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Erik Welin

Sacred Heart University, welin@eib.org

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SACRED HEART UNIVERSITY

Final Project

A Common Eurozone Bond

By Erik Welin

**FN 661 – Global Financial Markets and
Institutions**

Professor: Lucjan T. Orłowski, Ph.D

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Introduction

The sovereign bond yields of the Eurozone, or more correctly the euro area, have since the introduction of the Euro undergone a bond yield compression. However, as can be seen in table 1, these bond yields started to diverge considerably around mid 2008 following the recent financial crisis and increased sovereign risk. Yields on Greek, Irish, and Portuguese bond have diverged the most from for example German bonds. Based upon this and the ongoing economic integration within the EU and Eurozone, proposals for a common Eurozone bond have been raised.¹ There are many pros and cons with such a proposal. The pros and cons are dependent upon how such a proposal is designed and which factors are considered, i.e. economic and political. Based upon the recent development and discussions, this paper explores a potential common Eurozone bond from a financial and economic point of view.

Literature Overview

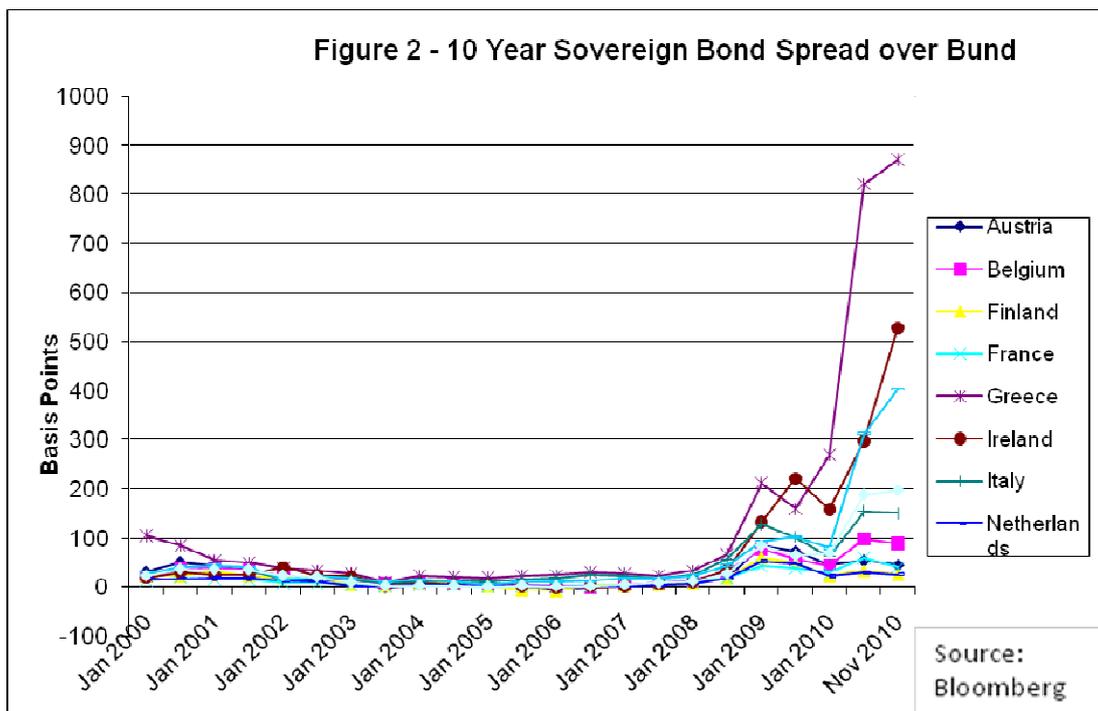
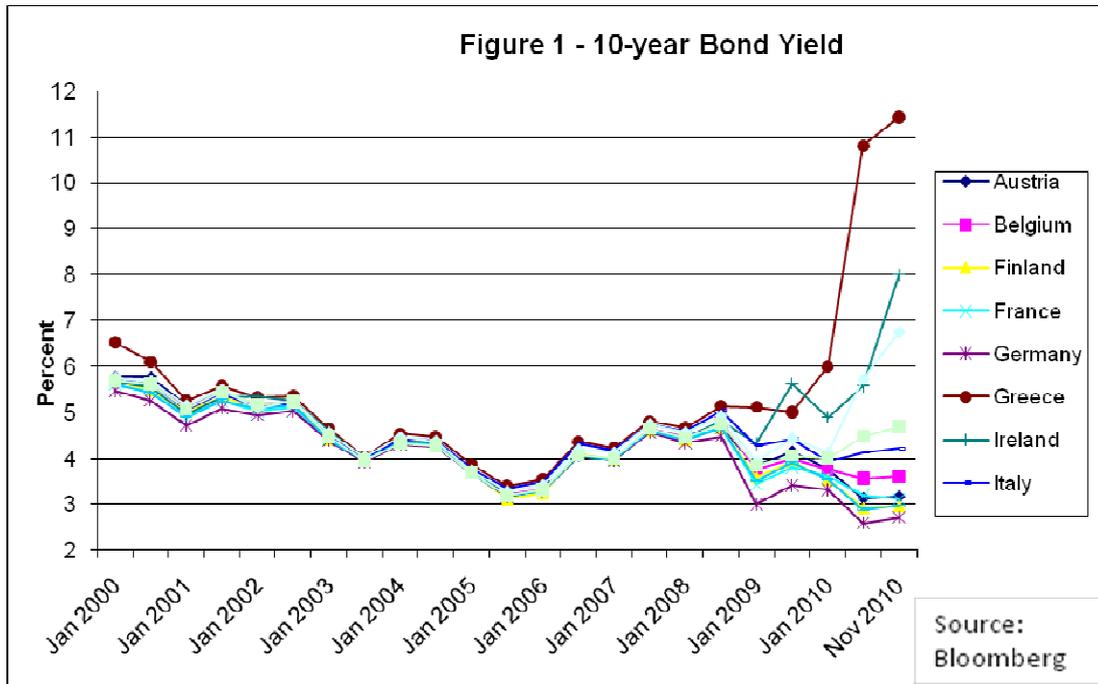
I have been unable to find any comprehensive research or working paper specifically about a common Eurozone bond. The literature instead seems to comprise a number of policy briefs, for example Delpa & von Weizsäcker (2010), and a number of comments, ideas, and proposals in news papers and other media. I have combined this with more general financial literature relating to bonds. I have used data from the European Commission, AMECO, and Bloomberg.

