-year percentage change*	< 9% (euro-area) and < 12% (non euro-area)
Private sector debt	*% of GDP*	< 160%
Private sector credit flow	*% of GDP*	< 15%
House prices relative to consumer prices	*year-on-year changes, in %*	< 6%
General government debt	*% of GDP*	< 60%
Unemployment rate	*3-year moving average, in %*	< 10%

Source: European Commission.

Although it answers some flaws of the old system of surveillance (excessive focus on fiscal imbalances, non-credibility of sanctions), the six pack is likely to prove disappointing, for three reasons:

- The system continues to rely on sanctions, which tend to deteriorate an already weak financial situation and have so far never been applied;
- Compliance with the new debt rule will lead to very ambitious annual adjustments in some countries, and also means that governments will have to counteract the effect of GDP negative growth and higher interest rates on the debt ratio.[27].
- Finally, the scoreboard seems only partly suited to its task of detecting dangerous imbalances. Looking at the current account would have gone a long way towards pointing out the countries at risk. The other scoreboard indicators add little[28]. In particular, unit labour costs do not seem to provide an indication of countries at risk

[27] Suppose for instance that the debt ratio is 100% of GDP. Being 40 percentage points (pp) above the 60% threshold, it needs to diminish by 40 x 5% = 2pp per year. Suppose now that the interest rate increases by 1pp while the growth rate falls by 1pp. This doubles the effort needed to get the GDP ratio down by 2pp.

[28] See Bénassy-Quéré, Nayman, and Piton, 2012.

compared to safe ones. Even more worrisome is the significance of some indicators. For instance, the real effective exchange rate is calculated relative to 35 other industrial countries. By construction, it is highly dependent on the euro's exchange rate, which is beyond the influence of individual member states.

Strengthening national commitments

In December 2011, the ability of governments to credibly commit to fiscal rectitude was enhanced by the introduction of the Fiscal Compact, later relabeled the Treaty on Stability, Coordination and Governance. Its main innovation is the obligation for each signatory to introduce a national fiscal rule “at constitutional or equivalent level”. The rule should specify that general government budgets shall be balanced or in surplus, meaning in practice a structural deficit not exceeding 0.5% of GDP. A transitional period will be monitored by the Commission.[29]

The Fiscal Compact is a turning point in the treatment of the crisis because it will increase trust between member states and between member states and the ECB. Being embedded in national legislation, it will also raise the degree of national ownership of fiscal adjustment. However, it is questionable if such a strict rule will allow for a counter-cyclical fiscal policy at euro-area level. Even though the rule is designed in terms of the structural rather than headline deficit, the scope for counter-cyclical fiscal policies will be limited at member state level and even more at euro-area level, unless some euro area-wide fiscal instruments are developed. In this respect, the Euro area cannot be compared to the United States, where strict fiscal rules at state level are compensated for by a counter-cyclical federal budget.

[29] These measures are complemented by the European semester and the “two-pack” that introduce close monitoring by the European Commission of national policy-decision processes.

3 Towards a comprehensive solution to the crisis

Solving the euro-area crisis requires simultaneous work on short-term adjustment and rescue, and on the reform of the architecture of the monetary union. The two issues are closely related. Designing a sustainable monetary union for the long term is a complex political process, but the sooner it is achieved, the sooner the perceived risk of a break-up of the Euro area will be eliminated. This will help to make the adjustments in the short term. In turn, successful short-term adjustments and rescue plans will restore confidence, hence helping to build a more integrated monetary union.

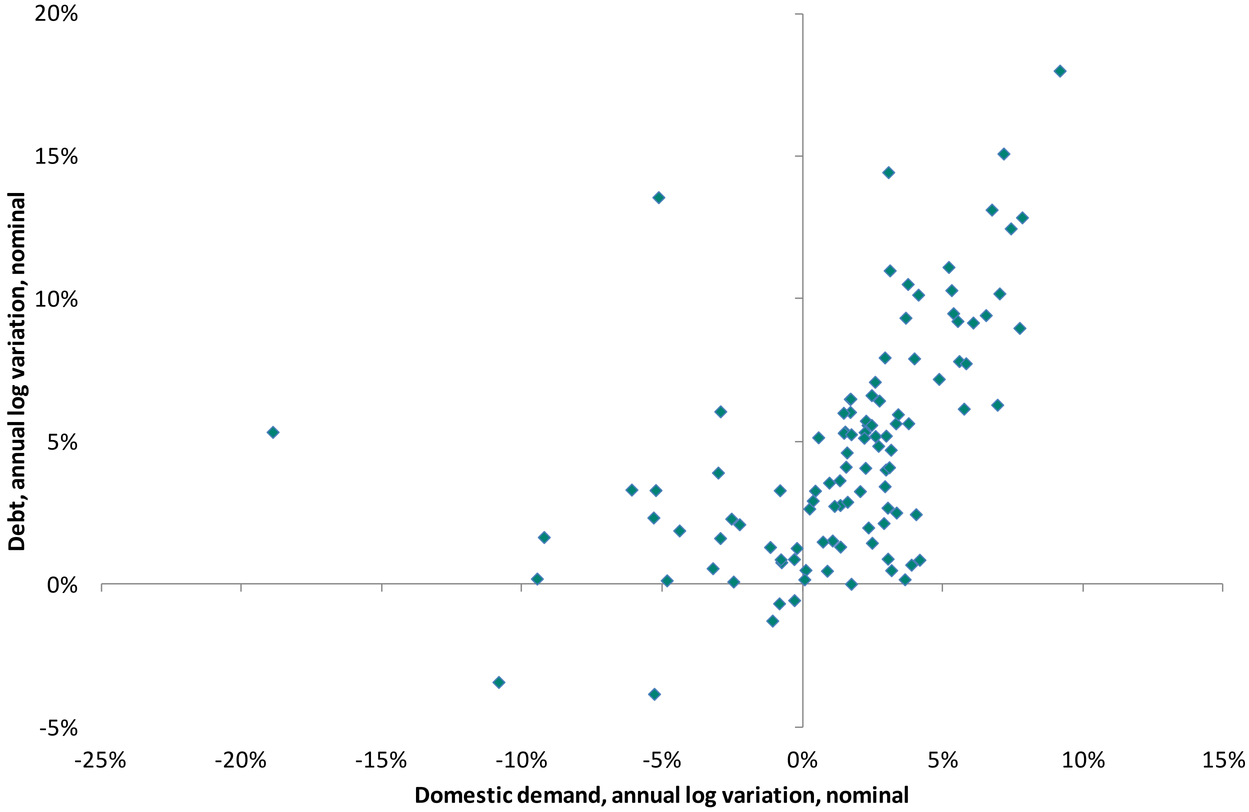
3.1 Macroeconomic adjustment

The simultaneous adjustment of relative prices and debts is especially delicate, since falling prices can reflate debt-to-GDP ratios and trigger the dynamics of debt deflation. This process is made even more difficult by the asymmetry of the relationship between domestic demand and prices:

- Growing leverage fuels demand for non-tradable goods, increases GDP and appreciates the real exchange rate in terms of both wages and prices.
- Deleveraging reduces demand, wages and prices. However, due to nominal rigidities, demand falls more than prices and wages. Thus, as can be observed for example in Spain, demand has to fall significantly before the real exchange rate starts to adjust. But social unrest can stop governments from proceeding to abrupt fiscal adjustment. Additionally, the fall in real income makes deleveraging ineffective.

