Is the 'Euro Bond' the Answer to the Euro Sovereign Debt Crisis? What Outcome can Investors Expect out of Europe?

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Abstract

This paper analyzes the causes of the sovereign debt crisis in the eurozone and examines the policy alternatives confronting euro area governments. It suggests that pooling fiscal risks, creating an EU Treasury and issuing jointly-backed euro bonds is an optimal solution and the inevitable conclusion of the economic integration project in Europe. It examines the advantages and disadvantages of euro bonds and concludes that issuing euro bonds will transform a market that is fragmented along national lines into a single unified European government bond (EGB) market that will have the depth, breadth and liquidity to match the US Treasury market. By enhancing the size and liquidity of the EGB market it will become possible for global investors and wealth managers to use euro bond instruments as a tool for payment or transactions needs as well as short-term precautionary and investment balances that will increase the demand for them and lower their yields. This development will allow the Euro area to extract seigniorage benefits similar to those that the US has enjoyed in the post war period that should lower funding costs even for the fiscally strong euro area countries. It will also consolidate the euro as one of the world's two principal reserve currencies. The risk that fiscally weak area countries might take advantage of low borrowing costs to increase debt can be easily and effectively mitigated by agreeing on a formula that will establish an escalating rate in the sharing of interest costs that will be proportional to their debt-GDP ratio. Thus moral hazard is mitigated and incentives are created to reduce debt and increase income.

Introduction

The sovereign debt crisis currently raging in the euro zone first came to the forefront in November 2009 when the newly elected government of George Papandreou surprised markets by announcing a budget deficit (12.7% of GDP) double what the outgoing government had projected few months before. What spooked markets was not merely the unexpected magnitude of the deficit. Greece was already highly vulnerable to external financial shocks due to a) its very high debt level (300 billion euro, a debt-GDP ratio of 115%); b) its very high degree of foreign indebtedness (75% of its public debt was external); c) its deteriorating international competitiveness since entering the euro zone, (the current account deficit rose from 7% in 2001 to 14% of GDP in 2008) and d) it had a history of underreporting deficits and concealing part of its debt in conjunction with poor public governance, especially in tax compliance and collection (tax revenues 37% of GDP compared to 44% for the EU). In the context of global financial de-leveraging and risk aversion, one of the legacies of the global financial crisis of 2008, markets reassessed the sovereign credit risks and suddenly the spreads between Greek government bonds (GGB) and German bunds started to widen while premiums on credit default swaps (CDS) started to sore.

What followed is well known to the reader. On the surface one is tempted to conclude that Greece alone is to blame for its fiscal problems. Although, this is certainly true, it is only half the story. Today almost two years later we have come to the realization that Greece's problem is also symptomatic of wider systemic flaws inherent in the design of the euro. Since Greece's first bailout by its euro

partners and the IMF in May 2010, Ireland and then Portugal ran into fiscal crises of their own and became recipients of bailout packages. In July 2011, the crisis began to spread to Italy and Spain when 10-year bond yields rose above 6%, forcing the European Central Bank (ECB) to intervene in the secondary market to buy their bonds. At the same time, yields on Belgian and French bonds - both part of the euro core- also started to rise and their spreads against German bunds reached their highest levels since the launch of the euro. From a seemingly Greek fiscal crisis the situation has unfolded into a euro-zone sovereign debt and banking crisis, a systemic crisis of confidence in the 17 countries that share the common currency. This crisis is now threatening the stability of the European Monetary System (EMU) and the common currency itself, the euro.

Why is the crisis concentrated in the Euro Zone?

Why is this crisis concentrated in the euro-zone and has not spread to other EU member countries like the UK that has a 9.1% budget deficit, a high level of debt (77.2% of GDP) and a weakened financial sector? There are three key reasons why. Firstly, when the euro area countries joined the EMU and exchanged their individual currencies for the euro, they gave up two vital tools for managing their economies: the power to create money and set interest rates (monetary policy) and the freedom to allow their exchange rates to fluctuate in order to adjust to internal imbalances or external shocks (exchange rate policy). In countries like Greece, Ireland, Portugal, Spain, and Italy monetary policy would have been more

restrictive and interest rates higher during the 2001-08 period and would not have borrowed as much while in the 2008-10 period monetary policy would have been looser with lower interest rates and they would have let their currencies depreciate to restore their competitiveness and adjust to the external shock of the global recession. Their debt would not have risen to the levels they are today and the sustainability of their fiscal debts would not be in question.

