

A Self-Inflicted Crisis? Design and Management Failures Leading to the Eurozone Crisis

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30

Occasional Paper 86

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ISBN 1-56708-159-2

Copies of this paper are available for \$20 from:

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Occasional Paper
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Published by
Group of Thirty
Washington, D.C.
2012

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Abbreviations

ECB	European Central Bank
ECOFIN	Economic and Financial Affairs Council
ECU	European Currency Unit
EDA	European Debt Agency
EDP	Excessive Deficit Procedure
EFSF	European Financial Stability Facility
EMU	European Monetary Union
ESBies	European Safe Bonds
ESM	European Stability Mechanism
EU	European Union
GDP	gross domestic product
IMF	International Monetary Fund
MBO	Medium-Term Budget Objectives
MSP	Macroeconomic Surveillance Procedure
OCA	Optimum Currency Area
SGP	Stability and Growth Pact
TFEU	Treaty on the Functioning of the European Union
ULC	unit labor cost

Introduction

The European single currency was designed to be achieved in three stages. The first stage was the period during which there would be convergence and liberalization of capital movements among Members of the European Union (EU). This stage lasted from January 1990 to November 1993, when the Treaty on European Union, commonly called the Maastricht Treaty, came into force. The second stage, the European Monetary Union (EMU) stage, lasted from January 1994 to December 1998. During this period, all EMU secondary legislation was to be implemented in those member states that had achieved the requisites for joining the EMU. The third, or euro stage, began in January 1999, and was the effective start of the Economic and Monetary Union. During this stage, the basket of currencies known as the European Currency Unit—the ECU—ceased to be used and was replaced by the euro.

Beginning in 1988, a large body of economic research was produced in order to show how to design a European monetary union, to specify the necessary conditions for a monetary union to be successful, and to warn about the dangers of not fully accomplishing a true monetary union.

The first book of papers on the European monetary system, called, eponymously, *The European Monetary System*, was edited by Francesco Giavazzi, Stefano Micossi, and Marcus Miller (1988). This was followed by *A European Central Bank?*, edited by Marcello de Cecco and Alberto Giovannini (1988); and the Centre for Economic Policy Research annual reports, “Monitoring European Integration,” from 1990 onward. The first model of monetary integration was developed by Paul de Grauwe

(1992), followed by books on the costs and benefits of monetary integration by Daniel Gros and Niels Thygesen (1992), and Michele Fratiani and Jürgen von Hagen (1992). The regional and agglomeration effects of a monetary union were exposed by Guillermo de la Dehesa and Paul Krugman (1992), and by Paul Krugman and Anthony Venables (1993). The fiscal issues of a monetary union and fiscal federalism were developed by Barry Eichengreen and Jürgen von Hagen (1995). Finally, the book *The Monetary Future of Europe*, edited by Guillermo de la Dehesa, Alberto Giovannini, and Richard Portes (1993), explored the future outcomes of monetary union. This is only a small selection of the literature, and there are many more important pieces of research on these subjects.

There has also been considerable and important economic research about Optimum Currency Areas (OCAs), which is based on the pioneering work of Robert A. Mundell (1961) in his paper "The Theory of Optimum Currency Areas," based on his experiences with monetary unions in Canada and the United States, which show that Europe was not an OCA and warned about the dangers of applying a single monetary policy to areas not fulfilling the requisites of an OCA. Mundell's initial work was followed by that of Ronald McKinnon (1963) and Peter Kenen (1967), and later by Paul Krugman (1993), Joerg Decressin and Antonio Fatas (1995), and Ronald McKinnon (2001) and Charles Wyplosz (2006) after the euro went into use.

The main dangers for Europe engaging in a monetary union, which were mentioned in these economic research papers and books, were the following.

First, Europe is not an OCA because capital and labor do not move freely among member states, and prices and wages are not as flexible as they are in the United States or Canada.

Second, in an area that is not an OCA, a "one-size-fits-all monetary policy" can be too loose for member states that are "catching up" and growing fast, with higher-than-average rates of inflation, and can be too tight for member states that are more mature and whose internal demand grows slowly, with lower rates of inflation.

Third, some member countries can suffer an asymmetric shock that does not affect other members, due either to the build-up of growing internal and external imbalances or to external or exogenous shocks, given their productive specialization.

Fourth, the combination of a single currency and a common and free internal market helps to produce internal and external economies of scale and scope and, therefore, the agglomeration of different productive sectors in special areas or cities of the union. These, in turn, may produce asymmetric shocks as well, both positive for one area or member state of the union and negative for another.

Fifth, in a monetary union, some member states may have an incentive to adopt large fiscal deficits and/or debts and free ride on other members, which will eventually finance them given that they do not incur an exchange rate risk. Therefore, a single fiscal authority is needed to impose the necessary fiscal discipline on all members.

Sixth, to avoid or reduce the effects of asymmetric shocks, or even of shocks to the whole area of monetary integration, a single currency needs some kind of single or common fiscal policy, either through a large common budget or a common treasury, or at least a large European fund able to help the members affected.

Seventh, an increasing monetary union eventually cannot work without an increasing fiscal union, and a fiscal union will eventually lead to some kind of political union, either through a confederation of states or a common parliament and executive power.

I. Design Failures

1. The Eurozone is not an Optimum Currency Area (OCA)

For the eurozone to become an OCA, it needed to meet three basic requisites.

First, capital and labor must flow freely within an OCA, such as happens in the United States or Canada. This was not the case in the eurozone, where different languages and cultures made it more difficult for people to live and work in another eurozone member state. So, people did not move, as in the United States or Canada, from one state or province in recession or from one industrial sector in decay to another state or industry to find a job. Paradoxically, only non-eurozone immigrants have been moving freely among member states looking for jobs, while nationals have not moved.

The same could be said about capital. Eurozone financial and banking markets were much less integrated than in the United States and Canada. Even today, very few banks have been able to acquire another bank in another member state because each is almost a closed shop. This feature is shocking, since the financial crisis increased the opportunities to buy distressed banks of other member states. Only one non-eurozone member, the UK, has been more open to foreign banks and other financial institutions by buying local banks or establishing themselves freely in its territory.

Second, prices and wages need to be very flexible within an OCA in order to adapt to negative shocks affecting the ensemble of a monetary union or in the case of an asymmetric shock to one of its member states. Unfortunately, within the eurozone, collective bargaining is not done at the level of each firm, but at different industrial, national, regional, and provincial levels. Moreover, labor contracts are very different in each member state. As a consequence, rates of inflation have tended to differ largely among its member states, unlike in the United States and Canada. By contrast, prices could be converging in the eurozone if the single market was really very open and efficient.

Third, as a consequence of not meeting both previous requisites, a “one-size-fits-all” single monetary policy for the eurozone would tend to be “too loose” for member states that are “catching up and converging to the mean income” and, therefore, that tend to grow faster and have higher rates of inflation and, at the same time, “too tight” for more mature and developed member states that tend to grow more slowly and have lower inflation rates.

The Delors Committee Report, “One Market, One Money,” did not take a defensive attitude toward the OCA model. Its members thought that the model provided useful insights but did not serve as a comprehensive framework to assess the costs and benefits of an EMU. Later, several research papers showed that the only OCA model requisite that the EMU was fulfilling was trade openness; it was not fulfilling either labor and capital mobility or price and wage flexibility. Paul Krugman (1993) was the first to warn about a new concept called “Eurosclerosis,” which Joerg Decressin and Antonio Fatas (1995) also noted. Segmented labor markets could not work in a monetary union and could produce large asymmetric shocks.

Later, Richard Baldwin and Charles Wyplosz (2004) signaled three additional criteria that should be complied with by the eurozone. The first was large fiscal transfers to deal with asymmetric shocks, which could not exist out of a European budget of only 1 percent of gross domestic product (GDP). The second was homogeneous preferences regarding the use of monetary policy, which do not exist, otherwise the European Central Bank (ECB) would publish the minutes of its meetings, as do the U.S. Federal Open Market Committee or the Bank of England. The third was that the design and implementation of a broader political agenda for a future fiscal and political union was not considered necessary from the start.

2. Monetary Union needs a Fiscal Union

A monetary union needs a fiscal union, a common treasury, and a common fiscal policy or, alternatively, a very large common budget or, at least, a large common European fund, in order to both avoid fiscal free-riding among member states and to address common and asymmetric shocks.

For instance, the United States has a federal budget that represents around 25 percent of its GDP, and Canada has a federal budget that represents around 30 percent of its GDP. Today, the U.S. Treasury collects federal taxes through its Internal Revenue Service in an amount that varies from 12 percent to 20 percent of each state GDP, and the transfers from the federal budget to the states vary from 9 percent to 31 percent of each state GDP. By contrast, EU member states contribute to the European budget between 0.8 percent and 0.9 percent of their GDP and receive transfers from the budget of between 0.3 percent and 0.5 percent of GDP. In the United States, state, county, and municipal debt accounts for only 16 percent of the U.S. total GDP, while in the eurozone, it represents 99 percent of total GDP.

Moreover, U.S. states are obliged to fulfill fiscal rules that are tougher than those for eurozone member states. The “golden rule,” established by the first U.S. Secretary of the Treasury, Alexander Hamilton, in 1790, after the Revolutionary War and enactment of the new U.S. Constitution, prohibited U.S. states from running fiscal deficits; they could have a deficit only if it had been fully invested, and not for more than two years, on average. This rule is applied differently in different states; in 36 states the rule is tougher, in 10 states it is less rigorous, and in 4 states it is soft.

At the same time, Hamilton moved the U.S. capital from New York to Washington and created a single U.S. Treasury bond market, which soon became the largest, deepest, and most liquid in the world, allowing the United States to get cheaper financing than the rest of the leading countries.

Nevertheless, all these earlier economic concerns were mostly overlooked by the EMU founders, who thought that the eurozone could address these structural problems only through discipline, somehow voluntarily, and by several restrictions included in the Treaty on the Functioning of the European Union (TFEU).

First, the TFEU prohibits any financing to a member state by the ECB (article 123), by any financial entity (article 124), or by another

member state (article 125). Second, the TFEU introduced the Stability and Growth Pact (SGP), which established a deficit ceiling of 3 percent of GDP and a debt ceiling of 60 percent of GDP, and applied an Excessive Deficit Procedure (EDP), which imposes severe sanctions on those member states that fail to meet them.