Sovereign Debt and Yields

Several proposals for a common Eurozone bond have been put forward by academics and bankers over the last couple of years. However, these proposals have only been received a wider interest by politicians and policy makers since the outbreak of the financial crisis, and in particular the current Eurozone sovereign debt crisis. The reasons for this are simple. Before the outbreak of the financial crisis the yield spreads above the German Bund were low in the Eurozone. The bond market apparently deemed for example Greek and French 10 year bonds to be close substitutes, as can be seen in table 2. The reasons for this were probably not that Greek and French 10 year bonds were actually perceived as close substitutes, but among others investors' desire for risk, or even "flight to risk", that prevailed prior to the financial crisis. This can be seen by investors' desire to hold high yielding ABS such as MBS and their desire to diversify their investments away from "safe" investments to more risky ones. Once the financial crisis set in, investors changed their behaviour dramatically by a "flight to safety" syndrome that has gripped the financial markets. The "flight to safety" took the form of sell offs of risky mortgage securities, corporate bonds, and relative risky sovereign bonds. Sovereign bonds of perceived safe issuers such as the US, Germany, and possibly France and a few others were singled out at safety harbours. This can be seen by looking at the sometimes negative nominal yield and even more frequently negative real yield on some sovereign bonds. Some countries with a relatively smaller economy but still stable debt levels and public finances, such as Finland and the Netherlands, saw their spreads increase compared to Germany. Further, countries such as Greece and Ireland have seen their spread compared to Germany increase

