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Safe Bonds for the European Monetary Union: Strengthening Bailout Ban with More Robust Financial System

By Philipp Engler and Christoph Große Steffen

The cost of state bankruptcy in the euro area is incalculable due to the repercussions for the financial system. As a result of contagion effects, there is a risk that the entire Monetary Union could be pushed into deep recession. This forces euro area member states to implement rescue packages during periods of crisis, at a high cost to taxpayers. The bailout policy adopted during the most recent crisis was an indication that sovereign debt in the euro area would be subject to joint liability. This temporarily eliminated incentives for national budgetary discipline.

On this basis, it is argued that enhancing the institutional framework of the euro area in the long term by issuing common bonds would alleviate existing distortions of fiscal incentive effects in the euro area. Such a “safe haven” for the euro area could make a major contribution to stabilizing the financial system during periods of crisis. The positive impact this would have on the banking system could reduce the indirect costs of restructuring government debt which, in turn, would make restructuring debt from public debtors in the euro area economically feasible. This would strengthen the no-bailout rule which, again, is likely to result in an increasingly risk-based approach to interest on national debt. With this in mind, limited joint liability under strict conditions would be a welcome measure since it takes advantage of market incentives to cut public spending and consequently helps alleviate the problem of over-indebtedness in the euro area in the long term.

As a prerequisite for creating common bonds, binding fiscal rules must be introduced in order that some sovereignty rights can be delegated to a central fiscal authority. In the short term, therefore, the required conditions for common bonds are not in place.

The destructive impact of a downward spiral triggered by the risks of sovereign debt, a destabilized banking sector, and the real economic costs of a credit crunch became evident during the euro crisis.¹ Due to the abrupt disintegration of financial markets along national borders, the Monetary Union was in danger of breaking up in 2011/2012. What was previously unthinkable—government insolvency within the Monetary Union—became an acute reality for Greece in 2010. The conventional practice used previously of addressing government debt crises through ad hoc negotiations with all the creditors involved was not directly applicable in this specific situation within the euro area. Only in March 2012, around two years after Greece lost access to the capital market, was the country’s debt restructured.² Due to its high cost, the restructuring option was put on the backburner in favor of ad hoc rescue packages provided by the countries of the Monetary Union. Due to the risk of contagion effects, the member states felt coerced into a policy of providing liquidity assistance on the basis of bilateral contracts or the European Financial Stability Facility (EFSF) which, in turn, led to staggered transfer payments. Further, the European Central Bank (ECB) was prompted to take extraordinary risks by implementing unconventional measures such as granting emergency credits (Emergency Liquidity Assistance, ELA) to failing banks in crisis countries, purchasing government bonds on the secondary market (Securities Markets Programme, SMP), and pledging to prevent the collapse of the euro area (Outright Monetary Transactions, OMT).

The present article argues that the introduction of common bonds in the euro area, combined with other fundamental institutional reforms in the Monetary Union,

¹ The present report is part of a DIW Economic Bulletin series addressing various elements of a strategy for institutional reform of the euro area. See F. Fichtner, M. Fratzscher, M. Podstawski, and D. Ulbricht, “Making the Euro Area Fit for the Future,” DIW Economic Bulletin, no. 9 (2014).

² J. Zettelmeyer, C. Trebesch, and M. Gulati, “The Greek debt restructuring: an autopsy,” *Economic Policy* (2013): 515–563.

would mitigate a crisis-driven downward spiral thus rendering the associated bailout policy unnecessary.

Contagion through a Collateral Channel during the Crisis

The loss of confidence in securitized mortgages on the US real estate market led to an increasing scarcity of safe and highly liquid assets.³ The option of using government bonds to secure financing explains their growing importance in the private banks' process of credit creation.⁴ In Europe, the lion's share of secured interbank loans is backed by European government bonds,⁵ which is why government bonds have become increasingly relevant for the process of credit creation in the European banking system.

The systemic relevance of government bonds became apparent in 2009, at the start of the Greek debt crisis. The financial markets became aware of the risks of government financing in some euro area countries which had been underestimated until then. The subsequent increase in interest rate differentials on government bonds spread to the national banking systems in those crisis countries⁶ which demonstrated a strong home bias for their government bond portfolios.⁷

As a result, the sovereign debt crisis had an asymmetrical impact on the euro area member states, which increased the risk of the Monetary Union collapsing. This was particularly apparent in 2011: interest on repo transactions that were secured by European government bonds drifted apart significantly (see Figure 1). While transactions backed by German or French government bonds were still being conducted below the EONIA swap rate, the interest on repo transactions secured by Italian and Spanish bonds in particular developed in the opposite direction. This correlation is referred to as the collateral channel in the following.

By dramatically increasing liquidity supply, the ECB was able to counteract the rise in financing costs and the decline in financing options for numerous banks in the crisis countries (see Figure 2).⁸ However, it was not able to prevent credit conditions among member states of the Monetary Union drifting apart. In 2010/2011, a positive correlation between interest rates on private and public credit was observed in the crisis countries, whereas this was not the case in the core countries of the euro area (see Figure 3).

Contagion from the public sector to the banking sector is evidence of the systemic dimension of the crisis.⁹ Accordingly, the countries suffering the strongest decline in economic growth from the crisis also experienced a crisis of confidence (see Figure 4).

Creation of Safe Bonds in Euro Area Makes Economic Sense

As the analysis of the model developed by Engler and Große Steffen¹⁰ demonstrates (see Box 1), even with the strong disciplining effect of the threat of the real economic costs of a debt restructuring in economies with developed financial markets, debt crises can never be completely avoided as a series of negative shocks can push states to their debt limits. One reason for this is the collateral channel on the European interbank market, the impact of which emerges as a result of the problem of over-indebtedness in combination with negative shocks in the Monetary Union.

