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The Introduction of Jointly Issued Union Bonds
in the Euro Area

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Executive Summary

As the spreads of government bonds in the euro area started to skyrocket in the aftermath of the 2008/09 financial crisis claims came up to issue one union bond common to all EMU members - the so called eurobond - instead of 17 national sovereign bonds in order to protect the fiscally more exposed member states from sudden market swings. Spreads eventually became so strong that countries saw the risk of their liquidity crises turning into solvency crises.

The thesis introduces various proposals of common bonds schemes and evaluates them in the light of theory and actual feasibility in the context of a fragile euro area. We ask if the instrument of eurobonds is susceptible to stabilise the single currency and to allow the EMU states to refinance themselves on a cost-efficient basis.

First a merely theoretical approach is followed to explain the basic functioning; this part is written as if it was a pre-crisis paper. Both theoretical critique and cost-benefit analysis from the northern countries' point of view (especially Germany) follow and are contrasted with the propositions of the first section. Beginning with the critique the thesis takes a turn towards the current situation of the euro area while debating crisis-relevant aspects in the follow-up chapter when immersing in refinements of the basic eurobond proposals. Lastly, a more comprehensive approach shows how to involve eurobonds in a reform of the euro area. Using diverse characteristics from the presented models a game theoretical setting is sketched to explain how every EMU member may gain from joining the "debt union".

Main advantages of the common bond are: a (modest) liquidity premium with respect to national issuance due to a deeper and more liquid bond market; protection from default risks of weaker euro area members and thus a limitation of crisis contagion; depending on the design enhancement of fiscal stability and soundness; and as long term perspective the consolidation of a global reserve currency euro. Thanks to the last point the common interest rate may tend to be lower than the pre-crisis Bund average.

Most prominent contestations are: common debt induces to borrow excessively (free riding), infringes Article 125 TFEU and creates political dissent among the EMU members as it shifts the cost burden from the periphery to the core. Even more important are the doubts concerning the current heavy indebtedness of the euro area countries as well as the current (financial) market panics impeding a smooth introduction at the present moment in time.

The thesis concludes that two of the three main doubts on the functioning of eurobonds can be dispelled with a proper incentive mechanism for lending; the legal argument too appears to be solvable. Lastly it is shown how the eurobond can be used to reinforce the Stability and Growth pact.

Abstract

Als eine Folge der Finanzkrise von 2008/09 begannen die Zinsen auf die Staatsanleihen der Eurozoneländer immer höher zu steigen und sich auseinander zu entwickeln. Um dieser Entwicklung entgegen zu wirken und die fiskalisch exponierteren Länder vor Marktläunen zu schützen, kamen Vorschläge auf, statt 17 nationalen Bonds einen gemeinsamen Schuldtitel einzuführen – den so genannten Eurobond. Zeitweise erreichten die Zinsspreads ein so großes Ausmaß, dass für einige Länder sogar die Gefahr einer Solvenzkrise bestand.

Die Magisterarbeit präsentiert eine Vielzahl von Eurobondvorschlägen und analysiert diese unter theoretischem Aspekt; ebenso wird die Frage nach der Machbarkeit im Kontext einer fragilen Eurozone untersucht. Die zentrale Frage hierbei ist, ob die gemeinsame Anleihe die Einheitswährung stabilisieren kann und weiters den Mitgliedern der Währungsunion erlaubt, sich kosteneffizient zu refinanzieren.

Eingangs steht eine rein theoretische Diskussion grundlegender Modelle. Dieser Abschnitt ist geschrieben, als ob es sich um eine Vorkrisenbetrachtung handelte. Anschließend werden die Modelle der gängigen Kritik gegenübergestellt und es wird evaluiert, ob sie jener standhalten können. Ebenso beinhaltet dieses Kapitel eine Kosten-Nutzen Analyse aus Sicht der nördlichen EMU-Mitglieder (hier vor allem Deutschland). Anschließend folgt eine Betrachtung detaillierterer Modelle, welche sich vor allem mit den aktuellen Problemen der Eurozone beschäftigen und Eurobonds in diese Thematik einbauen. Das letzte Kapitel präsentiert einen umfassenderen Ansatz zur Reform der Eurozone. Ebenso wird ein spieltheoretisches Modell skizziert, um eine Möglichkeit aufzuzeigen, wie alle Euroländer von der Einführung gemeinsamer Schuldtitel profitieren können.

Die größten Vorteile des Eurobonds liegen in dessen höherer Liquidität im Vergleich zu nationalen Bonds, dem Schutz vor hohen Ausfallsrisiken schwächer EMU-Mitglieder, vom jeweiligen Design abhängig in der Verstärkung fiskalischer Stabilität und auch der Möglichkeit, immanente Krisenansteckung zu verhindern. Als langfristiger Vorteil steht die Konsolidierung des Euro als Reservewährung in Aussicht. Dank dieses Punkts besteht die Möglichkeit, einen geringeren gemeinsamen Zinssatz als den der deutschen Bundesanleihen in Vorkrisenzeiten zu erzielen.

Die schwerwiegendsten Vorwürfe hingegen lauten, dass der Eurobond ein substantielles Free Rider Problem mit sich brächte, einen Vertragsbruch im Sinne des Artikel 125 des Vertrags von Lissabon bedeutete und durch die hohen Kosten für die Staaten des Nordens auch noch politische Unstimmigkeit in der Eurozone sähen könnte. Als bedeutendster Kritikpunkt wird die hohe Verschuldung einiger EMU-Staaten angesehen. Ebenso wichtig erscheint die derzeitige Unruhe auf den Bondmärkten, welche möglicherweise einer reibungslosen Einführung von Eurobonds im Weg stünde.

Die Arbeit kommt zu dem Schluss, dass zwei der drei Hauptzweifel ausgeräumt werden können, wenn die gemeinsame Anleihe mit dem richtigen Anreizsystem versehen wird; ebenso lösbar erscheint das juristische Problem. Abschließend wird auch noch erklärt, wie Eurobonds dafür benützt werden können, den Stabilitäts- und Wachstumspakt effektiver zu gestalten.

A Foreword

Not every preacher is a prophet, just as renouncing sin does not automatically lead to sanctification. But lately, at least in the author's intuition, European citizens adopted a contrarian view of the crisis events, with its origins and consequences in part due to a loud, harsh and unprofessional public debate. The author experienced the handling and the discussion of the financial crisis and its consequential damages as unsatisfactory, as many obvious mistakes were made, and many opportunities left untaken. Hence, the interest for the topic partly originates in the discontent with both the governance of Europe's leaders, and journalistic as well as scientific analysis of these very unfortunate events so many saw coming, but apparently nobody was able to prevent. As Busse (2012) writes "rarely so much nonsense has been reported about such an important topic as the euro-crisis".

In this light, this thesis aims at approaching every issue with all due sobriety.

Another important point in this debate was and still is the fact that many trained economists do not understand (or least wilfully neglect) the technical duality of regulations or agreements. As long as a law is not enforceable, i.e. in the absence of executive powers, it stays a recommendation to behave in this or that fashion. Due to this ignorance, many free market champions confide in the "corrective powers of financial markets", as they assume legal frameworks to be ineffective. Thereby, they certainly miss a problem of the rule of law. Relying on informal punishments, rather than on a legal mechanism, takes away the sovereignty from the biggest portion of a nation's citizens, and plays it into the hands of some people without any democratic legitimacy. On various points (especially in the last chapter) we will tackle the aspect of institutional setup and governance as we can not expect fiscal salvation from financial markets' chains and whips.

Habermas (2010) speaks about the Germans having gradually abandoned their post-war sense of normativity, that national interest repress the political ideals the Union initially stood for. In a globalised world, he asserts, everybody needs to include the others' perspective (in this case the member states and the EU itself) in his own point of view and let go of the "egocentric mixture of aestheticism and utility maximisation". Reality, however, does not meet these exigencies. Habermas sees Germany as a self-satisfied colossus in the midst of Europe that exhibits a normatively totally undemanding mentality "steadily revolving around itself". Such a state cannot even guarantee the survival of the European Union in its swaying status quo.

We can observe such developments also in member states other than Germany and its wealthy entourage; hence we should seriously consider his statements as politicians bark that not a single euro

should go to the periphery and national voters repeat their imprudence like slobbering watchdogs. Consequently, this thesis should also be read in the light of European unification.

Throughout the various stages of the current crisis dark prophets had their high tide claiming the demise of virtually everything attached to EMU or EU, while recent developments remain virtually not discussed in our universities. Ms. Silgoner's course on monetary integration constituted an important exception, as it eventually put the author on the track of the thesis on hand. As she both lit the intellectual fire and then provided for the wood, I am moved to thank her in the first place. Then, I owe gratitude to my parents who always sustained me on my path through life. Special thanks are also due to Mr. Leutgeb, who is responsible for various valuable contributions to this work. He and Mr. Frick, as well, kindly took care of my linguistic insufficiencies in a surgical manner. Last but not least I want to thank Mr. Fanta for trying to breathe a little touch of class into my elaborations.

In what follows I will use the plural instead of the singular. Whenever "we" is used, I mean the reader and myself.

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1

Rising spreads and the sovereign debt crisis

Since the end of 2008, the euro area experiences ever widening yield spreads between the centre and periphery government bonds, after more than ten years of first converging and then closely co-moving interest rates. Many attempts to stop this development from turning into a sovereign debt crisis have been made.