This governance model of EMU was based on three assumptions: first, that, in addition to the EU single market provisions, it would only need to delegate the formulation of monetary policy to a common central bank and avoid excessive budget deficits; second, that the governance should be grounded on rules-based prevention only, and that there was no need for crisis management; and third, that all EU member states would eventually join the EMU (at least those without a waiver, or an opt-out clause)(Pisani-Ferry 2010).¹

This governance would rely on the machinery of the Economic and Financial Affairs Council (ECOFIN) for the implementation of formal rules, while the Eurogroup, consisting of the finance ministers of the eurozone, limited itself to the monitoring of economic developments and the preparation of ECOFIN decisions related to the Excessive Deficit Procedure of the SGP. The huge sovereign debt crisis in the eurozone member states has forced the Eurogroup to assume a role of de-facto executive body of the eurozone.

Unfortunately, the SGP and the EDP stopped being a credible fiscal disciplinary system as soon as France and Germany not only did not meet, repeatedly, the deficit ceilings in 2001, 2002, 2003, 2004, and 2005, but also when, in the now “infamous” European Council decision of November 25, 2003, not only were EDP sanctions not invoked against France and Germany, but the countries were declared “in abeyance” and were not sanctioned because they are two of the largest member states and have around 50 percent of the votes in the Council, and several other member states often vote with them.

This Council session was the end of the SGP and, paradoxically, ended with producing the same moral hazard that its founders, including France and Germany, wanted to avoid. Later, in 2005, a solution was proposed to relax the SGP rules using structural (over the cycle) budget deficits instead of nominal budget deficits when recession reached 2

¹ There are several EU members that have negotiated “opt-out” clauses from the Eurozone. Sweden (de facto) and the UK (de jure) have approved an opt-out clause from the eurozone. Denmark has an opt-out only from the introduction of the euro, but it also has an opt-in clause meaning that it could join eventually.

percent. In the end, the main result of the SGP was that, collectively, the eurozone in 2007 reached a deficit of 6 percent of GDP and a debt of 85 percent of GDP.

In any case, it is clear that behavior in relation to the rules of the European fiscal framework (that is, the SGP) is a very poor predictor of the difficulties experienced nowadays by eurozone members. There is no relationship whatsoever between past infringement of the SGP and sovereign debt spreads. Ireland and Spain were never found to have infringed on the fiscal rules, and today they pay very high spreads for placing their debt, and Germany and the Netherlands, which *were* found guilty, pay extremely low spreads.

The same happens to eurozone member states that have similar debt-to-GDP ratios as non-eurozone members. The former pay much higher rates than the latter. Ireland and Japan have similar economic situations, but Ireland pays much higher rates. In the case of Portugal and the United States, Portugal pays much higher rates. Moreover, Spain, having lower debt and deficits as a percentage of GDP than the UK, pays much higher interest rates to place its bonds.

The real issue has been pointed out by de Grauwe (2011a) and Kopf (2011). Countries that join a monetary union lose more than one instrument of monetary policy. They also lose their capacity to issue debt in a currency over which they have full control, so that they issue debt in a kind of foreign currency. For instance, if Spain tries to sell bonds to investors who start to fear its potential default, then it has to pay much higher interest rates.

The Spanish government can no longer ask or force the Bank of Spain to buy government debt because it does not control that institution. It cannot ask for liquidity from the ECB because it is forbidden by the TFEU. Therefore, it suffers a liquidity crisis; that is, it cannot obtain funds to roll over its debt at reasonable interest rates. Investors see that their fears become a reality, and a self-fulfilling crisis starts until a potential default becomes a reality.

This does not happen to the UK because the UK is able to issue debt in its own currency. If investors fear that it is going to default, they sell UK bonds and the UK interest rate will go up. After selling these bonds, investors would have pounds they would likely get rid of by selling them in the foreign exchange market. The price of the pound would drop until another investor or foreign importer is willing to buy these pounds.

Therefore, those pounds will remain in the UK money market to be invested in UK assets, so that the UK money stock remains unchanged and the UK government is ensured that the liquidity is available to fund its debt. If it does not happen, the UK government can ask the Bank of England to buy government securities to avoid a default. In the case of Spain, if investors, after selling the Spanish bonds, want to stay in euros, they can buy German bonds with those euros and the liquidity does not stay in Spain, meaning the euro money stock in Spain shrinks, provoking a liquidity crisis, which soon becomes a solvency crisis and eventually a default.

Moreover, as de Grauwe (2011b) has shown, fiscal governance in the eurozone is only based on “balanced budget fundamentalism.” Except for Greece, the reasons why member states got into the current crisis have very little to do with poor management of government finances but rather with high debt accumulation by the private sector in some of its member states. After the 2008 financial crisis, the reversal of private debt accumulation in the eurozone triggered the well-known phenomenon of debt-deflation dynamics, forcing governments to allow their own debts to increase.

According to de Grauwe (2011b), this was achieved through two channels. The first channel consisted of governments taking over private debt, mostly bank debt, and the second channel was through automatic stabilizers set in motion by their recession-induced decline in government revenues. As a result, the government debt-to-GDP ratios started to increase quickly, when it was necessary to save large segments of the private sector. Therefore, this increase in government debt levels has very little to do with government profligacy, despite what other eurozone members might think.

Gros (2011a) reaches similar conclusions when he states that the focus of total public debt is misleading, for it is external debt that is the key to the turmoil in some eurozone economies. The fact that the risk premium of Portugal and Spain is much higher than, for instance, that of Belgium, which has a much higher budget deficit, is because spreads are correlated with the size of the private external debt, both enterprises and banks, rather than with the size of the government debt. Gros finds that there is a very strong nonlinear relationship between the spreads and the current account balance.

The International Monetary Fund (IMF) (IMF 2010) reaches a similar conclusion, finding that both the current account and cross-border bank

liabilities are as important as the fiscal deficit when it comes to predictors of credit default swap spreads. The political debt dynamics are quite different for domestic than for foreign debt. In the case of domestic debt, there is a constituency that will vote for governments that want a default. This is not the case for foreign debt, because defaulting on foreigners might actually be very popular. In the case of domestic debt, the retirees will be relying on domestic government bonds for their retirement and ask for increasing taxes to pay for them. The working young will oppose a tax increase to pay for the debt service. If the retirees are foreigners, the young will not oppose default.

Pisani-Ferry (2010) points to five lessons to be learned about eurozone fiscal governance.

First, enforcement of the eurozone fiscal rules has failed. The Greek fiscal crisis has been a clear example of lack of monitoring and enforcement. Marzinotto, Pisani-Ferry, and Sapir (2010) have shown that, from 2000 to 2008, the Greek budget deficit sent to the European Commission each spring was on average 2.9 percent of GDP of the prior year. In fact, the true figure was 5.1 percent of GDP, as shown by the revised data. The Greek statistical office was under the control of its government, and the EU Council gave Eurostat neither the mandate nor the means to carry out on-site valuations. The entire EU budget-monitoring system was based on accounts prepared by national statistical offices, and the relationship to the actual budgets of various entities that composed “general government” was often loose.

Second, deterministic governance does not work in a stochastic world. Spain moved, between, 2007 to 2009, from a 2-percent-of-GDP budget surplus to an 11-percent-of-GDP deficit. During the same period, Ireland moved from a balanced budget to a 14-percent-of-GDP deficit, while its debt jumped from 25 percent to 64 percent of GDP. Only a small part of these changes is accounted by discretionary decisions. In a stochastic environment, tail risks can deeply affect budgetary outcomes.

The same can be said about the inappropriate procedure of the SGP sanctions. A member state can be fined because its deficit has moved from 2.5 percent to 3.5 percent of GDP, but there would be no point in fining it when the deficit is already in double-digit territory, given the speed at which budget deficits can deteriorate due to causes beyond the discretion of member state governments.

Third, not all problems are fiscal. The implicit assumption in the eurozone framework that threats to stability essentially arise from lack

of budgetary discipline has been proven wrong. On the one hand, the Greek case exemplifies how budgetary indiscipline in a small member state can jeopardize financial stability in the eurozone as a whole. On the other hand, Ireland and Spain illustrate that budgetary discipline, at least in the way that it was assessed, is not sufficient to avoid major threats to economic and financial stability.

Therefore, fiscal risks need to be prevented more effectively. Nonfiscal risks arising from credit booms, asset price developments, or a sustained appreciation of the real exchange rate need to be addressed. In that sense, article 121 of the TFEU is entirely devoted to the coordination of economic policies beyond the mere enforcement of budgetary discipline, but the Broad Economic Policy Guidelines that were supposed to be the backbone of coordination have been consistently ignored by national policy makers.

Fourth, a commitment to no assistance is not credible. The principle of article 125 of “no co-responsibility” for public debts was only the result of the view that member states of the monetary union would no longer need balance-of-payments assistance and, until Greece, there was the belief that a member state would be allowed to default, rather than to be provided assistance. This no-assistance principle was even less credible because any EU member state can request support from the IMF.

After Greece, there is a clear understanding that assistance must be a part of an IMF-led program, with the usual conditions attached. IMF conditions are harsh enough to serve as a deterrent and do not weaken ex-ante discipline, and potential support by other EU partners gives legitimacy to surveillance.

Fifth, policy coherence is often lacking, and ownership of the euro rules is generally tenuous. Mario Monti (2010) noted the 12 worst offenders involved in the delay in transposing (that is, implementing) directives were all eurozone members. Ownership of the rules has remained uneven. For example, between 1997 and 2007, France’s general government balance fluctuated between a 1.5 percent and 4.1 percent deficit to GDP when the SGP stated target was “close to balance or in surplus,” and it continues to be above 3 percent of GDP today.

Ultimately, the success of the euro depends, first, on an implicit commitment to have policies in place that are consistent with membership in a monetary union; and, second, on ownership of the explicit principles and rules underpinning monetary union, involving not only governments but also private agents.

At this moment, as stated by Pisani-Ferry (2012a), the eurozone member states are more fragile than ever. There are three causes for this situation, which he labels the “new impossible trinity.” They are first, the absence of co-responsibility for public debt through the “no-bailout” clause (article 125); second, the strict no-monetary-financing rule by the ECB in the TFEU (article 123); and third, an increasing bank-sovereign interdependence, that is, the combination of state responsibility for supervising and, if necessary, rescuing banking systems and the holding of large stocks of sovereign debt securities by these very banks.

For instance, in 2010, total eurozone bank assets amounted to more than 45 times government tax receipts in Ireland, more than 30 times tax receipts in Cyprus, and more than 15 times tax receipts in France, the Netherlands, and Spain. Therefore, governments are heavily exposed to bank defaults or failures and, at the same time, banks are exposed to their own governments through their large holdings of government securities. For instance, in 2007, Italian banks were holding debt issued by their sovereign up to 27 percent of GDP, German banks were holding up to 18 percent, Greek banks were holding up to 12 percent, and Spanish banks were holding up to 10 percent.