¹ Delpa & von Weizsäcker (2010) and Traynor (2010).

dramatically, suggesting that there are country-specific problems and not only general flight to safety.²



However, when comparing the lower spread on French 10 year bonds to the slightly higher spreads of Finnish and Dutch 10 year bonds, it becomes apparent that investors value French bonds' relative liquidity more compared to France's relative slightly worse economic situation compared to Finland and the Netherlands. This clearly suggests that there is a certain liquidity premium for smaller economies. This in an

² De Grauwe & Moesen (2009) and Oakley (2009).

extension implies that for example Greece and Ireland have not only been punished for their relative bad fiscal situation, but also because of their relative economic size.

In order to understand aggregate risk picture investors observe when comparing sovereign bonds, one would have to dismantle the yield into three components. This would be the risk free yield, the credit risk premium, and the liquidity risk premium. Given that none of these components are directly observable, any attempt would at best be an approximation.³ One approximation for credit risk premiums are credit default spreads, however, the CDS derivatives contain liquidity, counterparty and other risks. Consequently, a detailed discussion of these components would require another research paper, but it's imperative that these three components are kept in mind during certain sections of this paper.

Motivation for a Eurozone Bond

Given the current Euro sovereign debt crisis with examples such as Greece and Ireland, two things have become clear. First, any sovereign default would pose a much larger, probably even systemic risk, for the Eurozone as a whole since it would hurt the balance sheets of already struggling banks and it would threaten the liquidity of bond markets for sovereigns with similar situations through the mere flight to safety. Secondly, no-one is very particularly eager to bail out a country such as Greece who has lived beyond its means and also cooked its books misleading investors and politicians. Euro sovereigns therefore stand at the choice of bailing out a country, such as the "grand bargain" accomplished during the weekend of May 8 - 9, 2010, or risking contagion and a systemic collapse. This dilemma was supposed to be prevented by the Maastricht Treaty and the Stability and Growth Pact. The EMU had tools such as multilateral surveillance, excessive deficits and early warning procedures, but they did not stop the current situation from arising. A much more constructive proposal for solution is the introduction of a common Eurozone bond.⁴

There are mainly two different versions and reasons for the creation of a common Eurozone bond. Firstly, a common Eurozone issuance could be used for an additional funding with the aim of covering immediate liquidity for a sovereign by benefiting from stronger nations' better borrowing conditions. Key elements of this discussion is that the euro bonds only provide a temporary source of funding and would be a way for sovereigns to cover the liquidity need for another sovereign. The incipient European Financial Stability Facility (EFSF) would thus fall into this category.⁵ However, this would be a very short term solution and given the Eurozone sovereigns' debt problems, such a temporary solution could easily become necessary to revive again.

The second, and more substantial, version of the Eurozone bond would be a permanent system for common Eurozone sovereign bond issuance. The basic idea would be that all Eurozone sovereigns would pool their borrowing needs together and issue common Eurozone bonds, backed by all sovereigns through joint and several liability. The first and main problem of such a proposal is the risk of moral hazard and free riding by some sovereigns through excessive borrowing. The Bruegel Institute

³ Ericsson & Renault (2006) and Favero, Pagano, von Thadden (2010).