This thesis discusses one of the ideas revived in the onset of the crisis. It asks if the heavily debated introduction of a common debt instrument for the whole euro area, the eurobond, might provide for a sustainable solution to the current crisis, and if it was susceptible to prevent future crises in the monetary union. In this context, we exclusively deal with long term financing, thus short term instruments such as E-Bills won't find any consideration.¹

The current situation surely is challenging. So far, financial markets panic reached its apex at the end of November 2011, when a German Bund auction prominently failed. Analysts claim that government bond interest rates in the euro area are on utterly wrong levels; the German Bund yields too little as the inherent risk of periphery debt becoming centre debt rises or in other words, Bunds carry the default risk of countries such as Greece and Portugal. Interest paid on UK gilts even dropped below the German equivalent despite the truly not auroral English macro fundamentals.² The reason therefore lies in the nature of EMU; as De Grauwe (2011a) explains, members of the euro area gave away the control over their national currencies, and hence reduced themselves to “emerging economies” in terms of monetary policy, meaning that they service their debt in a foreign currency. “The fundamental difference between a country which is a member of a monetary union and a country which has its own currency is that the former needs the permission of an institution that it does not control to increase liquidity – say to compensate for an outflow of liquidity through the banking system or stabilize the government bond market – while the latter does not. To each of the monetary union members, to all practical purposes the euro is like a foreign currency, since no one enjoys access to the euro printing press. As a consequence, eurozone members are exposed to currency runs. Such a system can switch rapidly from ‘fair weather’, where foreign currency risks are underpriced, to ‘bad weather’ where risks become overpriced. In the second scenario, the explosion of financing costs can

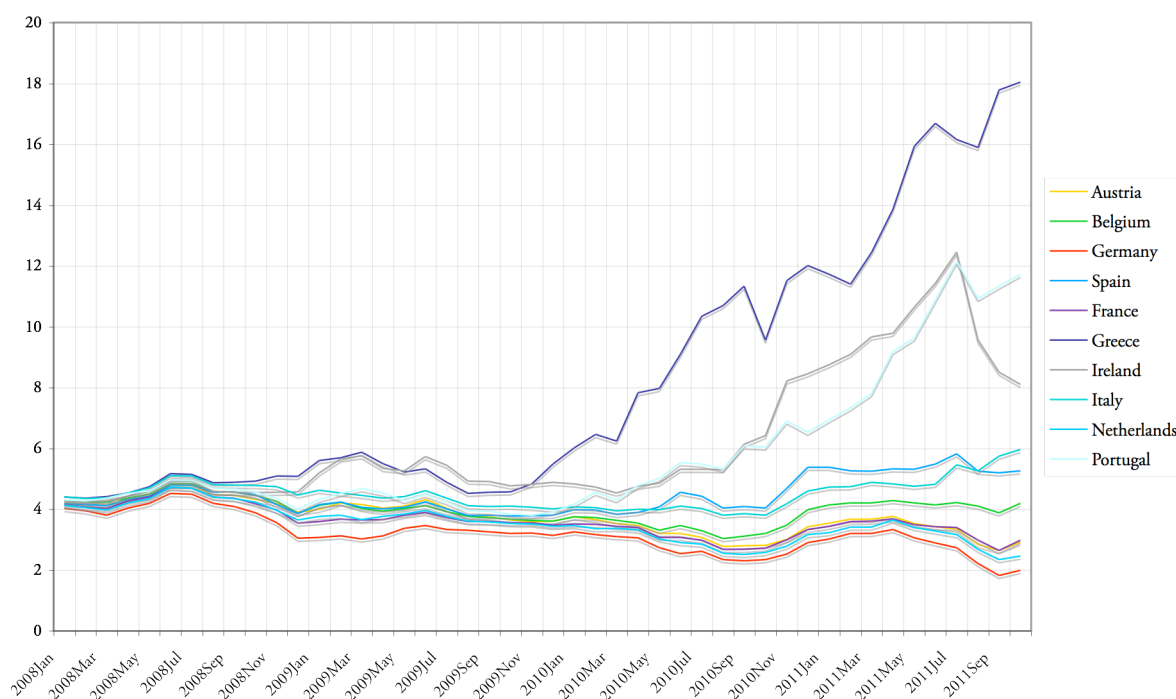
¹ The EPDA (2008) presents the results of a survey amongst primary dealers concluding that a preference for a common 6 months debt instrument alike to US T-bills (Option IV) prevails. Graham Bishop explains that short-term debt pooling of “economically effective and politically durable” EMU members into a fund of maximum 4 years lifetime will help to overcome the crisis (*An EMU bond fund proposal* (2011), ELEC).

² Kaminska, Izabellla (2011) *The bund that broke the Bundesbank*, ft.com/alphaville and Oakly, David e.a. (2011) *UK borrowing costs drop below Germany*, Financial Times, Nov 24

make fears of a run self-fulfilling.”³ Amongst others, this is one reason why the US or the UK obtain cheaper borrowing conditions notwithstanding the euro area’s sounder fiscal condition.

We differentiate between times of financial peace and distress and emphasise the importance of introducing such a common debt security in a period of confident capital markets. If policy makers have to start a eurobond scheme under immense stress and with suspicious markets on their backs, they are likely to poorly engineer it. Consequently, financial markets will in all likelihood reject it, presumably even independently from the design. Contrary, we think that in times of financial peace, the launch of a common bond would meet (would have met) kind acceptance among investors. We can conjecture that the time between the early 2000’s and the end of 2008 would have been perfect for the introduction of a common bond scheme, even in the absence of a fiscal union, as most EMU member (on average) followed the prescriptions of the Stability & Growth Pact (SGP). We can see the conducive circumstances from figures 1.1 and 1.2.⁴

Fig. 1.1, Selected 10-year government bond interest rates in the euro area

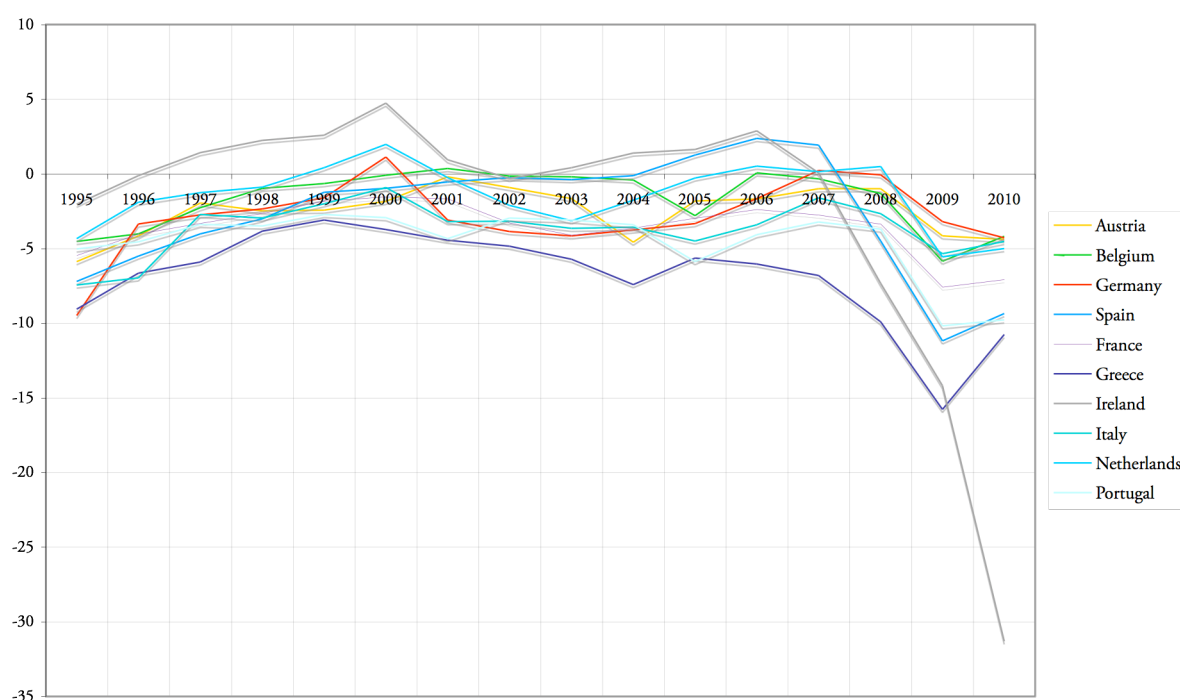


Source: ECB Statistical Data Warehouse

³ Micossi, Stefano (2011) *Misguided policies risk breaking up the eurozone and the EU*, CEPS PB 260

⁴ Between 2000 and 2008 the selected countries’ average government deficit amounted to 2.43 % of GDP, no country except Greece shows an average deficit above 3.76%. Most of the time government bond yields moved around 4%. Additionally, the overall euro area debt-to-GDP level averaged around 65-70%; currently (2011Q2) we face a ratio of 86.9%. EMU members not considered in this selection either don’t face financial problems, simply are too small to count, or both.

Fig. 1.2, Annual government deficits in the euro area



Source: ECB Statistical Data Warehouse

The thesis is structured in the following way. In chapter 2, we begin by introducing some seminal basic proposals that first brought up the idea of a common euro area bond, or at least contributed to effectively advertise the idea in the context of the current crisis, structuring them according to their technical characteristics. However, the first analysis of these proposals shall be carried out as if it was a pre-crisis paper, purely interested in the intrinsic strength and weakness of a theory in the environment of a financially peaceful euro area.

In chapter 3, we take a look at possible weak points of the basic proposals and present various critical papers. We examine each reproach in detail to see whether it is justified. We accompany our analysis with some indirect empirical considerations, presenting the cases of the European Investment Bank (EIB) and the European Financial Stability Facility (EFSF) as two EU entities financing themselves through the issuance of bonds severally guaranteed by the EU member states. Both institutions show AAA ratings despite having lower-rated states as mutual owners. Further we present the results of some estimates on possible eurobond yields.

In chapter 4, we shine a light on various crisis-relevant aspects when we immerse in more sophisticated models, presenting them in response to criticism.

The thesis concludes with the considerations in chapter 5 on the euro area's fragility, and its consequences for policy makers. We use De Grauwe's (2011a) approach to put previous discussions of various bond models in a broader political context. Additionally we sketch a game theoretical approach, presenting a way to install a eurobond scheme so to allow every participant to profit.

2

Introduction to basic eurobond models

Eurobonds can most broadly be defined as a synchronised common debt obligation of a group of euro area countries. This definition allows for a wide range of different public bonds that can be distinguished according to their five main qualities as they have appeared in numerous academic proposals. These are a) the guarantee structure, i.e. joint and several versus proportionate liability, b) the number and eligibility of participants, c) the seniority status, d) the existence of a guarantee ceiling and e) way of issuance, i.e. national versus centralised emission.

In what follows we are not going to focus on mechanisms where national governments can emit common bonds on their own but only on proposals favouring central issuance through either a new European debt agency (whatever the name) or an already existing EU entity.⁵

We link our analysis to the two core issues or promises of eurobonds being: How can we stabilise the euro and consolidate it as an important reserve currency, and how can the European states refinance themselves on a cost-efficient basis? And as a consequence, is the instrument of eurobonds susceptible to achieve these tasks?

Boonstra (2011) goes one step further in defining the exigencies for a proper Eurobond scheme by adding two more constraints being “[...] Fiscal discipline: eurobonds must contribute to strengthening the enforcement of budgetary rules, i.e. those from the SGP” and “[...] Benefits for both strong and weak Member States: this is very important politically, as a eurobond proposal will only succeed if there is a broad political support”.⁶

It might be useful to shortly itemise the main pro and cons on the eurobond following Favero and Missale (2010). Proponents of the common debt instrument mostly laud the idea because it would first

⁵ If we considered the option where every participating country could decide whether to issue common (jointly guaranteed) debt on independent basis (without being subdue to a common debt ceiling) we would soon end up in one classic free-rider situation or in other words moral hazard would prevail. Issing (2009) in his approach criticises such an improvable design.

