

Private Union Bonds as an Exit from the Greek Drama

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Abstract

Greek public finances have triggered a crisis of confidence in the euro. Governments have rescued the euro and the Republic of Greece by setting up a European Financial Stabilisation Mechanism. This has temporarily cooled market excitation, but it could pose serious constitutional problems, if a sovereign debtor defaulted after having received rescue credits. This could have devastating consequences for Europe's future. A possible way out of the crisis could be the issuance of a private securitized asset called Union Bonds, consisting of individual government bonds of the Euro Area. It would provide liquidity to the banking system even in case of a default and could raise funds for governments making necessary fiscal adjustments. It would, therefore, protect the private sector and support growth in the Euro Area. By structuring Union Bond securities in high and low risk tranches, one could circumvent the constitutional problem.

Anguish about the Hellenic Republic defaulting on its debt has pushed the euro into its first real crisis. Concerns then spread to other Southern European countries. Because Europe's financial markets are highly integrated and banks hold a large part of public debt, a sovereign default by any Euro member state would be far more dramatic than the Lehman bankruptcy in 2008. Responding to signs of an imminent systemic market crash on 9 May 2010, the European Council has established the *European Financial Stabilisation Mechanism*, which consists of loans and credit lines and draconian measures of fiscal consolidation. As part of the package, the European Central Bank has started to conduct open market operations with government debt titles.

These fire-fighting measures have prevented a collapse of the European banking system. However, they can only be justified if one assumes that sovereign debtors are fundamentally solvent and that Greece only faces difficulties in re-financing existing obligations due to speculation "against the euro". Yet, many observers believe that the budget difficulties in Greece and possibly in other Southern countries are structural and have not come to an end. Thus, fiscal consolidation is necessary to assure long term debt sustainability. However, the harsh consolidation programs with severe spending cuts and higher taxes may reduce economic growth and future government revenue and, thereby, unintentionally undermine the consolidation efforts. To cover this risk, it is necessary to include provisions into the *European Financial Stabilisation Mechanism* that could ensure financial stability even if a sovereign debtor defaulted.

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Without such a device, a sovereign default *after* having received support under the *European Financial Stabilisation Mechanism* could not only shake Europe's and the world's financial system; it would also cause constitutional problems for the European Union and member states. The Lisbon Treaty, art. 125, states unambiguously that neither the Union nor member states shall "be liable for or assume the commitments" of public authorities in the EU. This means that governments are allowed to make loans to other governments, because it is expected that the lender will get the money back; but if the debt is restructured and part of it is forgiven, lending countries would have "assumed" the commitment and their taxpayers would have become liable for debt in defaulting countries. This is not a banal issue. It could lead to the rejection of the *European Financial Stabilisation Mechanism* on constitutional grounds. In Germany, a group of eurosceptic politicians and academics have already asked the Constitutional Court to stop the government from making loans to other governments in the Euro Area. The long term consequences for the legitimacy of European integration could be disastrous. If taxpayers would have to pay for policies pursued by governments in other member states over which they have no control, the fundamental principles of modern democracies would be violated ("no taxation without representation") and a severe backlash against European integration might become inevitable.

Three ways of dealing with Europe's sovereign debt crisis are under discussion: muddling through, breaking up the Euro Area, or making it stronger. For the moment, the governments in the European Council have adopted the first approach. They hope the *European Financial Stabilisation Mechanism* will work and seem to agree that the European Commission should strengthen the budgetary surveillance mechanisms (although they are already cutting back on the practical proposals made by the European Commission²). They act as if they believed that imposing taxes on financial transactions and simply waiting long enough, will make the crisis go away. Seeing how much political incompetence has contributed to the crisis in the first place, it is unlikely that this wait-and-see solution will work. The Greek crisis has revealed a fundamental *political* problem, to which financial markets simply react; they are not the cause of it. The root problem is that governments are autonomous in the conduct of fiscal policy, while their actions have external effects for all others. Europe needs a political mechanism that internalizes these external effects.

This idea is unacceptable to Eurosceptics, who have therefore suggested that some member states should at least temporarily suspend membership in the Euro Area. They treat monetary union as if the Euro were a fixed exchange rate regime. We will now quickly discuss the fault of such reasoning. We will then make the proposal to solve Europe's financial problems by issuing private Union Bonds. This would strengthen the euro and internalize at least some of the economic externalities that result from autonomous fiscal policies.

Breaking up the euro?

²<http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/10/204&format=HTML&aged=0&language=EN&guiLanguage=en#footnote-1>

The idea of even a temporary suspension of euro-participation³ is based on a fundamental misunderstanding of the nature of monetary union, and would undermine not only fiscal consolidation, but the very existence of the euro and in the last instance of European integration itself.

Contrary to currency boards, a monetary union is not defined by permanently fixed exchange rates. In fact member states in the Euro Area no longer have national monies, and therefore they have no exchange rates to fix. The essence of the currency area consists in unrestricted access for all commercial banks to central bank liquidity from the ECB. Central bank liquidity is “money”, the ultimate asset that extinguishes debt contracts. A monetary union is defined by the fact that all economic agents, namely firms, governments and citizens, use the same currency, which they obtain from the central bank through the commercial banking system. Money makes the identity of an economy, not the borders of the jurisdiction or the feelings of communitarian belonging.