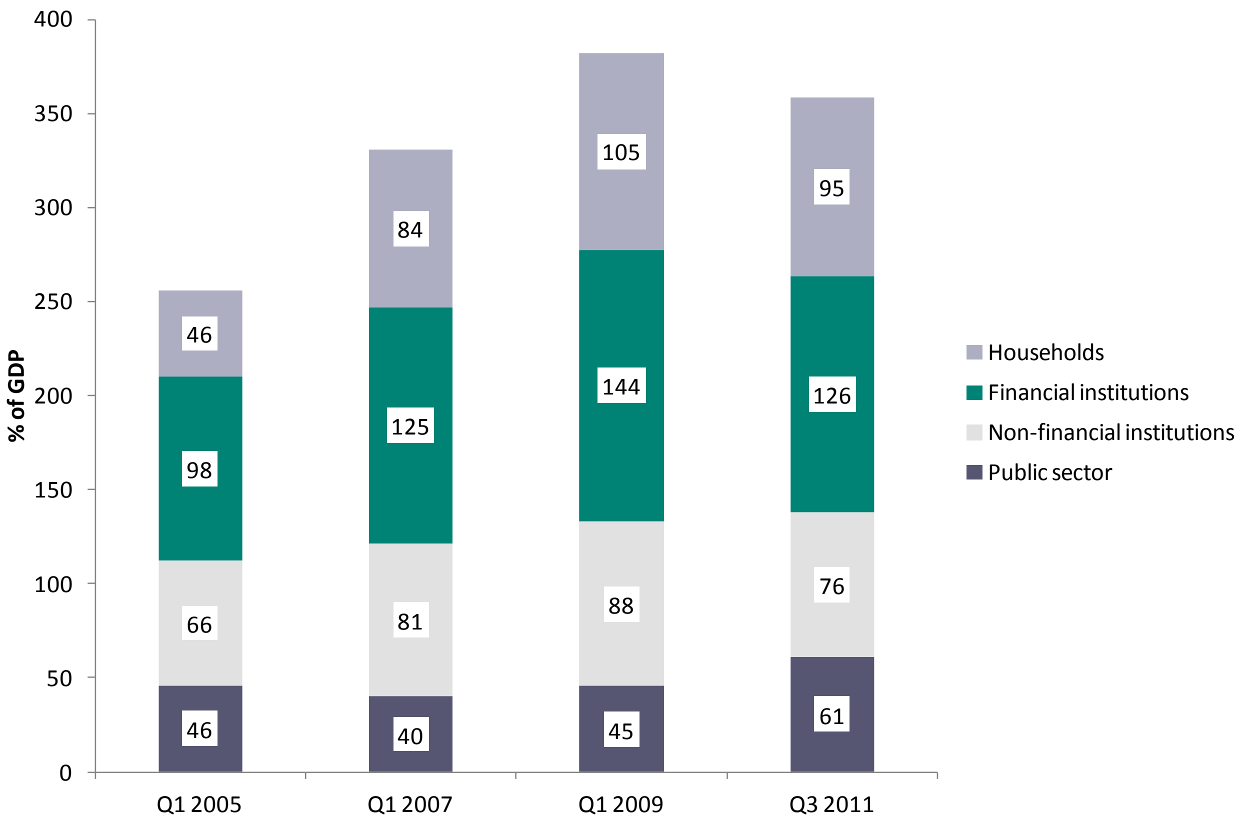
On the whole, the link between domestic demand and leverage is non linear: above a threshold value of domestic demand growth (estimated close to a zero nominal growth rate), there is a strong positive link between leverage and domestic demand; below that threshold, lower demand growth does not appear to be associated with deleveraging at the aggregate level (Figure 13). This suggests that the process of deleveraging should be closely monitored so that the growth rate of domestic demand (both public and private) remains slightly above the threshold value to avoid both a useless and painful fall in production and an inefficient delay to macroeconomic adjustment. In the European context, this would mean targeting domestic demand growth (close to zero) rather than the pace of deleveraging (especially because the optimal ratio of total gross debt to GDP is difficult to ascertain). Of course, this policy should be combined with the implementation of reforms that sustain growth potential in the medium run.

Figure 13 – Domestic demand and debt of the non-financial sector



Source: Authors' calculations based on Ameco data for 11 euro-area countries, 2001-2011.

Figure 14 – Leveraging and deleveraging in Spain



Source: Banco de España.

Such an approach would make it necessary to sequence deleveraging between the various institutional sectors. In Spain, for instance, if bank and household deleveraging is considered the priority, then the government should be allowed to delay its own deleveraging so that domestic demand does not collapse (Figure 14).

For highly indebted countries, this strategy could be coupled with a restructuring of government, bank or household debts, depending on the origin of the debt overhang. This approach has long been rejected in the Euro area. In March 2012, the restructuring of the Greek public debt was presented as an exception. During the spring and summer of the same year, the idea of restructuring banking bond debts gained traction for Spain and more generally within the framework of a banking union. In some countries (e.g. Ireland, Spain and Portugal), restructuring household debts may also be useful for avoiding a collapse in domestic demand (see IMF, 2012b).

The adjustment of the relative prices within the Euro area is a related challenge. As shown by Figure 15, the drift of prices relative to Germany since the beginning of monetary unification is mainly due to non-tradable sectors (electricity, gas, and water supply, construction, wholesale and retail trade, hotels and restaurants) rather than tradable sectors (industry, agriculture). Greece seems to be an exception, with prices in both sectors growing much more rapidly than in Germany. This suggests that structural reforms are needed to foster competition in non-tradable sectors and shift resources towards tradable sectors (Bénassy-Quéré and Coulibaly, 2012).

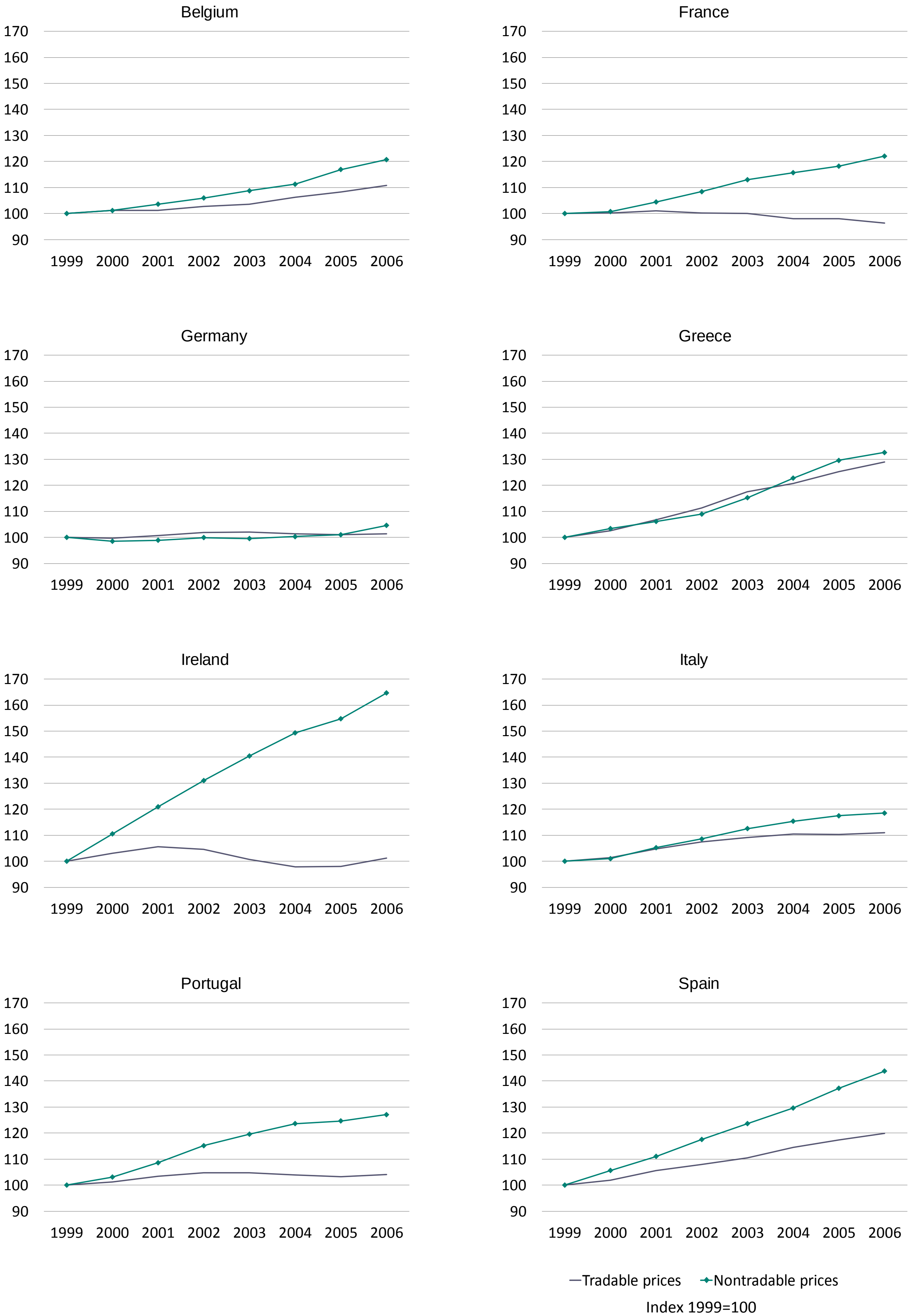
However, building up an export capacity will be useless in the short term in the absence of dynamic foreign demand. This suggests that the pace of deleveraging should be monitored not only at the aggregate, national level, but also at the aggregate, euro-area level.