⁶ Actually Boonstra (2011, p. 5) names 5 constraints in general whereas the latter requirements coincide with the questions we come from raising above; in his words he calls for „[...] 3) Market stability: the market for eurobonds will be larger and more stable than national markets, sheltering individual countries from large swings in market sentiment. Markets should be able to correctly and gradually discipline governments for good and bad behaviour, instead of acting very erratically as described above. If this is not possible, failing market discipline should be replaced by a better internal disciplining mechanism. 4) Effective and self-financing resolution mechanism. Under the assumption that once in a while a country will run into financial problems, it should be possible to smoothly reschedule its debt (under strict conditionality) without bothering taxpayers in the other member states. Ideally, a eurobond system finances itself via an insurance mechanism. 5) In addition, it would be helpful if the issuance of eurobonds would contribute to the creation of a larger and deeper European public bond market and the strengthening of the euro’s position as a reserve currency.”

of all achieve to a deeper integration of the European financial markets what in turn would lead to higher liquidity and thus reduce the liquidity premium and consequently the interest rate payments on the bonds as a whole. Depending on the proposal a further positive development of the communised debt could be the long-term effect of consolidating the euro as one main global reserve currency allowing to reap an extra “reserve currency premium” on the interest rate. This could be achieved through the creation of a “safe haven” instrument for the whole euro area. Favero and Missale add one more aspect that we actually consider as fundamental. The eurobond may work as a crisis prevention mechanism as it ensures protection from speculative attacks against small or weak euro area members. They call the argument “politically sensitive” as such protective automatisms often are compared with an incitement to irresponsible fiscal behaviour as mainly proposed by champions of market discipline - their counter may be somewhat biased.

On the contrary three main kinds of contestation prevail: first, the psychological argument alluding to the risk of moral hazard and a free-rider-problem in the euro area; second, the legal argument that a common bond would contradict the article 125 of the Treaty on the Functioning of the European Union (TFEU) generally referred to as the No-Bail-Out Clause”. We will actually not treat this reproach in detail, but shortly sketch why we conceive it as a technically solvable. Third, the political or economical argument: politicians of the best rated countries fear that a common bond would shift the cost burden from the periphery to the core of the euro area thereby confronting innocent countries with the redemption of the debt of fiscally imprudent states on the one hand and political dissent on the other.

We will show that the three kinds of popular criticism don’t touch the core of the debate, as they neglect the nature of the dynamic problem. As a matter of fact the main points to be discussed are in the light of theory the “seniority conundrum” (Gros, 2010) and in practical terms the (macroeconomic) circumstances of introduction.

Given the various properties of the proposals to be discussed we structure them in the following manner: 1) Eurobonds with proportional country share and liability, 2) Eurobonds with several and joint guarantees and 3) Common bonds issued by a EU institution.⁷ In the first and second case participation may either be facultative or mandatory.

Making use of this classification the discussion and thus (theoretical) approval or dismissal of the various models is simplified, as one can apply the critiques to more than one proposal at a time. First we will introduce the abstract ideas of each proposal alongside one specific paper in order to discuss the positive and negative aspects in what follows and contrast our reasoning with some sharply critical publications. We regard this procedure as somewhat of an iterative elimination where as a result only

⁷ This section draws on Favero & Missale (2010) and Eijffinger (2011).

one group of proposals, or actually one proper model (or a combination of various models) may withstand the test.

Actually we know two kinds of criticism in the ambience of eurobonds; the first one is guided by “a strong popular perception today that the core of the sovereign debt crisis is moral hazard” (de Grauwe, 2011c) such as the interjections by Issing (2009), Sinn (2010) or ifo-economist Carstensen (2011); we will refer to that type as the “northern” critique. Objections of the second, constructive or evolutionary type can be found in proposals that either design a more elaborate common bond mechanism or call for a similar crisis solution still endorsing the idea of joint and several liabilities such as De Grauwe (2011a), Duebel (2011), Kopf (2011), Messori (2011) and Micossi e.a. (2011).

2.1

Eurobonds with proportional country share and liability

We consider this approach as the most basic one where an independent agency is commissioned to emit the one same bond for all participants. The funds raised this way get distributed to the subscribers to the agency’s service following one specific design agreed upon before (depending on size, credit standing, subscription or the like) and every participant is liable only for his contractual share of the emissions. That proposed version of the eurobond would trade as a single debt instrument but each state can be called to account only for the interest payments and principal redemption corresponding to its share of the bond, and not for the debt of the other issuers.

The credit rating of this looser cooperation is likely to achieve a standing comparable with a weighted average of the participants’ individual standing. The interest on the bonds is sought to behave in a similar way as long as the joint issuance is of small or medium size. The more participants subscribe the higher is the likelihood of an increased liquidity premium reducing the overall costs.

2.1.1

The De Grauwe-Moesen (2009) proposal in detail

In being the most elementary proposal for a common bond scheme it presents itself as a very pragmatic approach preponderantly focused on the question on how “to prevent cycles of euphoria and panic from affecting perceptions of risk in the markets”.⁸

De Grauwe and Moesen are concerned with the problematic dynamics of externalities evoked by as radical as delayed market reactions. To offset disproportionate market punishments the authors propound a bond issued by the EIB (or another entity of that kind) exhibiting the following

⁸ In the proposals presented here and in each relevant section any citation refers to the paper in consideration, except if noted.

characteristics: “First, each euro government would participate in the issue on the basis of its equity shares in the EIB. Second, the interest rate (coupon) on the Eurobond would be a weighed average of the yields observed in each government bond market at the moment of issue. The weights would also be given by the equity shares in the EIB. Third, the proceeds of the bond issue would be channelled to each government using the same weights. Fourth, each government would pay the yearly interest rate on its part of the bond, using the same national interest rates used to compute the average interest rate on the Eurobond.”

Hence, the proposal embraces joint issuance of common bonds limited by specific country quotas, backed by several liability and further differentiating the interest rates, all euro area members participate.

Revisiting the core questions from above, the authors state that no such thing as a free rider problem could evolve as every party had to pay its own bill in terms of the respective national bond’s market rates.⁹ In addition, they argue that both strong and weak member countries may profit from this scheme - strong countries should implicitly gain in terms of market stability and will “not be penalised by a higher interest rate”. Weak countries could always count on market access even in times where financial markets “shut [them] out from the market”, meaning “as long as the flight to safety syndrome exists” - without being an additional burden to the rest of the associates.

In turn it is not clear whether this structure enforces budget discipline, also because the guarantee structure is not all too clear as the strong countries give implicit guarantees for the weak participants’ debt (Ejffinger, 2011). As a modest attempt to ease financial market malfunction by protecting the weak euro area countries the proposal is valid - but it can not be taken as model for an ambitious plan to promote the euro as a reserve currency as the authors themselves falter if “the common Eurobond market itself will have the sufficient size” for it.

2.2

Eurobonds with several and joint guarantees

Similar to the first type of eurobonds, proposals advocating joint and several liabilities move further towards the creation of a totally integrated market for euro area debt. Again, participation is not mandatory but there exist models emphasising an integral architecture as well as models claiming facultative entry.¹⁰

⁹ As quotas are fixed no country (not even the strongest one) could borrow excessively, implicitly it means that every further issuance of debt has to be undertaken in national terms - which consequently will affect the national and thus again the common lending conditions.

¹⁰ The proposals put forward by Juncker & Tremonti (2010) and by Soros (2011) both describe mechanisms where all euro area members participate. The first approach favours bond-swaps similar to the US Brady-Plan of the 1980ies and emphasises the importance of protecting the weaker euro area members from speculation. The

The main difference consists of each participating member assuming the responsibility for all debt issued this way no matter whether it is done by an independent entity or like in the Boonstra (2010) suggestion by a kind of European on-lending facility. The most renowned contribution under this scheme comes from Delpla and Von Weizsäcker (2011) with their “blue bond proposal” which provides for a Maastricht criteria conform guarantee ceiling for jointly issued bonds.¹¹

Again, the credit rating depends on the number of participants and of their respective creditworthiness. It can reasonably be assumed that the instrument would tendentiously reflect the rating of the largest participating economies. Thus, if France and Germany were to join the debt agreement the common bonds would presumably sell at lower interest than the weighted average of the individual rates.

2.2.1

The Delpla-Von Weizsäcker proposal (2010) in detail

This approach by Delpla and Weizsäcker, commonly known as the “blue bond proposal”, contains some of the most sophisticated features of the basic eurobond models. It concerns two core issues, namely linking cheaper borrowing to an incentive-driven debt reduction mechanism and in the longer perspective to establish the euro as a world leading reserve currency. While the latter goal is something like a self-evident consequence of every eurobond scheme the first one should be achieved by splitting up the sovereign debts in the EU in mutually guaranteed “cheap” and defaultable “expensive” debt linked to a mechanism for sovereign default.

The authors “propose that essentially homogenous government debt should be broken down into two tranches: a senior (‘blue’) tranche up to a certain debt threshold which is assumed to be 60 percent of GDP [...] and a junior (‘red’) tranche for any additional debt above that threshold”. Blue debt should additionally to its seniority be issued as one single common bond by all voluntarily participating members (thus increasing liquidity) and endowed with joint and several liability. As a matter of these three properties the common bond will clearly yield low interest. Contrarily, the red tranche should still be issued in national debt independently of the common bond. The junior status, the reduced liquidity (with respect to the former “homogenous national bonds”) and the risk of an orderly default will drive the red borrowing costs up for every participant.¹² The higher borrowing costs at the margin

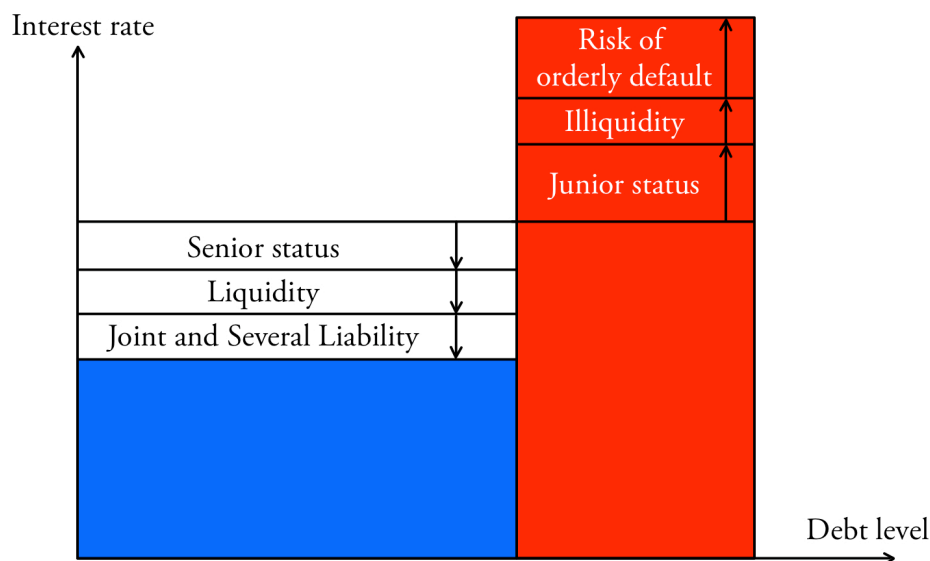
latter view sees eurobonds as a redistributive or corrective system of trade imbalances throughout the union. We shall return on the proposals at the end of the chapter.