A further, and related, mistake is the thinking in old categories of resource balance, i.e. insufficient savings.⁴ This argument has even led some observers to compare Greece to Argentina.⁵ First year students learn that resources are limited and that an economy cannot consume and invest more than it produces, unless foreigners close the gap. The current account balance is the difference between domestic savings and investment and a deficit signals that capital inflows (i.e. foreign savings) supplement domestic savings. This transfer of foreign resources lowers a country’s net foreign assets or increases its external debt. When foreigners are no longer willing to lend, or withdraw funds, a deficit country runs out of reserves and this fact is the ultimate constraint on the resource balance. In monetary union, however, the resource balance applies no longer to individual member states, but to the monetary economy as a whole, because foreign exchange reserves are held by the central bank and any commercial bank, regardless of its location, has unrestricted access to it. Thus, the common and unrestrained access to central bank money abolishes constraints on *national* resource balances, because individual member state economies cannot run out of reserves. Only the current account for the Euro Area as a whole matters for the savings-investment balance: within the Euro Area, the ECB controls money supply and sets the budget constraint for the banking system. Households, firms and governments keep their savings with commercial banks, which allocate these financial resources to the most

³ Martin Feldstein has suggested Greece should take a holiday from the Eurozone (<http://www.ft.com/cms/s/0/72214942-1b30-11df-953f-00144feab49a.html>). Echoing a proposal by her Finance Minister Wolfgang Schäuble (in Financial Times Deutschland, 12.3.2010 <http://www.ftd.de/politik/europa/:gastbeitrag-in-der-ftd-schaeuble-droht-sparverweigerern-mit-ausschluss-aus-der-eurozone/50087381.html?mode=print>), the German Chancellor Angela Merkel has called on 17 March 2010 in a parliamentary debate for a change of the European Union Treaty that would make it possible to exclude a member state “that repeatedly does not fulfill the conditions” (“dass wir für die Zukunft ein Vertragswerk bekommen, aufgrund dessen es als Ultima Ratio sogar möglich ist, ein Land aus dem Euro-Raum auszuschließen, wenn es die Bedingungen langfristig immer wieder nicht erfüllt. Sonst kann man nicht zusammenarbeiten“). ECB President Trichet has given the only reasonable response: „Absurd!“ (http://uk.finance.yahoo.com/news/highlights-trichet-comments-at-ecb-press-conference-reuters_molt-49e736b08258.html?x=0)

⁴ This argument was made by Daniel Gros, *Greek burdens ensure some Pigs won't fly*; in Financial Times, January 28 2010. It misunderstands the fundamental mechanisms of monetary unions because it confuses the political unit of “a country” with the economic unit, which is the currency.

⁵ Domingo Cavallo, interviewed by BBC, 5. May 2010: http://www.bbc.co.uk/worldservice/news/2010/05/100505_greece_argentina_wt_sl.shtml

profitable projects, regardless of where the investment opportunities are geographically located. In other words, the European banking system collects the total amount of savings in the Euro Area and redistributes it according to risk-return considerations.

Hence, the idea that member states should balance their current accounts within the Euro Area is nonsense. A current account deficit in less developed regions can be a sign for catch-up growth, if capital inflows fund attractive investment opportunities. It could also indicate a loss of competitiveness if regional unit labour costs are higher than in partner states. In the first case, the current account deficit is desirable, in the second it is a sign of weakness. A “good” current account deficit is correlated with economic growth, a “bad” one with stagnation. The same is true for government borrowing. If public debt finances investment, it may accelerate growth and increase the current account deficit; but if the government borrows for consumption purposes, it may slow down economic growth. However, when government deficits rise because economic growth is hampered by the loss of competitiveness, public debt is unsustainable. Financial markets may then no longer be willing to fund sovereign debt because they worry about defaults caused by insufficient revenue. The way out is then to improve competitiveness by rising productivity. However, improving productivity requires investment, which is funded by financial markets and the deeper and larger markets are, the better it is.

Text book economics argues that when a country suffers from insufficient competitiveness devaluing the exchange rate could solve the problem of. However, the experience with flexible exchange rates in small open economies has proven this argument wrong: devaluations import inflation and often initiate a vicious circle of further devaluations. Furthermore, given that all debt in the Euro Area is denominated in euro, an exit from the euro *cum* devaluation will increase the debt burden for the whole economy. In the recent financial crisis, member states outside the Euro Area (with the exception of Poland) have not performed better than those within the Euro Area. The correct answer to Southern European competitiveness problems is not to exit the euro, but to implement structural supply-side reforms and improve productivity; but this supply-side approach needs to be complemented by sustained demand in the Euro Area, for otherwise investment will remain low and productivity-raising innovations will not be integrated into the capital stock. Hence, improving competitiveness does not happen overnight. It takes time. Firms need to borrow to invest; governments need to compensate for the lack of private demand and finance the adjustment process. These funding requirements require large and deep financial markets. Credit is most efficiently obtained through a fully integrated banking system rather than in small currency markets with flexible exchange rates. Therefore, exit from the Euro is no solution.

Having a “bad” government does not imply that the “country” or its industries are also “bad”. One must distinguish between governments and the private sector, between sovereign and private debt. While the mechanism for liquidity provision to private banks by the central bank, and the distinction between private and public borrowers present a powerful argument for why a defaulting government should *not* leave the Euro Area, the question remains what to do with a member state that does not honour the commitments undertaken under the Treaty. Exclusion from the euro, as suggested by Chancellor Angela Merkel would be outright harmful: it would punish the wrong actors, namely the private sector, and would undermine investment and growth in the excluded member state. This makes consolidating public debt *more* difficult, not easier. Politically it amounts to a *Diktat* by a majority of member states over a minority. This is unacceptable.

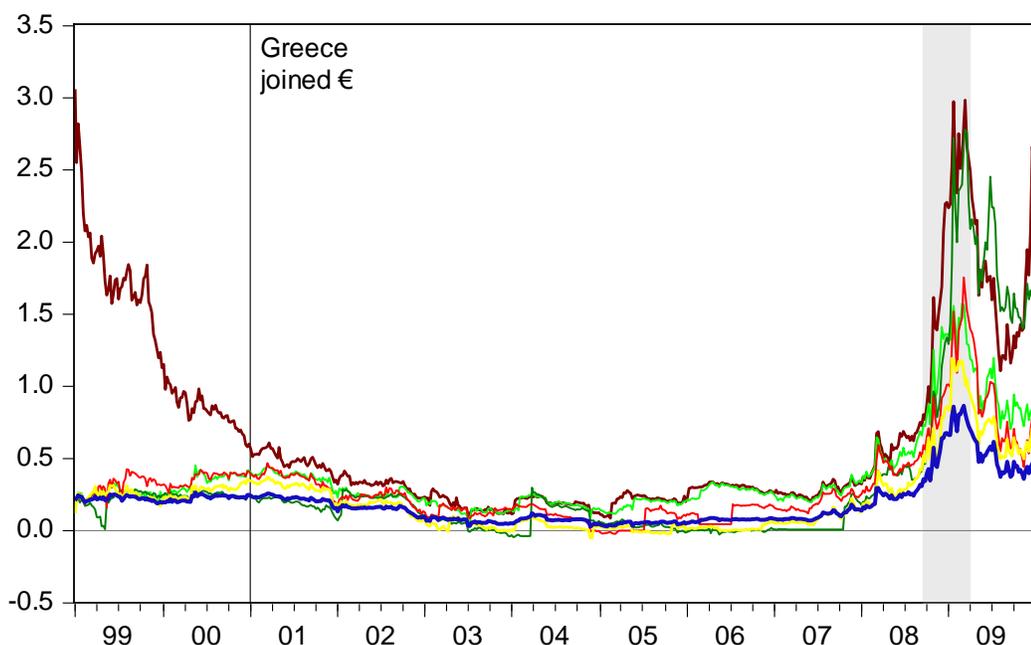
Europe needs a form of government that can implement policies in the interest of all European citizens.