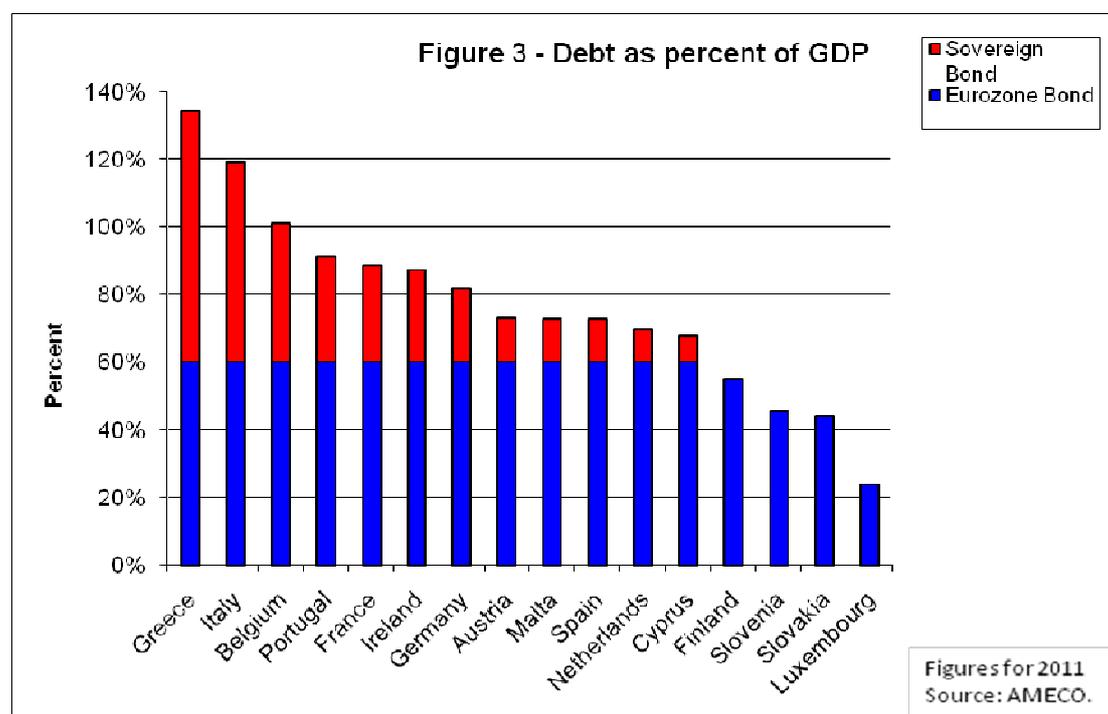
⁴ Jones (2010) and Springford (2009).

⁵ Kirkegaard (2010).