3.2 Mutualization of sovereign debt

There are three ideas behind mutualization of sovereign debt.[30] First, the aggregate public-debt ratio of the Euro area is lower than what is observed in the United States and, especially, Japan (Figure 16). The sovereign debt crisis thus essentially arises because of the lack of solidarity among the debtors, which obliges the markets to assess fiscal sustainability on a country-by-country basis. National sovereign risk is made more acute by the presence of asymmetric shocks (e.g. the need to recapitalize the banking sector, the size of which differs considerably in different member states). Then, to the extent that risks are not perfectly correlated, there is a gain in pooling risk. The literature on risk sharing (Mundell, 1973; Asdrubali, Sorensen and Yosha, 1996) highlights financial market integration and fiscal federalism as essential vectors of shock absorption at the state (or country) level.

[30] See Claessens, Mody and Vallée (2012).

Figures 15 – Tradable and non-tradable prices in Euro area's countries



Source: Bénassy-Quéré and Coulibaly (2012).

Second, pooling national sovereign risks would be stabilizing for the financial market because it would weaken the negative loop connecting banks and governments at the country level, and because it would provide the market with a large volume of safe assets, reducing the effects of flight-to-quality and making available collateral for ECB refinancing.

Third, the issuance of common bonds would enhance resource allocation within the Euro area by leveling financing costs for the corporate sector across the area, whatever the debt level of national governments. This would also strengthen the transmission channels of monetary policy.

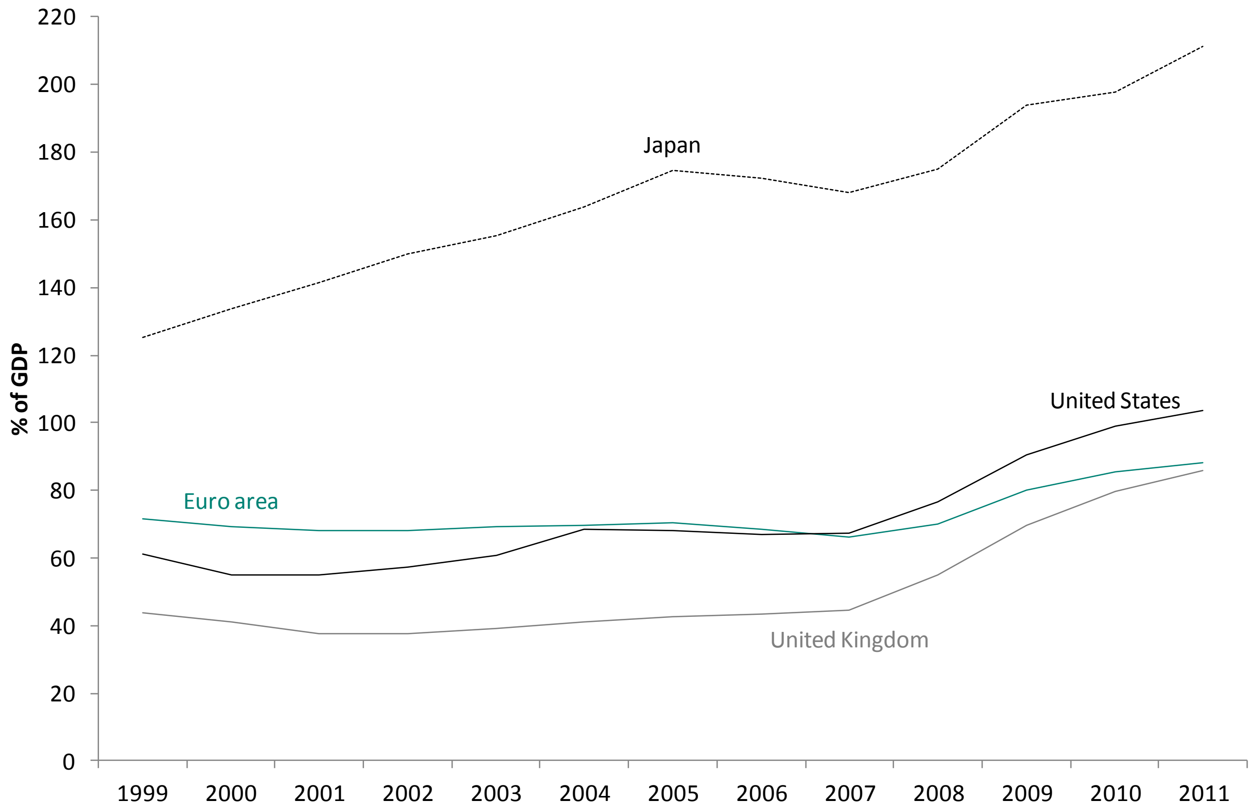
However, mutualizing sovereign debt involves high risks in terms of moral hazard and possible permanent transfers, or on the contrary large sovereignty shift from the national to the European level. The different proposals for debt mutualization (see below) differ in terms of scope, duration, maturity and compensation, but all address the trade-off between gains from pooling debt, moral hazard and sovereignty.

Early proposals on common bond issuance included the Giovannini Group (2000) and, more recently, De Grauwe and Moesen (2009) and Gros and Micossi (2009). The latter proposed the build-up of a bank-rescue fund that would be part of the European Investment Bank. The EFSF/ESM is close to this idea, although the guarantees from member states are several but not joint.[31] Table 2 summarizes fully-fledged blueprints for Eurobonds. They differ on three points: (i) the nature of the guarantee; (ii) the part of the debts concerned; and (iii) the time needed for implementation. Among them, Eurobills (new issues of short-term debts up to 10% of GDP with joint and several guarantee) are especially attractive since they can be implemented quickly and because the short horizon makes them reversible. To the extent that refinancing difficulties are temporary, Eurobills are the perfect tool because they will allow crisis countries to refinance themselves at reasonable rates in the short run.

