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Fixed Income Special Report

The EC's Eurobond Green Paper

We analyse the Commission proposals for Eurobonds
The EU Commission has produced a Green Paper on 'stability bonds', joint funding instruments of the eurozone member states.

A Green Paper is several steps away from a legislative proposal
It should be noted that a Green Paper represents a very weak form of endorsement by the Commission and should be seen as only the starting point of a discussion process. Whether eurobonds will ever be introduced, or whether their design will resemble anything in the Green Paper is still open.

The proposals need substantial refinements
We critique the three designs proposed by the Commission under the premiss of no full fiscal union. Overall, we do not consider the paper to be sufficiently advanced to form the basis for any concrete discussion of joint funding.

The relationship between risk and market price of risk is crucial
We provide background on the relationship between the efficacy of joint funding instruments and the functional form of risk premia. We demonstrate that it is possible that the total funding cost of the eurozone increases as a result of pooled funding.

Of the three option presented, only the first and third have a realistic chance of success
Overall, we view only options 1 (full joint and several liability on all funding) and 3 (several liability only) in the Green Paper as relevant.

Economics

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Eurobonds

Introduction

In the interest of fair disclosure we should start the discussion by declaring that we view joint funding of Eurozone governments as unhelpful at this stage. Our stance is unaffected by a rebranding of these instruments as 'stability bonds' and in contrast to the Green Paper, we will therefore retain the name eurobonds.

The example of the Greek rescue operations shows that any fiscal assistance between member states faces a conflict between conditionality and sovereignty. As long as there is no political consensus to transform the eurozone into a transfer union, assistance is seen as a temporary means to enable adjustment processes which are undertaken in specific countries. This means that fiscal resources of one country are transferred or put at risk in return for certain fiscal decisions in another country. In democracies, a bargain is implied between the populations of the two countries, represented by their respective governments. Although governments may agree on assistance in the interest of stabilising the common currency area, the affected populations may not support this implicit bargain, and can indeed change their governments if they disagree sufficiently with the terms. For the country providing the assistance, compliance with the terms of the bargain can only be known ex-post. Suspension of further aid following a perceived breach of the terms simply restores the original default risk but occurs at a time when further credit (and at that time public credit) has been extended to the aid recipient, increasing the cost of a default to the aid providers. Greece has consistently failed to abide by the terms of its bailout, not only through the effects of a deeper than expected recession, but also through an institutional failure to implement structural reforms and privatisations. Still, at the time of writing, funding to Greece has not been withheld.

For joint funding instruments to be useful, the implicit bargain above must either be made redundant by a commitment to a transfer union, or be made enforceable potentially against the will of the electorate. Neither option is imminent in the eurozone. A transfer union currently has no democratic mandate and would likely be rejected if it were to be put to a popular vote. On the other hand, enforcing fiscal and structural adjustments against the will electorates is barred by the constitutional rights of democratic expression which are guaranteed by the EU Treaties. The inability of the EU to demand specific fiscal actions stems from the principles of conferral and subsidiarity (Article 5 TEU) while the resistance of a state such interference is founded on the principle of democratic representation (Article 10(2) TEU). At this point, therefore, we see no legal basis for eurobonds and the hurdles to create one are large. The European Commission has proposed legislation for stricter budget controls at the same time as publishing the Green Paper on eurobonds. However, the constitutional hurdles to implementing such legislation cannot be removed by Commission fiat.

It may be an unspoken attraction of joint funding instruments that the existence of such bonds would make it harder for the ECB to resist calls for debt monetisation. While we acknowledge this risk[1], we see no direct link between the creation of eurobonds and inflation. For eurobonds to become a problem for price stability, there would have to be a liquidity crisis in the market for the joint debt instruments. Such a crisis is less likely to occur for eurobonds than for any of the currently existing debt markets. The eurozone overall has an almost balanced current account and is therefore almost independent of external funding.

[1] As a German institution, we view it as a risk rather than a hope.

On the positive side, the availability of joint funding in some of the options discussed in the paper means that the risk of defaults caused by a sudden withdrawal of liquidity is substantially reduced, even without a commitment of the ECB to act as lender of last resort. As long as the eurozone as a whole can fund, each member state can fund under these options. Eurobonds can therefore incorporate elements of a liquidity support that would otherwise have to be provided by other means such as the ESM.