¹¹ A further publication applying this scheme comes from Jones (2010), a similar version is assessed in the report of the Giovannini-Group (2000) as „Hypothesis 3: Creation of a single euro-area debt instrument backed by joint guarantees“.

¹² We shall later on go into further detail regarding the arguments of seniority and default, two points we regard as more essential to the discussion than problems of moral hazard or higher costs to the centre countries. Delpla and Weizsäcker treat this point as merely jurisprudential.. They consider (partial) orderly sovereign default as “integral part of the euro-area procedures” and call for “[t]ightened European supervision of banks and rating agencies” and for the introduction of “a standardised collective-action clause” for the individual countries red bond borrowing. Furthermore the ECB “should take a prudent stand regarding the eligibility of red bonds for its repo facility”, i.e. should not accept the junior debt as collateral (2010, p.3f).

and the low borrowing costs in the pool should provide for sufficient incentives for every country to reduce its overall public thereby reducing the pressure on the red tranche “substantially” (as an effect of the high marginal costs) and leading to a middle-to-long-run scenario with all blue debt for every participant. Figure 2.1 illustrates the proposal.

Figure 2.1, Key factors influencing the borrowing cost of blue and red debt



(Delpla & Von Weizsäcker, 2010, p.3)

Even if it is not explicit concern of the authors, the red tranche may act as a budgetary supervisor on one additional level. Rationally behaving governments could implicitly have the incentive to reduce the debt even further than the allowed 60%. Imagine, that even the first issue of red debt would cost substantially more than the last issue of common blue debt. In this case governments may avoid coming into the “red zone” by stabilising the debt/GDP ratio below the critical threshold (say at 50% or the like) in order to dispose of a security cushion, a “safety margin”, to prepare for the eventuality of an unanticipated external shock.

Regarding the institutional setup the authors follow the idea of De Grauwe & Moesen (2009) by stipulating “a differentiated allocation of Blue Bond borrowing quotas by country”¹³ rewarding good fiscal conduct. The incentive mechanism functions on two dimensions. First the positive incentive of

¹³ On the contrary they oppose De Grauwe and Moesen’s idea of “differentiated membership fees for countries” as it was “politically difficult” to organise a redistribution of common gains from the weak to the strong (2010, p.6).

obtaining ever cheaper financing through prudent fiscal behaviour and second the negative incentive of gradually seeing one's quota vanish in case of improper conduct.¹⁴ An Independent Stability Council (ISC)¹⁵ should supervise issuance once a year proposing an allocation (following the quotas) in a “take-it-or-leave-it offer” to the participants. National parliaments in turn vote on the proposed allotment. In case of prolonged abstinence from issuance the model comprises eviction from the ISC (as in the case of persistent irresponsible spending). The bonds would then be emitted by a European debt agency in order to avoid the typical “holding discount” (Delpla, 2011).

Free riding in this proposal is virtually impossible as breach of rules is immediately punished, the installed debt ceiling inhibits moral hazard anyway as the full issuance potential can only be obtained in case of exemplary fiscal soundness.¹⁶ Pooling up to 60% of the Union's GDP as debt puts Europe in the position to compete almost on par with the US treasuries what in turn means that the Euro aims at the reserve currency status allowing for a further interest rate reduction on the common bond alongside the obvious liquidity premium.¹⁷ The great advantage anyway lies in the stabilisation of the currency due to the joint and several guarantees as it protects the countries from sudden convulsions of their respective bond's yield curve. And after all, Delpla and Von Weizsäcker spot benefits for everyone; small countries reap the most substantial liquidity premium among the participants, weak countries finally get the chance of sustainable debt reduction combined with protection from market panics, and ultimately strong countries experience a strong improvement of market discipline and thus see their contributions to the temporary crisis resolution mechanism fade out.

2.2.2

The Boonstra proposal (2010) in detail

Boonstra starts from the observation that “[a]s long as speculation about its demise will occasionally pop-up, the euro will be relatively vulnerable in comparison to the US dollar“. Speculation against the

¹⁴ The proposed negative incentive mechanism could turn out to be counterproductive as it triggers self-punishment dynamics in the sense that the more the group curbs the allotments to certain members the more overall liquidity of the bond must decline and consequently the common rate must rise.

¹⁵ Actually the ISC should become something like a financial supervisor or commissar to the EU as countries “would have to convince the ISC that their fiscal policy is credible enough to be insured (via the joint and several liability)”. “A binding fiscal rule” like the one in the German constitution would do the job of persuading the council and arguably the financial markets as well (2010, p7). This request constitutes one of the imprudent features of the Blue Bond proposal; De Grauwe (2011d) argues against such “balanced budget rules” that he perceives as fundamentalist and cynical. He sees the sense of such budget rules in achieving balanced budgets at all times, i.e. eliminating public deficits and debt in a general sense. Such government behaviour must neglect investments in future generations and thus acts against the interest of its own electorate. I do most vigorously agree with him.

¹⁶ This mechanism provides incentives to reduce the debt burden down to 60% of GDP but not further. In section 5.1. we sketch two ways to animate further debt reduction.

¹⁷ Delpla and Von Weizsäcker quantify the “exorbitant privilege” of the reserve currency premium as about 30 basis points (2010, p5). Becker (2010) sees the US privilege amount “to 1.5 percentage points” which is double the value of what Delpla and Von Weizsäcker mention. From this we may infer that the reserve currency premium could raise to more than 30 basis points.

common currency should be averted by a new design of EMU that provides for a deepening of the common financial market and at same time establishes a higher degree of fiscal discipline.

In order to achieve the twofold goal of “greater freedom in budgetary policy” (in the sense of lower interest payments) and high fiscal stability amongst the euro area countries a central institution, called the EMU fund, has to be created taking over *all new funding* of government deficits of its members. This new institution should exclusively raise funding (“government debtors may no longer directly turn to the capital market”) and then pass it on to its members at the market rate varied by an either positive or negative margin according to the respective country’s fiscal soundness. Participants not sticking to certain rules¹⁸ immediately experience “severe punishment”, but notably not in terms of lending conditions alone but also by “losing funds [...] as the regional funds [*EU subsidies*]” or by forfeiting political influence on the EU level.

Boonstra consequently proposes a scheme of a common bond backed by mutual liability¹⁹ but without any debt or guarantee ceiling, with voluntary participation and differentiated interest rates.

No free riding would stay unpunished. Interest rates immediately would rise following the breach of regulations. In contrast a possible reduction on the common lending rate incentivises “good fiscal conduct”. Mark-ups and mark-downs are determined on basis of a contrast between the respective country’s fiscal parameters (e.g. deficit and debt ratio) and the participants’ average on these parameters.²⁰ Here, the fund’s systematic internal rules ought to replace “the more capricious discipline from the financial markets” - first because the interest premium would rise gradually following pre-determined rules, thus predictably and not abruptly with a timely lag; second, because if a country comes to violate a certain benchmark (e.g. the Maastricht limits) the fund may further impose conditionalities on the lending.

Does this scheme offer advantages for both strong and weak countries? Weak countries of course profit of the mutual guarantee meaning shelter from financial storms (i.e. undeniable market access at reasonable rates at all times) and further can expect to pay a lower interest on their debt as associates than as individual debtors (even if they are charged a premium). Strong states profit in a threefold manner: first, “the most important benefit is the consolidation of the euro for the future”, second, they

¹⁸ Boonstra (2010, p.5) introduces a six point catalogue to sketch the rules of the EMU fund. According to this enumeration a transgression could be “for example start with monetary financing, fail to pay [the] spread or directly approach financial markets for funding”.

¹⁹ Actually, Boonstra in his 2010 proposal seems not too concerned with the guarantee structure of the EMU fund. Just once (sportfully, on the last page) he mentions that a common agency should take on funding “possibly with mutual guarantees”. His relaunch explicitly favours “central funding of all deficits of all of EMU’s members States with a cross-guarantee of all participants for all their public debt” (2011, p.4).

²⁰ A second scheme is proposed where only the countries performing worse than Germany and France (or as the average of both) pay a positive premium while for the diligent countries the spread always equals zero. Designed as such, the fund would always make profit that could be used for a central EU budget or be redistributed to the fund’s members.

are supposed to reap a liquidity premium from the joint issuance²¹, and implicitly third, the internal correction mechanism of the fund may prove more efficient than the financial markets delayed “corrections”. Imposing the mark-up scheme eliminates the “free ride years” of fiscally weak countries often permitted by global capital markets.

May the voluntary participation hinder the euro’s rise as the global reserve currency? Boonstra is convinced that no country would actually stay out of the scheme “in view of the evident advantages of common funding”. He argues that “[i]f only several large countries with the highest credit rating, including Germany, France and the Netherlands, decide to fund their government debt centrally via a common agency in the future [...] the remaining countries would soon want to join”²². Considering that all new debt of the members will be common and buying into the author’s conviction of the evident merits we can conclude that such a eurobond may easily concur with the US treasuries.

2.3

Common bonds issued by a EU institution

The third type bond proposal envisages the issuance by a EU institution, which means that the whole euro area *plus the other EU members* must participate by statutes of the Union as they all would be mutual owners and thus responsible for the institution’s liabilities.

Irrespective of whether the institution already exists or has to be newly founded it would collect funds on the financial markets as an on-lending facility. The funds raised this way would be transferred to the guarantors as credits at the primary funding cost of the bonds plus optionally a country specific margin operating as a moral hazard corrective or the like (compare to Boonstra, 2010). The rating of the common bonds has the highest likelihood of reaching a triple-A status owing to the joint and several guarantees of the 27 member states resulting in a very low risk premium to be charged. Furthermore this approach implicates the biggest volume of issuance and would thus reap a non-trivial liquidity premium.

²¹ This point is questionable as participation is voluntary and it may need some time to actually get all of the EMU members to commit themselves to a common debt mechanism. Thus the liquidity premium is sort of a medium-range improvement. Later in the thesis we devote more attention to this aspect.