Unfortunately, the politically complex and difficult experience of the eurozone crisis has shown that there is a clear reluctance by the weighted majority of votes by member states to move toward a partial fiscal union or a single treasury. At this moment, the more likely advance in that direction is going to be the **“European Redemption Fund”** proposed by the German Council of Economic Experts. After the experience with the European Redemption Fund, Eurobills could be the next step, and after that, perhaps Eurobonds.

The excessive European Redemption Fund was proposed by the German Council of Economic Experts, or “Five Wise Men.” It consists of a Redemption Fund similar to the Sinking Fund that Alexander Hamilton created in 1790 to clear up the legacy debts from the Revolutionary War, but in this case it is meant to clear the legacy of the excessive debt of the eurozone, that is, all debt of the member states above 60 percent of GDP.

The national sovereign debt up to 60 percent of GDP continues to be the national responsibility of the individual member states. The debt above 60 percent of GDP is pooled into a European Redemption Fund, and eurozone members have joint and several liability for the debt placed in the fund. In exchange for that pooling, participating member states

enter into payment obligations to the European Redemption Fund, calculating that the repayment schedule is designed to fully redeem the fund borrowings in 20 to 25 years.

Member states transferring more debt will have to bear higher annual payment obligations. Repayments would be a constant share of GDP, equal to the European Redemption Fund interest rate plus 1 percent divided by initial GDP. Member states would have to commit to reducing their debts below 60 percent of GDP. Longer term, it does not appear that there would be additional commitments beyond the revised SGP and the Fiscal Stability Treaty (called, formally, the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union, and also the Fiscal Compact). However, during the roll-in phase, member states would have European-Financial-Stability-Facility-style adjustment programs. Member states participating implicitly commit to certain upper limits for their primary balances and debt quotas.

As a result, the pooling of debt above 60 percent of GDP is hardly a free lunch, although it is likely to reduce the interest rates of the rest of the debt. A portion of tax revenues will be earmarked for the European Redemption Fund, and member states are obliged to deposit collateral (gold and foreign currency reserves) and commit to structural reforms. The members under structural adjustment programs, Greece, Ireland, and Portugal, can pool their debt only after successful completion or their programs.

This author prefers the **“Blue and Red Eurobonds”** proposal of Jacques Delpla and Jacob von Weizsäcker (2010), which avoids moral hazard (see de la Dehesa 2011). Their proposal is also based on a blue, or senior, bond tranche, constructed by pooling up to 60 percent of GDP of the national sovereign debt of the eurozone member states, under joint and several liability of all its members or the European Stability Mechanism (ESM) to ensure that it will be a AAA asset. This Eurobond would have a substantially lower yield than the weighted average of the national bond yields, given that the size and liquidity of its market would be similar to those of the U.S. Treasury bond (around US\$5.6 trillion). Therefore, it will have a yield lower than the German bunds (bonds) today, or would at least be similar, but with higher risk diversification, because default risks tend not to be perfectly correlated.

The red, or junior, bond tranche is constructed of the excessive debt above 60 percent of debt to GDP, and will be issued by member states themselves. In this way, the red bond would have to pay a much higher

interest rate than the current weighted average, due to its higher risk of default and its greater illiquidity, and the higher the debt-to-GDP amount of debt of the issuer, the higher the interest rate. As a result, member states would have an implicit incentive to reduce their excess debt above the allowed 60 percent debt to GDP, and there would be no incentive to profit by moral hazard.

Nevertheless, Hans-Joachim Dübél (2011) thinks that the blue bonds are a very interesting idea but, in times of crisis, like the one the eurozone is currently experiencing, it would be impossible to limit their volume of issuance to 60 percent of GDP because it carries the risk of exploding marginal costs of funds to those sovereigns facing rising debt levels over the 60 percent (which currently includes the large majority of the eurozone member states) by forcing them to issue red bonds. Therefore, red bonds cannot work in a stressful situation.

Dübél proposes as an alternative to full insurance with a noncredible limit volume, which produces moral hazard, a partial insurance without volume limit. The goal is to moderate the marginal cost of funds in a crisis situation, in order to keep incentives for sound fiscal and economic management. This partial insurance by the ESM will be given to both principal and interest.

The protected bond would be endowed with a dormant senior-junior structure. Dormant means that a junior bond—the principal/interest not protected by the ESM—would be created if and when the bond insurance is called. Junior bonds could be subject to a restructuring or haircut under an emergency fiscal adjustment program devised by the ESM. The insured proportion, the senior bonds, would stabilize investor balance sheets by setting a floor under sovereign bond prices both *ex ante* and *ex post*.

Another short-term option is to start with Eurobills as a transitory and experiential system before moving into Eurobonds, which are the only effective way to move toward fiscal union. The IMF (2012) is proposing that the eurozone consider issuing common short-term debt, guaranteeing sovereign bonds and creating euro-wide deposit insurance.

“Eurobills,” or commonly issued debt securities with maturities under one year, could be drawn up in a variety of ways. All have the aim of spreading the risks for liquidity-strained member states such as Italy and Spain. According to Christine Lagarde (2012), Managing Director of the IMF, “we consider that more needs to be done, particularly by way of fiscal liability sharing and there are multiple ways of doing that.”

One option is the European Redemption Fund and another is to issue Eurobills up to 10 percent of eurozone GDP.

Hellwig and Philippon (2011) were the first to propose Eurobills instead of Eurobonds, because keeping common borrowing in the short end of the bond curve, leaving all borrowing above two years at the national level, eurozone authorities would have more control over whether issuers were keeping their commitments to sound budgetary planning. A market for Eurobills can start small, but it would grow very fast and it could help improve financial stability and banking regulation, and provide much needed liquidity to solvent member states with liquidity problems.

The “**Six-Pack**” entered into force in December 2011. This is a piece of EU secondary law composed of five regulations and one directive that applies to the 27 member states, with some specific rules for eurozone member states. It covers not only fiscal surveillance but also macroeconomic surveillance under the Macroeconomic Surveillance Procedure (MSP). It tries to strengthen the SGP by reinforcing its medium-term objective preventing arm: deficits cannot go beyond 3 percent of GDP and debt cannot go above 60 percent of GDP, and the corrective arm, the Excessive Deficit Procedure (EDP). It tightens the provisions of the SGP and its enforcement.

Specifically, the Six Pack (a) tightens the EDP by introducing a Reverse Qualified Majority² on certain types of sanctions provided for in the SGP, to avoid what happened in 2003 with France and Germany; (b) introduces the 1/20 rule, under which if the debt-to-GDP ratio is higher than 60 percent, it must be reduced every year by one-twentieth; (c) introduces a stricter application of the Medium-Term Budget Objectives (MBO) by defining quantitatively what is a significant deviation from the MBO in each member state, which ranges from minus 0.5 percent to plus 0.5 percent of GDP. As long as the MBO is not reached, the rate of growth of public expenditure will be limited, and if this provision is violated another EDP is initiated; and (d) introduces the European Semester in which member states must inform the EU institutions about their budget plans early on. These are then reviewed with the intention of detecting budget imbalances earlier.

The “**Fiscal Stability Treaty**,” or the “Fiscal Compact,” which are the shortened names for the new Treaty on Stability, Coordination

2 A Reverse Qualified Majority implies that a recommendation or a proposal of the Commission is considered adopted in the Council unless a qualified majority of member states votes against it.

and Governance in the Economic and Monetary Union (TSCG), is an intergovernmental treaty that was signed by all EU member states except the Czech Republic and the UK, in March 2012. It is currently in the process of ratification by member states. As of July 30, 2012, 5 out of 17 eurozone members and 2 of 8 other committed EU members³ have ratified it.

Basically, the Fiscal Stability Treaty tries to elevate the tougher provisions of the Six-Pack from an EU law to an Intergovernmental Treaty, in order to make compliance even more enforceable. Dullien (2012) explains this treaty in depth and finds that this stronger compliance is questionable, because there is no procedure yet to enforce a multilateral treaty.

Moreover, the Fiscal Stability Treaty rules would not have a direct impact on fiscal policy for probably half a decade. The treaty does not specify how much time member states are given before their budget balances have to reach the structural threshold of 0.5 percent of GDP. When Germany introduced its debt brake (*Schuldenbremse*) in 2009, the law provided for a transition period until 2020. Its 1/20 rule for the debt becomes binding only four years after a member state has brought its deficit below the 3 percent of GDP threshold.

Aside from Estonia, Finland, and Luxembourg, which have low debt to GDP ratios, all eurozone members are under an excessive debt procedure, the earliest of which are set to end in 2012, so the 1/20 rule will not have an impact before 2016. Therefore, Dullien (2012) believes that the old SGP rules and the Six-Pack are what really drive the current Eurozone austerity, and will at least until the majority of member states have brought down their deficits from an average of 6 percent of GDP in 2010 to below the threshold of 3 percent of GDP beyond 2013.

The Fiscal Stability Treaty defines a balanced budget as one that has a general government deficit of less than 3 percent of GDP and a structural deficit of 0.5 percent or 1 percent of GDP depending on each member state's state debt-to-GDP ratio. If the general government debt is significantly below the 60 percent of GDP and the public finances are sustainable in the long term, the structural deficit may be up to 1 percent of GDP. The treaty requires the member states that ratify it to have a general government deficit of not more than 0.5 percent of GDP

3 Committed EU members are those members that have approved the new Treaty but may not have ratified it yet.

or be working toward that target within the time limits specified by the EU (the so called “national deficit brake”).

The treaty also requires a general government debt of not more than 60 percent of GDP. If it is more than 60 percent, the country must be reducing it by one-twentieth each year (the so-called “national debt brake”). The treaty requires that these rules on government deficits and debts be put into national law and that there be a national body with responsibility for monitoring their implementation. Failure to put these rules fully into national law could result in the member state being referred to the European Court of Justice, which would have the power to impose penalties on the country up to a maximum of 0.1 percent of GDP.

Moreover, the Fiscal Stability Treaty does not change the conditions under which financial assistance has been granted to a member state under a stabilization program. It also states that, from March 1, 2013, any future bailouts involving the use of funds from the European Stability Mechanism will be granted only to those member states that have ratified and implemented the treaty. The ESM Treaty contains a similar condition.

The structural deficit is defined as the general government deficit adjusted for the economic cycle and for one-off measures. It must be estimated, but it is difficult to estimate it accurately, and precision is not possible. The rules of the structural deficit are met if the deficit is at its “country-specific medium-term objective.” This means that a separate objective is set for each member state and that the specific circumstances of each member are taken into account when setting this objective.