Strengthening financial market integration by issuing private Union Bonds.

An important reason for the panic in financial markets over the Greek crisis was the lack of procedures for an orderly sovereign default. Initially there was doubt about the Government's capacity to refinance its maturing debt. Later questions were raised about the Hellenic Republic's solvability and the need to "restructure" the debt, i.e. to cancel part of it. These worries then spilled over into the banking sector as it was unclear how banks' balance sheets would be affected by a default. In the end panic was projected on whole countries without distinction between sovereign and private debtors. However, unless grave political mistakes are made, a sovereign default is not necessarily fatal for European Monetary Union. Provided the banking system remains liquid, there is no need for "a country" to leave the Euro Area. Orange County in California did not leave the USA, nor did the City of New York take a holiday from the dollar zone, when their authorities defaulted on debt obligations. The real risk of a sovereign default is not that the Euro Area will break up, but that the impact of a defaulting government on bank balance sheets in Europe could destabilize the banking system. A mechanism is therefore needed that keeps banks afloat, even if a government cannot pay its debt.

Proper provisions for sovereign defaults would also have given greater credibility to the no-bail-out clause without necessarily destabilizing the financial system. According to the Maastricht Treaty philosophy, markets were supposed to discipline governments, in addition to the Stability and Growth Pact, because the no-bail-out clause in the Treaty (art.125) should have signaled to investors that they could not *count* on money from other governments. However, in reality, markets did not distinguish between different sovereign risks within the Euro Area during most of the last decade. Figure 1 shows that yield differentials were nearly inexistent until the financial crisis broke in 2007. Furthermore, earlier Greek governments have fraudulently hidden the extent of public borrowing, sometimes with the very help of banks, which were expected to signal that borrowing was getting too high. By all likelihood, markets considered that European sovereign debtors were effectively too big to fail. Thus, unless Europe has rules for letting governments fail without damaging the rest of the economy, the no-bail-out clause has no bite. This chapter proposes a solution.

Figure 1.
10-year Government Bond Spreads to Bund



Source: Bloomberg



Consequences of a sovereign default

What would happen if the Hellenic Republic, or another sovereign debtor, could no longer meet its obligations? While European monetary union by definition grants commercial banks unlimited access to ECB liquidity, the Treaty states explicitly that governments do not have this privilege.⁶ Governments must borrow through financial markets and use banks as financial intermediaries. Even if the ECB will now buy government bonds from banks in the open market, it will not give direct credit to member states. In other words, governments compete in financial markets for funds, and credit is allocated according to risk-return considerations. However, the prominent role of public debt in banks' balance sheets renders the banking system vulnerable. A default could weaken commercial banks' liquidity position, reduce profitability and in some cases even threaten their solvability. Thus, as the risk of default rises, banks will restructure their asset

⁶ Article 123 of the Treaty on the Functioning of the European Union: "Overdraft facilities or any other type of credit facility with the European Central Bank or with the central banks of the Member States (hereinafter referred to as 'national central banks') in favour of Union institutions, bodies, offices or agencies, central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of Member States shall be prohibited, as shall the purchase directly from them by the European Central Bank or national central banks of debt instruments."

portfolios. Experience shows that such portfolio reallocations often respond to information shocks and cause major financial disruptions. The unexpected revelation about the true value of the Greek deficit has been one of the triggers of the euro crisis. However, financial shocks are always compounded if liquidity and solvability considerations overlap. The *European Financial Stabilisation Mechanism* has linked fiscal consolidation to granting borrowing facilities by governments in order to address the solvability question. However, the provision of liquidity to the banking system is a task for monetary policy.

In the initial period of European monetary union, the ECB used to accept all member state government bonds automatically as collateral. In 2005 it restricted the collateral list to investment grade (A-rating), but in October 2008, it announced that it was allowing borrowers (commercial banks) as a temporary anti-crisis measure to put up a broader range of collateral, including assets with lower credit ratings (as well as assets denominated in currencies other than the euro). Thus, the Eurosystem lowered the credit threshold for marketable and non-marketable assets from A to BBB- (with the exception of asset-backed securities), and imposed a haircut add-on of 5% on all assets rated BBB-. Originally, the expanded eligibility criteria were to remain in force until the end of 2009, but this facility was extended indefinitely on 3 December 2009. The ECB has now confirmed that it will continue to accept Greek government bonds as collateral.⁷ On 10 May it also announced that it will buy some titles in the open market.⁸ These measures are designed to sustain the liquidity of the banking system and to prevent a systemic meltdown.

However, the ECB has not indicated which government bonds it is likely to buy. Given that it seeks to remedy disfunctionalities, one may expect that it will intervene in markets where yield spreads indicate that investors are dumping sovereign bonds out of fear for a default. But this could put the ECB in a weak position. On the one hand asymmetric interventions would distort the bond market, which is supposed to price the default risk for sovereign bonds. On the other side, the ECB could be accumulating debt of low quality and it might, in the end, be sitting on a pile of nonperforming assets if the government were to default.⁹

Thus, a sovereign default after a government has obtained liquidity support from the *European Financial Stabilisation Mechanism* could have devastating consequences: it could destabilize not only specific commercial banks, but even the heart of the financial system, namely the central bank. A default would also cause a constitutional crisis, because member states would have de facto “assumed” the liabilities of another member state and this could lead to a breakdown of the trust and legitimacy on which the European integration project is based. Chancellor Merkel was right when she finally recognized: if the euro fails, Europe will fail.