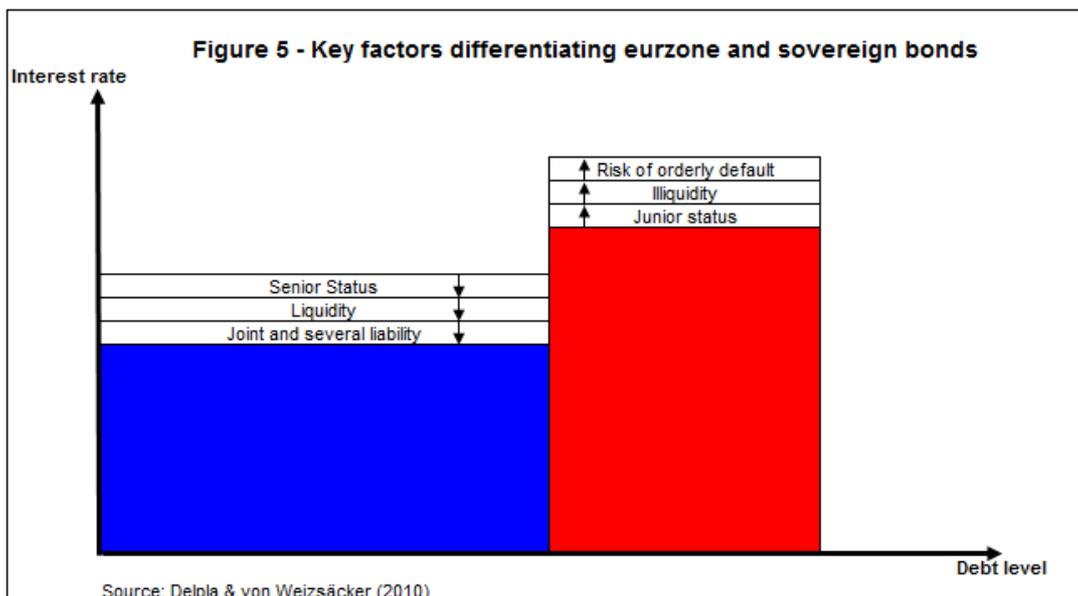
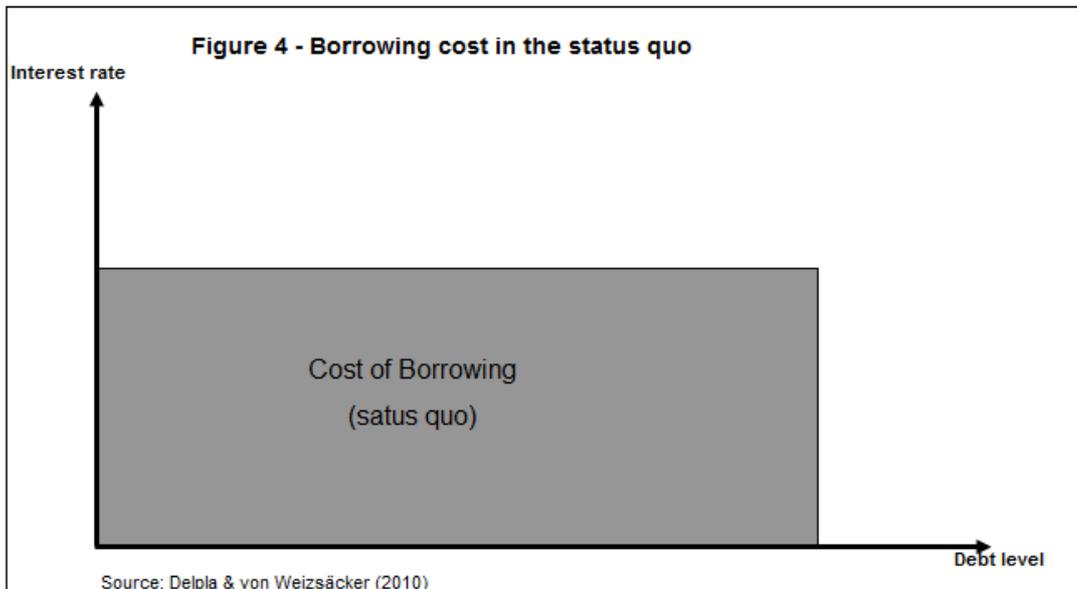
(Delpla & von Weizsäcker, 2010) therefore came up with a constructive proposal named the Blue Bond Proposal.⁶

The Blue Bond Proposal

The proposal by Delpla & von Weizsäcker (2010) aims at tackling the soaring debt levels and sovereign debt crisis by designing a Eurozone bond in an incentive-driven and durable way. The most important part of the Blue Bond Proposal is that it proposes the Eurozone countries, even EU countries, to pool national debt of up to 60 percent of GDP under the joint and several liability Eurozone bond system. Figure 3 illustrates the current debt to GDP ratios within the Eurozone. This debt would be senior to any other debt issued by the sovereigns. All sovereign debt in excess of 60 percent of GDP would be issued through national junior debt. In order to understand the economic implications of this proposal, the situation can be compared between figure 4 and figure 5. Figure 4 shows the status quo and the cost of borrowing for any Eurozone sovereign before the crisis as a function of the total level of debt and the average interest level. The interesting situation is clearly figure 5 where the sovereign can split its debt into blue senior Eurozone debt up to 60 percent of GDP and red junior national debt for any debt above this threshold. Given that the red tranche is junior, this national debt would be wiped out first in case of default. The junior debt will therefore contain more default risk as well as more liquidity risk since it only constitutes debt which exceeds the 60 percent threshold. Given the two different debt types' properties, the interest rates will be different as can be seen in figure 5.



⁶ Issing (2009) and Delpla & von Weizsäcker (2010).