²² The point of having the best performing countries in the initial formation is a very important one as it sends a signal to the remaining „reluctant“ countries (see chapter 5). Boonstra also mentions the possibility of a precursor to the EMU fund set up by the weaker countries (2010, p.10) in order to reap a liquidity premium on their own (and to install a shield against „sudden changes in market sentiments“). Contrary to our idea, in his reasoning there should be no big difference whether strong or weak countries are initiating such a fund. We shall observe the financial markets’ reaction and confidence if the weakest members were to pool their debt and back it with joint and several guarantees. We will see later on that a liquidity premium can only become substantial if many countries participate and that the mutual guarantee structure also serves the purpose of lowering the risk premia of the weak associates (and thus the general one). Now, if only weak countries pool their debt the project cannot succeed in doing so; under this scheme it would become too easy to bet against the common bond as it would be too difficult for a weak member (even a big one) to guarantee for another weak member’s general debt.

2.3.1

The Gros-Micossi proposal (2009) in detail

Again, Gros and Micossi approach the topic of communised debt as a crisis reaction being mostly concerned with the vulnerability of the European banking system. Explaining the cross-border activities of EU banks in the euro area's periphery they show that a flight to safety (a capital withdrawal from those states) has to be avoided by providing "extra funds for emergency balance of payment assistance" and "good government paper in exchange for flawed private claims" following the American Brady bonds of the 1980s. The authors advocate EU government-backed bonds to raise the massive funds necessary to stabilise the EU and its periphery.²³ All of the union's members should stand in jointly and severally for a debt of minimum € 500 billion. Due to the comprehensive guarantees and the transitory character of their European Financial Stability Fund the securities issued "would be practically riskless".

Thus, Gros and Micossi envisage a eurobond on-lending scheme comprising joint and several liability of a limited lifespan of five years, which mainly employs the funds raised for "bank recapitalisation" and "balance of payments assistance in the European neighbourhood". The proposal provides for no explicit borrowing or lending ceiling and contains no explicit statement on the burden sharing in terms of interest rates but only of general costs accrued.

Free riding in this scheme would for instance mean that a state might channel disproportionately more rescue funds than the others to his national companies and institutes. But as the authors argue, "at the end of its [*the funds*] operations losses could be distributed across member countries according to where they arose", what implicates that only actually necessary aid is provided.

Concerning the point of the reserve currency the authors name the immense global capital flows in search of a safe haven and "a way of diversifying their risk away from the dollar" avoid the euro area because of a missing deep and liquid market for commonly backed union bonds of equal quality. Obviously advertising the "rescue bonds" as a way of promoting the euro as "world's leading reserve currency" implicates a permanent character of the Fund and thus contrasts the initial 5-years plan.

²³ As a matter of fact the Gros-Micossi proposal is kind of an anticipation of the European Financial Stability Facility (EFSF) installed in May 2010, one year after the article came out. In a later section we will introduce the refinements of their proposal put forward since the first article, e.g. in Gros & Mayer (2011a).

2.4

Unaddressed issues

As already mentioned there remain a handful issues not explicitly dealt with in above's proposals that should shortly be addressed here. In essence, we shine a light on the basic eurobond as a resolution mechanism for the ongoing sovereign debt crisis.

Juncker and Tremonti (2010) published a plea for eurobonds touching the "politically sensitive" topic of risk sharing among the euro area's members. Not caring too much for the institutional setup or the liquidity gains of the new security they emphasise the importance of "insulating" weak members from speculative attacks. Actually, they consider the eurobond as a complementary instrument to a debt restructuring mechanism and furthermore concede that the newly founded European Debt Agency (EDA, a hypothetical successor of EFSF) may buy up to 100 % of a country's debt if it finds itself in extraordinary trouble. Juncker and Tremonti also touch on private investor inclusion what again is a lead for the "fire fighter" character of their approach.

Basically they argue that secondary markets for euro area/EU sovereign bonds perform poorly and that thus investors are asking for increasing prices on the primary markets to cope with it and in turn forcing European institutions such as the ECB to intervene. "With a single European market, primary market disruptions are in effect precluded, reducing the necessity for emergency interventions in the secondary market." Looking both at financial market's confidence and the worries of EU citizens they intend to send "a clear message to global markets and European citizens of our political commitment to economic and monetary union, and the irreversibility of the euro". Introducing a common debt instrument would address the "issue of crisis resolution" and contribute "to the prevention of future crises".

Soros (2010) in turn deals with the pressing challenge of divergent economic development in the euro area. "The introduction of the euro was supposed to reinforce convergence; in fact it created divergences, with widely differing levels of indebtedness and competitiveness." To calm the current situation of galloping spreads he argues with an eye on the national current accounts that "deficit countries must be allowed to refinance their debt on the same terms as surplus countries"²⁴.

Soros advocates a ministers of finance led European monetary fund with "Germany in the driver's seat" as every crisis solution has to put the country's top credit standing on feet of clay. But he accuses Germany of following "unsound ideas about macroeconomic policy" being Europe's globally competing export champion. "[W]hat works for Germany cannot work for the rest of Europe: no

²⁴ Soros highlights a very important point; as Gros (2011c, p.1) argues „the current account and cross-border bank liabilities are as important as predictors of CDS spreads as the fiscal deficit“; with most EU trade happening internally it is clear that Germany's trade surplus drives up the refinancing cost of some Union members.

country can run a chronic trade surplus without others running deficits.” Thus, Germany must agree that some structural deficits stem from its own flawed performance; not only the Maastricht criteria should be taken into account when deciding about the allocation of the common bonds. While promoting gradual reduction of the overall stock of debt the fund’s board “must also allow countries with high unemployment [...] to run budget deficits” - as Juncker & Tremonti also Soros is keen to stress the importance of concerted investment plans to reduce the aforementioned macroeconomic imbalances. Finally he propounds similar to De Grauwe (2011, a,b) a “stopgap agreement” putting the ECB in the position of a lender of last resort for sovereigns in order to prepare for the introduction of the common bond scheme.

3

Critique

The following chapter will give an overview over the most popular reproaches against the various bond schemes following a compilation by Becker (2010). We enumerate five points and apply them to the proposals introduced above. Consequently we discover that they are too weak or too superficial to lead to a demise of the common bond idea.

In a later section we take a quick look at what we labelled the “northern” critique of the German economists Issing (2009), Sinn (2010) and Carstensen (2011) unveiling “blatant incomprehension of the fundamentals of a monetary union” (De Grauwe, 2011a).

The last part of the chapter contains more serious critique mainly focussing on the “seniority conundrum” (Gros, 2010) and on the question whether the actual (over-)indebtedness may contradict the proposed guarantee ceiling. Even if the two critiques may not immediately lead to a demise of the basic proposals they certainly address very sensitive topics in a more subtle fashion than the German economists named above.

3.1

The basic points

- First, Becker starts his contemplation with a straw man stating that over the last decade “liquidity has improved significantly anyway” due to partly synchronised issuance practices and rising volumes and that there would thus be no need for a common government bond. The elimination of exchange rate risks led to an ever diminishing “home bias” for investors, secondary markets evolved in an pleasing manner, shortly “Euro assets have been attractive without a common government bond”.

Three remarks occur. First, Gros (2011d) notes that risk perception amongst banks in the Union still is guided by a “home bias” as they favoured “domestic investment” because there was no EU-wide mechanism safeguarding the functioning of the banking system and the interbank market. Now, as we can not observe anything similar on the level of government securities either, his observation can be applied to Becker’s statement. The lack of such insurance should contradict Becker’s perception. Second, Münchau (2011) reports a study²⁵ containing evidence that the “eurozone already has a single and highly efficient corporate bond market, which benefited greatly from increased liquidity” in the

²⁵ Portes, Richard e.a. (2006) *European Corporate Bond Markets: transparency, liquidity, efficiency*, CEPR Research Report for: City of London

sense that “comparable corporate bond spreads fell to levels below prevailing rates in the US”. Münchau thus describes the same phenomenon as Becker but claims contrary to him, that there was no reason why “that performance could not be matched in the market for sovereign debt”. Third, Juncker and Tremonti (2010) stress the malfunction of European secondary markets.

- The second point regards the suspected violation of the article 125 of the Treaty on the Functioning of the European Union commonly known as the No-Bail-Out Clause. As explained beforehand we shall not examine this allegation in detail. On the one hand we are not concerned with legal but with economic issues, on the other hand the argument maybe appears frightening at the first glance but actually cannot withstand a serious test. The exact wording says

1. The Union 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 any Member State, *without prejudice to mutual financial guarantees for the joint execution of a specific project*. 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*.

2. The Council, on a proposal from the Commission and after consulting the European Parliament, may, as required, specify definitions for the application of the prohibitions referred to in Articles 123 and 124 and in this Article. "

(TFEU, Art. 125, emphasis mine)

In this context first we need to know what kind of eurobond scheme we are talking about; if the mechanism rests on several liabilities it is perfectly trivial to see that no country would ever bail out another participant due to the guarantee structure. Otherwise, if the bond’s design provides for joint and several liabilities the affair gets a little trickier.

We need to look at two different situations, beginning with a Eurobond including a lending ceiling; Delpla and Von Weizsäcker (2010, p.6) defend their proposal as follows. “In economic substance, we argue that it would [*be compatible*], because the joint and several guarantee would at most apply to senior debt amounting (up) to 60 percent of GDP, which is a debt level deemed sustainable for any EU member state according to the Maastricht Treaty. Therefore, the guarantee would not apply to debt crises caused by unsustainable fiscal policies leading to excessively high debt levels.” Here their rationale is incentive compatibility with the original intention of Article 125 TFEU namely the containment of excessive government spending.

Although valid, we think that legally this argument may not suffice. Consequently, we examine the aspect as presented in Honnefelder and Kolassa (2010) who state that from „[...] a legal perspective -

also in view of the balance between Articles 122 and 125 TFEU - it can be observed that several authors (Gros/Mayer, Pisani-Ferry, Lamandini)²⁶ commonly doubt a very strict interpretation of the no-bailout clause in Article 125 TFEU. As evidenced [...], it is ultimately a decision for MS [*member states*] as to whether they define themselves a political union which jointly vouches for its members and provides community assistance (at least for the euro area).“ This passage hints at the special legal character of the euro area and thus implicates that a common bond scheme for the euro area infringes no regulation as the infamous Article 125 TFEU.

Finally we line up with Micossi e.a. (2011) on the dialectic battlegrounds. As emphasised above the formulations does not preclude “mutual financial guarantees for the joint execution of a specific project”. Hence we can always declare something like “the restoration of financial stability in the euro area” or “the consolidation of the euro as the world’s leading reserve currency” a “specific project” and thus pass by the legal difficulties thanks to this back door at least as a preliminary solution. Micossi e.a. admit the impossibility of “direct fiscal transfers” as well as the “assumption of guarantees” for *existing* liabilities of some member state. Conversely they argue that “[i]t does allow [...] for the possibility of separate and joint guarantees for a joint project, an expression that may well include financial assistance to a member state” (2011, p.3). In this context two constraints need to be respected, “financial assistance provided to a member state” on the one hand “must respond to the purpose of preserving financial stability” and on the other should not aim at “a fiscal transfer to the member state concerned or a guarantee for its liabilities”. So if any common bond scheme were to be started, only fresh liabilities would require attention - and as mutual guarantees are allowed within the project there should not legal problem should pop up.