Additionally, Eurobills would provide useful, safe assets to the banking sector. If, however, the crisis is going to last a decade or so, it would be naïve to think Eurobills can be reversed, since this kind of debt has to be rolled over, except when the level of the debt decreases. Also, the 10%-of-GDP ceiling is hardly credible because it is very difficult to implement strict rules in crisis time. At the other end of the spectrum, the blue/red bond proposal makes sense in the context of Europeans having to live with large amounts of debt for decades. The spread between red bonds (which remain national) and blue bonds (issued at the European level) gives an incentive to adjust. But the short term is not addressed. Not only does this scheme need some time to be implemented, but there is a risk that spreads would be very high on red bonds, with a negative externality on the sustainability of the blue debt. As noted by Claessens et al. (2012), there is no gain in splitting the debt into senior and junior unless fiscal discipline is improved. The proponents of the blue/red bond scheme argue that the higher price paid on red bonds will act as a strong incentive to adjust. However, markets could also fail to sanction a profligate government, as was observed in the Euro area before the crisis.

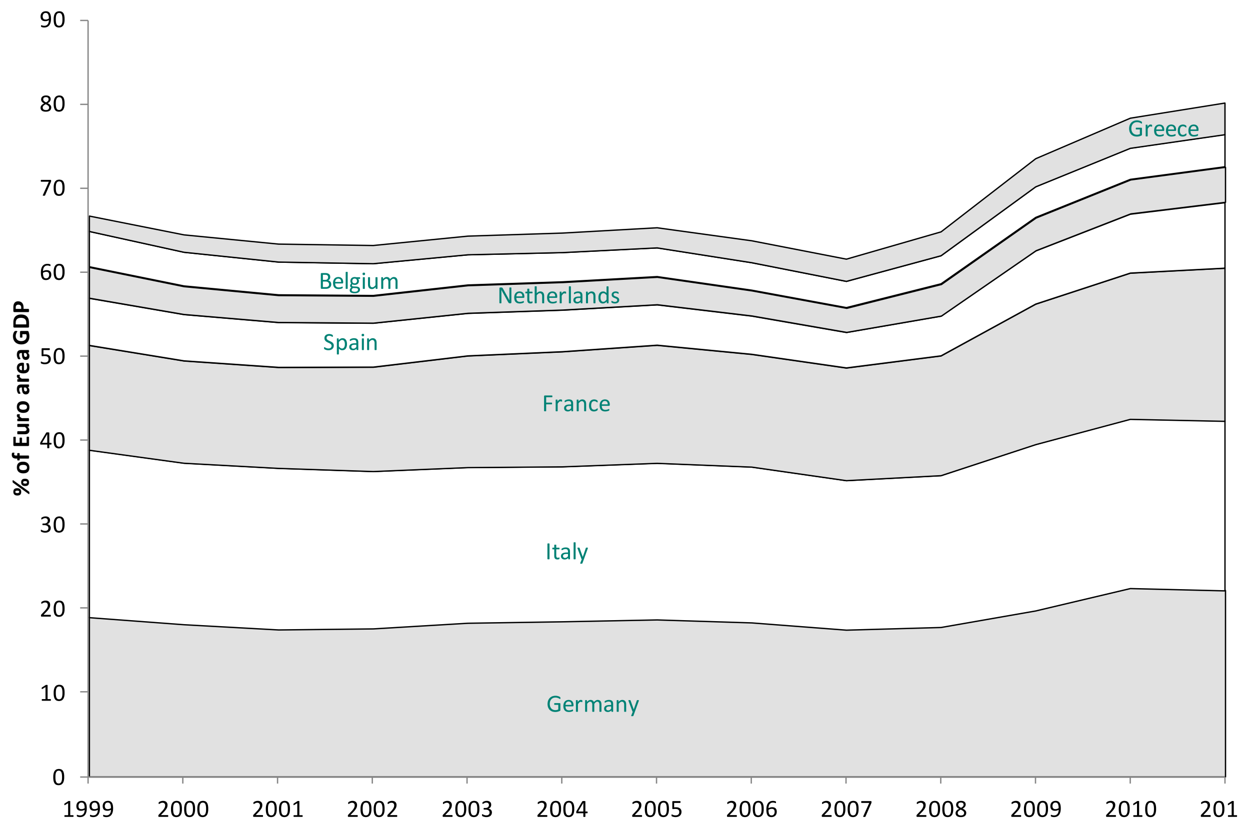
[31] "Joint and several" liability means that each government is liable for the totality of the debt, should the other debtors fail. "Several" liability means that each government is liable for a share of the debt.

Figure 16a – Public debt ratio in the Euro area compared to the USA, the UK and Japan



Source: Ameco.

Figure 16b – Decomposition of euro-area public debt



Source: Ameco.

The debt redemption fund proposed by the German Council of Economic Experts has a similar problem: if part of the debt (here, the part in excess of 60% of GDP) is made senior and backed by earmarked tax revenues, countries might find it more difficult to refinance the other part of the debt.

Finally, some authors have proposed pooling of national debts without mutual guarantees. The debt could be split into tranches (the senior part of the pool offering a safe asset to investors, for example the ESBies proposal) or not (in which case the synthetic bond is just a basket of national bonds).

Given the different objectives of debt mutualization, some authors have proposed to combine different schemes. For instance, MEP Sylvie Goulard has proposed to start by introducing concurrently a debt redemption fund (to deal with the stock of past debts) and Eurobills (to fund part of new government needs). Subsequent steps could involve common issuance of "blue bonds" and common issuance of genuine European debt.[32] Bénassy-Quéré (2012) suggests combining the redemption fund with synthetic bonds.

A less-discussed difference between the different proposals is if they would apply to new issues (blue bonds, redemption fund, Eurobills) or to existing bonds (ESBies, synthetic bonds). There are two arguments for applying the Eurobond scheme to new issues. First, the phase-in is progressive, with possible reversal at the early stages. Second and more importantly, allowing troubled member states to finance themselves through Eurobonds rather than national bonds would immediately solve the liquidity crisis. The drawback is that the debt ratios of troubled member states would be little affected in the short and medium term (ratios will be affected only through lower interest rates). This raises a problem of credibility of the scheme: will national debts be repaid in full within the Eurobond mechanism, or will joint guarantees be called for? To address this crucial point, it could be useful to apply a Eurobond scheme to existing bonds through a large debt exchange: Eurobonds would be offered in exchange for national bonds, with a haircut to be defined based on market conditions. Such a debt exchange could make a redemption fund more credible since the amount of debt exceeding 60% of GDP would be reduced through the debt exchange. Of course, the organization of such a debt exchange raises some difficulties given its price impact. This avenue should be studied carefully, based on the experiences of the Brady plan and of the more recent private sector involvement in the Greek debt crisis.

The final issue is that of moral hazard. Governments remain sovereign so there is no guarantee that debts will effectively be repaid. To mitigate this issue, the German Council of Economic Experts' proposal intends to protect guarantors of the debts through seniority rules, collateral and earmarked tax receipts. In the blue/red bond proposal, government discipline relies on markets through higher rate when a red bond is perceived of lesser quality. To further diminish

[32] See the proposal on http://sylvie-goulard.eu/eurobonds/31may-2012-draftINIStability-Bonds-RAPPORT.pdf.

moral hazard, the authorized share of blue bond issuance could be reduced if a given country does not follow ex-ante fiscal commitments.