⁷ <http://www.ecb.int/press/pr/date/2010/html/pr100503.en.html>

⁸ “In view of the current exceptional circumstances prevailing in the market, the Governing Council decided: To conduct interventions in the euro area public and private debt securities markets (Securities Markets Programme) to ensure depth and liquidity in those market segments which are dysfunctional. The objective of this programme is to address the malfunctioning of securities markets and restore an appropriate monetary policy transmission mechanism. (...)”
<http://www.ecb.int/press/pr/date/2010/html/pr100510.en.html>

⁹ For example, the ECB’s capital is approximately € 75 bn, while Greece’s outstanding debt is about € 200 bn. Some observers have speculated in the past that restructuring Greek debt could imply wiping out € 80 bn in order to bring it down to 60% of GDP. Such a haircut amounts to more than the ECB’s share capital. Of course, the ECB would never buy *all* Greek debt, but these figures give some indication of the sums involved, if the central bank would seek to stabilize Greek bonds by open market operations.

The risk pooling solution

An elegant solution to minimize these dangers is the pooling of sovereign risks. The French minister for European Affairs Pierre Lellouche has compared the *European Financial Stabilisation Mechanism* to article 5 of the NATO Treaty: it establishes institutional solidarity between member states.¹⁰ Yet, there is an important difference between the solidarity against an external threat and the need to correct misbehavior by governments of member states of the Union. The danger is "moral hazard". Why would the Greek, or any other government in similar circumstances, engage in painful reforms, if they could count on others paying their bill? Of course, if the "bail out" consists in loans which will be disbursed gradually over time, the support can be made conditional on the implementation of structural adjustment packages. However, this challenges traditional ideas of national sovereignty and democratic legitimacy. Solidarity will not work without loyalty. The modalities of European solidarity still need to be worked out and they may well go beyond the existing Lisbon Treaty.¹¹ In the meantime, pooling financial risks could have stabilizing effects on the euro.

Why should governments pool their financial risks? Why should commercial banks reduce their risk exposure to sovereign debtors? The only valid justification is: to prevent further damage for their citizens and shareholders. Yet, the potential damage is asymmetric. Some countries, mostly in Europe's south, are harder hit by speculation than others. A default would affect private banks very unequally. Other than Greek commercial banks, which own € 40bn outstanding debt, French, Swiss and German banks are the biggest creditors of the Republic of Greece. France and Switzerland each have exposure of € 58bn, Germany of € 32bn.¹² The collective exposure of the banking systems to the Piigs (Portugal, Ireland, Italy, Greece and Spain) is \$ 2.9 trillion. The bulk of that exposure is located in the banks of Germany (over €500bn), France (just below €400bn), and the UK (around €350bn). French and German banks have 24% and 21% of their foreign total claims harboured in these countries. It would be politically unacceptable and economically inefficient if different rules applied to different countries, say for example, because some are "too big to default", and others are not.¹³ European solidarity requires that the negative consequences of asymmetric shocks are absorbed by some common mechanism.

¹⁰ "The €440bn mechanism is nothing less than the importation of Nato's Article 5 mutual defence clause applied to the eurozone. When one member is under attack the others are obliged to come to its defence."
<http://www.ft.com/cms/s/0/d6299cae-69b5-11df-8432-00144feab49a.html>

¹¹ See my books: *Pour la République européenne* (avec Christian Paul); Odile Jacob, Paris, 2008 ; *Viva la Repubblica Europea!*, Editore Marsilio, Venezia, 2008; *Bundesrepublik Europa? Die demokratische Herausforderung und Europas Krise*. Vorwärts Verlag, Berlin, 2007 ; *Vive la République européenne*; Éditions de La Martinière, Paris, 2004; *The European Republic. Reflections on the Political Economy of a Future Constitution*, The Federal Trust, London, 2003

¹² Eurohypo, a unit of Commerzbank, has an exposure to Greece of €3.1 billion. Rival Hypo Real Estate Group, which since its nationalization in October 2009 has been operating under the Deutsche Pfandbriefbank AG brand, has exposure of below €10bn to Greece. Deutsche Postbank, owned by Deutsche Bank, carries Greek government bond exposure of nearly €1.3 billion. Crédit Agricole, which owns Emporiki Bank in Greece, has about €23bn in loans there.
<http://www.guardian.co.uk/business/2010/feb/11/greece-debt-france-switzerland/print>

¹³ Such asymmetric policy behaviour has characterized the Bundesbank's reaction to the ERM crisis in 1992. It gave unconditional support to France, but not to Britain. The consequence has been irredeemable Euro-hostility in the UK.

In a federal Union, fiscal transfers function as the shock absorbing mechanism. A central government grants funds to the states, as in the USA. Alternatively, horizontal transfers between rich and poor member states may be constitutionally imposed, as in Germany. Such federalist models are not acceptable in the European Union. Chancellor Merkel has frequently repeated German opposition to a “Transfer Union”. Prior to the Maastricht Treaty, economists have often argued that a monetary union needs a large federal budget. But government spending in Europe, which is over 46% of the Euro Area’s GDP, is controlled by member state governments. Only 1% of the Union’s GDP is spent through the EU budget. Hence, national governments have exclusive control over fiscal policy. They can contract national debt and are responsible for reimbursing it, although their national policies of one have external effects for everyone in Europe. A European shock absorbing mechanism must respect this national responsibility and simultaneously reduce risks and uncertainties for the Union as a whole.

Pooling national sovereign debt into a European portfolio could achieve precisely this task. Portfolio theory has shown that combining assets with different characteristics in a unified portfolio reduces volatility (uncertainty) and increases returns relative to risk. This stabilization effect could be used to integrate the European bond market and protect government loans against sovereign defaults. This can be done by creating an asset backed security, consisting of collateralized government debt obligations, which we will call private Union Bonds (UB).