- Becker’s third point tackles the widespread belief that the “triple-A-rated countries” would have to shoulder “substantial additional costs”.²⁷ He fears that the core countries will lose their triple-A rating as they should guarantee for “interest payment and redemption” for the non-triple-A associates, otherwise institutional investors may refrain from buying the common bonds. He surely would be proven correct on a jointly and severally guaranteed bond finding broader acceptance but he might err when sustaining that the core gambles away its credit standing.

First of all we introduced three types of Eurobonds and discussed the likely credit standings the respective securities might obtain. We concluded that the likelihood of a triple-A rating rises with the

²⁶ Gros and Mayer (2010) argue that the Article 125 TFEU has never been credible in the first place whereas Pisani-Ferry (2010) even claims that “[t]here was never a ‘no-assistance principle’ in the treaty”. Actually also Becker seems to doubt the effectiveness of the Article (in line with Gros and Mayer) as he writes that the “very small spreads between EMU government bonds until the Lehman collapse of September 2008 have reflected strong market scepticism as to whether governments would implement the no-bail-out clause given the close economic and financial ties within the euro area (2010, p.28)”.

²⁷ Another point of Becker is that political sustain in the core may vanish due to the high costs of burden sharing. The point proves right if his cost analysis holds and gets dismissed otherwise.

number of participants (under the constraint that Germany and France participate) if the scheme entails joint and several liabilities.

Secondly, even under a scheme of proportionate liability such an increase in cost must be transitory. Bond spreads within the euro zone were almost invisible until the midst of 2008 because of the countries' better fiscal shape before they had to overtake massive private debt and to stabilise their home economies with fiscal stimulus packages. Germany draws a huge profit from the "safe haven" status its bonds momentarily enjoy but performed virtually in the same manner as the rest of the euro area two years ago (Delpla & Weizsäcker, 2010). Thus, once the disciplining design of a Eurobond scheme hits and the (numerous) participants start economising also a loser cooperation as the first mechanism discussed before may suffice to generate "gains for all" (De Grauwe & Moesen, 2009) because the consolidation efforts drive down national bond yields and improve the credit standing.

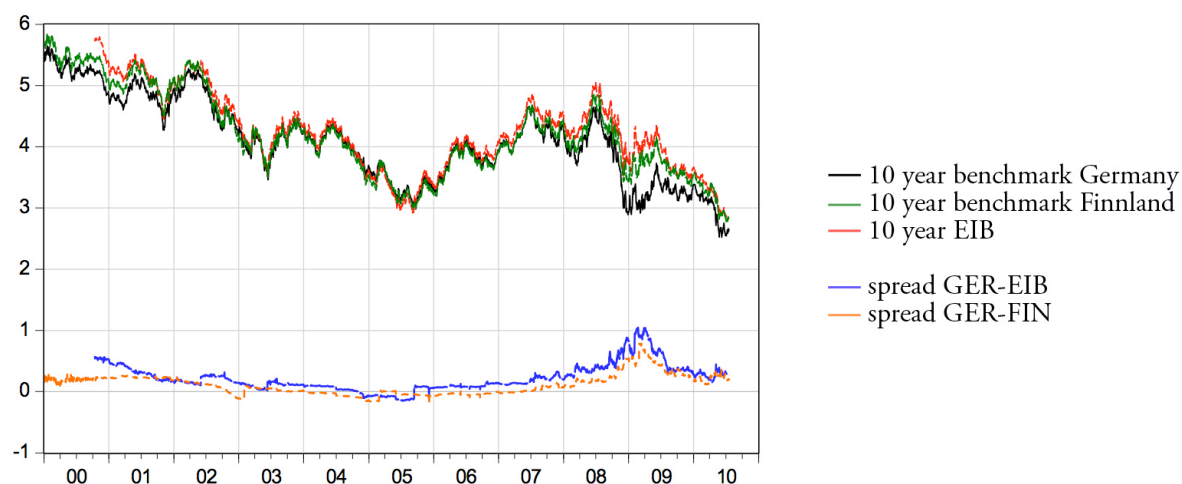
Thirdly, we can use some indirect empirical evidence to check whether northern governments would have to pay substantially more interest on the common bond. We actually know two major institutions within the European Union issuing bonds that are severally guaranteed either by the EU-27 or the EMU countries.

The European Investment Bank (EIB) is the Union's long-term financing institution having all 27 member states as joint shareholders; despite having some low-rated mutual owners the bank shows a triple-A rating from all three major rating agencies (Fitch, Moody's, S&P).²⁸ Favero and Missale (2010, p. 122) use the EIB's case to "assess the performance of a bond issued by an EU Institution" by constructing a synthetic bond with (residual) maturity of close to 10 years and compare its performance with the German 10-year Bund and Finnish bonds of the same maturity. For the period in consideration (1999-2010, see figure 3.1) the highest spread between the synthetic EIB and the Bund is found to be of a 100 but mostly averaging around 30 basis points, most of the time exhibiting a very similar movement with the exception of the financial crisis temporarily inverting the tendency. Further "the interest rate on EIB bonds follows closely that on 10-year Finnish bonds"; as the latter virtually bear no default risk but still are traded in a less liquid market than the Bunds, "this evidence suggests that the illiquidity of EIB bond is the most likely explanation for their interest rate differential with German Bunds". So they conclude, if the sole premium being charged on a EU institution bond is due to reasons of liquidity, a Eurobond "would have the same credit quality of German Bunds" thanks to the deeper market and the guarantee structure. We should actually not consider 100 bp in an extreme situation and the average of 30 bp in equilibrated times as unbearable burden for Germany; however, if we are confronted with such a modest premium we might consider Münchau's proposal (2009) to redistribute the gains obtained from the common bond issues, i.e. to redistribute from the main beneficiaries (the periphery) to the main benefactors (the centre). For avoiding the payment of risk

²⁸ As in December 2011; rating reports can be found in the [IR section](#) of the bank's homepage. The EIB ascribes its top rating amongst others to „Joint European sovereign ownership and support“.

premia the states drawing the most profit in terms of interest rate reduction could be charged something like a small “compensation premium” so that no extra costs accrue to Germany.

Figure 3.1, 10-year Bund and EIB interest rates



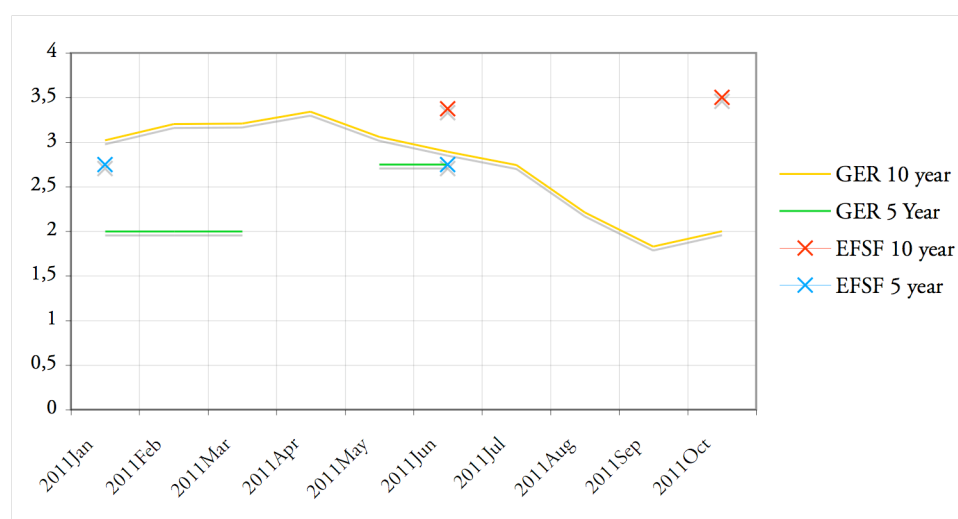
(Favero & Missale, 2010, p.122)

We might also use the experience with the European Financial Stability Facility (EFSF) set up in May 2010 to infer on a possible performance of the common bond. The institution set up as a rescue fund and issues bonds backed with several guarantees of most of the EMU members. As for the EIB some of its financiers do not exhibit triple-A ratings; nevertheless the Facility has been assigned the highest ratings from the most important agencies.²⁹

As the EFSF undertook only four issues up to now the evidence is less meaningful than in the former case. However, we can note that the institution’s bonds never yielded more than the pre-crisis average 10-year Bunds of 4.04% we calculated from ECB monthly data; furthermore the spread between 5-year Bunds and EFSF securities of the same maturity amounts to less than modest 50 bp, moreover in June 2011 the two securities seem to have been considered as equal.

²⁹ As in December 2011; rating reports can be found in the [IR section](#) of the facilities’ homepage. The EFSF explains its top rating with “the guarantee of the shareholders, the euro area member states”.

Figure 3.2, 5- and 10-year Bund and EFSF interest rates



Source: Deutsche Bundesbank, ECB, EFSF, 2011

Further empirical evidence comes from US treasuries. In the view of Favero and Missale (2010) exchange rate adjusted US yields provide a good benchmark for yields on Eurobonds as such bonds aimed to make the euro-area bond markets similar to the US market in terms of credit risk and liquidity. They find that in the prior years of the financial crisis the interest spread of 10-year German Bunds over US Treasuries (the asset swap spread) moved around 40 basis points indicating “a sizeable liquidity premium” obtainable from issuing common bonds under similar conditions as US bonds.³⁰

However, Favero and Missale point at a very important issue, scilicet that “before the financial crisis a common Eurobond would have enabled the euro-area market to better compete with the US market as the most liquid market globally”(2010, p.120). In this period the financial world experienced peaceful

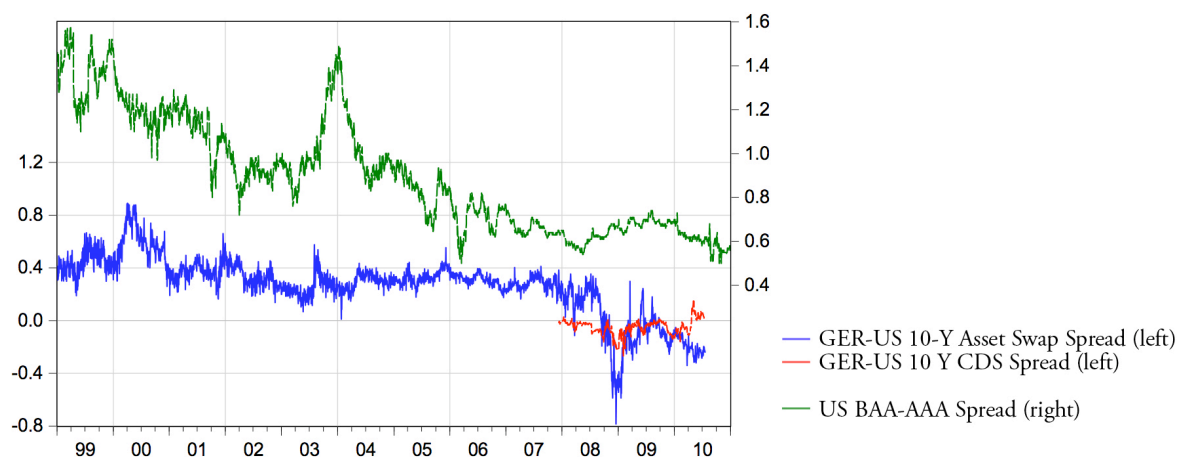
³⁰ Actually we see one more way to compare the US and European bond markets. We shall only sketch the idea as we lack of the necessary space in the thesis to further develop it; moreover collecting data turned out to be quite tricky.