This objective is revised from time to time to take into account specific circumstances when setting it, and each member is obliged to work toward achieving the objective that has been set for it within a timetable set by the EU. The member may deviate from the timetable only under exceptional circumstances, which are unusual events outside the control of the member state concerned that have a major impact on the financial position of the general government, or periods of severe economic downturn.

If there are significant deviations from the medium-term objective or the timetable set to achieve it, a “correction mechanism” is triggered. This will oblige the member state to correct the deviation over a defined period. Each member must put a “correction mechanism” in place. This will be based on common principles to be set by the European

Commission. These will deal with, among other things, the nature, size, and time frame of the corrective action to be undertaken; and the role and independence of the institutions that will have responsibility at the national level for monitoring how rules are put into effect.

Members that have excessive deficits that are under the EDP will be required to implement a detailed program of structural reforms that are designed to reduce its deficit. This is the so-called “budgetary and economic partnership program.” The content and format of these programs will be set out in EU law and they will be monitored by the European Commission and the Council in the same way as in the SGP.

In essence, the Fiscal Stability Treaty continues the same pattern of the SGP and the Six-Pack by maintaining the nominal deficit of 3 percent of GDP and adding the structural deficit of 0.5 percent or 1.0 percent of GDP depending on their level of debt.

3. One-size-fits-all Monetary Policy Provokes Imbalances

Before the EMU, during 1990–94, there was a heated academic debate about whether one single monetary policy was too tight for low-growth member states like Germany and Italy, and too loose for high-growth member states, like Ireland and Spain. The issue was not only about growth differentials among member states, but also about inflation differentials, different rigidities in labor and product markets, labor mobility differentials, different industrial structures, productivity growth differentials, and lack of a centralized fiscal transfers system to soften them.

Therefore, in these situations, macroeconomic shocks, either general (to the whole area) or asymmetric (to one or several of its members) could end up provoking divergent price developments. In that case, a single monetary policy implying a single common interest rate applied to member states with diverse inflation differentials leads to different real interest rates across member states.

The same official nominal interest rate applied to member states with higher-than-average inflation rates makes them experience lower real interest rates, which fuel domestic demand and inflation. When applied to member states with lower-than-average inflation rates, it makes them experience higher real interest rates, which lead to lower domestic demand and inflation. The divergence grows until the monetary union

may break down unless they achieve a more uniform rate of growth and inflation.

Nevertheless, there is a series of factors that tend to qualify these arguments.

First, part of this inflation dispersion is explained by the Balassa-Samuelson effect, according to which part of these differentials are the result of differences in the rate at which productivity increases in the various member states between the tradable and nontradable goods sectors. This effect represents a normal sector equilibrium adjustment process that does not, in principle, require economic policy correction since it does not lead to a permanent worsening of their competitive positions.

But most recent empirical evidence tends to show that productivity shocks have a much less benign effect on inflation differentials within the euro area than would be expected by the Balassa-Samuelson model. The reason might be that the GDP of the catching-up member states is only a small proportion of the euro area total, and the one-size-fits-all monetary policy will fail to respond to their productivity shocks.

Second, the real interest rate is computed by deflating interest rates ex post by the observed national inflation rate, when it could be deflated ex ante by the relevant inflation expectations rate over the medium term, because the real interest rate affects economic activity by changing the price of consumption and investment today relative to tomorrow.

Third, it is difficult to know whether those relevant inflation expectations for constructing real interest rates are member-state specific or euro areawide, depending on the degree of integration of goods and capital markets. If inflation expectations are fully integrated euro areawide, expectations are the key measure because they reduce the dispersion of real interest rates and vice versa.

Fourth, in a monetary union there are also two channels that can counteract the effect of potentially diverse real interest rates. The first is the competitive channel: lower inflation in the low-real-interest-rate member state relative to the others would increase its competitiveness and the demand for goods and services by the rest of the member states, reducing the negative effect of the lower real interest rate. The second is the risk-sharing channel: economic agents can mitigate member states' specific shocks through portfolio diversification in other member states. Since the creation of the EMU, investment among member states has quadrupled.

Fifth, according to research done by the ECB, the causes of inflation dispersion in nine out of 10 member states are internal factors, such as different wage dynamics not linked to productivity growth, excessive unit labor costs, and gross operating surplus components that were generally more important than labor productivity mainly due to rigidities affecting the price and wage formation in product and labor markets. The productive sector dimension is also important, because dispersion in service price inflation is higher than in the rest of the sectors.

Sixth, trade and financial integration induce changes in the economic structure and performance of its member states, helping them to soften these supposed divergences and disparities. A common currency helps promote trade and financial integration, which tend to avoid such disparities. Intra-euro-area trade and intra-euro direct investment are very high and growing.

The fact is that during its first years, monetary union was successful in spite of living with a single monetary policy and a single interest rate. In addition, inflation dispersion fell, spreads were extremely low, and markets fully believed in the success of the euro. Nevertheless, the first increase in inflation and real interest rate dispersion came between 2001 and 2005 due to a single monetary policy shock provoked by a large drop in the main refinancing rate by the ECB in order to save Germany and Italy from a recession and to get France out of a low-growth path. The second episode of clear divergence in inflation and real interest rates came from an imported shock, the burst of the great financial crisis in the United States, which was transmitted to the euro area and which still continues to be active today (de la Dehesa 2012a).

(A) ONE-SIZE-FITS-ALL MONETARY POLICY PROVOKED A BOOM IN THE EUROZONE “CATCHING-UP” MEMBER STATES DURING 2002–06

ECB monetary policy sets its interest rate policy based on a euro-area inflation rate, which is measured by the harmonized consumer price index inflation of each individual member state, weighted by its respective relative GDP weight in the euro-area total GDP, so that monetary policy uses a GDP-weighted inflation rate.

During 2002–03, Germany had negative GDP growth (-0.4 percent) and negative internal demand (-1.4 percent), Italy had very low GDP growth (0.25 percent) but higher internal demand (1 percent), and

France had medium growth (0.9 percent) and even higher internal demand (1.2 percent). At the same time, the combined relative weight of these three largest member states was two-thirds of the total euro-area GDP. Moreover, the euro-area inflation rate was just 2 percent; in Germany the inflation rate was 1.2 percent, in France it was 1.0 percent, and in Italy it was 2.8 percent.

Because euro-area weighted average growth was too low and euro-area weighted average inflation was only 2 percent, the ECB reacted quickly by reducing its main refinancing interest rate from an average of 4.5 percent in 2001 to 2.50 percent in 2002, and to 2.0 percent in 2003, and kept this latter level for two more years until the end of 2005. Such a large downward interest rate move successfully helped these three large member states avoid a recession and lower growth. In 2006, German GDP reached 3.7 percent growth, with internal demand at 2.7 percent; French GDP reached 2.1 percent, with internal demand at 2.4 percent; and Italian GDP reached 2.2 percent, with internal demand at 2.1 percent.

But this drop in the ECB main refinancing rate produced a boom in other member states that were growing faster and had higher rates of inflation. This was the case in Spain which, in 2002, was growing at 2.7 percent, with internal demand at 3.2 percent and an inflation rate of 2.9 percent. In 2006, Spain was growing at 4.1 percent, with internal demand growing at 5.2 percent and an inflation rate of 3.6 percent. It was also the case in Greece, which was growing in 2002 at 3.4 percent, with internal demand growing at 4.4 percent and an inflation rate of 2.6 percent. In 2006, Greece was growing at 5.5 percent, with internal demand at 6.9 percent and an inflation rate of 3.5 percent.

Ireland, which, in 2002 was already growing at 5 percent, with internal demand growing at 4.1 percent and an inflation rate of 5.6 percent, grew at 5.3 percent in 2006 with internal demand growing at 6.3 percent, but saw a lower inflation rate of 2.5 percent. Portugal was an exception. In 2002, Portugal saw a lower growth rate of 0.7 percent, and had negative internal demand, with an inflation rate of 2.8 percent. In 2006, Portugal increased its growth to 1.4 percent and its internal demand increased to 0.8 percent, with an inflation rate of 3 percent. As a whole, the euro area internal demand increased from 0.4 percent in 2001 to 3 percent in 2006.

This large and prolonged reduction by the ECB of its main refinancing interest rate raised two main issues concerning a single monetary policy and a single interest rate for the euro area.

First, if the same interest rate is applied to member states with different internal demand growth rates, due to different internal problems or different external shocks, macroeconomic imbalances are likely to increase.

Second, if the same interest rate is applied to member states that have different inflation rates, the large drop of the ECB main refinancing rate would take time to improve the situation of member states with low internal demand growth and low inflation. This is because the real interest rate will fall less than expected, once inflation has been deducted. The real interest rate happens to be the rate that is taken into account by households and firms to decide their consumption and investment decisions.

By contrast, the same interest rate would produce a boom in member states that have higher internal demand growth and higher inflation rates, because their real interest rate is much lower after discounting the inflation rate. For instance, in 2006, the real interest rate was negative in Greece (-1.5 percent), Ireland (-0.5 percent), Portugal (-1 percent), and Spain (-1.6 percent).

This is the reason why the ECB produced a credit and consumption boom in Greece and another credit and investment boom in housing and real estate asset prices in Ireland and Spain in order to help Germany, Italy, and, to a lesser extent, France, out of their low-growth path or recession, because of their large relative weight in the total euro-area GDP.

These booms were provoked by their negative real interest rates. Irish and Spanish households found it rational to buy a house on credit, given that their wages were growing with the inflation rate and the real cost of the credit was negative. The same can be said about firms from these member states, which were facing a high internal demand for goods and services and a good opportunity to invest in enlarging production, improving equipment, and expanding abroad, at a low real interest rate cost.

At the same time, those member states experiencing such a “boom” were buying massive amounts of equipment, goods, and services from France, Germany, Italy, and the Netherlands, helping these lower-growth members to grow faster, but at the expense of increasing their own unit labor costs and their own current account deficits.

**(B) ONE-SIZE-FITS-ALL MONETARY POLICY LATER PROVOKED
A “BUST” IN THE “CATCHING-UP” MEMBER STATES, AFTER 2007**

Today, these booming internal demand member states are suffering a “bust” because they have accumulated large amounts of debt and fiscal deficits, and they are now considered, by the member states in the opposite situation, as “sinners” and “profligates,” while those member states that profited from the internal demand boost of the “profligates” and now have large current account surpluses, are being considered as “good and austere savers” that should punish their profligate euro-area counterparts.