The economics of private Union Bonds

Union Bonds are issued by a specially designed Union Bond Trust (UBT), which can be set up by private banks and/or semi-public entities. The Trust buys public debt from banks and other investors. The securities will essentially be government bonds, but they could be extended to loans made by governments under the *European Financial Stabilisation Mechanism*. This would remove the risk that governments are liable for other states in case of a sovereign default. The Trust would become the owner of a pool of national debt titles (the collateral). In order to substantiate the notion of European solidarity, the composition of the Trust’s assets will reflect the national shares in the ECB capital. Thus, individual government debt titles are the Trust’s assets, Union Bonds are the liability of the UBT.

The UBT sells Union Bonds to investors, which are banks, pension funds, insurance companies, foreign Sovereign Wealth Funds, etc. Government treasuries can also be buyers of Union Bonds. Investors buy Union Bonds and receive payment derived from the income of the collateral according to a defined structure of tranches. This allows pooling the risks and returns of different national debt titles and to structure them so that they reflect the needs and preferences of investors and debtors in. Union Bonds could cover the full range of the yield curve. They are tradable in capital markets, where the overall quality and credit-worthiness of sovereign borrowers is constantly evaluated. Yet, as a portfolio, Union Bonds are less vulnerable to the hazards of international rating agencies because they reflect a weighted average of securities. Union Bonds therefore contribute to the integration of the European bond market.

Potential risks are the *default* of a collateral component, which may affect the debt service (if a borrower suspends payment) and/or the principal (in case of debt restructuring). There is also an *interest* risk, which results from high yield spreads for different national government bonds. If

the UBT holds assets with early repayment clauses, there may also be a *repayment* risk. Institutions that sell individual government debt titles to the UBT, such as banks, insurance companies, but possibly also the ECB, will gain by removing potentially non-performing assets from their balance sheets and lower their risk exposure. However, given the quality of the underlying assets, Union Bonds should have no problem to be rated in the high A's. Hence they would qualify for European Central Bank collateral in repo transactions or in open market operations.

The issuance of private Union Bonds could contribute to the denouement of the Greek crisis in three ways. First, it could overcome bottlenecks in funding the Greek adjustment program by bundling newly issued Greek debt of low quality with outstanding debt of high quality. This does not mean that governments would issue a joint bond, something that governments with good signatures and low interest rates like Germany, would always resist. In fact, governments would still issue debt on their own, but the UBT would bundle them into the Union Bond portfolio. The advantage is that the fund can provide demand and liquidity for the new issue, which otherwise may be absent. Union Bonds could therefore provide funding during the adjustment period with minimized moral hazard problems, while vigilant markets assess default risks on an individual country by country basis. Second, Union Bonds can reduce the cost of borrowing for governments during the adjustment period, because the UBT will become a major buyer of individual government debt titles. It can thereby prevent that fire sales push yields to excessive levels. Third, it could reduce the risks of a banking crisis following a sovereign default, because banks can diversify their risk exposure orderly in advance. These three factors would restore stability in the financial markets and regenerate trust in the euro. Although they may not actually prevent a default, their main advantage is the separation between sovereign and private debtors. Because banks would not have to fear liquidity bottlenecks, they would continue to fund profitable investment opportunities and thereby support economic growth and the sustainability of debt. The transformation of isolated national bonds into securitized Union Bonds would therefore give credibility to the no-bail-out clause in the Treaty of the European Union.

Private Union Bonds are bought by financial institutions. What are the micro incentives for investors to buy and hold such bonds? For long term investors, there is merit in having a diversified note, although in times of deep stress some risk loving bullish investors may want to buy direct, while bears would not touch the risky element. Nevertheless, if financial institutions wish to diversify, their capacity for eliminating sovereign debt with large default risks from their balance sheets is constrained by the willingness of others to buy such paper. In our proposal, the UBT is providing the necessary demand. Without it, an acute default panic could lead to a speculative run, destabilizing all European bond markets and not only those of the defaulting state.

On the other side, why would investors swap highly liquid German or French government paper into the Union Bond? The simple answer is that Union Bonds yield higher returns for less risk. See below. Investors may also gain by the swap itself. The UBT would buy, say, German Bunds at market rates and this demand may push prices up and yields down. The seller would realize capital gains and thereby lower the yields for Union Bonds as well, although proportionally less. The swap would lock in higher yields on Union Bonds.

Nevertheless, why should banks securitize public debt according to an institutionally determined key for portfolio shares (i.e. the ECB's paid-up capital), when they could structure any portfolio they wish? There is no obvious answer from a purely private market point of view. However, weights that reflect the ECB share capital would express European solidarity. This is particularly true as the weights of most member states in the ECB share capital are close to the weights of national debt in the total outstanding public debt of the Euro Area. The only exceptions are Italy, which holds 18.1% of the paid up ECB capital, but 27.1% of the debt, and Spain, where the relation is the opposite: 12% against 6.7% for debt. Thus, using political weights like ECB capital shares matches closely the risk distribution of overall public debt

In addition to the stabilizing portfolio effect, some incentives may be needed to ensure the success of Union Bonds. These incentives need to deal primarily with liquidity and risk-return considerations, although one could also consider marginal tax incentives for holders of Union Bonds, if this is politically desired.¹⁴ With respect to liquidity, the most important institutional support is the eligibility of Union Bonds as acceptable assets monetary policy operations of the Eurosystem. Given that the UBT would contain a high portion of AAA rated Government Bonds, Union Bonds can be expected to be rated AAA, too. This makes their acceptance by the ECB a pure formality.

Of greater importance are risk-return considerations. For some investors the average yield of a Union Bond portfolio may seem unattractive. Other may specifically value the risk reduction compared to individual government bond. However, most importantly, governments that have lent money under the *European Financial Stabilisation Mechanism* must be concerned to protect themselves against capital losses that could be seen as a debt assumption of other member states' debt in case of a default. In order to deal with these issues it would be possible to adjust the payment structure of securities issued by the Union Bond Trust as a waterfall. For example, the "principal only" (PO) tranche of the Union Bond has highest priority over other debtors in case of a partial default, but it would receive interest remuneration only at the rate of the lowest national government bond (presumably German Bunds). Governments could then buy this tranche and give taxpayers the maximum certainty that they will get their money back. The excess yield from the UBT's income is paid out to investors in the sub-par tranche. Thus, investors who buy this tranche would get higher yields, but they would also run higher risks. In order to avoid excesses in the sub-prime market as one has witnessed in the US sub-prime mortgage market, financial regulators could impose prudency rules. Structuring Union Bonds in this way makes it possible to sell Union Bonds to risk adverse investors, such as government agencies, and also to more high-yield oriented investors in the private sector. It is an elegant way of avoiding the constitutional problems of a bailout.