It is therefore essential that, in the future, the European Monetary Union makes better use of the potential disciplining role of the financial markets to prevent a further rise in debt levels in the euro area. This is particularly needed, since contractual agreements to limit indebtedness as the European Fiscal Compact do not seem to bear enough power to enforce national budgetary discipline. To meet this objective, it is desirable to have a more differentiated pricing of government bonds in the euro area. However, this can only be achieved if there is a realistic possibility of a debt haircut and the no-bailout clause is taken seriously again. This is, however, currently not the case due to the way the European financial markets are organized: because of the negative im-

3 C. Große Steffen, "Knappheit sicherer Anleihen? Neue Herausforderungen nach der Krise," DIW Roundup, no. 3 (2014), www.diw.de/documents/publikationen/73/diw_01.c.434488.de/diw_roundup_3_de.pdf.

4 S. Manmohan and P. Stella, "Money and collateral," IMF Working Paper, WP/12/95 (2012); ICMA, Collateral is the new cash: The systemic risks of inhibiting collateral fluidity (International Capital Market Association, Zurich: 2014).

5 ICMA, "European repo market survey: Number 25," conducted in June 2013 (International Capital Market Association, Zurich: 2013).

6 BIS, "Impact of sovereign credit risk on bank funding conditions," Committee on the Global Financial System (CGFS) Papers, no. 43 (June 2011); A. van Rixtel and G. Gasperini, "Financial crises and bank funding: Recent experience in the euro area," BIS Working Papers, no. 406 (2013).

7 S. Arslanalp and T. Tsuda, "Tracking global demand for advanced economy sovereign debt," IMF Working Paper, WP/12/284 (2012).

8 D. Giannone et al., "The ECB and the interbank market," ECB Working Paper Series, no. 1496 (November 2012).

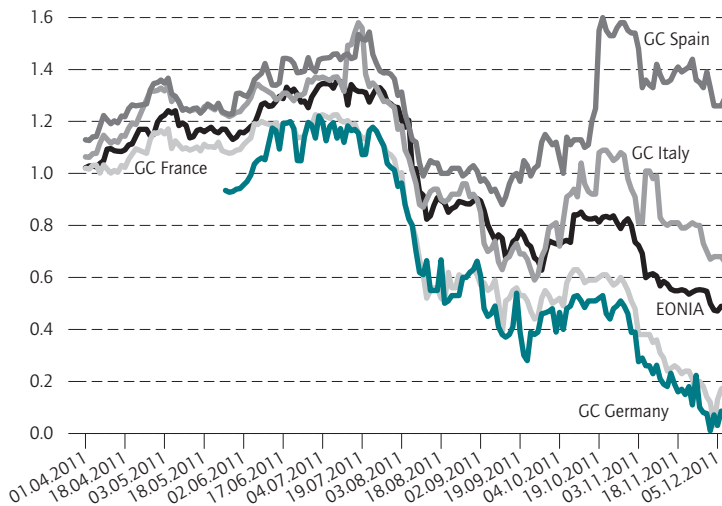
9 Further, a reverse contagion from banks to governments was also observed. See J. Ejsing and W. Lemke, "The Janus-headed salvation. Sovereign and bank credit risk premia during 2008-2009," *Economics Letters* (110) (2011): 28-31.

10 P. Engler and C. Große Steffen, Sovereign risk, interbank freezes, and aggregate fluctuations (2014), ssrn.com/abstract=2489914.

Figure 1

Interest Rates on Secured Interbank Loans

In percentage points



Source: Bloomberg.

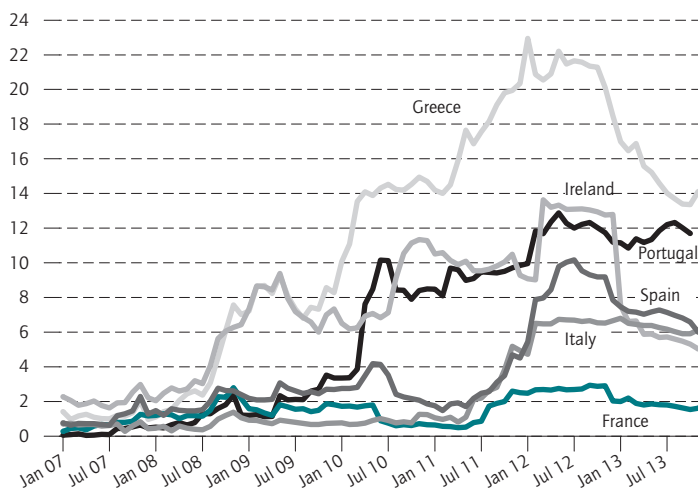
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Interest rates on standardized securities (General Collateral repo rates) diverged during the recent sovereign debt crisis.

Figure 2

Eurosystem Lending to Credit Institutions

In percentage of national central banks' total assets



Source: National central banks.

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Central bank money replaced private credit creation.

part of a debt haircut on the banking sector, the threat of debt restructuring seems implausible from the outset.¹¹ The bailout policy implemented through the EFSF/ESM and the ECB affirms this impression.