We have in the past argued that there are structural reasons to assume fiscal divergence between the eurozone countries to continue[2]. This means some form of fiscal transfer will remain necessary. This fiscal transfer can take the form of sporadic debt forgiveness (as it is currently being implemented for Greece), or it could be done through periodic outright transfer payments. Joint and several liability eurobonds imply a significant probability of government debt assumption by other member states when the original debtor nation becomes unable to serve its debts. This implies fiscal transfers through debt forgiveness. We view the fiscal transfer option as less disruptive and therefore see a transfer union as economically preferable to a joint funding instrument. Joint funding may appear politically preferable because the fiscal transfer is pushed into the future (ie, to the point of insolvency of the recipient of aid) and can perhaps be blamed on market speculators rather than structural problems or fiscal mismanagement. However, we do not see the hope for voter myopia as a valid criterion for structural design.

Still, the European Commission has produced design proposals for joint funding instruments and it behooves us as market participants to analyse their ideas.

Option 1: Funding of all new debt through bonds with joint and several liability

This option amounts to full sharing of credit risk among participating governments and is therefore the cleanest form of eurobonds. The main advantage of this model is that investors would face a single class of government bond in the eurozone which would quickly provide bonds of very large size with the attendant liquidity benefits. Credit risk analysis would be required only for the eurozone in aggregate because individual country risks would be equilibrated by the joint and several liability. The eurozone member states would set up a joint debt management office which would form the fiscal counterpart to the ECB.

In order for this model to be successful, the joint issuance and the joint and several guarantee would have to be implemented with changes to the EU Treaties to remove any investor concerns over the durability of the joint funding effort. If investors were to see a high probability of single states exiting the joint funding mechanism, this may create problems in particular during the ramp-up phase of the joint issuance. The option also requires intense intervention in national budgets to avoid free rider problems from emerging.

We believe that single-country credit risk would remain a topic for credit analysts even in this model. The credit standing of sub-sovereigns and banks in particular would probably be still dependent on the individual fiscal resources of each country. This is because we envisage that somewhat discretionary actions such as bank bailouts or support for troubled regional bodies would be constrained by the treaties establishing joint funding. Individual fiscal strength would therefore not be completely obscured by the joint funding mechanism. The mechanism by which individual credit risk would manifest itself for investors is that there could be quasi-default events where a given country fails to make required payments to the

[2] *The Ricardian Trap: Evidence, Implications and Exits*, Fixed Income special report 8 June 2011

joint treasury and the shortfall is made up from larger contributions of other member states. Investors would experience no loss event but the failure to pay would be publicly known from the accounts of the joint treasury.

We do not expect such joint and several liability bonds to have very high credit ratings and rather see the likely rating in the lower double-A range given current fiscal metrics. There are two reasons why high double-A or even triple-A ratings are unlikely. The first is simply that the aggregate fiscal metrics of the eurozone are in the double-A category and the current triple-A borrowers would be clearly unable to sustain the total debt of the eurozone. The second is that there will always be doubts over the cohesion of the joint funding model. We view sovereign default events generally as breaches of contracts and therefore see little reason to differentiate between the specific contracts that are being broken. Ratings agencies will therefore assign a non-zero probability to a failure to pay event that arises from a sovereign stepping away from the obligations under the joint bonds. At the same time, the sheer weight of the eurozone and the liquidity of the new bonds would mean that there would be a sufficient market for these debt securities. The final rating may therefore not be very important for the ability to fund through these bonds. A good example in this context is Japan which enjoys very cheap funding despite lower credit ratings than for instance the US.

Overall, we view this option as realistic in the sense that if it were in existence, there would be no obvious problem with conducting all sovereign funding through these instruments. However, we have grave doubts that the necessary treaty changes can be achieved in a reasonable time.

Option 2: Mix of joint and individual funding

This option breaks the funding of each participating member state into two parts. One part is done through joint funding instruments with joint and several liability while the rest is done through bonds issued under the national name alone. The payment obligations under the latter bonds would be subordinated to the obligation under the joint funding instruments.

Option 2 has received extensive discussion in its incarnation as the blue/red bond proposal proposed by the Brueghel Institute[3] and therefore the problems with the model are well-known. The core problem is that the idea of subordinated government debt is completely untested and indeed very difficult to implement. In order to understand the difficulties, we recapitulate the meaning of subordination in the private sector. Subordinated debt is in the first instance an unconditional payment obligation in the same way as senior debt, and the subordination only becomes effective in default. The debtor includes subordination in the debt contract, together with some specifications as to the amount and form of senior debt that ranks ahead of it. Should the issuer be put into bankruptcy proceedings, a court-appointed liquidator oversees the process of realising assets and repaying creditors. Only at that stage does the distinction between senior and subordinated debt become relevant because the liquidator will pay senior debt holders ahead of subordinated creditors. The subordinated investors have in effect pre-agreed to be ranked behind senior debt when they lent under the subordinated documentation. The distinction between senior and subordinated debt is therefore nothing more than a binding, pre-agreed set of instructions to the liquidator.