Secondly, the EU Capital Requirements Directive (CRD) on the application of the Basel II capital adequacy rules allowed euro zone banks to assign a risk weighting of 0% to member states' sovereign debt exposure in domestic currency. Euro area banks buying sovereign bonds of euro area countries denominated in euros did not have to post any capital against them since they were considered risk free. The idea of sovereign risk within the euro zone was deemed entirely unthinkable, more so given the criteria agreed upon in the stability and growth pact (SGP) of keeping budget deficits below 3% and public debt at 60% of GDP. European banks could borrow in the inter-bank market at low short-term rates and invest the funds in long sovereign bonds of euro area members like Greece and Portugal and gain high risk free spreads on these securities. Thus, euro core banks in France and Germany, among others, rushed to buy euro periphery bonds and in the process drove their spreads to less than 30 basis points against the bunds. To Greek borrowers, raising money at low German rates became highly tempting and an easy way out to compensate for the declining competitiveness and rising payments imbalances exacerbated by entry into the euro. At the same time, global

banks loaded up on high yielding sovereign bonds without having to use any of their own capital.

Thirdly, while the Euro periphery was losing competitiveness against Germany, the whole of the euro zone was losing competitiveness against the US dollar, the Chinese yuan, and other currencies. The appreciation in the value of the euro (between 2001 and 2008 the euro gained 64.2% against the US dollar) and its acceptance as a global reserve currency made it harder for the euro zone to increase exports, contain imports and slowed the overall rate of growth in GDP and tax revenues. Accentuating this problem was also the fact that the ECB's focus was on price stability rather than facilitating economic growth. Significant in this regard was that the monetary and fiscal support packages put in place during the global financial crisis in the euro zone were small (18% of GDP) when compared to those put in place by the USA (74% of GDP) and the UK (73% of GDP) (Alessandri & Haldane[2009]).

Essentially, the euro area set for itself a very high fiscal and monetary standard, akin to the gold standard, that became very hard for most of its members to sustain once the de-leveraging cycle begun in 2008, following the global financial crisis and the ensuing shock from the global economic recession of 2009. The result of these twin blows was to open up large fiscal gaps in the budgets of all euro area governments while some of them were in a more vulnerable position either due to bursting housing bubbles, high debt exposure or inadequate international competitiveness. Had these countries allowed their currencies to depreciate and/or created more money to finance their deficits, as the

USA and the UK have done, the euro-debt crisis would probably not be taking place.

Euro Zone Members Face a Limited Menu of Unattractive Policy Options

Now, the euro zone has to deal with the biggest crisis since its creation in 1999. How can the currency union be maintained and confidence restored while reducing debt levels and simultaneously stimulating economic growth? An analysis of the available policy options reveals that there is no easy way out. The most pressing problem is the high budget deficit and public debt ratios, especially in the periphery which includes much of Italy, the euro zone's third largest economy. The standard tools for dealing with this problem are a mix of restrictive fiscal and stimulative monetary policy and currency depreciation to reduce budget deficits while keeping the economy growing, thereby allowing debt ratios to fall in a gradual but orderly manner. This policy option is not open to euro zone members because they no longer control their monetary and exchange rate policy The only way a country can pursue this option would be to exit the EMU which is nearly impossible and puts the common currency at risk.

The second option is internal devaluation through the implementation of austerity measures to reduce deficits and structural reform policies to enhance competitiveness, the prescription being currently applied. The problem with this option is that it is harder to implement because it faces strong social and political