The creation of safe bonds, i.e., default-free bonds within a restructured institutional framework for European Monetary Union should help better balance ex ante and ex post transfer payments within the euro area. Common bonds within the Monetary Union have three advantages: first, the option, and indeed necessity, of effectively mitigating fiscal policy risks; second, strengthening financial market stability by improving financial and capital market integration and making it more robust; third, by providing a secure investment opportunity, commonly issued bonds strengthen the position of the euro as an international reserve currency.¹²

Eurobond Debate Needs To Be Less Ideological

During the debt crisis, two camps formed each with a different view on the Eurobond proposals. On the one hand, there are the resolute opponents of any form of commonly issued bonds. The main argument against Eurobonds raises legitimate concerns about the incentive effects: a country which is not obliged to pay back its own debts in an emergency is unlikely to implement sound budgetary policy.¹³ Further, there are also constitutional misgivings that a fiscal union or European federation would be required for Eurobonds to be introduced.¹⁴

On the other hand, there are the proponents of Eurobonds who have presented numerous proposals and consider that common bonds make economic sense. They argue that legal prerequisites can be achieved in the short or medium term. The differences between these proposals primarily relate to the extent of liability which ranges from full mutualization of all national debts to a synthetic bond with no de facto mutualization.

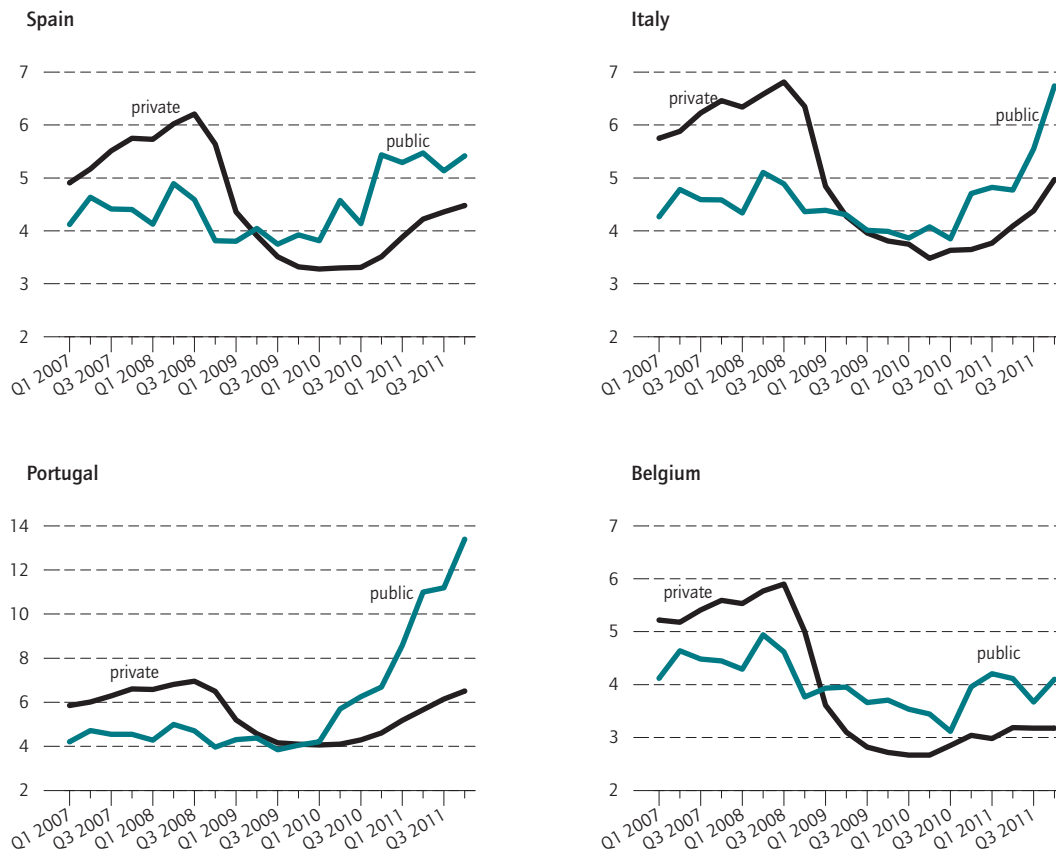
¹¹ Greece restructured its debts in February 2012 and is therefore an important exception to this. However, at the time, this had barely any impact on the credibility of the bailout ban or on the development of an appropriate risk-adjusted rate of interest in the euro area. This, in turn, suggests that the markets regard Greece as an isolated case.

¹² In particular, financial market stability is likely to emerge as an increasingly important factor in defining the quality of a currency. See L. Goldberg, S. Krogstrup, J. Lipsky, and, H. Rey, Why is financial stability essential for key currencies in the international monetary system? (July 26, 2014), voxeu.org.

¹³ See, for example, H.-B. Schäfer, "Eurobonds—Gruppenhaftung im Clan bedroht die Bürgergesellschaft und den Sozialstaat," *Wirtschaftsdienst* 91/9 (2012): 609–612; and also M. Schütte, N. Blanchard, M. Hüther, and B. Lucke, "Eurobonds: Kann eine Unterteilung in Blue bonds und Red bonds das Risiko für die Euroländer minimieren?," *Ifo Schnelldienst* 4 (2012).

¹⁴ F. Mayer and C. Heidfeld, "Verfassungs- und europarechtliche Aspekte der Einführung von Eurobonds," *Juristische Wochenschrift* 7 (2012): 422–427.

Figure 3

Private and Public Financing CostsIn percentage points¹

¹ Interest on 10-year government bonds and interest rates on loans to non-financial corporations with maturities up to one year. Sources: ECB; Thomson Reuters Datastream; calculations by DIW Berlin.

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The correlation between private and public financing costs increased sharply in the crisis countries.