On the whole, we consider a fully-fledged Eurobond projects to still be a remote project. Still Eurobonds could be envisaged as a vehicle for a debt-exchange scheme, within a restructuring programme. Additionally, simply bundling national bonds together, with no mutual guarantee, could provide an attractive investment vehicle, to the extent that this vehicle would be granted preferential treatment in refinancing operations at the ECB. Should the market for such basket develop, this would help commercial banks to smoothly diversify their balance sheets. Such bundling could be implemented quickly as no treaty change would be necessary.

Table 2 – Main characteristics of Eurobond proposals

	Guarantee	Debts concerned	Time to implementation
Blue/red bonds[a]			
	Joint and several	New issues up to 60% of GDP	Treaty change + 3-4 year phase-in
ESBies, synthetic bonds[b]			
	No mutualization	All bonds, secondary market	Quick (no treaty change)
Redemption fund[c]			
	Joint and several	New issues up to the quota (amount in excess of 60% of GDP)	No treaty change (special international treaty), 3-4 year phase-in
Eurobills[d]			
	Joint and several	New issues of short- term debts up to 10% of GDP	Quick (no treaty change)

[a] Delpla and von Weizsäcker (May 2010); [b] Brunnermeier et al. (September 2011), Beck, Uhlig and Wagner (September, 2011); [c] German Council of Economic Experts (November 2011); [d] Hellwig and Philippon (November 2011).

3.3 A banking union

In June 2012, the EU heads of state and government firmly moved in the direction of a banking union, and on 12 September 2012, the European Commission published its proposals[33] for (i) transferring the responsibility of supervising the Euro area's 6000 banks to the ECB, and (ii) adapting the governance of the EBA so that it can effectively continue to prepare banking regulation for the EU as a whole, and to ensure a level playing field between euro-area members and non euro-area EU countries. The Commission insisted that this initiative should not overshadow the ongoing efforts to revamp banking regulations (CRD4 directive) and to introduce harmonized crisis resolution schemes. In the longer term, the project could lead to a

[33] See the proposal for a council regulation and the proposal for a regulation on the European parliament and the council at http://ec.europa.eu/internal_market/finances/committees/index_en.htm#maincontentSec1

euro-area level crisis resolution scheme that would be financed by bank contributions. This fund could be coupled with a euro-area deposit (re)insurance scheme.

These different initiatives should be welcomed. Indeed, a euro-area banking union would weaken the negative feedbacks between governments and their banks; it would help preserve financial integration within the Euro area; it would allow for a diversification of risks; and, by providing a credible financial safety net, it would stabilize the system (Pisani-Ferry et al, 2012). However the effectiveness of such a move will be highly dependent on:

- The ability of a central authority to bail-in insolvent banks,[34] in contradiction to national practices since the start of the crisis (see Schoenmaker and Gros, 2012);
- The ability of Europeans policymakers to agree on straightforward and transparent prudential regulations that create large buffers (several times the one in place before the crisis, both for liquidity ratio and capital ratios), incentives for shareholders and debt holders, and that limit the size and complexity of financial institutions.

3.4 Institutions and fiscal policy

Historically, successful currency unions always followed rather than preceded political integration.[35] Hence, in the absence of a theory of sustainable monetary union without political union, it is tempting to conclude that – at least in the medium term – the irreversibility of the euro can only be established if the Euro area becomes a political entity in which institutional mechanisms provide for trade-offs, mutual insurance and burden sharing among its various constituents, in the interest of the preservation of the Union. Clearly the Euro area's present institutional setting does not meet this criterion.

The cornerstone of the monetary union is the ECB, a truly federal institution. However the founders of monetary union refrained from dissolving the national central banks (see Burda, 2012), and allowed for a mechanism entitling the latter to refinance domestic banks without central guarantee – the Emergency Liquidity Assistance (ELA).

[34] i.e. to punish not only shareholders but also the bank's non-depositor creditors, and to close banks instead of systematically bailing them out.

[35] See Bordo and Jonung (1999) or Chown (2003). Currency unions without political integration have failed (the Latin Monetary Union of France, Belgium, Italy, Switzerland and Greece created in 1865, or the Scandinavian Monetary Union of Sweden, Denmark and Norway created in the 1870s). While prepared by the nineteenth century German Zollverein, which included some monetary unification steps, German unification (1871) was followed by the creation of the Reichbank and the Reichmark (1876). US monetary unification was achieved only in 1913 after more than a century of trial and error. In Switzerland, monetary unification was completed in 1848 (after a brief first attempt when Switzerland was occupied by France 1798-1803) at the same time as the creation of a truly federal state, the latter resulting from a very long and complex process with medieval roots. The Gold Standard and Bretton Woods, which were fixed exchange rate systems outside any form of political union, eventually broke down.

The European Central Bank

Since the start of the crisis, the ECB has provided the quick fix for (i) the banking crisis (through LTRO and collateral easing), and (ii) the sovereign debt crisis (directly, through the SMP and OMT programmes, and indirectly through LTRO). Meanwhile, the Eurosystem has financed balance-of-payment deficits through Target2 flows, which has helped cushion the otherwise brutal current-account adjustment in crisis countries. However, until mid- or even the end of 2011, these fixes did not result from an assertive policy. The three main reasons for such self-restraint are well known: (i) the no-monetization clause of the treaty (Art. 123), (ii) the ECB's mandate to ensure price stability, (iii) its governance (with a one person-one vote decision rule), which makes it uncomfortable to make choices possibly entailing transfers between member states, and (iv) the fierce opposition of the Bundesbank.

In its communications, the ECB has consistently advocated that its actions were within the realm of monetary policy: as a lender of last resort, the ECB had to stabilize the banking sector; as the ultimate guardian of the euro, it had to do "whatever it takes"[36] to preserve the single currency. Hence, the euro-area turmoil pushed the institution far from what it was initially designed for. To keep a balance between the different objectives, the ECB was always careful to make it clear that it was acting with temporary stabilization objectives, while letting governments put their finances and banking systems in order. Hence the ECB was tackling the liquidity crisis, not the solvency crisis.

Because providing liquidity to the banks and acting to tighten interest spreads inevitably alleviates the pressure on governments to reform their economies, the ECB got more and more involved in fiscal affairs, through its presence in the troika, its seeking of strong commitments from member states (the Fiscal Compact was introduced at the initiative of Mario Draghi), and its requirement that an MoU be signed with the ESM before any purchase can be made within the OMT framework (see Box 1). In the same vein, the ECB also welcomed the steps towards a banking union that will result in reduced mutual dependence of governments and national banks, and it volunteered to play a key role in surveillance of the banking sector in order to avoid having to provide liquidity to insolvent banks.

The ECB's problem is that it must achieve the golden balance between two extremes: monetary supremacy, and fiscal dominance. The ECB's strength is also its weakness: because the ECB is so powerful and is the only institution that can act swiftly, and because its ultimate objective is the preservation of the Euro area, there is a risk that the promises made by all types of debtors (governments and banks) are not kept just because everyone knows that the ECB cannot do anything other than continue to intervene to preserve the

[36] The expression is from Mario Draghi, Speech at the Global Investment Conference in London, 26 July 2012.

euro (fiscal dominance, or capture by the banking sector). However, the legitimacy of its involvement in fiscal affairs and bank restructuring can be questioned. This may be a strong argument in favour of a fiscal union at euro-area level: the alternative is not fiscal sovereignty at the national level but rather a takeover of fiscal policy by the central bank (monetary supremacy).