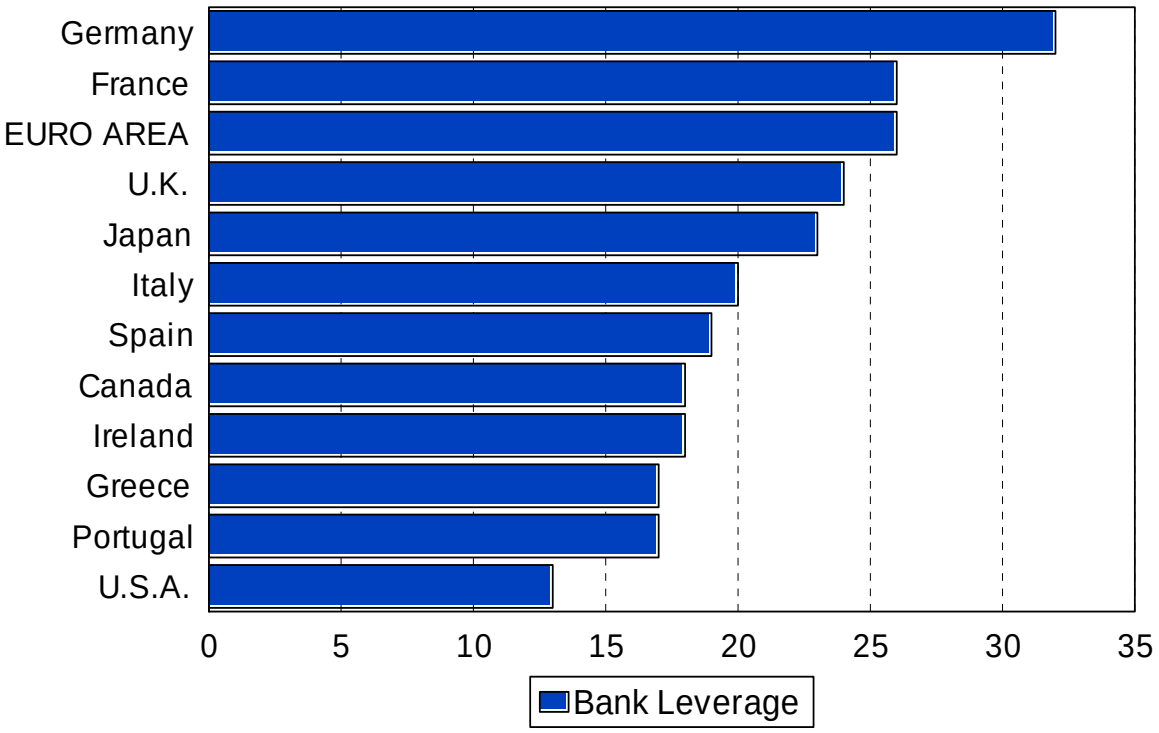
resistance in the countries where it is being applied while it also takes more time to achieve the required results. In the short term as the economy slows or contracts debt ratios rise further before they can begin to fall in the medium and long term. This option works best when a country carries it out in isolation while its trading partners experience economic growth. When many countries are carrying out austerity measures simultaneously and the external economic environment is weak or sluggish –as is currently the case in the euro zone and the global economy- the pain is higher and it takes much longer to achieve the desired fiscal consolidation. Under such circumstances, the risk is high that the entire effort backfires and economies fall into recession, deficits remain while debt levels rise further undermining long-term sustainability and aggravating the crisis.

The third option is to allow managed defaults and debt restructuring by countries experiencing the highest debt ratios. It is one thing to default against outsiders who are far away like Argentina, and another to default against your own economic partners with whom you share a common union. Defaulting will create large losses for euro area banks, which are highly leveraged to begin with. As **Exhibit 1** illustrates, the leverage ratios of Euro zone banks is twice as high as those of USA banks[1] Because euro area sovereign bonds were zero rated for capital adequacy purposes, these banks are quite vulnerable because they were not required to post capital against such a risk and since the crisis broke out have not had enough time to build sufficient provisions against such losses. Also adding to the risks is that European banks have funded a significant portion of their bond positions with short-term funding from the inter-bank market and currently many

European banks are experiencing difficulty rolling over their inter-bank lines at the same rate and same terms as before.

Exhibit 1

BANK LEVERAGE MULTIPLES



Source: IMF, Global Financial Stability Report, April, 2011

The default option carries the risk of transforming the euro sovereign debt crisis into a euro-wide banking crisis that will force euro-zone governments to re-capitalize their banks with tax payer money, thus increasing sovereign debt ratios further and intensifying the crisis. Banks that have sold CDS contracts also stand to lose. Since this market is opaque and we have no reliable data, it is hard to assess how much damage this could do, especially in a highly inter-connected

financial environment. Any aspect of the above could undermine confidence in the European banking system and ignite a cross-Atlantic and possibly global chain reaction of uncontrolled events similar to the ones when Lehman Brothers went down and result in "the mother of all financial crises" (Eichengreen [2010, 2007].

Political Options: Further Euro Economic and Political Integration

Clearly, the stakes are high and the euro zone is vulnerable to dissolution with grave consequences for the European and world economy. Yet, one fundamental factor that has not figured prominently in the debate is that the European Union (EU) is a project under construction and has the capacity to create solutions through structural change. Since the end of the Second World War European countries have taken giant steps toward further economic and political integration. Starting with the European Coal and Steel Community (ECSC) in 1951, they evolved into the European Economic Community (EEC), the European Community (EC), the European Union (EU) and since 1999 the European Monetary Union (EMU). There is only one last major step left to complete this process of integration. It is the formation of a European Treasury or EU Finance Ministry, the pooling of fiscal risks by unifying national debts and the creation of a unified European government bond (EGB) market through the issuance of jointly-backed Euro bonds. The reader should not underestimate the resolve of European leaders to make their project work. In the face of financial catastrophe, necessity is

likely to rule the day. Europe does not have any other choice but to proceed toward further economic integration.

In a rapidly changing world European leaders should have already been working on this final step of economic integration. In a study done by Goldman Sachs in 2003 and again in 2007 (Goldman Sachs [2003, 2007] it showed that based on current trends, by 2050 only two European countries will remain in the list of the ten top economies in the world, the UK and Germany, in 9th and 10th position respectively. All other countries including France and Italy will no longer count as economic heavyweights. A completely unified Europe, on the other hand can emerge as the second or third largest economy in the world, one of the three pillars of the world economy well into the 21st century.