Irrespective of whether the euro area aims to become a full fiscal union or not, the crisis has made it clear that the Monetary Union requires better fiscal policy coordination. In order to ensure this, Brussels needs to be granted greater rights to intervene in national budgets than they have to date.¹⁵

In this context, the debate on the introduction of Euro-bonds, which has so far been very ideological, appears to require a more differentiated view that allows Euro-bonds to contribute to an improved institutional set-

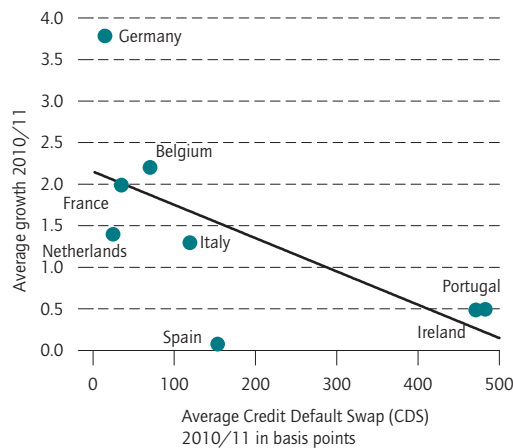
ting in the euro area. Once effective fiscal coordination, at least in the sense of a partial fiscal union, has been achieved, this provides the economic precondition for a gradual introduction of common bonds such that their various positive effects can be utilized by the Monetary Union in the long term in order to deepen capital market integration.

Since there is currently no partial fiscal union, the pre-conditions for introducing common bonds are not yet in place. Even in the short term, political barriers could prevent rapid implementation, thus presenting member states with the dilemma of how to implement the bailout ban in the short and medium term. Even if the European Union were to move toward becoming a political union in the form of a federation in the long term,

¹⁵ F. Heinemann, M.-D. Moessinger, and S. Osterloh, "Feigenblatt oder fiskalische Zeitenwende? Zur potenziellen Wirksamkeit des Fiskalvertrags," *Integration 3* (2012): 167-182.

Figure 4

Correlation between Risk of Sovereign Default and Growth



Sources: Thomson Reuters Datastream; calculations by DIW Berlin.

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The systemic dimension of the crisis: there is a strong correlation between low growth and high risk premiums in the peripheral countries.

a non-liability clause would be required (such as in the US and Switzerland).¹⁶

Eurobond Proposals

The solutions discussed to date can be divided into two groups:¹⁷ at one end of the spectrum are the “real” Eurobonds that envisage extensive mutualization of existing sovereign debt. For the most part, proposals for this type of Eurobond emerged in the euro area during the sovereign debt crises. Thus, at the end of 2010, the President of the Eurogroup at the time Jean-Claude Juncker and the Italian Finance Minister at the time Giulio Tremonti called for the introduction of Eurobonds.¹⁸ The aim was for them to finance national budgets and give the financial markets a sign of stability for the short term to bring about an end to the crisis.

With real Eurobonds, the participating countries assume full joint liability for the debts of the remaining euro area countries. In the event that any individual par-

ticipant becomes insolvent, the partner countries would be obliged to assume unlimited responsibility for these payments. From the creditors’ perspective, this significantly reduces the risk of default for individual countries. However, in certain circumstances, this would increase the risk of joint default.¹⁹ Further, joint and several liability for an entire national debt burden also introduces the moral hazard of reduced budgetary discipline for the public finances of individual member states because the incentive effects of the bond markets are either limited or entirely eliminated. Eurobonds were proposed as a substitute for structural reforms at the height of the crisis, which alone should be reason enough to firmly reject them in this form.

One solution to this dilemma is not to mutualize all government debt. Von Weizsäcker and Delpla²⁰ therefore proposed what are known as “blue bonds” which have a ceiling of 60 percent of the GDP of each member state and are issued under joint liability. The debtor country then has the sole liability for any debt in excess of this 60-percent ceiling (“red bonds”). These red bonds would have a higher risk of default as they would be treated as junior bonds in the event of insolvency.²¹ Risk-adjusted pricing would have a stronger disciplining effect on the issuing governments. However, blue bonds would be regarded as safe due to their joint liability and their primacy in the event of insolvency. They could therefore be used as collateral in the banking sector.²²

Synthetic Eurobonds might be a viable alternative to the real Eurobonds proposal, the most popular example of which are European Safe Bonds (ESBies).²³ ESBies involve no mutualization whatsoever and are more about using securitization to develop financial products from existing government debt. Banks would only be permitted to purchase the safe tranche (ESBies) to sever the connection between government and bank risks. The primary aim of synthetic Eurobonds is neither to finance national budgets nor to protect a country in financial

¹⁶ See also the opinion which diverges from that of the Council of Experts by V. Wieland, Council of Experts Annual Report 2013/2014, no. 265; and also M. Bordo, A. Markiewicz, and L. Jonung, “A fiscal union for the Euro: Some lessons from history,” NBER Working Paper 17380 (2011).

¹⁷ For a detailed discussion on the proposals, see S. Claessens, A. Mody, and S. Vallée, “Paths to Eurobonds,” IMF Working Paper, WP/12/172 (2012).

¹⁸ J.-C. Juncker and G. Tremonti, “E-bonds would end the crisis,” Financial Times, December 5, 2010.

¹⁹ W. Wagner, “Eurobonds are likely to increase the risk of joint defaults in the Eurozone,” (December 8, 2011), vox.eu.org.

²⁰ J. Von Weizsäcker and J. Delpla, “The blue bond proposal,” Bruegel Policy Brief 2010/03 (2010).

²¹ Subordinated bonds are those whose buyers have to bear the first losses in the event of payment default, while buyers of senior bonds are only liable should higher losses be incurred.

²² A similar proposal for common bonds with a short term was made by T. Philippon and C. Hellwig, “Eurobills, not Eurobonds,” (December 2, 2011), vox.eu.org.

²³ See Euronomics group, “European Safe Bonds (ESBies)” (2011), www.princeton.edu/jrc/files/esbie_pr.pdf; and also T. Beck, W. Wagner, and H. Uhlig, “Insulating the financial sector from the crisis: Eurobonds without public guarantees,” (September 17, 2011), vox.eu.org.

difficulty from speculative attacks, but to diminish the impact of a debt crisis on the banking system.