In a sovereign default event, no liquidation takes place because a sovereign state cannot liquidate assets in the same way as a private debtor and there is no court-appointed liquidator. What happens in a sovereign default event may include some asset sales but more

[3] *The Blue Bond Proposal*, Bruegel Policy Brief, Delpla and von Weizsäcker May 2010.

importantly involves the renegotiation of the use of tax receipts and other government income streams between creditors and the debtor government. The implementation of subordination for a sovereign therefore amounts to a pre-agreed priority of claims on tax receipts in the case that a government fails to live up to its payment obligations. The ECB has recently taken to refer to defaults as failures to 'honour the national signature' and as mentioned above, we see little point in distinguishing between the risks of different types of such failures. A sovereign that fails to honour the signature on its bonds may well fail to honour the signature on the subordination agreement. The only reliable way to implement subordination is therefore to make the distribution of tax receipts independent of the wishes of the sovereign, and that means in the last consequence that taxes have to be collected by a third party, e.g. the EU. Furthermore, this third party tax collection must be implemented in such a way that the default correlation between the agreement implementing it and the sovereign itself is close to zero. The traditional way of ensuring such an outcome is military intervention but we do not believe that this method is part of the current EC thinking.

Overall we see the level of interference with sovereignty required in order to implement option 2 as even deeper are than in option 1. Option 1 only requires the EU to be able to interfere with the use of government money (such as to prevent free rider effects by spendthrift states) while option 2 can only credibly be implemented by interfering with the collection of government monies. The difficulties in securing agreement on this strong interference are to us the single biggest obstacle to implementation.

Secondary problems exist. We consider it very unlikely that subordinated government debt could be sold at reasonable cost by any eurozone member, including the strongest ones, when the scope for issuance of senior debt has been exhausted. This negates the proposed benefit of this model, namely that the higher funding costs on 'excessive' debt would deter countries from incurring such debts in the first place. We also believe that for the same reason this proposed incentive structure actually destabilises the market. As long as a country has substantial reserves of available joint borrowing capacity, subordinated 'national' debt is actually not much more risky than joint debt because due payments on national debt can be refinanced with joint debt. Countries could therefore be tempted to continue to issue only national debt, treating any additional cost over joint debt as an insurance premium for the access to joint debt. Unless designed properly, the existence of the joint issuance market is very similar to a pre-committed credit line like the EFSF but with no programme conditions for access. A fiscal deterioration in a country following this 'arbitrage' would cause a rapid increase in joint debt issuance to roll maturing national debts (which would create contagion through higher interest rate costs for all participating countries) until this avenue is exhausted and the country finds itself in need of having to issue national bonds again, but now at an exorbitant cost, resulting in default. We also believe that CDS contracts and debt covenants may be triggered by making joint bonds senior to existing debt.

Overall, we view option 2 as more difficult to implement than option 1 while at the same time not offering the same simplicity and economic benefits of that option. Option 2 is therefore completely dominated by option 1 and we consider it to be unrealistic for that reason.

Option 3: Several but not joint liability

We admit to significant bias towards this option because it corresponds closely to our 'modest eurobond' proposal[4]. In this scheme, issuance of debt is pooled and each country only bears a share of the liability that corresponds to its own share in the borrowing. The

[4] *A modest Eurobond proposal*, Fixed Income special report 25 August 2011

main attraction of this proposal is that it can be implemented without treaty changes and we are happy to see this aspect of our analysis confirmed by the Commission.

However, S&P has already indicated informally that without further measures, it would assign to such debt at best the lowest rating of any participating member state. We agree to the extent that the probability of default on a several liability bond would indeed be higher than the probability of default on any one individual national bond. However, if credit risk is seen in a context that also includes the loss given default, it is clear that in most loss scenarios the loss given default of the joint bond is a lot lower than the haircut that can be expected in a single country bond. This is likely to create some ratings uplift potential with other rating agencies although it should be kept in mind that this uplift will be relative to the lowest country rating, ie, be applied to what is at least currently a very low base.

The Green Paper proposes some ways to address this, namely the provision of collateral such as cash or gold reserves, or the pledging of specific tax revenues. We consider none of these ideas to be realistic. Cash collateral implies negative carry or the large-scale purchase of highly rated government bonds by other governments. Negative carry reduces the economic benefits of eurobonds and large cross-holdings of government debt probably violate the EU Treaty no-bailout clause in Article 125 ("A Member State shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of another Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project")[5]. Gold reserves are usually legally owned by the central bank so that pledging them against eurobonds would violate the independence of the ESCB. Pledging specific tax receipts runs into the problems of actually enforcing any such pledge already mentioned in our discussion of option 2.