It has often been argued that the stability in the Euro area cannot be obtained without the ECB playing a similar role to that played by the Bank of England or the Federal Reserve. To move closer to these models, the ECB would need to adjust its governance (notably by dropping the one-person-one-vote rule[37]). More importantly, it would need to accept that the ability of governments to commit is necessarily limited, hence the risk of fiscal dominance. This risk can only be mitigated by debt mutualization, and by rules and institutions.

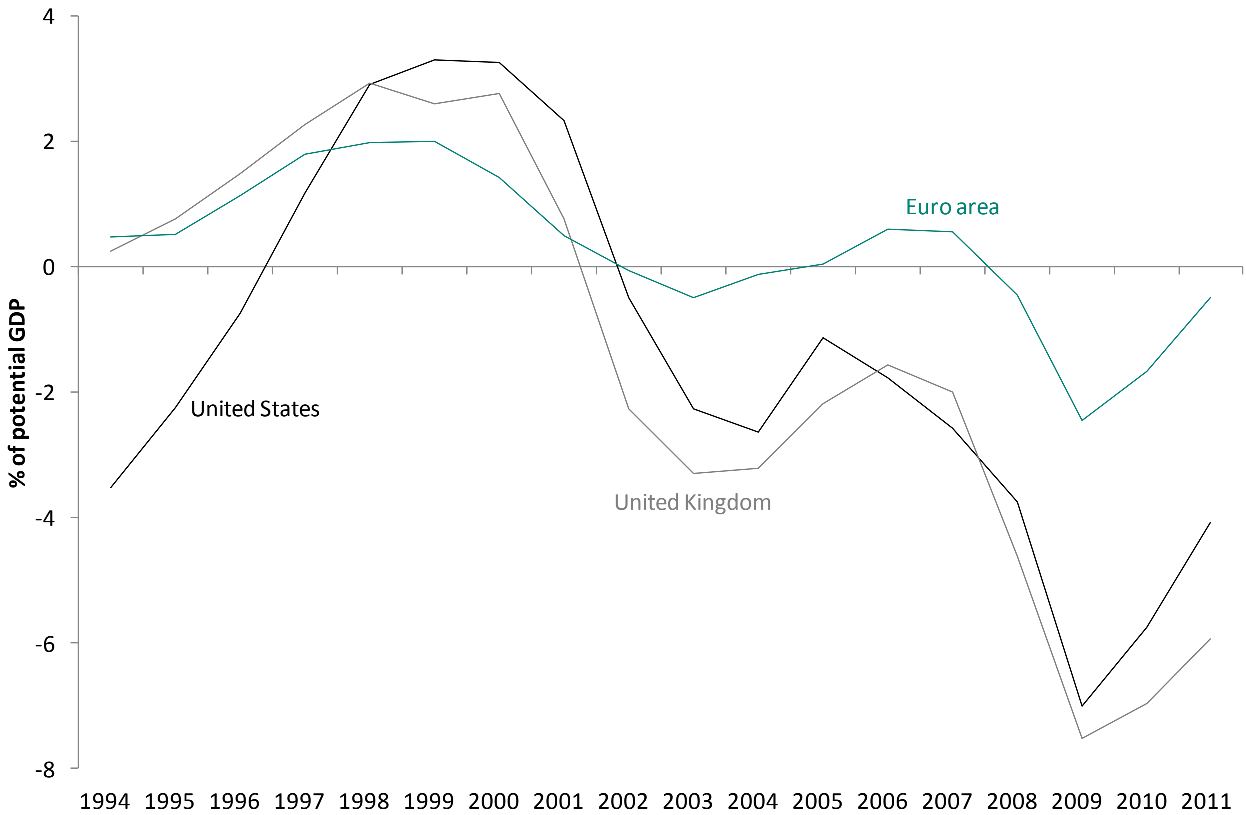
Fiscal Institutions

On the fiscal side, nothing like a fiscal union was envisaged when EMU was designed. It was deemed that the SGP and inter-governmental coordination could substitute for a fully-fledged fiscal union with centralized decision-making. Structural policies in key areas, such as the labour market or corporate taxation, were left to national governments, with weak Europe-wide commitments (such as the Lisbon Strategy).

Figure 17 shows that there is no such thing as an aggregate fiscal policy in the Euro area: aggregate fiscal policy, measured through the aggregate, underlying fiscal balance of euro-area member states, reacted much less to the 2008-09 global crisis, and contracted almost as much as in the UK or the US in 2010-12, despite starting from a much more limited deficit. Designing an aggregate fiscal policy would require countries that are not under strong market pressure to reduce their adjustment speed if some large euro-area countries (such as Spain and Italy) have no choice but to adjust quickly. This is very difficult to implement given the fiscal institutions in the Euro area, where coordination is limited to the application of rules. As a minimum measure, the speed of fiscal adjustment in non-crisis countries should be defined in terms of the structural rather than the headline deficit, consistent with the Fiscal Compact. It should however be acknowledged that the asymmetry of surveillance already present in the SGP (which focuses surveillance on public rather than private leverage) is also a key feature of the Fiscal Compact. The Excessive Imbalances Procedure will unlikely correct this feature, not least due to its lack of national ownership.Can rules and sanctions substitute for political union? As already argued, financial sanctions have been largely illusory. There is a degree of absurdity in imposing financial sanctions on a country in which the financial situation has deteriorated. In

[37] This rule has already been amended by the rotation system that de facto gives large countries more weight in the governing council's decisions if the Euro area is enlarged to 19 member states.

Figure 17 – Underlying primary balance in the Euro area, the UK and the US



Source: OECD Economic Outlook 91.

addition, history shows that political bargaining always undermines the effective implementation of these sanctions. Rather than relying on the elusive threat of sanctions, it is therefore necessary to fall back on an institution that has the power to make *enforceable decisions* on fiscal policies, provided that certain verifiable conditions are met. This could be done from within the executive branch (in the spirit of the proposal by Marzinotto et al. (2011), or the legislative branch (the European Parliament, or a council of national parliaments). It could be backed up by an independent fiscal council.[38] Such a body should be considered a complement rather than a substitute for fiscal rules. Its task could be to veto budgets that do not pass the test of fiscal rules (the composition of its receipts and outlays would remain the exclusive responsibility of national parliaments). Or a technocratic team (such as the present troika) could be mandated to help national governments that infringe the rules make the necessary adjustments. These decisions could themselves be challenged at the Court of Justice of the European Union for a limited period of time so that adequate legal security would be provided for the decisions to be effectively implemented once they are final.

Defining the scope of such a euro-area level decision body is difficult. As argued in Part 1, the failure of macroeconomic surveillance in the Euro area since 1999 was largely due to an excessive focus on fiscal balances. So that the same mistakes are not made again, the "euro-

[38] Based on the experience of countries that have used such independent councils, Calmfors and Wren-Lewis (2011) and Wyplosz (2012) argue that councils should be advisory rather than decision-making.

area government" should be given a relatively extensive competence. For instance, any policy decision with a significant implication for public finances, including off-balance sheet liabilities such as pensions or public guarantees, should be within its scope, as should growth policies, which are key to fiscal sustainability. This raises far-reaching questions about the subsidiarity principle and the division between national and euro-area policy-making, and about the need for constitutional changes in most member states. A two-tier system could perhaps solve this problem, with the "euro-area government" becoming more intrusive only when fiscal rules are clearly infringed by a national government.

Any form of political union will encounter serious difficulties given the aversion of many European citizens to further European integration. It will probably be necessary to offer more than a fiscal and a banking union to justify further transfers of sovereignty. In particular, European initiatives to tackle unemployment (especially of the young), to support SMEs or on the environment, and of course a certain level of intra euro-area transfers could be key to shifting public opinion in favour of more Europe. Hence, although the reflection on euro-area institutions was forced by a financial and sovereign debt crisis, reforms in these areas will have to be complemented by projects yielding more meaning for European citizens.