Who is to blame? Nobody, except maybe the one-size-fits-all monetary policy promulgated by the ECB, which produced a boom in some member states on the periphery but today is trying to help soften their inevitable bust with liquidity measures. However, the ECB acted correctly in both episodes, according to its statutes. It did so by, in the first phase, lowering its main refinancing rate when inflation expectations were within target and two-thirds of the euro area was suffering from very low or negative internal demand growth; and in the second phase, by being the lender of last liquidity resort, in order to avoid a disaster in the euro-area banks and sovereign debt, given that the “firewall” has not yet been funded properly two years after it was created.

Moreover, it should be understood that all imbalances are supposed to be bad—not only the negative ones of Greece, Ireland, Italy, Portugal, and Spain, but also the positive ones of Germany and the Netherlands, because they are each other’s “mirror.” This is even more so in the case of the euro area, which is in external balance as a whole against the rest of the world, so that higher savings than expenditures in Germany and the Netherlands are matched by higher investment and consumption than savings in Greece, Ireland, and Spain, and, to a lesser extent, in Italy and Portugal.

Germany’s internal demand has been flat for more than a decade, but it has seen growth through exports to the booming internal demand of the now-called “profligate” member states, which were buying its goods and services.

To have the total euro area in balance versus the rest of the world, the combined addition of the balances of payments of its member states equal zero. That is, their total current account balances positions plus their total capital balances positions must equal zero by definition.

The same can be said for the world's balance of payments (because we cannot export to Mars) and even for each balance of payments of its individual member states.

That is, Germany's sum of its current account and its capital account must equal zero, as well. Therefore, if its current account has run a very high surplus, its capital account must run a very large deficit. Or, what is the same, its larger receipts from exports of goods and services over its lower payments from imports of goods and services plus its larger receipts from its public and private financial assets abroad over its costs of servicing its public and private foreign liabilities, that is a surplus in its total current account, must be exactly matched by larger public and private capital outflows than corresponding capital inflows in its capital account, in order for its total balance of payments to equal zero.

In sum, the surplus accumulated in its larger exports than imports in its current account has been financed by the capital outflows in its capital account, or what is the same, most of its large exports bought by the now "profligate" member states were financed by firms and banks located in Germany.

That means that all euro-area member states are in the same boat and need to understand and help each other if they want the euro area to survive. To reduce current imbalances, it must be first understood that Germany can only receive net capital inflows if it is running a current account deficit, and Spain can only support net capital outflows if it is running a current account surplus.

Unfortunately, the "bust" member states now face two interconnected challenges. On the one hand, they need to regain competitiveness so as to effect external adjustment. On the other hand, they need to correct their large public deficits, debts, or both, because part of their high level of private debt became sovereign debt when governments were forced to increase public expenditures in order to avoid a larger recession or to bail out some distressed private banks. At the same time, they suffered a big fall in tax revenue when the bubble burst.

Addressing these twin imbalances within a monetary union becomes a "Catch-22" situation, because dealing with one imbalance is likely to exacerbate the other. This is because, in a single currency system, regaining competitiveness relies largely on running lower inflation than the euro-area average to adjust the real exchange rate. But stronger nominal GDP growth is needed to address fiscal problems and put public debt on a sustainable path.

The low inflation or even deflation required to regain competitiveness will reduce growth and exacerbate fiscal imbalances. Therefore, given the interconnection between external and fiscal adjustments in the euro area, it makes sense to consider the challenges of correcting the imbalances jointly. The only way to address both simultaneously is through implementing strong structural reforms that will increase potential GDP in the medium term.

But the best way to achieve this joint aim sooner and better is to get responsive cooperation by the other member states that are in the opposite situation. For instance, it would be highly positive if Germany and the Netherlands, the surplus member states, expanded their internal demand and their inflation while the deficit member states reduced both their internal demand and their inflation in order to reduce both imbalances jointly.

Germany has finally increased wages, which is great news. The same will happen with their need to achieve fiscal consolidation to reduce their deficit and debt dynamics. It would help if, at the same time that Germany has a strong fiscal contraction, the member states with a fiscal surplus and lower debt levels expand their public consumption and investment.

4. The ECB is not a Lender of Last Resort for Member States

The ECB has two objectives: price stability and financial stability. While, it is a lender of last resort for eurozone banks but it is not a lender of last resort for eurozone member states' governments. Article 123 of the TFEU prohibits the ECB and the European System of Central Banks from financing governments of member states' central, regional, or local governments or any other public authorities. However, the treaty allows the ECB to buy sovereign debt in secondary markets if needed, but not directly from member states.

The ECB has bought sovereign debt in the secondary markets through its Securities Markets Program. In 2010, it bought Greek and Portuguese bonds, and in August 2011, it bought Italian and Spanish bonds. By the end of November 2011, it had bought €200 billion in bonds, but these purchases make the ECB very uncomfortable because it abides by a strict separation between fiscal and monetary policy.

The ECB does not even have a strong financial stability directive that could prevent turmoil in the bond markets. According to article 127-5 of the TFEU, the ECB's mandate is only to "contribute to the smooth conduct of policies pursued by competent authorities relating to the prudential supervision of credit institutions and the stability of the financial system." That is why the reason for the launch of its Securities Markets Program was not the preservation of financial stability, but the prevention of disruptions to the proper transmission of monetary policy decisions.

By contrast, in the United States and the UK, the Federal Reserve and the Bank of England, respectively, have an explicit financial stability directive and can intervene in the bond markets, if required, in the name of their mandate of financial stability to avoid, among other things, a self-fulfilling crises.

In October 2008, after the Lehman Brothers bankruptcy, the ECB, following its mandate of financial stability of banks and credit institutions, was forced to increase liquidity in order to save the eurozone banking system. The same is currently happening through the three-year, longer-term refinancing operation to save the banking system from the southern member states of the eurozone. The longer-term refinancing operation allows the Bank's monetary transmission mechanism to work properly, given the lack of success of the interbank system in the south. Rather than resolving the problem, the interbank system was allowing deposit flights from the banks in the southern member states to banks in the northern member states.

This is a clear contradiction because the real problem today in the eurozone is that, since the Greek sovereign debt crisis, investors have realized they can provoke a run on the debt of any eurozone country that is solvent but has liquidity problems. They can make any member state government insolvent without any interference by the ECB.

This design failure is the great weakness of the sovereign debt issued by member states in the eurozone, which has provoked the present eurozone sovereign debt crisis, which, in turn, has unchained the present eurozone banking crisis. The real issue is that, due to these policy principles and the inherited structures of national financial systems, the bank-sovereign interdependence is much greater in the eurozone than in the United States or the UK.

The banking crisis in the United States was due to an asset that was close to A but was sold as if it was AA or AAA. By contrast, the banking

crisis in the eurozone has been provoked by a AAA or AA risk-free asset, the sovereign debt of its member states, which is not considered by investors as a risk-free asset because the ECB does not have an explicit financial stability mandate or a lender of last resort mandate. This is an incredible paradox that threatens the stability of markets and governments in the eurozone.

Therefore, eurozone member states issue debt in a currency that they do not control by fiat, and thus governments cannot guarantee to bondholders that they will always have the necessary liquidity to pay off the bond at maturity. Without such a guarantee, the eurozone sovereign bond markets are prone to liquidity crises and contagion, as has already happened with Greece, Ireland, and Portugal, and is now happening with Italy and Spain (de Grauwe 2011a).

By contrast, stand-alone countries such as the United States and the UK issue their bonds in their own currencies, so they can guarantee that the cash will always be available to pay out bondholders.

This eurozone design failure is also related to the lack of a single treasury or of a fiscal union. In the United States and the UK, there is one single central bank, the Federal Reserve and the Bank of England respectively, and one single treasury. By contrast, in the eurozone there is one single central bank, the ECB, but 17 different treasuries each of which is a shareholder of the ECB.

In the case of the United States and the UK, investors know that the Federal Reserve and the Bank of England give an implicit guarantee to the payment of the bonds issued by their treasuries (de Grauwe 2011c). The central banks are ready to temporarily lend to their treasuries if they are not able to guarantee the cash necessary to pay treasury bondholders, or central banks may also temporarily buy treasury bonds in the primary or secondary market, if needed. In both cases, the central bank is thought to be providing an implicit guarantee. Investors know, as well, that if needed, both treasuries can increase taxes to get the funds to pay their bondholders.

These are the reasons behind the concept that sovereign debt is by definition a “risk-free asset,” because Basel I incorporated the capital allocation by banks to their credit risks. Sovereign debt risks do not need allocation of capital, while private companies do. Private companies do not have central banks to back them and cannot increase their revenue when needed, because they compete in a free market, and if they increase prices, they lose revenue.

Investors did not realize this design failure until Greece became insolvent in October 2009. The Greek Treasury could not pay its bondholders, and the ECB initially did not give any implicit or explicit guarantee of its debt, although later it bought part of its debt and gave large amounts of liquidity to the Greek banks. Once investors understood the situation, contagion to Ireland and Portugal was immediate and now is brewing in Italy and Spain.

This design failure is paradoxical, because the ECB, and any central bank, knows that being a lender of last resort for banks is essential to avoid bank runs. Banks need a backstop. When banks have liquidity problems, they can turn quickly into solvency problems as depositors withdraw their deposits. This, in turn, can lead to a liquidity crisis for the whole banking system, given that banks will try to sell assets, the prices of assets then tumble, and eventually the banks' debts become larger than their assets, provoking a solvency crisis. Fears about liquidity provoke runs on deposits, which always end up triggering insolvency if there is not a credible backstop.

Exactly the same can happen to countries, as the case of Greece's initial insolvency at the beginning of the crisis has shown, and the process continues today when expectations about liquidity are affecting Italy and Spain. Investors go very quickly from a good equilibrium to a bad one. Their key issue is confidence, and in the case of the eurozone, they have moved from total confidence to total lack of confidence. They seldom stop in the middle.

De Grauwe (2011d, 2012a) has shown that the main argument for the ECB to become a lender of last resort in the sovereign bond markets is to prevent countries from being pushed into a "bad equilibrium" and a self-fulfilling crisis. The self-fulfilling nature of expectations creates a coordination failure, that is, the fear of insufficient liquidity pushes countries into a situation in which there will be insufficient liquidity for both government and the banking sector. Only the central bank can solve this coordination failure by providing lending of last resort.

Moreover, stopping this coordination failure in the sovereign debt markets is much less costly than stopping the subsequent bank run, because banking liabilities tend to be much larger than government liabilities. In the eurozone, bank liabilities are 250 percent of its GDP, while the debt-to-GDP ratio of the overall eurozone is around 85 percent of GDP, four times less.

Solving the coordination failure in the eurozone will be very difficult because article 123 of the TFEU prohibits the ECB from financing a member state. However, article 123 also allows the ECB to buy government debt in the markets, but not directly from governments; that is, it is not allowed to buy government debt in the primary markets.