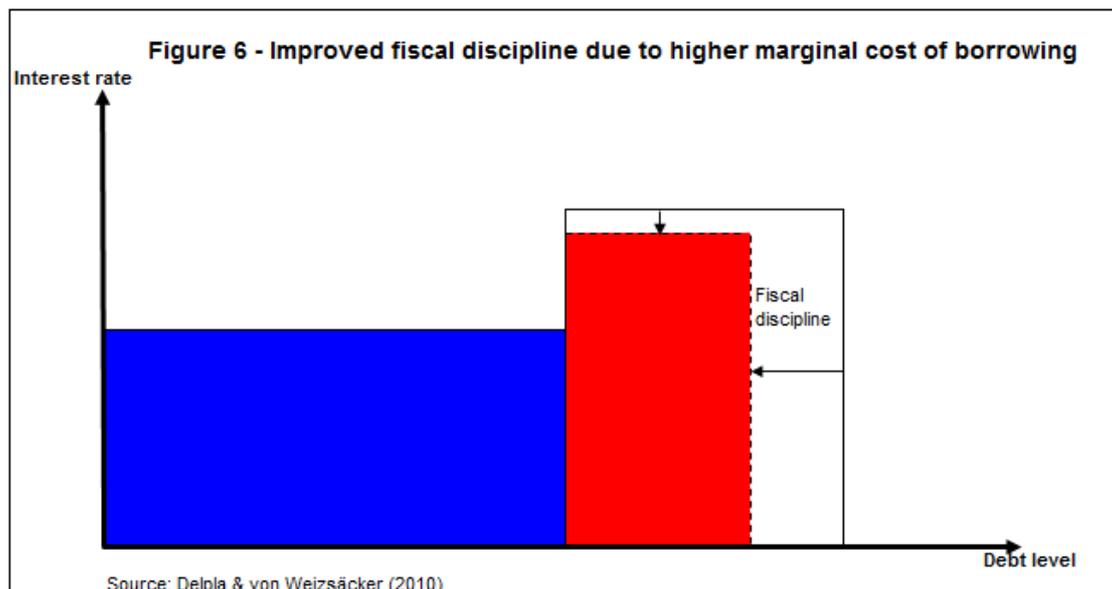


It's worth investigating the liquidity and quality aspects of this proposal further. Given that all Eurozone countries would issue up to 60 percent of their GDP as common Eurozone bonds, the total market could constitute €5.6 trillion. This is still only 51 percent of the total market for US Treasuries of €11.5 trillion. However, it's 175 percent of Germany's total sovereign debt of €2trillion. As a consequence, the large Eurozone bond market would be very liquid and deep and could become much more of an alternative to the US Treasury debt market. This new debt market would offer an alternative for sovereign debt funds wanting to diversify away from the somewhat hegemonic US Treasury debt market. In fact, some commentators describe the dollar and especially the quasi monopoly US Treasury market as the reason why the US is enjoying an exorbitant privilege, "essentially the ability to get something for nothing".⁷ In addition, the US' debt level of 103 percent of GDP (as of 2011) is questionable in terms of sustainability. The common Eurozone bond market, with a

⁷ Munchau (2009).

threshold of 60 percent of debt to GDP, would therefore be a very competitive alternative since the 60 percent threshold limits the debt level in a sustainable way. This would also strengthen the Euro as a world reserve currency.⁸