Integrating Common Bonds into Europe's New Institutional Framework

Safe bonds can only be considered safe if investors have confidence in them, even during times of crisis. From an institutional perspective, this is something that a European debt agency could facilitate: the agency would receive a guarantee from the participating states for the entire portfolio of commonly issued bonds. The national financial institutions would honor their debts bilaterally with the European debt agency, according to their share of the issue volume.

Further, the following issues also need to be addressed: first, the moral hazard needs to be reduced; second, the legal prerequisites need to be met; and third, institutional consistency within the Monetary Union needs to be guaranteed. There are a range of options to alleviate the central problem of moral hazard arising from common bonds. First, efforts to implement policy measures to ensure compliance with budgetary discipline should be intensified. It is hoped that, in the process of introducing the required fiscal coordination within the euro area, certain sovereignty rights will be delegated to Brussels in the future, at least on a temporary basis.²⁴ Although the negative experience of the Stability and Growth Pact gives rise to reasonable doubt as to the efficiency of policy mechanisms, as a normative anchor, they do, however, provide a desirable complement to market-based instruments. Moreover, at least a partial fiscal union needs to be established. Member states could temporarily cede certain sovereignty rights to Brussels as soon as there is any indication of financing bottlenecks, for example. It would also be possible to come to an agreement that, in the event of a payment default for common bonds, a country would be obliged to participate in a macroeconomic adjustment program, which is already a prerequisite for ESM loans today. The resulting temporary renunciation of sovereignty rights should reduce the negative incentive to unjustifiably take advantage of a partner country's solvency.

Finally, the ceiling for common bonds should be set considerably lower than 60 percent of GDP to reduce contagion effects between countries. The threshold for common bonds should thus be relatively low; 25 percent of a country's GDP (as an average over the previous five years), for example. This represents a reference value to

guarantee a sufficiently liquid market. A strict limit is essential for the credibility of the mechanism, particularly during the initial phase. For example, if a 25-percent ceiling were set for common bonds, they would exceed already today the existing stock of German federal government bonds. Figure 5 shows that the portfolio of safe bonds in Europe could be significantly expanded in the medium term. First, this is a result of the consolidation of public budgets in Germany due to the introduction of the debt brake. Second, linking bonds to GDP in the euro area is a dynamic component that would contribute to the expansion of a portfolio of common bonds in the euro area in the event of economic growth. In the medium term, this would facilitate the creation of the most important bond market in the euro area and the second most important market worldwide.

The legal basis needs to be examined on two levels. First, there are the European treaties and the German Basic Law which impose strict limits for the structure of bonds with joint liability.²⁵ Second, clarity is required as to whether, in the event of a liability case, common bonds should be treated as senior or whether they are on equal footing with national bonds (*pari passu*).

A *pari passu* clause results in greater contagion effects since a selective payment default of a country in a debt crisis would trigger immediately the joint liability for commonly issued bonds. As a result, the *pari passu* clause offers a lower interest rate on nationally issued debt securities since, in the event of debt restructuring, the expected recovery value increases. In contrast, government bond purchases as part of the ECB's SMP program have demonstrated that seniority clauses increase the risk of default for the junior creditors and consequently have a destabilizing impact on the bond markets.²⁶ Thus, a seniority clause could also give rise to political concerns on the part of the more heavily indebted member states. Given this background, and in terms of achieving a desirable insurance effect, it would be easier and more sensible to reach an agreement on a *pari passu* regulation with common bonds than on strict seniority of the remaining outstanding national debt.

At the same time, the creation of a common bond should always be viewed as a complementary measure to other reform efforts in the European Monetary Union. To

²⁵ Mayer and Heidfeld, "Verfassungs- und europarechtliche Aspekte."

²⁶ The IMF also conducted a critical evaluation, see IMF, "Euro Area Policies: 2012 Article IV Consultation," Selected Issues Paper, Annex: Valuation of sovereign bonds with ECB senior creditor status (2012). There is also empirical evidence of the impact of an increase in senior creditors in crisis countries. See S. Steinkamp and F. Westermann, "On creditor seniority and sovereign bond prices in Europe," Working Papers 92 (Institute of Empirical Economic Research, 2012).

²⁴ H. Basso and J. Costain, "Fiscal delegation in a monetary union with decentralized public spending," Bank of Spain Working Paper, no. 1311 (2013).

Box 1

Model Analysis

The theoretical model analysis by Engler and Große Steffen¹ is based on a Dynamic Stochastic General Equilibrium Model (DSGE) of a small open economy.² In essence, this analysis expands on the standard model in two ways.

First, the model maps heterogeneous banks exchanging loans via an interbank market. This process is not without frictions. The banks in the model are subject to financing restrictions attributed to imperfect markets. To a certain extent, these financing restrictions can be reduced if banks pledge government bonds as collateral in order to obtain loans on the interbank market. The implications for an optimal government debt policy have already been analyzed in previous studies.³ However, these studies do not take account of the increase in default risk that occurs as a result of an excessively sharp rise in government debt, or in the event of a major macroeconomic shock such as during the European debt crisis.

Therefore, the second difference between this framework and the standard model is the endogenous evolution of default risk of government bonds within the framework of an optimal default decision.⁴ In the present model, sovereign default leads to a collapse of the interbank market bringing a credit crunch and deep recession immediately in its wake. These costs have a disciplining effect on the government and increase the probability of debt repayment. This structural interpretation links the conditions on the interbank markets with the government's fiscal policy decisions.