De Grauwe (2011a, 2012a) posits the following arguments to oppose the ECB lender of last resort function.

First, the ECB increases inflation by increasing the money stock through the purchases of member state bills and bonds. However, it is important to distinguish between what is monetary base M1 and what is monetary stock M3. M1 is only currency in circulation and banks' deposits at the central bank, while M3 is much larger and includes other short-term banking instruments. In fact, during periods of crisis, the money supply and the money stock tend to become disconnected.

Before the 2008 banking crisis, M1 and M3 were connected, but after September, when the crisis started, the ECB piled up assets massively in its balance sheet by expanding its money base, M1, by up to 40 percent in 2010, while M3, the money stock, increased by only 5 percent. The reason was that banks hoarded the liquidity provided by the ECB instead of extending credit to the nonbanking sector. The same happened in the United States and the UK after the Federal Reserve and the Bank of England intervened by injecting large amounts of liquidity into banks. The same phenomenon happens with all agents when a financial crisis starts. They hoard cash for safety reasons, and if the central bank does not inject liquidity, it turns the financial crisis into a recession or even a depression as agents scramble for cash.

This is the classic explanation given by Milton Friedman and Anna Schwartz (1963) about the mistakes made in the Great Depression of 1929–33. The Federal Reserve provoked the depression by allowing the money stock to decline because it did not act as lender of last resort, when it should have massively increased the monetary base, M1.

Second, the ECB lender of last resort function, through intervening in the market of government bonds, can have fiscal consequences. If member state governments fail to service their debts, the ECB will have to take the losses (from the sovereign bonds it bought) in its balance sheet. Therefore, by intervening in these markets, the ECB is committing future revenue from taxpayers. This is true, but central banks take risks in all their normal open market operations with banks, which are necessary for the proper conduct of monetary policy, from buying and

selling government bills and bonds from banks to engaging in foreign exchange rate operations. Therefore, if central banks cannot do these kinds of operations, they stop being central banks.

ECB intervention in the government bond markets of the eurozone is necessary for one important reason: the high fragility of government bond markets in a monetary union. Financial markets can, in a self-fulfilling way, drive solvent member states into a bad equilibrium, where default becomes inevitable, and the ECB can, through its lender of last resort function, prevent member states from being pushed into such a bad equilibrium. Moreover, if its intervention is successful, there will be no losses, and perhaps profits, for the ECB and its member state shareholders.

Third, being a lender of last resort or providing any kind of insurance mechanism tends to produce moral hazard. The ECB, by providing lender of last resort insurance, gives an incentive to eurozone member states to issue too much debt. Nevertheless, the same happens with its lender of last resort function to the banking system, and it would be a great mistake for the ECB to abandon such an important function for the eurozone banks simply because it produces moral hazard.

In any case, the asymmetry in the timing of the realization of costs and benefits goes a long way toward explaining why even the most conservative central banks are likely to avoid the immediate cost of a collapse of the banking system, even at the cost of foregone future benefits. The difference between a banking sector crisis and a sovereign debt crisis is that the latter occurs at a snail's pace compared to a banking crisis, which happens quickly. When investors sell sovereign bonds, the effect on the government's cost of borrowing is delayed, because the average maturity of bonds is around five to seven years, so the collapses take time.

The solution is to impose effective and strict limits on member states for debt issuance, in the same way that banking regulation and supervision imposes limits to risk-taking by banks. In this sense, it may be necessary to separate the functions of liquidity provision and of regulation and supervision of debt issuance. Currently, in the eurozone, regulation and supervision of debt issuance are conducted by the European Commission and the European Council.

The ECB should never provide a lender of last resort function to member states that are insolvent. Bail-out of insolvent member states must always be forbidden. However, sometimes it is difficult to

measure when a member state is illiquid or insolvent. In the eurozone, speculative attacks on solvent member states, which have liquidity problems, raise the interest rate of their stock of debt and can lead to insolvency, or members that have solvency problems become illiquid and fully insolvent due to new attacks.

The ECB took an important step in December 2011 by injecting massive amounts of three-year liquidity, against collateral, within its longer-term refinancing operations, into eurozone banks. It was necessary not only to save some illiquid eurozone banks, but also to make the monetary transmission mechanism of its monetary policy work properly. In addition, these lenders of last resort operations by the ECB have been instrumental in stabilizing the government bond markets of some member states, which were suffering speculative attacks.

De Grauwe (2012a) shows that these indirect lender of last resort operations were ill designed, given that the current banking crisis is almost exclusively caused by the previous sovereign debt crisis that emerged in 2010. After the Greek crisis was exposed, investors went into a panic and started to sell the sovereign bonds of other member states, which could be in similar situations. These member states were solvent, but they were caught in a liquidity crisis by the massive bond sales by investors, which produced a collapse of bond prices and a huge increase in interest rates. Since most of these sovereign debt bonds were held by eurozone banks, the sovereign debt crisis turned into a banking crisis.

The ECB did not intervene at the source of the problem, that is, the sovereign bond markets, and therefore, allowed the crisis to become a banking crisis. When the banking crisis emerged, the ECB delegated the power to buy sovereign bonds to the banks, trusting they would buy these bonds. But the banks themselves were then, and still are, in a state of fear, so this decision had three unfortunate consequences.

First, banks channeled only a fraction of the liquidity they obtained from the ECB into government bond markets. If the banks used only half of the liquidity to buy sovereign bonds, the ECB had to create two euros to make sure that one would find its way into a sovereign bond. Therefore, the ECB was injecting double the liquidity that it would have needed to solve the sovereign debt crisis.

Second, new waves of panic may grip the banks again, leading them to sell off more sovereign bonds, undermining the credibility of the whole longer-term refinancing operation. The ECB would need to

decide whether to continue the same policy or change and intervene directly into the sovereign bond markets.

Third, and most important, this massive injection of liquidity to banks creates moral hazard problems that are more dangerous than those resulting from directly intervening in the sovereign bond markets. Banks have unlimited sources of funding to make easy profits, and this reduces their incentives to restructure their balance sheets to make themselves more resilient in the future.

By contrast, the moral hazard risk that could have been created by intervening in the sovereign bond markets would have been smaller, now that the European Commission has considerable power to impose austerity programs. The European Commission has used in excess and in a nominal way these austerity programs, imposing a recession in most of the member states with fiscal deficits above the nominal threshold of 3 percent of GDP. As a result, the sovereign debt crisis may explode again, and the ECB may be forced to change this indirect strategy.

It is said that the ECB does not intervene directly because Germany will never accept a direct intervention, but the ECB is totally independent of any political pressure coming from any member state of the eurozone. Nevertheless, even if it would be much cheaper for the ECB to intervene directly in the sovereign debt markets than through the banks, because their liabilities are three times larger than that of the sovereign member states, it should be realized that past and present experience shows that banking crises tend to trigger deeper and longer-lasting recessions, as is the case today in a good part of the eurozone.

In sum, eurozone member states effectively issue “foreign currency debt” because their own central banks, in their lender of last resort function, cannot print the currency in which their debt is denominated. Thus, as Piero Ghezzi (2012) notes, eurozone members are exposed to bouts of fear and distrust in the bond markets, which can trigger liquidity crises, which can easily turn into solvency crises, because higher interest rates and worsening debt dynamics can become vicious cycles and effectively end in default. Moreover, the eurozone’s fixed exchange rate implies that the current sudden stops or reversals of flows that are affecting some member states in the south will have a negative impact on economic activity.

Once the investors have learned this important lesson and move beyond the “point of no return,” Ghezzi (2012) asks himself how the

ECB can move the markets from a bad equilibrium to a good equilibrium. In principle, it can eliminate the risk of acting as a lender of last resort and cap the yields at a level that ensures solvency. The target yield would need to be both sufficiently low to be consistent with debt sustainability and sufficiently high to maintain the incentives to undertake domestic reforms. Above all else, the ECB would need to be credible that it is going to defend its desired target rate.

The ECB has a large enough balance sheet to buy as much debt as needed to defend the target yield, but in practice the ECB has to be concerned about moral hazard, because moral hazard could harm the ECB's efforts to reduce deficits and has to accept the associated credit risk. Apparently, the ECB's current strategy seems to be, in conjunction with the European Financial Stability Facility, providing limited and conditional lending, but this may not be enough to avoid the bad equilibrium.

The first problem is seniority and subordination. As Ghezzi (2012) notes, the IMF lending, even if senior, could be beneficial to bondholders if it is long term and at low concessional rates, offsetting the effects of subordination. Its Securities Market Programs are indirect lending, highly concessional, and limited to the short end of the curve, and investors may be skeptical about its medium-term effects.

5. Lack of Safe Financial Assets in the Eurozone

Lacking a eurozone safe asset, bank regulators, policy makers and, above all, investors have historically treated sovereign bonds of the member states as safe. Basel I and Basel II have considered them as risk-free assets with no need for capital requirements, even if some of the assets cost up to 5 percent to insure in the credit default swap market, and the ECB accepts them in its discount operations, applying different haircuts.

National policy makers have persuaded national banks to hold large amounts of national debt, and investors have been speculating about the probability of their default. This situation has created dangerous feedback loop with eurozone banks holding more national debt than they perhaps should given the requirement for effective diversification. As the crisis in the eurozone has unfolded national governments face the possibility of banking collapses and/or bailouts without clarity over the form and extent of the fiscal support they may receive from their partners. Eurozone policy makers lack the appropriate institutions and

resources to intervene in the troubled sovereign debt markets. This has led to debate over and a search for an asset class that would halt the damaging feedback loop we now observe, with Brunnermeier et al. (2012) designing a persuasive, potentially risk free new European debt instrument.

Brunnermeier et al. propose creating a eurozone financial asset called **European Safe Bonds**, or “ESBies”. Given that Eurobonds proposals have been rejected several times, Brunnermeier et al. have sought a minimalist solution that ought to be feasible and effective, which could be transitory and lead ultimately to the creation of Eurobonds at a much later date. The following paragraphs describe their notional new asset class.

ESBies would be created by a new European Debt Agency (EDA), in accordance EU law and the existing treaties. The ESB would be safe; traded on markets and held by banks, investors, other actors and central banks. The EDA would purchase sovereign bonds of eurozone based on fixed weights that would be constant over time and not change due to crises.

The EDA would not bail out member states that could not find buyers for its debt, or faced excessively high interest rates. Instead the EDA would passively hold bonds and assets in its portfolio of assets. Brunnermeier et al propose that the agency use them as collateral to create two securities.