In fact, the first steps towards this direction have already been taken. First, the ECB has been accepting as collateral, for special liquidity refinancing operations, the distressed government bonds of member states like Greece, Ireland and Portugal and more recently Italy and Spain, on par with those of the other member states. The position taken by the ECB is that any debt incurred by a euro zone member is the same as that of any other. Secondly, European leaders agreed on May 10, 2010 to the formation of the European Financial Stability Facility (EFSF) a € 440 billion special-purpose vehicle (SPV) to support ailing euro zone countries and subsequently on December 17, 2010 decided to transform it into a permanent fund to take effect in mid-2013 called the European Stability Mechanism (ESM). This enhanced €500 billion fund will serve a role in the euro area similar to that of the IMF in the world economy. At the EU summit in July,

2011 the European leaders enhanced the scope of the EFSF to include bond buybacks in the secondary market, the extension of lines of credit to banks encountering financing problems and a reduction in the interest on the funds lent to troubled governments to refinance maturing debt obligations. On August 17, 2011 French President Nicolas Sarkozy and German Chancellor Angela Merkel announced plans on the formation of an “economic government” headed by an elected senior EU official with regularly scheduled meetings of euro zone finance ministers along with proposals for greater fiscal policy coordination and harmonization of tax and pension policies.

The practical effect of these steps is that Europe is moving incrementally toward some form of fiscal union. By issuing bonds backed by all 17 member states at AAA financing rates to lend funds at cost to troubled governments and financial institutions the EU is creating the prototype of a future collectively-backed ‘Euro bond’ or ‘EU Treasury bond’. The ESM could be the embryo for a future EU Treasury or finance ministry and the elected new head of economic governance could be the precursor to an EU Finance Minister.

Pooling Sovereign Debts and Issuing Commonly Backed Euro Bonds

Without going into the legal, political and financial technicalities of issuing euro bonds, it would be instructive to explore the economic merits of the idea. If Euro zone countries were to resolve tomorrow to merge their sovereign debts into

one commonly-backed euro-zone debt by exchanging maturing national debt obligations for common supranational euro bonds, what would the European government debt market look like and what would be the advantages and disadvantages of such a move? Such a new debt instrument would be issued by a newly created common Euro area fiscal authority and debt management agency and would be jointly and severally backed by all countries members of the euro zone.[2] The analysis that follows is based on the latest IMF data extracted from the WEO data base (IMF [2011] and is elaborated in more detail elsewhere (Matziorinis [2011]).

Based on IMF figures for 2010 in USD, Exhibit 2 shows the total stock of gross debt of the euro zone amounts to $10.3 trillion US dollars while the GDP of the region amounts to $12.2 trillion, a collective debt/GDP ratio of 84.8%.Three countries alone (Germany, Italy and France) account for nearly 70% of the total stock. Greece, the country in the news accounts for 4% while the “PIGs” (Portugal, Ireland, Greece) account for 8%. If one were to calculate the weighted-average credit rating for the whole region based on current (August 20, 2011) Standard & Poors (S&P) ratings for individual countries the aggregate rating for the euro zone would come out to at least “AA+”, the same as the USA. Exhibit 3, compares the pooled euro-zone debt market to the US government debt market along with those of other major economies and shows that the overall debt-GDP and budget deficit ratio of the euro area would compare favourably to the USA and other major economies.

EXHIBIT 2

DEBT STOCKS AND DEBT-GDP RATIOS, EUROZONE, 2010

	Debt/GDP Individual %	GDP in USD	Gross Debt in USD	Debt/GDP Collective %	Debt Shares by country	S&P Rating
Austria	69.9	376.8	263.4		2.54%	AAA
Belgium	97.1	465.7	452.2		4.37%	AA+
Cyprus	61.6	23.2	14.3		0.14%	BBB
Estonia	6.6	19.8	1.3		0.01%	A
Finland	48.4	239.2	115.8		1.12%	AAA
France	84.2	2582.5	2174.5		21.00%	AAA
Germany	80	3315.6	2652.5		25.61%	AAA
Greece	142	305.4	433.7		4.19%	CC
Ireland	96.1	204.3	196.3		1.90%	BBB+
Italy	119	2055.1	2445.6		23.61%	A+
Luxembourg	16.6	55	9.1		0.09%	AAA
Malta	67	8.3	5.6		0.05%	A
Netherlands	63.7	783.3	499.0		4.82%	AAA
Portugal	83.3	229.3	191.0		1.84%	BBB-
Slovakia	42	87.5	36.8		0.35%	A+
Slovenia	37.2	47.9	17.8		0.17%	AA
Spain	60.1	1410	847.4		8.18%	AA
EUROZONE	**69.1**	**12208.9**	**10356.1**	**84.8**	1.0000	**AA+**
PIG (Portugal, Ireland & Greece)					7.9%	