As a consequence, investors could start to diversify their investments in sovereign bonds by choosing to buy senior Eurozone bonds or junior sovereign bonds. This would clarify the situation for the capital market, signalling the relatively higher default probability on junior sovereign debt. Given the distinctiveness between the two types of debt, any default in the junior tranche could be relatively orderly. This would reduce the pressure on Eurozone members to save other sovereigns with unsustainable debt levels. A key aspect of this is of course the need to prepare for an eventual default by a Eurozone member. In order for this to be credible an important aspect is that the European Central Bank (ECB) should confirm the distinctiveness by not regarding the junior debt for its repo facility. All of these measures would confirm the divergence in interest rates as illustrated in figure 5. As a consequence of the divergence in interest rates between Eurozone bonds and junior sovereign debt, the marginal cost of borrowing has increased. The most likely effect of this is the improved fiscal discipline for sovereigns with a debt level exceeding 60 percent of GDP. A reduced junior sovereign debt level does not only decrease the total debt level, it also reduced the cost of borrowing on the junior sovereign debt. This disciplining effect of higher marginal cost of borrowing is a key element of constraining the excessive borrowing. This disciplining effect can be seen in figure 6.⁹



In terms of quality, the joint and several liability and the seniority will ensure that the Eurozone bond will get a AAA rating, which should be maintained as long as a majority and especially the stronger countries maintain a fiscal sound debt policy. Currently, the Maastricht treaty does set out that there is no possible bail out of other Eurozone members, i.e. the “no bail-out” clause of Article 103 of the Maastricht Treaty. However, the market has strong expectations about de facto bail outs of Eurozone member states, which has also happened. The introduction of a Eurozone

⁸ Delpla & von Weizsäcker (2010), Jones (2010) and De Grauwe & Moesen (2009).

⁹ Delpla & von Weizsäcker (2010)

bond would therefore just formalize, de jure, something which is already de facto the case. This proposal would therefore clarify any uncertainty on the as to whether bail-outs among Eurozone countries are reality or not. Further, since this is a pooling of debt and the default risks of different sovereigns do not tend to be perfectly correlated, the investment in Eurozone bonds is in itself a diversification. In fact, the common Eurozone bond can be seen as a form of CDO since it would be a pool of fiscal receipts of the participating countries. Given the structure of a CDO, it's claimed that any CDOs are safer than any individual underlying loan. This would imply that the Eurozone bonds would more easily maintain AAA rating compared to individual member states. Eurozone bonds could of course contain credit enhancement mechanisms such as tranches or sinkable funds.¹⁰

Negative aspects

The most worrying aspect of a common Eurozone bond is that the cause and relationship between bad fiscal policy in one country and the increased cost of borrowing in the same country will be weakened. In other words, the common Eurozone bond would carry an element of free riding where fiscally weaker countries would free ride on Germany and other countries' fiscal discipline. The 60 percent threshold would limit the abilities for countries to free ride. However, it's obvious that the benefits of the lower funding cost of the common Eurozone bond would benefit countries such as Greece and Ireland the most, and countries such as Germany and France would benefit the least. On the one hand, EU politicians and some policymakers believe that this is a very strong sign of European solidarity. However, arguments based upon solidarity are more easily marketed to Greek and Irish electorates than German electorates.¹¹

A deeper analysis of the relationships between risk free rate, risk premium, and liquidity premium could show that Germany, due to their pooling of debt together with fiscally weaker countries, could see their funding cost increase. This could make it difficult to make them accept this solution and convince them to participate in the common Eurozone bond issuance. However, it should be remembered that investors de facto expects stronger Eurozone countries to bail out weaker Eurozone countries in one way or another, which is currently being done with Greece and Ireland. The reasons for such a bail out are easy to understand because contagion and system risk would bring much higher financial and political costs for everybody. The Eurozone bond would therefore only institutionalize something that is already a fact.¹²

Another aspect of the 60 percent of GDP threshold is the effects on marginal borrowing cost. Countries with high debt ratios would have strong incentives to lower their fiscal debts down to a level of 60 percent of GDP. In fact, the junior debt issued by sovereigns to cover the financing need above 60 percent would cost a lot more than today. It can be assumed that credit spreads between Eurozone bond and junior Greece sovereign debt would be even more than 1,000 basis points. The reasons for this are on the one hand the reasons given above, but on the other hand that the rating would be lower and many institutional investors probably would be restricted from investing in the more risky junior Eurozone sovereign debts. Additionally, the ECB

¹⁰ Saunders & Cornett (2009)

¹¹ Issing (2009) , Delpla & von Weizsäcker (2010) & Springford (2009).