¹ Engler and Große Steffen, *Sovereign risk, interbank freezes, and aggregate fluctuations* (2014), ssrn.com/abstract=2489914.

² E. Mendoza, "Real business cycles in a small open economy," *American Economic Review* (81)4 (1991): 797-818.

³ M. Woodford, "Public debt as private liquidity," *American Economic Review* (80)2 (1990): 382-388.

⁴ The strategic payment default follows the seminal model of J. Eaton and M. Gersovitz, "Debt with potential repudiation: Theoretical and empirical analysis," *Review of Economic Studies* (48)2 (1981): 289-309.

Model Results

In attempting to establish the optimal fiscal policy, the government is faced with the problem that it is desirable, *ex ante*, to accumulate debt. If the bonds are acquired by the banks, they are capable of relaxing financing restrictions and thus stimulating private lending.

However, should the government bonds themselves be threatened by sovereign default, a trade-off arises: then the threat of a self-reinforcing mechanism between sovereign risk and financing restrictions in the private sector emerges. Consequently, due to the role played by government bonds in the banking sector, sovereign debt crises acquire a systemic dimension which spreads throughout the entire economy. Moreover, *ex post*, they are associated with high macroeconomic costs. In the event of a government being hit by a disorderly restructuring, government bonds can account for up to 20 percent of GDP according to a calibrated model with data from Spain (see Figure 1). A key element of the model findings is that these costs depend on productivity development and consequently also the state of the business cycle (see Figure 2). In normal economic circumstances, the costs of a payment default are very high, due to the economy's borrowing requirements. However, during a deep recession, the costs fall sharply in line with the declining demand for credit and the reduced importance of the interbank market. This is, *inter alia*, the result of the amplification mechanism between sovereign default risk and the banking sector's financing costs which further reduce macroeconomic production during a recession, thereby also further reducing the costs of an imminent credit crunch in the event of sovereign default. In any case, this downward spiral involves high economic costs, whether due to the cost of a debt haircut or as a result of tightening financing conditions to avoid a debt haircut.

Assessment of Model Findings

The model is calibrated for the quantitative analysis using Spanish data for the period from 2000 to 2011. Model simulations show that sovereign debt crises are extremely rare events. This can be explained by the fact that the cost implications of sovereign default due to a

this end, first, the banking union and regulatory requirements must be developed further, and second, the op-

tion of an orderly sovereign debt restructuring must be created within the Monetary Union.²⁷

²⁷ Each of these topics are analyzed in separate reports published as part of this series. See F. Bremus and C. Lambert, "Banking Union and Bank

credit crunch on the interbank market have a significant disciplining effect on the government. Therefore, the literature frequently portrays these costs as useful since, under normal circumstances, they reduce interest on government bonds.⁵

At the same time, the implied feedback loop causes the inefficiencies and costs associated with ballooning costs of an unordered sovereign default. This is a major difference between the crisis in the financially advanced euro area and the debt crises in emerging countries where it was possible to implement an ad hoc negotiated solution with the involvement of creditors.⁶ Moreover, we have to contrast the ex ante increase in efficiency resulting from the disciplinary effect with the equally ex ante real economic costs of the amplification mechanisms between government risk and financing conditions: this provides a retrospective explanation for the strategy introduced by European decision-makers to commit to a bailout policy. Although this policy has high cost implications, in these circumstances, the alternative solution would have been significantly more costly.⁷

The model analysis suggests that government debt policy should take greater account of the liquidity effect of public spending. This means that the problem of over-indebtedness should be avoided so as to prevent any doubts about the sustainability of public debt. In principle, due to their high solvency, government bonds would therefore be able to guarantee bank financing and also corporate lending in the real economy, even during serious recessions when collateralization becomes more important. As a result, the ex ante costs from the collateral channel in the model within a downward spiral reinforcing the economic cycle during a recession would not occur in the first place.

⁵ M. Dooley, "International financial architecture and strategic default. Can financial crises be less painful?," Carnegie-Rochester Conference Series on Public Policy (2000): 361-377.

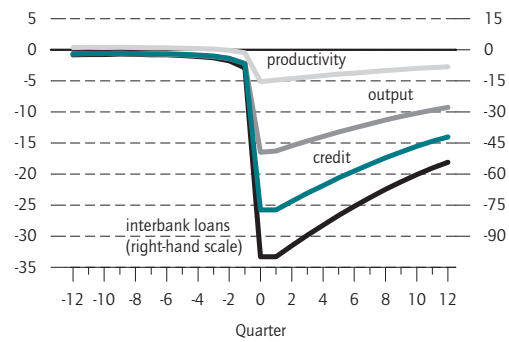
⁶ U. Panizza, F. Sturzenegger, and J. Zettelmeyer, "The economics and law of sovereign debt and default," Journal of Economic Literature (47)3 (2009): 651-698.

⁷ L. Buchheit et al., "Revisiting sovereign bankruptcy," CIEPR Report (Brookings Institution, 2013).

Figure 1

Simulated Sovereign Default

Deviation from long-term trend in percent (simulation averages)



Source: Engler and Große Steffen, *Sovereign Risk*.

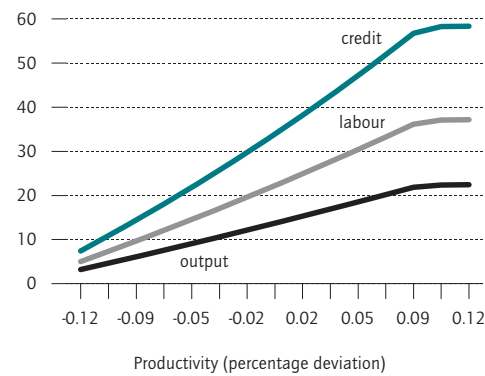
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The ex post costs of sovereign default resulting from a credit crunch can be up to 20 percent of GDP.