The first would be ESBies, which would grant the right to a senior claim to the payments from bonds held in its portfolio. They propose that if the tranche cut off is X percent, then the first X percent lost as a result of a potential eurozone sovereign default would not have any effect on the payment of the ESBies. The X percent is would be relatively large and be able to deal with a worst-case scenario of defaults or haircuts and maintain its payments.

To create the second security, the authors propose using some of the initial capital paid in by member states to the EDA to offer a guarantee of a payment of Y percent of the ESBies, that is the junior tranche. This would be sold to investors in the market. Of course this is a higher risk security. The risk that a sovereign member state might fail to honor its debts would be reflected in the expected return of this security, and realized losses would be borne by the owners of the security.

For the above proposal to possible two changes would be needed. (1) The ECB would have to grant preferential treatment to ESBies and

accept them as collateral in repo markets and discount operations, even if it still would be holding member state sovereign bonds. (2) Banking regulators and the Basel Committee of banking Supervision would have to give ESBies zero risk weight, but would not do so for other sovereign bonds. ESBies would thus be an asset as close as possible to risk free.

Investors would pay a premium for this safe asset and for the size and liquidity of their market that would be similar or very close to U.S. Treasuries, and even member states rated AAA could gain. ESBies would end the current mispricing of eurozone sovereign bonds. Banks would have a strong incentive to buy and hold ESBies. (Brunnermeier et al., 2012)

The creation of this type of new asset would have various desirable benefits. Individual member states would receive some relief from their sovereign debt problems. Its creation would not affect the taxation powers of member states. It would not necessitate changes to the EU treaties. It would be a modest but potentially effective way of dealing with the national sovereign debt feedback loop we currently observe. Finally, it could be an interim step toward, the definitive solution for achieving a true pan eurozone safe asset, which would be to have proper Eurobonds and Eurobills, like U.S. Treasury bonds and bills.

II. Management Failures

1. Not Allowing the IMF to Deal with the Greek Insolvency

Greece was the first eurozone member state to show solvency problems. George Papandreou discovered these problems when he took over as prime minister on October 9, 2009, and uncovered its very large and unexpected (for some) deficit and debt levels. The IMF immediately came to its rescue with its traditional analytic expertise, financing, and strong conditionality programs.

To everyone's surprise, the IMF's presence was rejected by ECOFIN, because Greece's problems were considered an exclusively internal issue, and because it was considered a "stigma" for any eurozone member state to accept IMF help. Unfortunately, this decision was taken without having either the necessary funds to help Greece overcome its negative fiscal situation or the knowledge and experience of how to prepare a program of reforms to deal with this kind of crisis and improve its future financial situation.

Considering the acceptance of IMF help to be a stigma was strange, for several reasons. First, Greece is one of the 188 members of the IMF, and it needed help. Second, in 1976, the IMF had to deal with the UK; in 1978, it had to deal with Italy; and in 1979, it had to deal with Spain, three large EU member states, so helping Greece would not have been a precedent. Third, before the case of Greece, as mentioned earlier, the understanding among the large majority of economists and

experts in the eurozone was that, given the no-bailout clauses included in articles 123, 124, and 125 of the TFEU, and the lack of substantial funds to deal with this kind of asymmetric shock, any member state, in case of insolvency, was required to ask the IMF for help and, later, to restructure its debt, if needed.

In this respect, it is important to remember that Greece could not join the EMU, and later the eurozone, because it could not meet the minimum financial and fiscal requisites of joining. Nevertheless, in 2001, German chancellor Gerhard Schroeder and French president Jacques Chirac decided that it should join for “geopolitical” reasons, contrary to the view of the several member states and the European Commission.

Something similar happened in 1981, when German chancellor Helmut Schmidt and French president Valéry Giscard d’Estaing decided that Greece should join the European Economic Community for the same geopolitical reasons, five years before other members like Portugal and Spain. When Greece revealed its true fiscal situation, many member states, including France and Germany, which had forced the Greek entrance, were reluctant to help.

After several months of trying to discuss a bailout package, during which Greece’s solvency quickly deteriorated, only the strong reaction of investors forced ECOFIN, with the help of the IMF, to put up, overnight—at one o’clock on the morning of May 10, 2010, before the Tokyo stock exchange opened—a much needed and much demanded large rescue fund, the European Financial Stability Facility. The Greek bailout was approved on May 19, 2010, eight months after Prime Minister Papandreou uncovered Greece’s fiscal situation and asked for help.

Had the IMF been allowed to do its expert job from the start, the euro area could have avoided not only contagion to other member states, but also the current sovereign debt and banking crisis, and, most likely, Greece would have restructured its debt in the markets without being a shock to investors.

Some economists such as Janssen (2010) think that the only aim of the Greek rescue package was to transfer the Greek sovereign debt from the balance sheets of the banks to the balance sheets of the eurozone governments, given the consequences of a Greek default. Nevertheless, in the end, it was decided to negotiate with its creditor banks a “voluntary restructuring,” which is, by definition, an oxymoron.

2. Not Allowing the EFSF to buy Debt in the Secondary Markets

The European Financial Stability Facility was not allowed to buy debt securities from the member states affected by solvency problems at very low prices and sell them after Greece had improved its fiscal situation. From March 2011, it was allowed to buy debt, but only in the primary markets and under very exceptional circumstances. Therefore, the EFSF could only make three-to-five-year loans at very high interest rates (for instance, at 5.8 percent in the case of Ireland, when the interest rate of its cost of funding was just below 2 percent). The reason was that it was agreed that a bailed out country needed to suffer a tough punishment through high financing costs for having been “profligate”—this on top of a large fiscal adjustment and important structural reforms.

The EFSF should have helped Greece, Ireland, and Portugal by buying their debt at a large market price discount in the secondary market for up to five years, to allow the countries to get out of their debt crises faster and then sell their debt five years later, making a profit. However, the EFSF was only allowed to add expensive debt on top of its existing large debt, deteriorating the countries’ solvency even more and increasing their probability of default. When a country has solvency problems, they cannot be cured only by very expensive liquidity, but also by “debt relief” or straight “debt restructuring.” The EFSF help ended up creating a debt overhang.

3. Depressing the Prices of Eurozone Sovereign Debt

At the Deauville Summit on October 18, 2010, it was decided that the EFSF should become permanent, after 2013, under the name of the European Stability Mechanism. It was not allowed to be called a “fund,” or even a “facility,” like the EFSF. At the same time, it was decided, as a trade-off, that investors should also be punished for having invested in eurozone debt of “profligate” members. This was done without taking into consideration that most of the eurozone sovereign debt was and is in the hands of eurozone banks, insurance companies, and pension and investment funds.

Therefore, the European Council decided that, after 2013, all loans made by the ESM would be senior to the eurozone sovereign debt and that eurozone sovereign debt issues would contain collective action

clauses, suggesting that eurozone sovereign debt could default and that, in case of default, private investors would pay a heavy price.

Investors reacted immediately by discounting the expected future losses, after 2013, from the present prices of eurozone sovereign debts, provoking a collapse in their prices and a large jump in their spreads, which triggered the Ireland bailout and a large increase in the debt service of some member states.

Later, in 2011, after the European Banking Authority was created in November 2010, one of its first decisions, after a tough stress test, was to force eurozone banks to provision all their sovereign debt holdings according to their credit default swap prices. The ECB obliged banks to increase immediately (in June 2011) their Basel II core capital levels up to 9 percent of their total weighted assets, when they were supposed to meet this requirement, according to Basel III, in 2018, seven years later.

The result of these two wrong decisions was a large banking crisis and a huge credit crunch in those member states that were most in need of credit. Many eurozone banks had to drastically reduce their credit balance sheets in order to meet such a tough decision.

According to Basel I and Basel II, the only risk-free asset that does not need to be provisioned is sovereign debt. By forcing banks to provision it, the sovereign debt crisis ended up unleashing a banking crisis, which becomes much more expensive to fix, given that eurozone banking assets are three times larger than sovereign debt holdings.

The U.S. financial and banking crisis was provoked by another wrong idea, which was that every American family should own a house and that it needed to be financed by the banks with the help of Fannie Mae and Freddie Mac (which were both already in serious financial difficulties). The solution was to create an asset, which was subprime, but which, through financial “pooling and tranching” engineering, became A, AA, and AAA, and was sold as that.

In the end, the U.S. financial and banking crisis provoked a sovereign debt crisis in Europe. Many European banks were hit by the subprime crisis, which provoked a serious banking crisis and a credit crunch. European governments had to rescue their banks by injecting capital and buying distressed assets (the same as in the United States), at the expense of the taxpayers. The recession that the banking crisis produced triggered more government expenditure to pay for the unemployment benefits and many other subsidies to maintain social peace.

The eurozone financial and banking crisis was also triggered by wrong management decisions but, by contrast, applied to a previously risk-free AAA sovereign debt asset, which has been converted, in some cases, into a subprime asset. Again governments need to save banks not because of a subprime asset being massively bought by banks, but because they own their own government debt, which was AAA, and has now has been downgraded.

4. Rejecting Two Well-thought-out Proposals to Create “Eurobonds”

The most efficient way to solve the current sovereign debt and banking crises is to create a eurozone sovereign bond market that is as large, deep, diversified, and liquid as that of the U.S. Treasury bond market. This means that the idea of exiting the crisis by taking a first step toward building a fiscal union has been totally rejected, at least for the time being.

Neither the Delpla and von Weizsäcker blue and red Eurobonds proposal (May 2010) nor the Juncker and Tremonti Eurobonds proposal (December 2010) were accepted. The first proposal would allow issuing Eurobonds only up to 60 percent of the debt of each member state (which is considered to be the maximum sustainable level by the TFEU) so that member states with larger debts would have to issue debt under their own guaranty, paying much higher spreads and being punished by having accumulated too much debt. Therefore, it avoided moral hazard and imposed discipline on member states with more fragile fiscal situations.

Another proposal was to create a European Debt Agency as a successor of the EFSF, which would issue Eurobonds gradually up to the amount of outstanding debt of 40 percent of the EU GDP and of each member state. The EDA would finance up to 50 percent of issuance of EU member states to create a liquid market and, in exceptional circumstances, for member states whose access to markets was impaired, up to 100 percent of their issuances. Moreover, the EDA would offer a switch between Eurobonds and existing national bonds. The conversion rate would be at par, but the switch would be made through a discount option, which would increase according to the level of market stress of the national bond.

If Eurobonds had not been rejected, not only would they have avoided attacks from the markets and contagion to other members, but they would have attracted many large international investors in AAA sovereign debt, heavily exposed to U.S. dollar treasury bonds, achieving a perfect exchange rate hedge and more diversification.