Source: IMF, 2010 Figures, WEO Data Base

EXHIBIT 3

DEBT STOCKS AND DEBT RATIOS, MAJOR ECONOMIES, 2010

	Debt/GDP	GDP	Gross Debt	Debt/GDP	Budget Balance % of GDP	S&P Rating
EU - Total		**16282.4**	**12939.4**	**79.5**	**-6.5**	
UK	**77.2**	**2247.5**	**1735.1**	**77.2**	**-10.4**	AAA
EUROZONE		**12208.9**	**10356.1**	**84.8**	**-6.1**	**AA+ ?**
USA	**91.5**	**14657.8**	**13411.9**	**91.5**	**-10.6**	AA+
CHINA	**17.7**	**5878.3**	**1040.5**	**17.7**	**-2.6**	AA-
JAPAN	**220.3**	**5458.9**	**12026.0**	**220.3**	**-9.5**	AA-
INDIA	**69.2**	**1538**	**1064.3**	**69.2**	**-9.0**	BBB-
BRAZIL	**66.8**	**2023**	**1351.4**	**66.8**	**-2.9**	BBB-
CANADA	**84**	**1574**	**1322.2**	**84.0**	**-5.5**	AAA
RUSSIA	**9.9**	**1465**	**145.0**	**9.9**	**-3.6**	BBB
AUSTRALIA	**22.3**	**1235.5**	**275.5**	**22.3**	**-4.6**	AAA
MEXICO	**42.7**	**1039.1**	**443.7**	**42.7**	**-4.1**	BBB
KOREA	**30.9**	**1007**	**311.2**	**30.9**	**2.4**	A
TURKEY	**41.7**	**741.9**	**309.4**	**41.7**	**-2.6**	BB
SWITZERLAND	**55**	**523.8**	**288.1**	**55.0**	**0.2**	AAA

Source: IMF, 2010 Figures, WEO Data Base, April 2011

Advantages and Disadvantages of Issuing Euro bonds

Pooling euro area sovereign debts into a collective common bond market would have a number of advantages for the region. First and foremost, it would immediately resolve the current euro debt crisis facing the zone. Since the crisis is mainly psychological, driven by fears that certain member countries, are or may become insolvent, the markets demand a risk premium that raises the cost of refinancing these bonds and depresses their prices. A common debt instrument backed by all 17-member states such as a euro bond allays these fears, yields fall all the way down to levels consistent at least with a AA+ rating. In fact, as I will argue below, rates can fall well below German bund levels for two key reasons: a) the collectively-backed bond is stronger than one backed by a single government, the euro bond should be stronger than the sum of its parts, and b) it is transformed into a global payment tool that all investors will wish to hold. For the convenience, liquidity and ease of trading, investors and traders will be willing to forego higher yields, just as they presently do with US Treasuries, a benefit known as seigniorage.

Secondly, by reducing the interest rate at which states finance their debt, it saves governments considerable amounts in interest payments and reduces future budget deficits and improves the sustainability of euro area debt levels. Improving the debt dynamics in the long-run, improves the fiscal outlook and justifies lower financing rates.

Thirdly, it reduces the degree to which periphery states need to apply short-term austerity measures to reign in their budget deficits, reduces the risk of a recession and facilitates faster growth in GDP for the whole region in the medium and long-run. By raising economic growth trajectories in the region it enables debt-GDP ratios to fall even faster, thus reinforcing the improvement in the debt sustainability in the future.

Fourth, it transforms the currently fragmented European capital market for sovereign bonds into one single and vast European government bond (EGB) market that matches the market for US Treasurys. An EGB market of $10.3 trillion, compared to a US Treasury market of $13.5 trillion, would be a vast market of such depth, breadth and liquidity that it would make the euro bond as strong a security to hold, and flee to safety in times of global financial instability, as the US Treasury market is today. Thanks to its vast liquidity, investors could buy and sell securities with minimal impact on price, yields, and exchange rate. Currently, the three largest markets for tradable bonds in the euro area, Germany, France and Italy, are smaller than $1.8 trillion each.

Fifth, by catapulting the EGB market to the same league as America, it complements and solidifies the euro's role as a global reserve asset. Presently, the euro has become the second most important currency on the planet for official *store of value* purposes, i.e. a reserve currency that central banks choose to hold their savings in. But it lags severely behind the US dollar as a *means of payment* instrument, because European debt markets are fragmented and small. By creating a single debt instrument traded in a vast market it makes it possible to use

the euro bond the same way as US Treasurys are used today by foreign investors, as a payment tool as well.