The main idea is to see if any US state obtained cheaper financing than the federal government in Washington. Thus one needs to compare the yields of the last say 10-12 years on the state municipal bonds of the say three top performing states (in terms of fiscal conditions or economical strength) like California, Texas or New York with the US Treasuries in order to see if the spread ever turns negative. If the Treasuries always paid lower interest than the muni bonds one might have found a fortifying case for the introduction of a common bond scheme in the euro area.

We raise two objections on this idea; first a eurobond would be issued by a central funding agency and not by a government having fiscal powers. The agency would thus depend on 17 guarantors rather than on one. This might lead to funding inefficiencies (rising premia) in critical times as a single government may rise taxes more rapidly than a conglomerate of 17. However, we need to remember that the concept is a theoretical one and that an actual fiscal union may become reality somewhere along the way. Second, the regional composition of the euro area and of the US differ quite heavily as the latter is way more fragmented and its biggest and possibly economically strongest state shows only about 37 million of inhabitants whereas in the former the leading player has a population of 80 million, the second and third around 60 million each, the three of them being G7 members. Thus, if we compared Californian General Obligation Bonds (rated AA+ with negative outlook by S&P, AAApre with stable outlook by Moody's) with say German Bunds of the same maturity we still needed to account for an immense liquidity difference.

times as CDS spreads were “negligible”, actually the main reason why the asset swap spread can be taken as proxy for the liquidity premium on Bunds. Figure 3.3 offers a graphical visualisation of the comparison.

Figure 3.3, 10-year German Bunds and US Treasuries



(Favero & Missale, 2010, p.121)

Other studies trying to estimate the costs of pooled debt reason that fiscal variables are key determinants of sovereign bond yield differentials. Assmann and Boysen-Hogrefe (2011) of the Kiel based IfW compare the euro area as fiscal aggregate to France and conclude that the yield on the common securities should therefore roughly equal the interest on French bonds; this means that the Eurobond had to sell at 50 to 60 basis points over the German Bund. US investment bank J.P. Morgan (2011) presents a very similar result while the French hedge fund Natixis (2011) “suggests that common bonds could be priced about 20 basis points above currently AAA-rated bonds.”³¹

Freezing today’s sovereign bond yields would of course mean that Germany had to pay more on the common debt than on his own. But as the examples of EFSF and EIB suggest a Eurobond may yield the same as the Bund in normal, “peaceful” times.

Becker (2010, p.28) gives us a hint by stating that by “launching a common government bond, it is likely that the rating of several triple-A-rated EMU countries will deteriorate given their own high public borrowing requirement in the years to come and the fact that budget consolidation within Stability and Growth Pact (SGP) will only start in 2012 or even later”. This implies that the rating of every country is at risk anyway, the loss of Austria’s and France’s triple A in January 2012 is a clear sign for it; consequently not debt pooling but stimulus policies or automatic stabilisers may deteriorate

³¹ Please see European Commission (2011) and references therein.

the lending conditions of the leading countries. Furthermore, in straight economic logic, markets must already know that the no-bailout rule is ineffective and thus bet against the core by maltreating the periphery expecting “guarantees [...] regarding interest payment and redemptions”. In this case we suppose that the euro area countries may as well decide to close ranks rather than try to stand alone hoping not to lose their top ratings.

Lastly we shall emphasise the importance of the timely point of introduction. It matters if eurobonds are launched in times of financial peace or stress as the example of EFSF explains. At the moment of introduction only the euro periphery underwent notable stress while the guarantor position of the core still was unharmed, the bund-EFSF spread amounted to less than 50 basis points (Kager, 2011). As the crisis reached the core as the markets focussed on Italy the new issuances became more expensive and the spread rose to more than 120 basis points (November 2011). This partly originates in the financing structure of the EFSF where a country can occasionally cease guaranteeing for its share if it finds itself in greater financial trouble.

Further we should add that the euro area may not regain investor confidence by pooling bad debt and hoping to reap a liquidity premium to alleviate the refinancing burden. In this exact context Münchau (2009) assesses that rising government bond spreads (due to fiscal instability) are “a bad pretext for a good idea” (namely the introduction of Eurobonds).

- Finally, Becker fears that common debt nourishes moral hazard “as non-triple-A-rated states could be tempted to neglect fiscal discipline relying on being bailed out anyway in case of severe turbulence”.³² He argues that the economic ties between inside the euro zone are too intertwined as to neglect financial assistance to any member country. “Severe systemic risks” such as crisis contagion to other states follow from some turbulence that might even only occur in the periphery.

As we subsequently revisit the free rider problem we don’t devote too much space to Becker’s incursion here. Still, we need to understand why he argues against the bond as a crisis resolution or prevention mechanism. It seems as if he perceived Eurobonds as a potential driver of fiscal jollity and thus as a spore of crisis contagion. Actually we think that it works the other way round. If we admit the possibility to construct a (almost) moral hazard free common bond scheme, a Eurobond may even help to avert contagion. If introduced in times where no country is (heavily) overindebted and enough states participate - say the whole euro zone - it will be very hard to speculate against the common currency or against a single periphery country. If one country should nevertheless stumble into any inconveniency the others would shield it admitted we have got mutual guarantees.

³² His fifth point is closely related to this point. It addresses the problem of “increasing euro-scepticism” in case the taxpayers of the core countries had the impression to pay for the periphery’s fiscal sins without receiving any reward for their help. In this context, we consider this point merely as a problem of communication. If free riding can be avoided, no rational citizen faced with the question of emergency lending should think of a say “unproductive” periphery, unless the interpretation of influential media may – for whatever reason - not be in favour of the auxiliary measures.

Favero and Misale (2010, 127f.) actually debate this topic in more depth than Becker does. They identify the main transmission channels of crisis in “cross- border holdings of national bonds” increasing the vulnerability of the European banking system and in “worsening of market sentiment and increased risk aversion”. So, if a Eurobond scheme provides for joint and several guarantees “risk sharing opportunities” reduce the overall credit risk. Given this, and acknowledging that “country-specific shocks have negative spillovers to other Member States’ creditworthiness” we can conclude that the installation of such a common security will mitigate rather than fuel contagion risks. “If the occurrence of a debt crisis in a Member State increases the probability of a crisis in other States and, thus, their credit risk premia, then providing insurance to the State with the weakest fundamentals would work as an insurance for all. (p.128)” The strongest link of the chain may not draw the evident insurance benefits from the scheme but should at least enjoy the advantage of a lower crisis risk.

3.2

The “northern” critique

Initially we distinguished between “serious” and politically motivated or “northern” critique on eurobonds. We will not devote much space to the discussion of this politically motivated literature. This section introduces interjections by Issing (2009) regarding his fears of free riders in the periphery and the rather simplifying calculations of additional costs for the core by Carstensen (2011)³³.

3.2.1

Moral hazard

Issing’s contribution to the topic paints a Europe in black and white. He basically dreads a spending frenzy in the undisciplined south and skyrocketing costs in the prudent north.

The author starts from the observation that what we now call the periphery of the euro zone has factually profited a lot from the common currency’s introduction but failed to convert the gift of cheaper money and exchange stability into sustainable growth. “Market participants” saw all EMU members “as belonging to a zone of stability” which led to the *de facto* elimination of government bond spreads.³⁴

In Issing’s view their poor deployment of this resource excludes the troubled states from any form of mutual assistance by the leader states. Actually, it ought expose them to the capital market’s efficient

³³ Interestingly we observe that the main proposals for a common debt scheme originate in the strongest countries of the euro area (Germany, France, The Netherlands) and that the most insistent critical voices preponderantly grow in the centrepiece of the Union.

³⁴ Compare to chapter 5.1 and its footnotes; actually Spain and Ireland reduced their stock debt significantly from 2000 to 2008.

and rightful punishment - or put differently “times of crisis give governments the best arguments to take tough measures needed to get the country back on a sustainable path”. So Issing tries to convey that sinners never turn into saints if temptation is “waiting just around the corner” (in form of bail-outs). Without the cathartic experience of a deep crisis the periphery will never convert to the gospel of budget discipline.

For Issing it is as clear that rising spreads are due to “financial markets’ growing concerns about the solidity of some Eurozone countries” as that a common bond “would be the a first step on the slippery road to ‘bail-outs’ and thus the end of the euro area as a zone of stability” (2009, p. 78). Once the financial ties would tighten with a common bond no EMU member would have any incentive to behave in a prudent fashion, as the disciplining effect of financial markets would fade. Sinn (2011) seconds him saying he found no “leads that markets were dysfunctional”.³⁵

Because the periphery sets at risk the stability of the whole Union he further argues that solidarity with the troubled states would not mean “the ‘strongest’ guarantee for the ‘weakest’” but rather full compliance “with the fundamental rules of EMU”. This compliance should be enforced establishing the conviction among euro area members that for no sovereign debtor it would become “impossible-to-default”.³⁶ So in his words the “Europeans” understanding of solidarity at best led to the re-election of the government that accumulated all that messy debt but would result in “no more than a placebo for a ‘weak’ country”. In earnest, solidarity disguised as indulgence “would foster the illusion that it is possible to get out of difficulty without having undertaken fundamental reforms” (p. 79).

As a matter of fact, Issing does never refer to any concrete eurobond proposal. Hence it is difficult to understand his real intention. Of course, if we installed an *unrestraint* and *uncontrolled* mutual euro security then it actually “would be hard to find a clearer case of free riding”. But, every single of the four proposals or the three schemes presented above provides for a mechanism setting incentives towards financial responsibility and in the case of Boonstra (2010) we also observe heavy measures of punishment. The really juicy question in his proposal concerns whether sovereigns shall render their bonds defaultable as he implicitly advocates. We discuss this query in a later section of the thesis in a short and reviewing manner.