There could be additional incentives. European or national intuitions, such as the European Investment Bank or Kreditanstalt für Wiederaufbau in Germany, Caisse des Depots in France or Cassa depositi e prestiti in Italy could become shareholders in the bond-issuing Trust. This would add credibility to the Union Bonds. If a European Monetary Fund were set up, it also could invest or issue Union Bonds. There are many ways to structure incentives for Union Bond holders.

¹⁴ Previous experience with the Ecu, which was a portfolio of national currencies in the European Monetary System, proved that the development of private Ecu markets benefited from capital control exemptions in Italy and France.

A simulated performance of Union Bonds

How can we expect the Union Bond to perform? Figure 2 shows the yield curve of German 10-year Bunds versus the synthetic Union Bond yield.¹⁵ For most of the time the two yields were similar, but after the Lehman collapse risk differentials between Euro member states have increased, so that the Union Bond yield rose above German levels.

Figure 2.

Union Bond versus German 10-Year Bond Yields

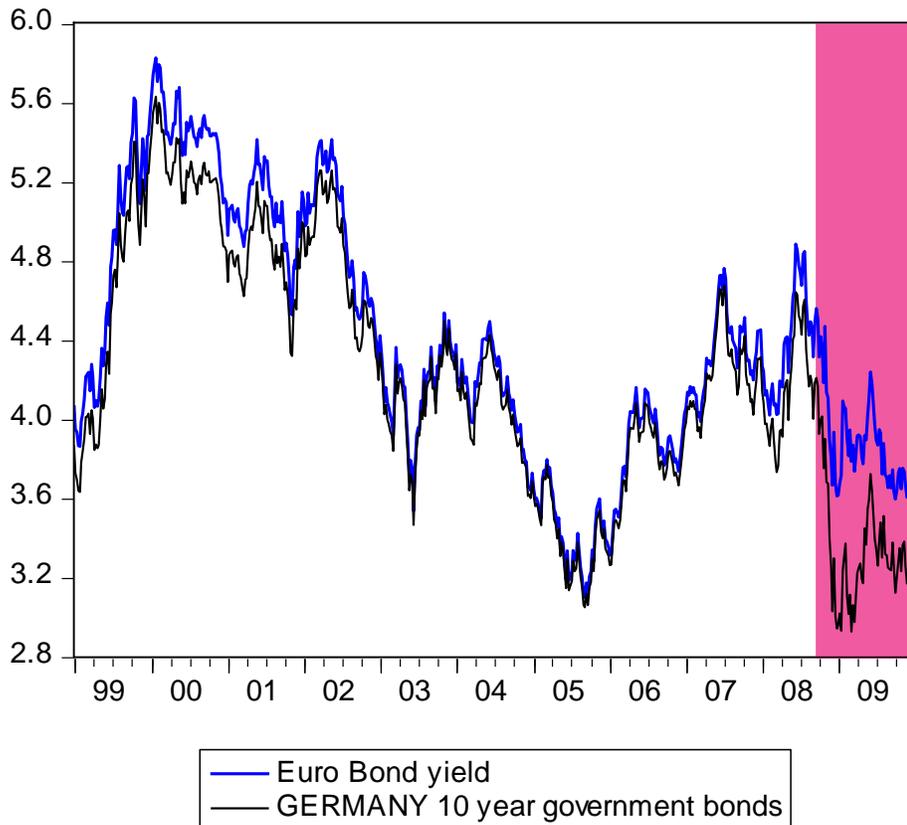


Table 1 gives the covariance and correlation coefficients between the different bond yields of the portfolio, which are all highly significant. The correlation is high and positive in all cases. In other words, no individual member state government, not even the German, could escape the consequences of a run out of another government's debt. There is no safe haven from trouble in Euroland.