Figure 2

Costs of Sovereign Default

Percentage loss conditional on a debt haircut



Source: Engler and Große Steffen, *Sovereign Risk* (2014).

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The costs of a sovereign default are particularly low during a recession and make a debt haircut more likely.

Furthermore, it is essential to define the function of the

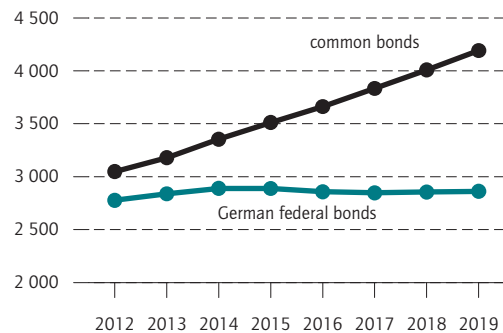
Regulation: Banking Sector Stability in Europe," DIW Economic Bulletin, no. 9 (2014); and C. Große Steffen and J. Schumacher (forthcoming) DIW Economic Bulletin, no. 10 (2014).

ESM and the ECB's OMT declaration with reference to bonds that continue to be issued nationally. Otherwise, there is a risk that the bailout ban will be lifted through the backdoor, as is evident by market expectations in the present institutional setting. Consequently, for approxi-

Figure 5

Issue Volumes

In billions of euros



Sources: IMF World Economic Outlook (WEO) Database; calculations by DIW Berlin.

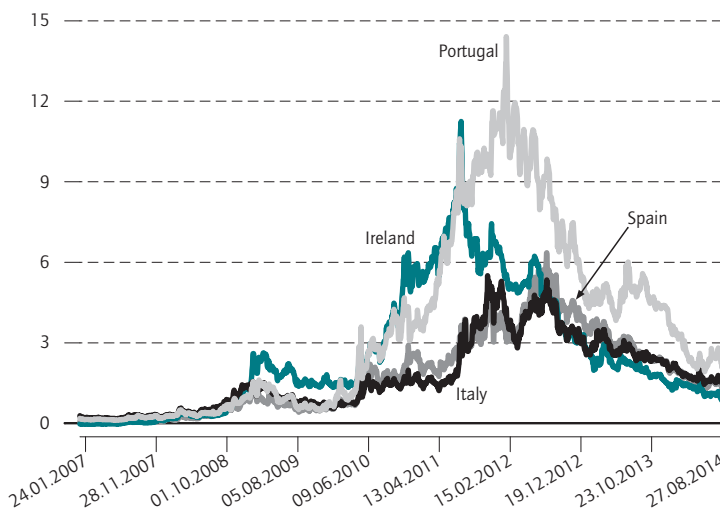
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In the long term, common bonds amounting to 25 percent of GDP in the euro area would exceed the market for German government bonds in terms of volume.

Figure 6

Bond Spreads over German Bonds

In percentage points with maturity of 10-years



Sources: Thomson Reuters Datastream; calculations by DIW Berlin.

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Interest on government bonds currently provides no incentive for debt consolidation.

mately two years now, the interest on government bonds in the euro area has been converging which shows that risk premiums do not offer any incentive to the crisis countries to reduce their debt levels (see Figure 6). The ESM's function should focus on the requirements of national liquidity squeezes to continue fending off specu-

lative attacks on national government debt. However, more rapid decision-making processes are also needed for cases of national insolvency to actually be resolved by restructuring rather than by liquidity assistance from the ESM.²⁸ Accordingly, it must be considered whether the OMT pledge should only be applied to commonly issued bonds, thus providing monetary recourse exclusively for this market segment.²⁹ In this case, the prohibition of monetary financing according to Article 123 of the Treaty on the Functioning of the European Union (TFEU) can be adhered to more strictly than it is to date. Further, in its judgment on the OMT, the German Constitutional Court also determined that due to, inter alia, the selectivity of the program which specifically purchases government bonds from ailing governments, the ECB had exceeded its mandate.³⁰ This objection would not apply to common bonds; in particular, the ECB could not affect redistribution within the Monetary Union by buying up common bonds. This also creates the precondition for ECB bond purchases for monetary policy purposes. In view of persistently low inflation rates in the euro area, it would be desirable to establish a market for intervention measures in the euro area in the immediate future.³¹

Lastly, entry criteria must be specified authorizing a country to issue common bonds. Obviously, one prerequisite is that a country already has a sustainable debt level. This is not easy to define, however. One possibility might be to base the definition on the current average euro area debt level (around 95 percent of GDP) as an approximate value. For the countries that fail to fulfil this criterion, a condition for introducing common bonds should be the presence of a feasible debt repayment schedule.

Common bonds should be introduced gradually once the fiscal coordination preconditions discussed earlier are in place. The governance issues associated with the introduction of common bonds within a federation of states and concerns relating to constitutional law need to be clarified in advance. Particular attention must be paid to the requirements of the bailout ban in accordance with Article 125 of the TFEU which—depending on the volume of common bonds—require a new legal

²⁸ This could give Article 13 Para. 1b of the ESM Treaty more weight as it stipulates sustainable debt levels as a prerequisite for ESM stability assistance.

²⁹ G. Illing and P. König, "The European Central Bank as Lender of Last Resort," DIW Economic Bulletin, no. 9 (2014).

³⁰ Paragraph 73 of the German Constitutional Court's Opinion from January 14, 2014. See www.bundesverfassungsgericht.de/entscheidungen/rs20140114_2bvr272813.html.

³¹ K. Bernoth, M. Fratzscher, and P. König, "Weak Inflation and the Threat of Deflation in the Euro Area: Limits of Conventional Monetary Policy," DIW Economic Bulletin, no. 5 (2014).