The sixth and probably most significant benefit of a euro bond and a unified EGB market is that it should lead to lower interest rates than even Germany, the strongest member of the euro zone, presently pays on their bunds. Due to its increased depth, breadth and liquidity, investors should be more than happy to hold them, not only for *investment* or *precautionary* purposes, but for *payment* or *transactions* purposes as well. The increased transactions demand for Euro bonds, is an enormous benefit for the euro zone, because it will allow all members, including Germany to borrow at a significantly lower cost. This benefit is called *seigniorage*, it means that investors are willing to hold your bond even at a lower yield, because they need it as a store of value, as a payment tool to finance their transactions and as a safe-haven asset during times of market stress.

For an indication of how much euro area interest rates could fall, a recent study (Gourinchas, P.O. & Rey, H [2005]) has shown that during the post Bretton Woods era (1973-2004) the real rate of return on US bonds held by US residents was 4.05% while the real rate of return on US bonds held by foreigners was only 0.32%, a whopping 373 basis point differential when inflation and exchange rate differentials are factored into the equation. Each 100 basis point differential can save euro area governments over $100 billion US annually. This saving can go along way towards reducing budget deficits and allay German fears that they will have to pay more interest if they accept the euro bond. This saving in interest costs

has been called “the exorbitant privilege”[3] and is the title of Barry Eichengreen’s latest book (Eichengreen, B.[2011].

Since all euro zone borrowers, in both public and private sectors stand to gain from the benefits of *seigniorage*, the total benefit to the euro economy can be much greater, resulting in lower rates on personal and mortgage loans as well as business credit. Introducing euro bonds holds the potential of transforming the euro zone into a banker to the world the same way the USA has served during the post-war era. European core countries should see interest rates fall, despite the inclusion of the euro periphery in the mix. Germans, instead of worrying that they will have to pay a higher interest rate to support their euro zone partners would actually end up with paying less.

Seventh, the conversion of euro-area national debts into a common euro-zone debt will also benefit the banks in Europe and help put a stop to the brewing banking crisis. As noted earlier, European banks are undercapitalized with leverage in excess of 26 times capital and highly dependent on the wholesale market for funds. Now that the prospect of sovereign defaults has arisen, these banks are vulnerable and unprepared to meet any potential losses on their positions. Converting to euro bonds, not only helps the high-debt countries, but also the leveraged banking sector which is mostly concentrated in the euro core as well.

What would be the disadvantages of pooling sovereign debts and issuing jointly-backed Eurobonds? One potential disadvantage is that it might raise the interest rates at which the most creditworthy members of the euro zone, e.g.

Germany and the Netherlands presently pay on their debt. A recent study by the IFO Institute for Economic Research in Germany (IFO August, 2011), concluded that the introduction of euro bonds partially backed by each member based on their capital shares in the ECB would add €33 billion to the annual cost of servicing Germany's debt. This estimate was based on the actual yields in the euro area during the January-July, 2011 period during which the euro zone debt market was experiencing the distress of the crisis. The study completely dismissed the idea of bonds carrying a joint and several guarantee of all euro area governments which is what this paper is basing its calculations on. Nevertheless, this concern remains a valid issue to be addressed in the design of a future euro bond.

The second disadvantage of issuing euro bonds is that it will remove the disciplining effect of capital markets on the ability of member states to issue more debt and institutionalize a moral hazard. If governments are free to go to an open well to raise low cost money it would eliminate budget discipline and would force the more 'frugal' countries to start paying for 'prodigal' countries' deficits and gradually overt time raise the debt-GDP ratio for the entire region resulting in undesired credit rating cuts and increases in borrowing costs. It would eliminate each country's ability to control its interest cost burden and reduce its sovereignty in fiscal matters. At the extreme, a euro bond creditor could demand that Germany pay all of the debts that a country like Greece or Italy has racked up.

This second disadvantage is too significant to ignore and unless a credible and viable solution can be found to offset it, it is nearly impossible to expect that the fiscally responsible members of the zone will ever accept the creation of euro

bonds. Clearly, finding a way to ensure that one country's profligacy will not spill over to another country's debt burden is the *sine qua non* of the issuance of 'jointly-backed and severally liable' euro bonds. A means will also need to be found to neutralize the moral hazard and internalize the signalling and disciplining force of the market within the euro zone, to ensure that member countries assume the responsibilities of their own actions.