The current institutional regime is characterized by the *de-facto* tutelage of peripheral countries by the core. However, this arrangement is probably not sustainable. It should be replaced by a *de-jure* system where such intrusion in national affairs would be regulated by rules and laws.[39]

3.5 Thinking like a federation

The euro crisis raises a fundamental question about the Euro area's growth strategy. In the short run, there is no such thing as a policy mix at euro-area level. Fiscal policy is defined on a country-by-country basis, with no view on the aggregate fiscal stance (see Section 3.1). In the long term, each country is supposed to adhere to the Lisbon Strategy, in other words invest heavily in a knowledge-based economy, while balancing both its public budget (Fiscal Compact) and its current account (Excessive Imbalance Procedure).

It is difficult to understand the consistency of this long-term strategy. In particular, geography matters and it will always be difficult for peripheral countries to compete with core countries, not least because the former face higher transportation costs to reach euro-area markets. During the first decade of monetary union, peripheral countries thought – wrongly – they had found the way to overcome these disadvantages. This does not mean that current-account deficits should always be eliminated, nor that capital will naturally flow through the Euro area to enhance growth where it is weakest.

[39] The gap between de-jure equality and de-facto inequality among members is in not new: during the EMS era, the Bundesbank enjoyed a de-facto hegemonic position in the EMS, reflecting the special role of the Deutschmark, despite a symmetrical de-jure monetary regime.

The first-best solution to the euro-area growth challenge would be to encourage the allocation of resources (labour and capital) to where marginal productivity is highest. This may entail further agglomeration of activities to the benefit of aggregate growth. Such an approach would however need to be accompanied by more transfers from the ”core” to the “periphery”. Structural Funds may not be enough. There is some contradiction in European thinking between raising aggregate growth, and imposing country-by-country trade balances. More growth at aggregate level may require trade imbalances financed by permanent transfers.

In the short run, stabilization of the Euro area should be considered a public good. Generating this public good entails strong adjustment in deficit countries, hence social unrest. European leaders should start to consider a social safety net that would make deep restructuring less painful. It may be less costly to grant the Greek unemployed a European benefit than to negotiate with a government that would later renege on its fiscal commitments. A European element of national social safety nets could even be used to foster labour market reforms and mobility, for instance through the creation of a European labour contract.

Beyond economic calculations, European leaders are close to asking their people for further transfers of sovereignty to the European level. Given the lack of political appetite for more Europe, it is urgent that citizens should be offered a sign that they have not been forgotten among the new acronyms and bureaucratic schemes.

4 Avoiding a euro-area break up

The strategy of keeping crisis countries within the Euro area relies on four pillars: liquidity provision to their governments, liquidity provision to their banks, external deficit financing and reduction of interest-rate spreads (Table 3). If any of these four pillars fails for one country, it would likely be pushed out of the Euro area. Then, through contagion effects, the whole monetary area would be put at risk.

Table 3 suggests that the ECB has the power to overnight trigger the expulsion of a euro-area member by stopping liquidity provision to its banks. Indeed, the ECB can overnight decide to stop providing liquidity to a country's banks on the basis of a lack of acceptable collateral, and by denying the national central bank the right to exert ELA liquidity provision. To avoid the break-up of its entire banking sector, the country's government would have to set up capital controls and start refinancing its banks with a new national currency.

However an ECB decision to stop liquidity provision to a country's banks will itself depend on the continuation of funding to the government of the country. Indeed, if the EFSF/ESM provides adequate funding to the government, it sustains the quality of the collateral and removes the case for stopping liquidity provision. Thus, the fundamental factor that would lead to a (partial) breakup of the Euro area would be the unwillingness of euro-area governments to extend new funding to a crisis country. Such unwillingness could in turn be triggered by: political deadlock in creditor countries or political deadlock in debtor countries (which would no longer accept the funding conditions).

Table 3 – Keeping crisis countries within the Euro area

Objective	Institution(s)	Action(s)
Fill government liquidity gaps	EFSF/ESM	Direct loans (primary market)
Fill bank liquidity gaps	ECB, NCBs	Easing of collateral rules, LTRO, ELA[a]
Finance balance-of-payment deficits	Eurosystem	TARGET2
Reduce market interest rate spreads	ECB	SMP, OMT

[a] *Emergency Liquidity Assistance (i.e. liquidity provision at the national level, by the national central bank, with a specific rule concerning the collateral, after authorization by the ECB)*.

An emergency exit of a country would have the following consequences:

- A major depreciation of the new, national currency that would likely overshoot its equilibrium value. A 80% depreciation would not be impossible in the short run (as Argentina experienced in 2002).

- The debt burden would mechanically increase following the exchange-rate depreciation (for the part that cannot be converted to the new currency, i.e. the part under foreign law).[40]
- Consequently, the government would default on its debts, which would have two immediate consequences: (i) a sudden stop in foreign financing, hence the obligation to immediately balance both the primary fiscal budget and the current account; (ii) a loss for creditor countries (depending on the exiting country, this loss would be borne in different proportions by financial institutions and by official creditors).
- There would also be a wave of corporate defaults and failures.
- The sharp depreciation would reduce the purchasing power of the exiting country's citizens, which would help to rebalance the current account (through a collapse in imports).
- Large-scale monetization of government debt, coupled with weak credibility of the newly established national central bank and sharp depreciation of the currency, would feed inflationary expectations, triggering a rise in domestic interest rates.
- Banks in creditor countries would face both a liquidity problem (because some of their collateral would become worthless) and a solvency problem (they would have to absorb losses).
- Markets would likely expect some other countries to exit the Euro area, which would trigger a rise in interest-rate spreads (corresponding to an exchange-rate risk premium) and an acceleration of TARGET2 imbalances, in compensation for intra euro-area capital flight. TARGET2 claims against the exiting country would be lost, unless a specific scheme is designed (see De Grauwe and Ji, 2012).
- Some euro-area members could suffer from the major depreciation in a close competitor country.

To avoid a general breakup of the Euro area, forceful action by the ECB would be needed through (i) liquidity provision to the banks despite the possible shortage of collateral, and (ii) government bond purchases (through the OMT programme and/or *ad-hoc* interventions on the secondary market).

Some authors (Roubini, 2011; Annunziata, 2012) argue that an orderly exit by the most vulnerable countries is feasible, for instance by introducing an exchange-rate band for the new currencies. The experience of the European exchange-rate mechanism in 1992-93 is not encouraging, however. Exchange-rate bands encourage speculation through asymmetric risks (one-way bets are systematically profitable). Additionally, an orderly exit would need to be

[40] Assuming a debt-to-GDP ratio of 100%, a 50% devaluation would double the debt ratio to 200% (if all the debt stays denominated in euro or other foreign currencies).

prepared in advance, but the expectation of such a process would instantaneously freeze both the interbank market and the bond market, not to mention deposit flight. The ECB would either have to become market maker, or let the euro collapse in a few days. It is difficult to conceive an orderly break-up. The only ameliorating factor that can be imagined is an emergency negotiation between the exiting country and the rest of the Euro area on the extent of the debt default, in exchange for the exiting country staying in the EU and continuing to benefit from Structural Funds and the Common Agricultural Policy.[41]

Disorderly break-up would have a high cost, both for countries leaving the euro and for those staying in (see above). To assess the likelihood of a euro-area break up, the costs have to be compared to those of the adjustment needed to sustain the Euro area as it is. The latter can be summarized as follows:

- Southern countries will suffer misalignments for a long period. Deleveraging will take place in a deflationary environment, to be alleviated only if Northern countries accept higher inflation or delay their own fiscal adjustments. Cleaning the banking sector will be delayed until a clear and fair European mechanism has been set up.
- Northern countries will have to fund Southern countries as long as the latter cannot access financial markets. However, Northern countries benefit from low funding costs thanks to flight-to-quality and/or “shadow exchange-rate” risk premia.