Box 2

German Federal Bonds: a Safe Haven for the Euro Area?

It became apparent during the crisis that German government bonds are not suited to solely assuming the role of safe assets in the euro area.¹ Certainly, German bonds can act as a safe haven in times of crisis as their price is robust in response to bad news. However, during the recent crisis, they represented a popular destination for flight capital from peripheral countries. As a result, it was increasingly difficult for banks from the periphery to purchase sufficient amounts of German "Bunds" as their supply was limited. Further, it is the widening gap of the pricing of government bonds from various countries within the euro area, which have been actively used as collateral on European interbank markets that was driving the divergence in European banks' financing costs. In future, these asymmetrical centrifugal forces in the euro area's banking system must be eliminated which, first and foremost, requires a regulatory adjustment to ensure the banks' portfolios no longer demonstrate any significant home bias and are secured by sufficient equity capital.²

¹ Privately issued securities, underwritten with mortgages for example, are equally unsuitable as a safe haven in times of crisis. See also B. Holmström and J. Tirole, "Private and public supply of liquidity," *Journal of Political Economy* 106(1) (1998): 1-40.

² J. Pockrandt and S. Radde, "Reformbedarf in der EU-Bankenregulierung: Solvenz von Banken und Staaten entkoppeln," *DIW Wochenbericht*,

Within such a reformed regulatory framework, however, Germany would presumably benefit from its status since its bonds are considered particularly safe. The interest rate benefits that can currently be observed from the crisis would in this way be strengthened and institutionalized by European regulatory adjustments which, in turn, would likely lead to new long-term imbalances.³ Further, significant political resistance against any reform to regulatory equity requirements for government debt can be anticipated.

Finally, the volume of German government outstanding bonds is too low to be able to provide enough safe bonds for the entire euro area. This problem is likely to get worse given the demographic changes in Germany and the likely consolidation path for public finances after the introduction of balanced budget rules. Therefore, an instrument issuing higher volumes is required in order that the supply side can meet the increased demand for safe assets that already exists in response to regulatory changes.

no. 20 (2012).

³ Therefore, Fonseca and Santa-Clara have also proposed a concept that aims to balance out the interest burden between countries. See J. Fonseca and P. Santa-Clara, "Euro-coupons: Mutualise the interest payments, not the principal," (May 11, 2012), voxeu.org.

basis in certain circumstances. In a precedent-setting judgment on the Treaty of Lisbon, the German Constitutional Court in Karlsruhe has depicted a roadmap for greater European integration. The constitutional conditions outlined in the judgment must be brought in line with a gradual introduction of Eurobonds.³²

Better Balance of Fiscal Redistribution Needed

An inevitable disadvantage of common bonds is the expected distortion of national financing costs associated with ex ante transfers. Many critics of Eurobonds fear that peripheral countries would be able to borrow more cheaply whereas more stable economies such as Germany would be forced to pay higher interest rates which

would essentially constitute the establishment of a permanent transfer mechanism.³³ This fear could become reality since stronger countries are jointly liable for the debts of other euro area countries and are thus perceived by investors as being less solvent.

Due to the strict restriction of common bonds to around 25 percent of GDP, however, the extent of liabilities is clearly limited. Further, other countries are also jointly liable which means there is only likely to be a slight increase in the risk for each individual country. Ultimately, it is also true that the stronger economies are likely to profit from the liability of their share in common bonds. Overall, the advantages and privileges associated with the safe haven function within a currency union can be more evenly distributed among the mem-

³² F. Schorkopf, "The European Union as an association of sovereign states: Karlsruhe's ruling on the Treaty of Lisbon," *German Law Journal* (10)8 (2009): 1219-1240.

³³ T. Berg, K. Carstensen, and H.-W. Sinn, "Was kosten Eurobonds?," *ifo Schnelldienst* 64(17) (2011): 25-33.

ber states, which would also contribute to political acceptance (see Box 2).

However, the key advantage is that creating common bonds to act as a safe haven will make it possible to differentiate between the average and marginal interest rates on national debt: while the average interest should fall as the new safe bonds profit from the safe haven advantage and the liquidity premium, it is likely that the marginal interest rates will vary substantially according to national circumstances. Above all, this can be achieved by effectively separating bank risks from sovereign risks. It therefore needs to be ensured that a complete yield curve develops for national bonds on the market. This, in turn, will provide strong incentives, beyond pure fiscal policy, to improve the quality of national economic policy in order for national governments not to lose sight of long-term debt sustainability.³⁴

Conclusion

The European sovereign debt crisis has revealed the necessity for effective fiscal policy coordination within the European Monetary Union. The agreed rescue packages paved the way for an ex post redistribution that failed to reduce sufficiently the attractiveness of national over-indebtedness.

The introduction of commonly issued bonds would contribute to reducing contagion between sovereign states and the banking system in the long term. Complementarity with other policy measures—above all the banking union and a public debt restructuring framework for the euro area—should always be prioritized. As a result, common bonds provide an opportunity to restore market incentives to cut national spending and thus, in the long term, also alleviate the problem of over-indebtedness. The debate on the introduction of Eurobonds has so far overlooked the disciplining effect and the improved balance between ex post and ex ante transfers that would be achieved. Since common bonds bring various other economic advantages, ranging from greater financial and capital market integration in the euro area to a strengthening of the euro as an international reserve currency, a less ideological debate is needed in Europe.

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³⁴ For this reason, Hellwig und Philippon's "Eurobills" proposal only includes short-term bonds. J. Tirole, "The euro crisis: some reflexions on institutional reform," *Financial Stability Review*, no. 16 (Banque de France, April 2012): 225–242.

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