Internalizing the Disciplining Role of the Market and Mitigating Moral Hazard

Fortunately, there is a way to create a mechanism for restoring the disciplinary role of the market within the euro zone following the introduction of the euro bond and the creation of the EGB market. Instead of all countries paying the same interest rate on their share of the euro bonds, create a structure of escalating rates proportional to the debt-GDP ratio of each country. Exhibits 4 and 5 provide an illustration of how this would work. For example, if the average marginal rate of funding on both short-term and long-term euro bonds is 4%, member countries will contribute interest payments equal to 4% of their share of the total euro bonds outstanding as long as their debt-GDP ratio is below 60%. As the debt-ratio rises above 60% the interest rate applied on the debt servicing cost will rise on the whole balance above 60% at the escalating rates shown below. A country with a debt-GDP ratio of 100% would pay 4% on the first 60% portion of its debt and 6.6% on the remaining 40%, producing a weighted average effective cost of 5.04%.[4]

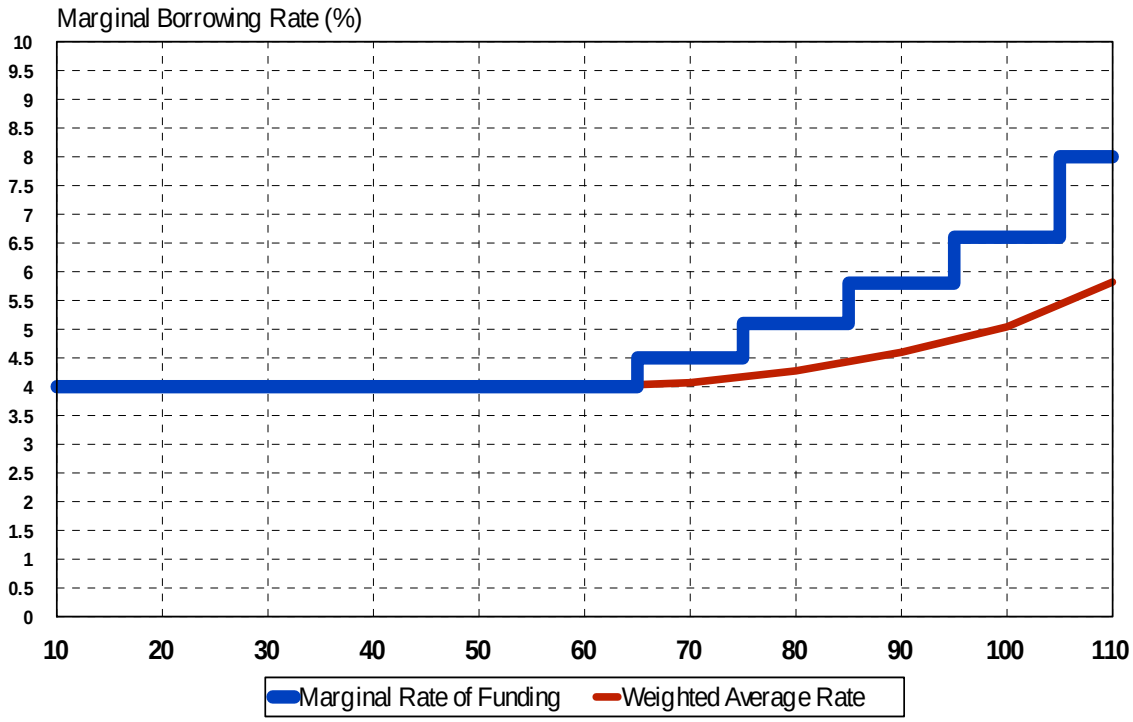
Exhibit 4

Member Country Internal Cost of Funding for Euro Bonds

Debt-GDP Ratio	Marginal Rate of Financing
< 60%	4.0%
61 – 70 %	4.5%
71 – 80%	5.1%
81 – 90 %	5.8%
91 – 100 %	6.6%
> 100%	8.0%

Exhibit 5

Escalating marginal contribution rate in euro bond interest servicing: An illustration



The objectives of introducing such a mechanism are to ensure that fiscally prudent members are not penalized for other members' profligacy, restore internally within the euro area the disciplining role of the market, enshrine fiscal discipline in a fair and credible way, and create the right incentives for countries to maintain debt ratios at manageable levels by either reducing debt or growing their economies.

A number of studies and policy proposals have been made to improve economic governance within the zone and to find the right formula for the introduction of euro bonds by Boonstra [2005,2010], De Grauwe and Moesen [2009] Delpla and von Weizsacker [2010] and Juncker and Tremonti [2010] and are summarized and discussed in two policy papers by the European League for Economic Cooperation [ELEC, 2010, 2011]. Clearly, although the precise mechanisms have yet to be found, the components that will enable the final solution to the euro sovereign crisis to be made possible have been identified.