Table 4 summarizes the costs and benefits of the exit scenario compared to maintaining the Euro area, for both exiting and non-exiting countries. One key advantage of exit (for an exiting country) would be immediate deleveraging through default. However default can also happen within the Euro area. It would likely be preferable for creditor countries to negotiate a restructuring of debts than to suffer large-scale defaults imposed by the devaluations. Similarly, an exiting country could expect to enjoy a lower cost of capital when the national currency’s exchange rate has bottomed out, but a lower interest rate can also be obtained within the Euro area through strong commitments on the part of member states to help fragile countries stay in the Euro area and through the OMT programme. Table 4 suggests different ways to minimize the incentives for debtor countries to choose to exit: (i) debt restructuring within the Euro area, (ii) a lower interest rate through clear commitments, combined with the OMT programme, (iii) less fiscal restriction in core euro-area countries to ease relative price adjustments and sustain foreign demand for crisis countries. Should these three approaches be implemented, the case for an exit from the Euro area would become weak.

[41] Being part of the acquis communautaire, the euro is not an option for an EU member (except for the three opt-out countries). Hence exiting the euro would legally imply exiting the EU, except if an agreement is found.

Table 4 – The cost and benefits of leaving the euro, compared with staying

	Costs	Benefits
Major depreciation of new currencies		
Exiting countries	Fall in purchasing power	Swift relative price adjustment
Non-exiting countries	Asset value losses, reduced price competitiveness	None
Debt defaults		
Exiting countries	Sudden stop of external financing, corporate failures	Fiscal sustainability restored
Non-exiting countries	Portfolio losses for governments, banks and the ECB, collateral shortage	No further rescue plan
Growth		
Exiting countries	Immediate collapse of internal demand, reduced incentive for structural reforms, high interest rates, lack of foreign investment (short run)	Price competitiveness restored
Non-exiting countries	Fall in exports	None
Inflation		
Exiting countries	Risk of hyperinflation	None
Non-exiting countries	None	None
Interest rates		
Exiting countries	Higher interest rates (inflationary expectations)	Lower interest rates when currency has bottomed out
Non-exiting countries	Increased spreads (flight to quality versus contagion countries)	None
Deleveraging		
Exiting countries	Reevaluation of debt in foreign currency	Rapid deleveraging through inflation and repudiation of debts
Non-exiting countries	None	None

From the viewpoint of creditor countries, the key issue is to compare the costs of this three-pillar strategy to the costs of a euro-area break up. In particular, partial debt forgiveness may appear less costly than the discounted value of future rescue plans, contagion costs and social unrest in crisis countries. In case one debtor country would leave the Euro area, there would need to be a firm willingness on the part of the ECB to counteract the contagion channel, through interest rates.

Beyond these cost-advantage calculations, a much more serious case for a partial euro-area break-up is political: if the solution to the euro-area crisis is to come from more integration through a banking and a fiscal union, then there will need to be a debate and a vote in each member state, with possible changes to the treaty and to national constitutions. Given the lack of appetite in the EU for further integration, one cannot exclude the possibility of the Euro area ending up with fewer than 17 members. Although such political break-up would resemble historical examples of peaceful divorce, such as the break-up of the ruble zone in 1992 or the divorce between the Czech and Slovak republics, it would nevertheless be costly and raise the risk of a complete collapse of the Euro area. Behind the short-run challenges facing the Euro area is the fundamental question of how much European integration is acceptable to European citizens. Twenty years after the ratification of the Maastricht Treaty, European citizens are discovering that monetary union is not sustainable without some form of political integration, and thus they have approved a non-viable project. Furthermore, they are being told that unwinding the monetary union would involve huge costs. It might seem like a *fait accompli*: because they accepted monetary unification, they now feel forced to approve political integration. Unless new European projects with strong resonance for the people are designed, e.g. projects directed to the young, to the unemployed or to the environment, it is likely that European citizens will react negatively to what can be viewed as the project of technocrats and bankers.

Conclusion

The euro-area financial and sovereign debt crisis has uncovered fundamental flaws of the architecture of the monetary union. As the crisis has unfolded, European elites have progressively understood its extent and have responded with more rules and further integration. The question now is if European citizens are prepared to follow a path chosen under the pressure of financial markets. The answer to this question will depend on the ability of governments and the ECB to tackle short-term issues, and on the comprehensiveness of the European project that is designed for the long term.

In the short and medium terms, the main challenge is the management of deleveraging and relative price adjustments. We have argued that this dual process should be closely managed by scrutinizing the evolution of domestic demand in each country. The ability to successfully deleverage is seriously hampered when domestic demand falls. In some cases, debt restructuring could be needed to stop deleveraging becoming self-defeating. Additionally, something like an aggregate fiscal policy at euro-area level should be designed, with fiscal retrenchment being delayed in those countries not in crisis when aggregate demand falls at euro-area level. To start with, fiscal adjustment should be defined in terms of the cyclically-adjusted budget balance rather than headline deficit, so that automatic stabilizers can work. On the supply side, we have argued that structural reforms, especially pro-competition reforms in the non-tradable sectors, can go a long way towards triggering relative price adjustments within a monetary union. Finally, we have argued that the ECB will never be able to obtain full commitment from the fiscal authorities of member countries, and thus the risk of fiscal dominance cannot be fully eliminated. The task of the ECB would, however, be greatly simplified by a firm member state commitment to ensure the integrity of the Euro area while revamping fiscal policymaking to allow for greater intrusion of the Euro area in national policymaking in those member states that clearly infringe the rules or have unsustainable macroeconomic developments.

We consider recent steps taken towards a banking union a key, complementary element to the resolution of the crisis. Indeed, the supervision of banks at euro-area level is necessary in order to align supervisors' strategies with the interests of the Euro area as a whole, to limit regulatory capture and to reverse the current withdrawal of banks to their home countries. However, this should not be considered as a substitute for strict and simple prudential regulation, or for effective restructuring when needed.

In the long run, the first question to be tackled is the general economic strategy of the Euro area. The first-best strategy in terms of growth would be to allow resources (capital and labour) to agglomerate in those regions where marginal productivity is highest. This however would entail growing geographical inequalities that would need to be compensated for through income transfers, in the form of euro-wide social safety nets and development policies. If such transfers are politically unacceptable, then the first-best growth strategy cannot be achieved. The second-best strategy is to foster more even economic development throughout the Euro area. It is not easy however to understand how this can be achieved within a single market, in which peripheral regions will always suffer from a geographic handicap. The second question is how to design robust fiscal policy institutions. Stricter rules will never substitute for meaningful and prudent fiscal policy. A two-tier system could be implemented in which a “euro-area government” (to be defined) would have more power over national affairs when the rules are infringed. Such a “government” would also need to think of fiscal policy at the aggregate level in order to foster a counter-cyclical aggregate fiscal policy. The third question is that of mutual insurance and burden-sharing. The Euro area should welcome rather than regret its diversity. Moving towards a fiscal union (with Eurobonds) and a banking union (with deposit insurance) would help the Euro area as a whole to absorb the risks faced by individual member states. This is however an ambitious approach that cannot be pursued without rebuilding trust between member states, hence the importance of short-term achievements.

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