¹⁵

Table 1.**Covariance Analysis**

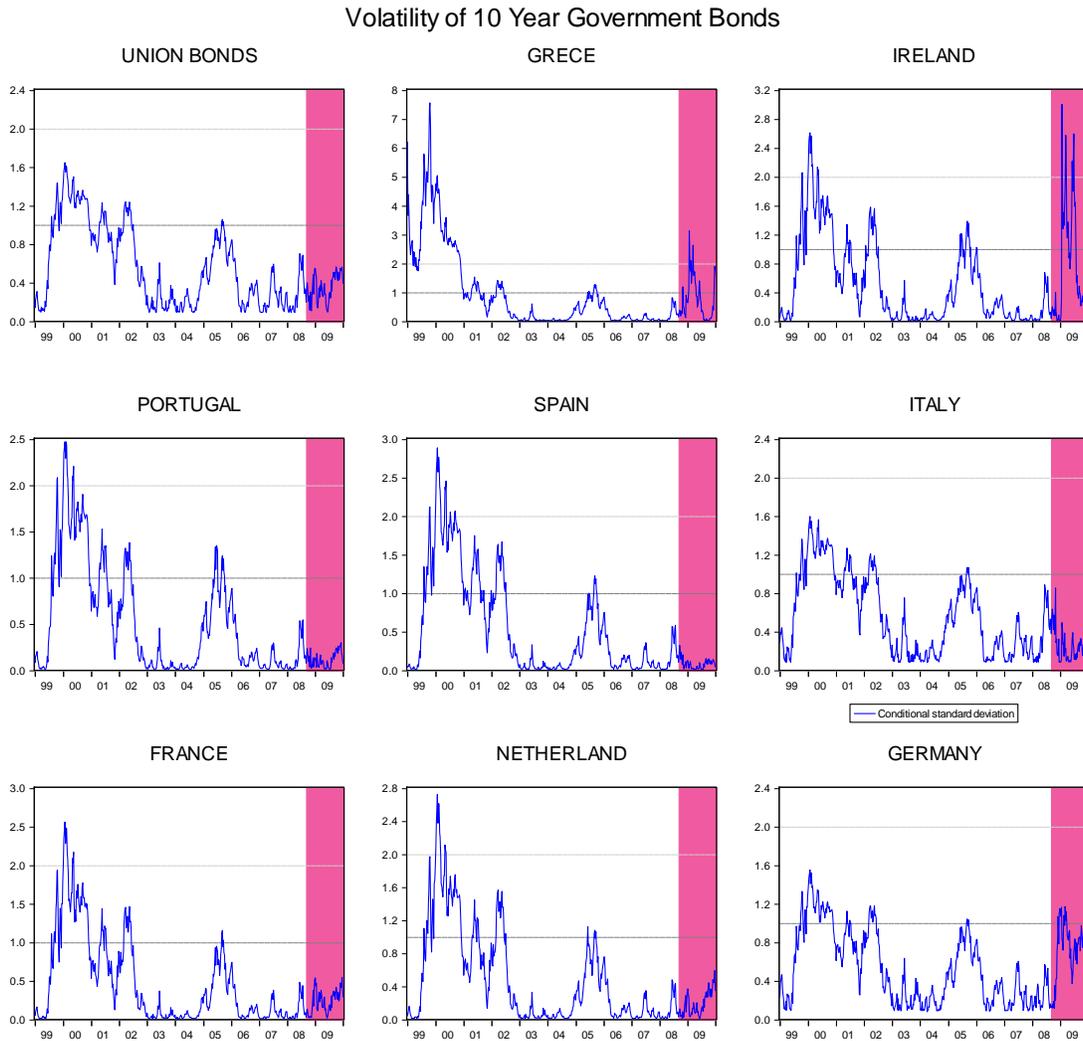
Sample: 1/01/1999 1/15/2010

Included observations: 577 Covariance
Correlation

	UNION	AUSTRIA	BELGIUM	FINLAND	FRANCE	GERMANY	GREECE	IRELAND	ITALY	NETHERLAND	PORTUGAL	SLOVAKIA	SPAIN
UNION	0.408734 1												
AUSTRIA	0.424069 0.99419	0.445138 1											
BELGIUM	0.426484 0.99599	0.445135 0.996131	0.448596 1										
FINLAND	0.430184 0.997583	0.446473 0.992117	0.449016 0.993916	0.454956 1									
FRANCE	0.406042 0.996803	0.418754 0.985079	0.421951 0.988765	0.427619 0.995019	0.405959 1								
GERMANY	0.40211 0.970626	0.408601 0.945102	0.413143 0.951918	0.424044 0.970182	0.40662 0.98486	0.4199 1							
GREECE	0.420082 0.77078	0.45064 0.792317	0.449301 0.786912	0.440649 0.766346	0.39605 0.729165	0.353021 0.639063	0.72672 1						
IRELAND	0.348715 0.812751	0.381831 0.852768	0.374416 0.832978	0.364084 0.804312	0.330618 0.773202	0.289599 0.665935	0.48077 0.840351	0.450387 1					
ITALY	0.380535 0.976684	0.401374 0.987145	0.401876 0.984563	0.399058 0.970802	0.373115 0.960906	0.356665 0.903165	0.417094 0.802841	0.363124 0.887854	0.371399 1				
NETHERLAND	0.4107 0.998251	0.425689 0.99147	0.428397 0.993925	0.433062 0.9977	0.408993 0.997493	0.406519 0.974861	0.411516 0.750133	0.344751 0.798267	0.380683 0.970685	0.414124 1			
PORTUGAL	0.413716 0.981455	0.436392 0.992013	0.436527 0.988489	0.434493 0.976982	0.406071 0.966606	0.389729 0.912176	0.460872 0.819945	0.39282 0.887747	0.398375 0.991424	0.414656 0.977263	0.434734 1		
SLOVAKIA	0.946061 0.910317	0.989459 0.912314	0.993064 0.912102	1.00332 0.915058	0.926002 0.894056	0.906305 0.86039	1.14405 0.825572	0.844253 0.77388	0.868153 0.876334	0.943322 0.901755	0.960112 0.895785	2.642484 1	
SPAIN	0.417357 0.9926	0.436916 0.995722	0.438704 0.995936	0.438584 0.988678	0.411151 0.981178	0.399211 0.936734	0.454272 0.81025	0.381647 0.864682	0.396656 0.989647	0.417959 0.987542	0.430627 0.993061	0.979263 0.915968	0.43254 1

Volatility in bond yields is a sign of uncertainty in the expectation of future long term interest rates. Figure 3 shows volatility measured as the conditional standard deviation of a GARCH(1,1) model. Volatility was generally higher in the first half of the decade after European monetary union started, than in the second. In 2005 the ECB shifted to a more restrictive policy stance and this increased temporarily the uncertainty in long term bond yields. Most importantly, the financial crisis had strongly asymmetric effects: volatility increased dramatically in Greece, Ireland and Germany; it remained remarkably low in Spain, Portugal and Italy. French and Dutch government bonds are a more stable investment than German Bunds. Hence, Union Bonds, which reflect the weighted average of the Euro Area, are in effect a portfolio with low and stable volatility in the yields.

Figure 3.



However, Figure 4 shows that the spread of Union Bonds to German Bunds is minimized when the volatility for Union Bonds is of the same level as for German Bunds, but interestingly the spread increases more rapidly when the volatility of Union Bonds falls relative to that of German Bunds. A similar picture could be shown for France. Hence, for the same risk (measured by the volatility), Union Bonds yield higher returns.