Every member state would have come out a winner, given that the size, depth, and liquidity of that eurozone bond market would have reduced average bond yields enough to become similar to those of the German bunds. This rejection is even more difficult to understand when the debt issued by the EFSF and the future ESM was a good start in advancing from the current EFSF guaranties according to the relative GDP weight of each member state in the eurozone total, to the joint and several guaranties of Eurobonds.

5. Flawed Design of the First ESM

The post-2013 ESM, which could go into effect in 2012, was originally not allowed to buy sovereign debt in the secondary markets, the country to be helped needed to pay 200 basis points over its cost of funding, and the money could only be disbursed under stronger conditionality and in exceptional circumstances. Moreover, the ESM contained three additional clauses that made it untenable.

First, as mentioned above, ESM loans, like IMF loans, would be senior to the debt bought by private investors, so that when a member state accesses the ESM, all sovereign debt in private hands would become junior and would lose its previous rating. For this reason, investors discounted their expected losses from the actual prices of their sovereign debt holdings, which provoked another strong increase in the spreads, which helped trigger the Portugal bailout.

Second, each loan would require the unanimous agreement of the eurozone member states, thus giving a veto to any single member and again increasing the probability of sovereign debt restructurings at a cost to be borne by private investors.

Third, once the European Commission and the ECB determined that a member state was insolvent, then the ESM would give the loans, but only if private investors would give loans simultaneously, which is an oxymoron, because if the member state is insolvent it is because private investors are not refinancing its debt.

6. Introducing Wrong Measures of Competitiveness in the Competitiveness Pact and the Fiscal Stability Treaty

In March 2011, the Competitiveness Pact (also variously called the Pact for the Euro and the Euro Plus Pact) chose the unit labor costs (ULCs) of each member state over the ULCs of Germany (the benchmark) as a measure of the level of competitiveness of each eurozone member state, which is not the correct measure. Germany entered the EMU at a voluntarily appreciated exchange rate, and later Chancellor Schroeder was forced to make an “internal devaluation” by reducing wages. The measure is not the correct measure for competitiveness for the following reasons.

First, most if not all eurozone member states were not competitive vis-à-vis Germany, and were also forced to produce an internal devaluation to meet Germany’s ULC, when many of them were not competing with Germany in goods or in services, inside or outside the eurozone.

Second, as shown by Gros (2010), competitiveness is a relative concept. One member state’s competitiveness gain is another member state’s loss. For instance, restoring competitiveness in Spain would require Germany and others to accept a deterioration in their competitiveness.

Third, there is no correlation whatsoever between ULC and export shares in the eurozone, as shown by de la Dehesa (2012b), Gros (2011a), and Wyplosz (2010a, 2011a).

The economic philosophy behind the Competitiveness Pact is summarized by Gros in two hypotheses, “1. if we fix (relative?) wages, no external imbalances can arise since relative costs determine export performance; and 2. higher productivity [leading to lower ULC] always means more ‘competitiveness’” (Gros 2011b, 1). Both hypotheses seem to make sense, but on closer inspection, neither corresponds to reality.

First, losses in (relative) ULC by Greece, Ireland, Portugal, and Spain have not affected their share of exports of goods and services in the eurozone or the EU, which have been flat for 10 years.

Second, losses in (relative) ULCs have not affected their export performance either, (measured by their compound rate of growth of exports of goods and services over the last 10 years), by losing competitiveness. Estonia, the member that had the largest increase in ULC is the best export performer, just above Germany, in second place and the member with the highest reduction of ULC. Spain, with the second-largest decline in ULC, is the third-best performer, just behind Germany.

Third, increased productivity means lower relative ULCs and more competitiveness. Unfortunately, reality contradicts this hypothesis, as well. Over the last decade, the member states with the highest growth in productivity have experienced the highest loss in competitiveness, measured by relative ULC. The reason is that wages are endogenous and react to productivity growth, and if the shock is perceived to be permanent, the permanent income of workers will increase.

On the one hand, permanent income should lead to stronger demand for consumption, leading to a tighter labor market and thus higher wages. On the other hand, higher productivity leads to higher investment, and therefore wage increases end up outpacing the gains in productivity in the short run.

The reality is that macroeconomic imbalances of the southern member states were caused mainly by domestic demand booms, in turn driven by capital flows, due to the one-size-fits-all policy of the ECB between 2002 and 2005. This policy provoked booms in housing investment and consumption in those member states with higher inflation rates, and therefore larger negative real interest rates, as shown in the first part of this paper. Unfortunately, the Competitiveness Pact has been incorporated without any change to the current 2012 Fiscal Stability Treaty.

7. Maintaining SGP Fiscal Deficit Nominal Targets in the Fiscal Stability Treaty

The great advance of the Fiscal Stability Treaty is to switch from nominal targets for deficits to structural targets, taking into consideration the position of each member state in the business cycle. Many of the eurozone member states that in 2010 accepted reaching a 3 percent deficit-to-GDP ratio in 2013 were expecting a much higher rate of GDP growth than is going to be the case. Even worse, in some member states, growth is going to be negative, so it will be impossible to meet the nominal target of 3 percent.

According to the July 2012 IMF “Fiscal Monitor” and the April 2012 “Statistical Annex of European Economy,” the eurozone as a whole will be just able to meet the 3 percent general government deficit in 2013, but, in principle, it will not be met by Belgium, France, Ireland, the Netherlands, or Spain, among others. Portugal might also meet the target, and Austria, Finland, Germany, and Italy will meet it with ease.

For member states that are not going to meet their nominal fiscal target in 2013, to force them to do so, when most of them will comply with their structural target that year, is absurd. Their GDP growth rate will become negative, or even more negative, and might be subject to self-fulfilling attacks ending in an even more difficult fiscal situation. Austerity is necessary for some member states that have expenditures in excess of revenues in order to be fiscally credible, but at a pace that needs to be feasible.

The structural deficit is going to become difficult to measure correctly because potential GDP growth measures are extremely complex. This is the reason why all potential GDP measures should be done by an independent and trusted research center and not by the member states or even the European Commission. In the United States, the most trustworthy research center is the National Bureau of Economic Research, which is in charge of determining the position of the U.S. economy in the cycle and the start and end of the cycles.

8. Creating a more Complex and Difficult Governance

With the new Fiscal Stability Treaty, (the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union), the governance of Europe becomes increasingly complex and diverse. Until now, there was the EU, with 27 member states, and the eurozone, with 17 member states, expecting that, in the long run, the full 27 would eventually join the eurozone. Now, the Fiscal Stability Treaty adds a third layer of 25 member states, which are expected to ratify the new treaty, not yet approved by the Czech Republic or the UK. The Fiscal Stability Treaty changes the traditional trend toward communitarian governance to a new trend toward intergovernmental governance.

Moreover, these three groups of members are not stable and may have different attitudes. For instance, non-eurozone members that do not intend to join in the near future will be interested in limiting the spill-over effects from the eurozone group, while members that want to join are concerned about the current situation making it increasingly difficult for them to join. Finally, the three superimposed layers are not homogeneous legally, economically, or politically. As a result, the decision-making system has become more complex and increasingly difficult to manage.

Pisani-Ferry, Sapir, and Wolff (2012) show that two tensions will arise because of the Fiscal Stability Treaty. First, some eurozone members fear that they will permanently have to make financial transfers, while recipient members find that the conditions associated with such transfers are overly demanding. Second, the complexity of the current set up implies a significant drag on economic efficiency, given that there is an overlap among the members of the EU 27, those of the eurozone, and those of the Fiscal Stability Treaty.

The current governance produces an unsatisfactory decision-making process, given the unsatisfactory allocation of competences between eurozone versus non-eurozone members. Three alternative scenarios might occur: a two-speed EU, with a coherent eurozone; a fragmented EU, with a fragmented eurozone; or an EU with generalized variable geometry even within the eurozone.

The first scenario would imply that the eurozone evolves from a monetary union with some fiscal rules, to a full-fledged monetary union with a fiscal and banking union. It would have a democratically legitimate political center able to impose on national budgetary decisions, a federal budget with direct access to tax resources providing some degree of stabilization to the member states, and public debt management capability. It would have a eurozone banking supervisor, a banking deposit insurance mechanism, and a banking resolution authority. It would, however, result in a two-speed Europe between the EU members and the eurozone members, but the eurozone would have a qualified majority within the EU Council.

The second scenario would be the opposite, with either a majority or a minority of eurozone members deciding that they are unwilling to cede further fiscal and financial sovereignty to the center. That would represent a process of degeneration of the eurozone and the EU, with several coexisting monetary policies within the eurozone.

The third scenario would be a continuation or even a further development of the variable geometry architecture witnessed in recent months; that is, some eurozone and EU members would ratify the Fiscal Stability Treaty, and eventually could sign other intergovernmental treaties aimed at reinforcing the fiscal and financial dimensions of the EMU. Being a less confrontational scenario than the second, this scenario would not achieve the kind of decision-making coherence and efficiency necessary to ensure a smooth functioning of the monetary union.

Pisani-Ferry, Sapir, and Wolff (2012) suggest the following five objectives to guide decisions on governance: first, allow for a deeper integration within the eurozone that extends past the limited remit of the Lisbon Treaty; second, preserve the integrity of the EU 27 and its essential governance agreements; third, ensure equal treatment in the application of common rules; fourth, ensure that EU members that are candidates for eurozone membership have a voice in the definition of its core principles and rules; and fifth, balance the requirements of legal clarity, accountability, and efficiency with the desirability of experimentation with variable geometry.

III. Conclusion

In sum, the three bailouts affecting some of the weakest member states in terms of solvency, and the expected two soft bailouts to other member states still solvent but with liquidity problems, have been triggered by eurozone design and management failures, which have created large uncertainties among investors and contagion among member states.

It may be that this is the only politically feasible way to walk slowly toward a future fiscal union, a single fiscal policy, and a banking union, but these series of failures in the eurozone design, governance, and management of the crisis have not been able to solve the current eurozone crisis, and they have proved extremely costly and painful for some member states and for many eurozone citizens.

The eurozone is in reality quite a closed economy compared to the rest of the world in the sense that it has no current account surplus or deficit, and all its members are in the same boat given that surpluses in some member states are the counterpart of deficits in other member states, and surplus members have financed their surpluses of exports of goods and services to the deficit countries. Moreover, the competitiveness of some members comes at the expense of the competitiveness of others. These are the reasons why all member states together should be able to find a consensus and a more cooperative way out of the current difficult situation to really try to stabilize the eurozone and the euro for good.

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1726 M Street, N.W., Suite 200
Washington, D.C. 20036
ISBN 1-56708-159-2