¹² Delpla & von Weizsäcker (2010)

should in accordance with the fact that this is a junior debt not accept sovereign bonds for their repo facility.¹³

On the other hand, countries whose debt to GDP ratio is lower than 60 percent, such as Finland, Slovenia, Slovakia, and Luxembourg would find that their borrowing cost has decreased. This would alter their propensity to borrow by increasing their propensity to do so. The Eurozone bond would in this way not improve the fiscal situation for these countries. Similarly, once high debt countries have lowered their debt to GDP ratios below 60 percent, the incentive to continue to lower the debt below the 60 percent level is less due to the free riding effect. In essence, the Eurozone bond would probably converge and institutionalize fiscal debt levels around 60 percent of GDP. Even though this is deemed sustainable in accordance with the Maastricht treaty, it's far from sure that this is economically optimal. Optimal debt levels might very well be different in different countries and during different stages of economic cycles.

Practical and Institutional Set Up

The introduction of a common Eurozone bond raises many practical questions. First of all it's not clear if this is legally possible. Secondly, if legally possible, it's very unclear how this would practically be made possible. Some commentators have proposed that the Eurozone bond project would start out with the issuance of only short term debt (one year or less). The maturity of these bonds could then be extended. However, the major practical problem remains; how would countries be able to issue common Eurozone bonds now given that only four countries have debt to GDP ratios of the proposed threshold of 60 percent? It would by all means be difficult for sovereigns to declare their already outstanding bonds as junior and then issue new Eurozone bonds because incumbent investors would then be worse off, but without compensation. The most likely alternative would therefore be that only countries whose debt to GDP ratios are already below 60 percent can issue Eurozone bonds, but this would defeat the major idea behind this, namely the assistance to financially weak nations.

Further to the practical aspects, an important question would be how these bonds would be issued. In order to make these bonds 100 percent substitutable and disconnect all possible links between sovereigns and particular Eurozone bonds, the only possibility would be through a common European debt office. Some commentators have proposed that the European Investment Bank (EIB) would administrate this issuance. However, the EIB would hardly want its debt to be mistaken or even associated with Eurozone bonds issued for the purpose of sovereigns. The most likely alternative would therefore be the already existing EFSF. In fact, this would therefore be a transformation of the EFSF from a temporary to a permanent debt office. At the same time as the European debt office would be formalized, the rules governing the Eurozone bond issuance would have to be laid down. The legal basis for such a debt office would be very interesting to discover, however, only a couple of points can be treated without losing the focus in this paper. For example, one interesting basic rule would be the ability to suspend sovereigns

¹³ Delpla & von Weizsäcker (2010)

from the common Eurozone bond issuance who for example break fundamental rules of mutual respect, such as cooking their books.¹⁴

Discussion and Conclusions

This paper has not investigated the true relationships between risk free rates, credit, and liquidity risk. Albeit difficult to model, robust econometrics testing would be a strong complement to this conceptual discussion and probably a prerequisite for further discussion and analysis of this subject.

The introduction of Eurozone bonds could shift the surveillance of fiscal policy from the Commission and decisions of sanctions from the European Council to the market. The only thing the EMU would have to create is a clear framework and make sure that there are no exceptions from it undermining the credibility of the two tier sovereign bonds. The question is of course if politicians would like to give away this power. However, with the pressure from the markets, they might just be forced to do so for the good of everybody. Most crises within the EU usually make politicians understand the importance of why closer integration is a good thing. The introduction of a common Eurozone bond is not necessarily a pareto optimal solution. However, given the bad financial situation, this might just be one of few good alternatives left. In fact, when it comes to the EU and politics, economics is not always the first politicians think about. The rationale behind a common Eurozone bond, as outlined in this paper, could therefore be ignored once politicians are convinced. Once politicians are convinced, practical details would also be possible to solve.

¹⁴Jones (2010).

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