Figure 5.
Comparing Union Bonds to German Bunds

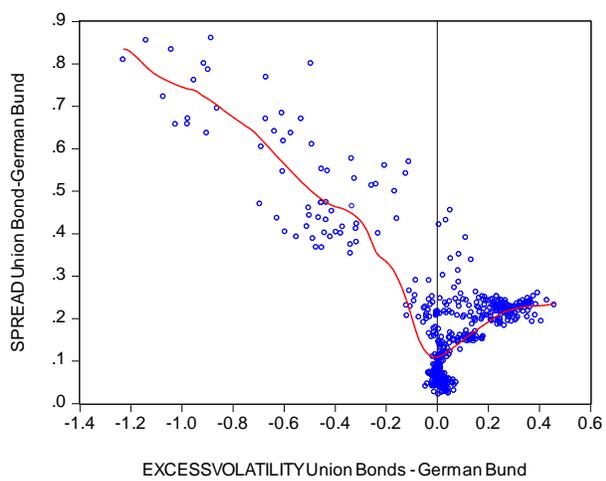
a. EXCESSVOLATILITY Union Bonds-German Bunds



b. YIELD SPREAD Union Bonds-German Bunds

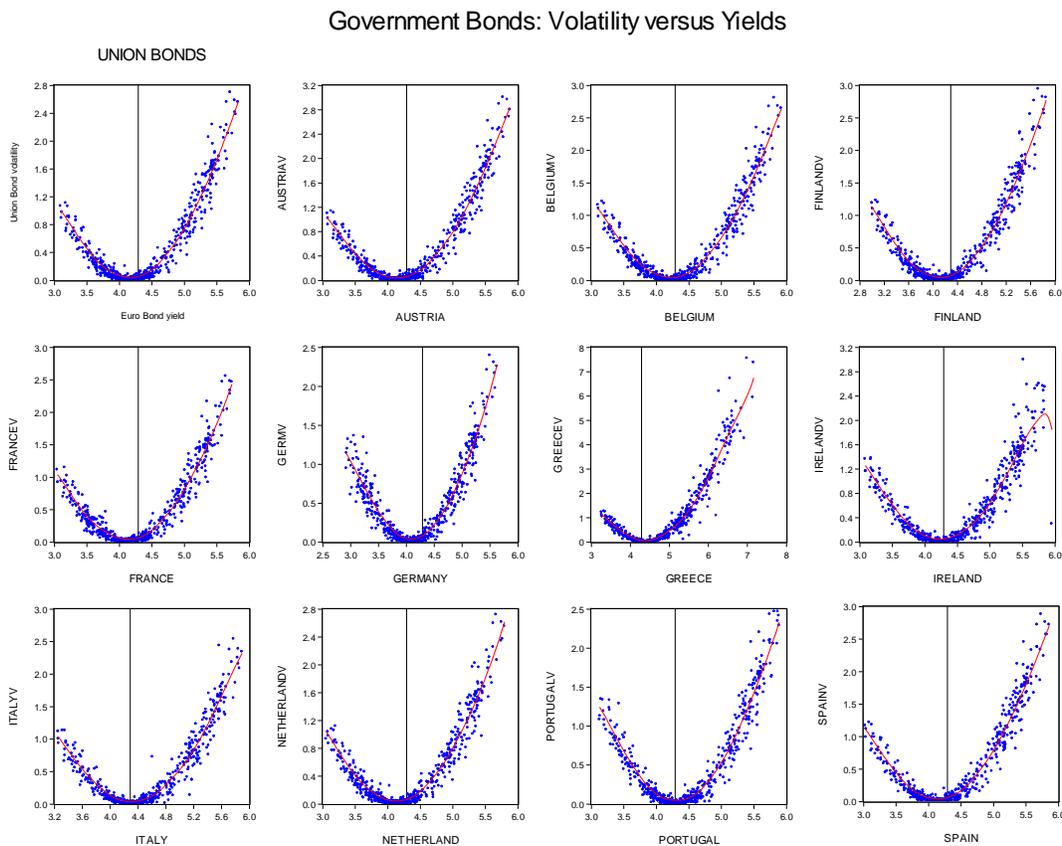


c. EXCESS RETURNS



Finally, Figure 6 plots the volatility of government bonds (vertical axis) against their yield (horizontal axis). For most bonds, volatility is minimized at yields in an interval of 4 to 4.5 percent. Member states with low debt ratios find the minimum volatility at lower yields than the Union Bond mean of 4.2789, i.e. at the left of the vertical line. But if Union Bonds reduce volatility overall, they also generate lower borrowing costs for the Euro Area as a whole. This benefits economic conditions in all member states.

Figure 6.



Other proposal for European Bonds

The idea of Union Bonds has been evoked by policy makers in the past. Previous suggestions by the Italian finance minister Giulio Tremonti or more recently by European Council President Herman van Rompuy have focused on issuing institutional debt by the European Union. Not surprisingly, they were immediately blocked on grounds of incompatibility with the Treaties (the EU is not allowed to borrow) and by governments, like Germany's, who feared deteriorating credit ratings and higher borrowing costs for themselves. The same objection applies to

Bonnevay's suggestion of a joint Franco-German Eurobond to finance strategic growth projects.¹⁶ Our proposal of Union Bonds circumvents such institutional and political obstacles, although a private market initiative could open the passage for future political developments.

A different proposal has been made by Jacques Delpla and Jakob von Weizsäcker.¹⁷ They propose that EU governments should pool up to 60 percent of GDP of their government debt in the form of a common European government bond, which they call the *Blue Bond*. Any public debt in excess of their Blue Bond allocation national governments would have to issue in junior national debt, which they call the *red debt*. The difference to our Union Bonds is that Blue Bonds have a joint signature of all member states and therefore encounter similar objections as the Tremont bonds. However, the distinction between debt above and below 60% is potentially useful and could be built into the waterfall cascade of structured Union Bonds.

Conclusion

The interdependencies among EU economies require stronger forms of policy coordination and a much higher degree of financial solidarity. In the medium term, the Euro Area needs a robust mechanism for crisis resolution, i.e. an economic government that is capable of taking decisions and implementing them independently from national governments and their partial interests. Member states must take the common interest into account. They must consolidate their fiscal position to ensure the long run sustainability of their public debt. However, a socially acceptable adjustment program takes time to be implemented. The perception of a rising default risk by any member state government could destabilize the Euro Area's banking system. Some bridging finance is needed. If any government would default on its debt after having received credits from other member states, this would pose a serious constitutional problem, given the non-bailout provision in the Treaty. Private markets could come to rescue the Union by issuing securitized Union Bonds. Markets would then no longer be seen as wreckers, but as saviors of the euro.

¹⁶ http://www.institutmontaigne.org/medias/documents/etude_pour_un_eurobond.pdf

¹⁷ http://www.bruegel.org/uploads/tx_btbbreugel/1005-PB-Blue_Bonds.pdf