We continue to believe that the simplest approach is to have each government guarantee a fixed multiple of its borrowing so as to provide over-collateralisation of the borrowed amounts which would provide a ratings uplift. This mechanism is applied already in the EFSF and therefore tested, notwithstanding the current widening of EFSF spreads. We believe that guaranteeing 3 times the borrowed amount in interest and principal would enable the issuance of highly rated eurobonds.

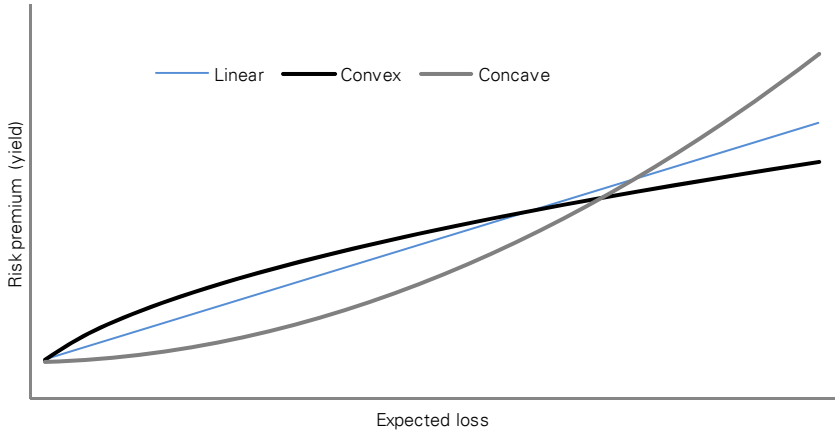
Risk premia and funding costs

There is consensus among most economists that more risk implies higher risk premia (and in turn, higher expected return). A common assumption is that this risk premium is linear, ie, there is a fixed increment of risk premium for a given increment of risk. Loosely speaking, this is known as the Capital Asset Pricing Model (CAPM).

There is, however, no reason why risk premia should be linear in this sense or indeed why the form of the relationship between risk and return should even be constant through time. The chart below shows three different relationships that could exist in the market. The convex relationship may be a good description of the pre-crisis market: searching for assets yielding certain target returns, investors were happy to accept increased incremental risk for ever smaller extra returns. The concave relationship may be more appropriate for the current market environment where placing assets with even slightly higher risk requires increasingly higher returns. To paraphrase a quote from physics, talking about non-linear risk premia is like talking about non-elephant biology. Linearity is the exception, not the norm.

[5] Somewhat counterintuitively, here it would be the purchase of strong country bonds by weak countries that would constitute the treaty violation.

Risk and risk premia



Source: Deutsche Bank

This functional form matters for the efficacy of joint bond funding. By construction, the fiscal strength of the eurozone is at any given moment in time equal to the weighted average fiscal strength of the member countries. The undeniable structural benefits of the common currency act only over longer time periods. As far as the fiscal measures that determine the ability to make a current payment is concerned, the eurozone simply is the sum of its parts. This means that joint issuance creates a risk that is the weighted average risk of each member state. The important point for eurobonds is that the cost of issuing at this risk will be higher or lower than the weighted average of the standalone costs. Only if risk premia are linear will the market also charge the weighted average yield on joint bonds[6]. In a convex scenario, the funding cost of eurobonds may far exceed the average funding cost of current government bonds. The Green Paper cites a number of studies that offer analyses of this issue at different sophistication levels. We simply take the position that it is impossible to know the outcome ex-ante because a world with eurobonds will be very different from the world without them. To claim that eurobonds lower funding costs as made by the Green Paper ("The liquidity and high credit quality of the Stability Bond market would deliver low benchmark yields, reflecting correspondingly low credit risk and liquidity premiums") is therefore not credible.

Summary

The EC Green Paper lists three options for joint funding instruments. Subject to adjustments, we view the options 1 and 3 as feasible. Option 2 is dominated by option 1 and therefore irrelevant. The problems still contained in the Green Paper are too us too large to see it as a serious step towards the actual implementation of joint funding.

[6] We admit to some hand-waving in this argument. We absorb any non-linearity in the relationship between fiscal variables and default risk into the risk premium. Given the low default risk, this approximation can be excused as a kind of Taylor expansion.

Appendix 1

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