The Path to Fiscal Integration

The issuance of euro bonds presupposes the creation of the appropriate institutional, legal and political mechanisms. The path toward euro bonds makes further euro fiscal and economic integration an absolute necessity. What does the outline of such integration look like? At a minimum, the following institutional mechanisms would need to be created or revised: 1) a new Euro zone unified and transparent public accounts system (EUPAS) to record and report on a timely basis

the revenues, expenditures and cash position of member governments; 2) an increased coordination of forecasting, planning and budgeting of member governments; 3) the creation of a supranational Euro Area Treasury Board that would assume control of the zone's finances and debt policy with veto power over member state borrowings; 4) the drafting of new, more binding rules accompanied with sanctions to be incorporated in a new stability and growth pact (SGP-II); 5) a euro-zone debt management agency to manage the issuance and duration of bond and treasury bill issues; 6) the creation of a European banking supervisory authority with uniform standards to monitor and regulate cross country lending and risk management along with the creation of a Euro-wide deposit insurance agency (EDIA); 7) the revision of the mandate of the ECB to expand its role beyond that of price stability to include the role of lender of last resort within the euro zone and 8) through agreed medium and long term structural reform measures to standardize and harmonize tax, labour market, pension and social policies across the euro zone within an 6-8 year time horizon.

Clearly, the introduction of euro bonds cannot take place without first creating the appropriate structures to support it and ensure that the risks, both real and perceived are entirely dealt with to the satisfaction of all member countries. This means that the Maastricht and Lisbon Treaties would need to be revised or supplanted by a new treaty that would require the full support of euro area governments. The implication is that Europe will have to take the remaining and final step towards completing its economic integration, which is fiscal union. Whichever form the EU leaders finally choose, however, what can be stated with a

high degree of confidence, is that they will not allow the euro zone to collapse. The costs of letting this happen are catastrophic not only for Europe but for global financial stability as well. The costs of resolving the crisis are modest and in time can bring enormous benefits to all countries involved. Although it will take some time to arrive at that solution, a solution will be found.

ENDNOTES

1. When one compares capital leverages of European with US banks it is important to note that in many instances US accounting standards differ from International accounting standards being used by European banks. This accounts for a portion of the difference observed but not the whole difference.

2. The ideal name for such a security should be ‘Eurobond’, but the name is already being used for foreign bonds issued and traded in countries other than the one in which the bond is denominated. Either a new name will have to be invented or the term will supplant the old one.

3. According to Pierre-Olivier Gourinchas the term ‘exorbitant privilege’ was first coined by Valéry Giscard d’Estaing when he was French finance minister in the 1960s.

4. It is not the intention of this paper to construct a precise formula. The approach needs to be stress-tested for various scenarios so it can remain robust against various assumptions and contingencies such as debt structure, debt dynamics and economic shocks.

REFERENCES

Alessandri, P. & Haldane, A.G. “Banking on the State”, Bank of England, November, 2009

Boonstra, W.W., Towards a Better Stability Pact, Intereconomics, Vol. 40 (1), January/February 2005

Boonstra, W.W., The Creation of a Common European Bond Market, Cahier Comte Boel, No. 14, ELEC, April 2010

De Grauwe, Paul and Wim Moesen, “Gains for All: A Proposal for a Common Euro Bond”, Forum, Intereconomics, University of Leuven, May/June, 2009

Delpla, J. and J. von Weizsacker, The Blue Bond Proposal, Breugel Policy Briefs 420, Bruegel, Brussels 2010

Eichengreen,B. “The Euro: Love It or Leave It?” Vox, May 4, 2010, http://www.voxeu.org/index.php?q=node/729

Eichengreen, B. “The Breakup of the Euro Area”, NBER Working Paper No. 13393, September, 2007

Eichengreen, B. Exorbitant Privilege: The Rise and Fall of the Dollar and the Future of the International Monetary System, Oxford University Press, 2011

European League for Economic Cooperation, The Creation of a Common European Bond Market, Cahier Comte Boel No 14, Brussels, March 2010

European League for Economic Cooperation, How to Strengthen the European Monetary Union, Cahier Comte Boel No 15, Brussels, April 2011

Goldman Sachs, “Dreaming With BRICs: The Path to 2050”, Global Economics Paper No. 99, October 1, 2003

Goldman Sachs. BRICs and Beyond, 2007

Gourinchas, P.O. and Rey, H.. “From World Banker to World Venture Capitalist: US External Adjustment and the Exorbitant Privilege, NBER Conference on G7 Current Account Imbalances: Sustainability and Adjustment, 2005

IFO, “What Will Eurobonds Cost?”, Press Release, University of Munich, August 17, 2011

International Monetary Fund, World Economic Outlook Data Base

International Monetary Fund, Global Financial Stability Report, April, 2011

Juncker, J.C. and G. Tremonti, “E-bonds Would End the Crisis”, The Financial Times, December 5, 2010, http://www.ft.com/cms/s/0/540d41c2-009f-11e0-aa29-00144feab49a.html

Matziorinis, K.N. “The Eurozone in Crisis: Evolve or Fail, This is the Question”, July 17, 2011, http://canbekeconomics.com/ecocommentaries.htm

Matziorinis, K.N. “Resolving the Euro Debt Crisis and Saving the Euro: Could a Euro-Zone Bond Be the Answer?” July 19, 2011

http://www.canbekeconomics.com/ecocommentaries.htm

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