Next, if countries of the periphery were free riding all these years of EMU affiliation then we have to consider the possibility of financial markets completely messed up in indicating this misconduct.

³⁵ Moreover, Sinn points out that the „commotion“ about the rising national bond yields was „exaggerated“ as e.g. for Italy and Spain in 1995 they amounted to the double (respective to 2010). This was actually at a time when every state controlled its own currency and thus immense bund-spreads were not such a big deal as they are today (original text in German, author’s translation).

³⁶ This reasoning unveils the little economic content of Issing’s critique. By equalising a state and its citizens (and its bureaucracy) with an enterprise convinced to be „too-big-too-fail” he “takes the cynical view that all government debt is bad” as De Grauwe (2011d, p.2) describes. “This is also the view that governments are simply wasteful and do not contribute to the productivity of a nation.”

Furthermore, we may conjecture that his argument implicates his wish for a default mechanism for (euro area) sovereigns.

Actually, the governor of the Banque de France, Christian Noyer, admits that “the pressure of the markets utterly failed”. In his view, “the time before the crisis completely lacked of pressure and as the crisis burst pressure was totally exaggerated”. When he says, that “[m]arkets scared each other, market agents acted like a flock of sheep” he radically opposes Issing’s - and not only Issing’s - belief in the galvanising corrections of global capital markets.³⁷ Further, this scenario may exclusively apply to Greece as De Grauwe (2011d) convincingly argues.³⁸

Finally, the author’s argument on solidarity could hold if the rules of a group were set up *pari passu* by equal members. This may not have been the case as generally in EU or euro area negotiations firm and infirm parties meet around the green table.

3.2.2 Cost Increase for the Centre

Carstensen (2011) follows a weakly founded approach in computing the additional costs for the centre, i.e. to Germany in the case of an *ad hoc* Eurobond introduction. In fact, Kager (2011) needs not more than a single newspaper commentary to point out the unsoundness of his method.

In his ifo-publication the author attempts to calculate a hypothetical Eurobond interest rate and subsequently derives the additional costs to Germany by simply multiplying the whole stock of German federal debt with the Bund-Eurobond spread. By taking a weighted average of euro area bond yields as of July 2011 (alternatively January to July 2011) his operation leads to an interest spread of up to 230 basis points, and thus to the non-trivial additional cost of (depending on the scenario) € 47 billion. Even in praise of simplicity in scientific research the reader must admit that Carstensen may have done better to be less frugal this time.

Kager basically challenges three implicit assumptions being the interest taken and the way to calculate the hypothetical bond yield, plus the way of introduction inherent to the ifo-analysis. First, the calculation is based upon interest data as observed on the apex of crisis when even centre states came under financial market’s speculative (or corrective) fire. As every crisis goes by, it is quite unreasonable to assume distorted bond yields to be stable over the years, i.e. Germany paying historically low interest on its debt while other countries’ bond yields skyrocket. Additionally it all depends on the structure of guarantees as argued above with respect to Issing’s contestation.

Second, and most outrageous, is the way of introduction Carstensen assumes; basically, he describes a bond swap of *all existing liabilities* to common securities at one shot - or from a situation where bond spreads stay stable over a decade or more. Kager estimates the necessary time to change the complete

³⁷ Christian Noyer in an interview given to Financial Times Deutschland, published as „Noyer sieht Eurobonds erst in ferner Zukunft“ on July 26th 2011, author’s translation.

³⁸ According to De Grauwe (2011d, p.1) only Greece behaved liked Issing fears it to happen if a eurobond was to be introduced. Ireland had to bail-out his banking sector at a time it was fully compliant with the Maastricht criteria. The same holds for Spain before it saw the housing bubble burst.

stock of German debt to Eurobonds amounting to 10 to 15 years. Moreover, such yield inertia cannot hope to find any serious consideration in elaborated models anyway.

Last, Kager opposes the ifo paper by referring at bonds issued by the EFSF. Such bonds yielded less than the hypothetical bond in the first half-year of 2011. Where the “ifo-bond” should return 130 bp more than the German bund, EFSF paid an additional interest of about 50 bp. Kager ascribes this fact to the increase in liquidity generated through the debt pooling.

3.3

Further critical aspects

Before proceeding to the more sophisticated ways of building a common European debt scheme we take a look at two further concerns regarding the basic models introduced above. One aspect actually treats a subtlety whereas the other explains a systemic malfunction in the broader picture. Contrary to the first parts of the thesis we approach this critique in a less theoretical but more concrete fashion. Both aspects mainly relate to the Delpla & Von Weizsäcker proposal but can easily be applied to other forms of Eurobond schemes.

The first point is the idea of rendering common bonds senior to private claims. Seemingly a minor detail, only little attention was dedicated to this aspect in current framework. Gros (2010) gives quite a good idea of why sovereign senior claims may actually not be in the taxpayers’ interest in the context of the actual sovereign spread crisis. Nevertheless, we find some positions contrasting the view of Gros deserving our attention, such as Gianviti e.a. (2010), Duebel (2011) and especially Kopf (2011). In the second analysis Kopf (2011) convincingly argues that the current economic circumstances do not favour the introduction of a common bond scheme in one or the other of the proposed manners. Both of the papers combined can eventually lead to the rejection of the first basic Eurobond proposals under certain assumptions and thus explicitly call for their refinements.

3.3.1

“The Seniority Conundrum”

To understand in its totality why declaring common European bonds as senior to other claims we need to wait for Kopf’s analysis of the current impracticality of the common bond; in a first step we look at Gros’ explanation (2010) of how a seniority clause implemented in the European Stability Mechanism (ESM, the follow-up institution to EFSF) claims will turn against the guarantor being the taxpayers of the various participating countries. Actually all criticism raised preponderantly relates to the current fiscal state of the euro zone and thus should not be seen as exhaustive. Further only one of the above proposals employs senior debt.

In the centre of Gros' concern stands the "paradoxical situation" that large public senior bail-outs may actually have counterproductive effects on the yield curve by increasing the costs of long-term government debt. Instead of alleviating the refinancing burden by intervening on the markets such a senior anchor can aggravate the pressure by sending a misguided signal to private investors.

Even without presenting any detailed math the logic is self-evident. Gros proposes an allegory comparing the serving of sovereign debt with a bakery selling its bread before it actually is baked, i.e. selling the promise to deliver right on time. 100 People queue up according to the maturity of their claims to change their certificates for their loaf of bread as a rumour comes up that the shop may not service all of its clients. So far the story happened in the euro periphery provoking that "IMF and EFSF drove up with a truckload of bread to convince everyone that this is just a temporary problem". Gros distinguishes between two situations, illiquidity and insolvency, and comes to the conclusion that in the first case seniority is not of any concern, but in the latter case any seniority clause must exacerbate the refinancing effort with every bail-out conceded.

Let the bakery be able to service only 90 of 100 pre-sold loafs, 10% average loss occur to customers without a "baking aid" of say 50 loafs. Now imagine that "the rescue-package's truckload of bread ends up fully only in the hands of the short-term creditors at the front of the queue", IMF and EFSF jump at the beginning of the queue as they claim to be repaid first when the bakery opens. But as their baking potential did not expand still 10 loafs are lacking, 50 go to the institutions, 40 are left for the 50 longer-term creditors - average losses amount to 20%. By this logic, the longer bail-outs continue the higher will be the average losses to remaining longer-term creditors - until the full bail-out of all creditors is reached, i.e. our bakery totally depends on institutional aid, maturity and bond yields of will behave directly proportional.

Following this logic Gros concludes that in cases of (perceived) insolvency any "big rescue package is a signal that losses [...] will be concentrated on long-term private creditors". Actually, even the EFSF recognises the necessity of a *pari passu* solution³⁹. Moreover, the author identifies the seniority clause as a signal from the "ultimate insiders" - the finance ministers - to investors. They "[...] have effectively said that there is a risk that the bread might run out before everyone is paid and that they do not want to be the ones that come up short" (2010, p.3).⁴⁰

Applying the seniority issue to the "blue bond proposal" one may raise the concern that only in times of financial peace the debt ceiling could do a good job. We already mentioned before that one of the "red bonds" rationales consist in driving up interest rates by their junior status so to create an incentive

³⁹ EFSF FAQ 10, see http://www.efsf.europa.eu/attachments/faq_en.pdf.

⁴⁰ He proposes a solution alongside the insolvency mechanism for private companies entailing that "[o]fficial financing should not be used to repay outstanding short-term debt at full face value". Gros suggests maturity extensions for near-term debt in case of institutional assistance driving up short-term but lowering long-term yields. Actually his solution reminds Duebel's (2011) solution regarding partial bond insurance, we will introduce this notion in a latter section.

scheme against over-indebtedness. But as Gros argues in cases when prevention fails seniority will occasionally do great harm by accelerating default risks on the junior bonds via rapidly growing yields. Again, investors receive the signal: “*Caveat emptor*” meaning beware what you buy. Delpla and Von Weizsäcker indeed call for a sovereign default mechanism but it cannot coincide with their intentions seeing a country on the brink of default every time it surpasses the common lending ceiling.⁴¹

We saw that senior claims may backfire in case of very unsound fiscal conditions. However, some positive voices on this clause related to Eurobonds should not be ignored. Gianviti e.a. (2010) as well as Duebel (2011) call for a central funding agency for crisis resolution and argue that its claims ought to be senior. In Duebel’s words “ESM funds rank *pari passu* with existing investors, and below new private investors. This can only weaken ESM intervention capacity and should be repealed” (2011, p.9). Of course the ESM commands more firepower if his claims are senior to any private ones because his own bonds would yield less and his returns were certain and thus reinvestable.

Kopf (2011) agrees with Gros that senior financing may preclude some participants from regular market access. But actually his analysis deviates from the “Seniority Conundrum” as he emphasises the size of the senior lending tranches in liquidity assistance programs. He draws a situation in which countries are threatened to lose (or already lost) their market access “in the context of market failure” i.e. in liquidity rather than solvency troubles. In this case seniority of loans serves the purpose of protecting the interest of the multilateral lenders in the following context. If the country regains access to the markets after sometimes (thus merely had a liquidity headache) it services all of the debt anyway. If the country turns out to face a solvency crisis having “been correctly diagnosed by market participants” the multilateral aid won’t “serve to bail out reckless lenders” (2011, p.13).

Further, welfare economics tells that the help “needs to come at non-market, i.e. concessional lending rates” (2011, p.14) as multilateral lenders were not required to step in if a country would be able to sustain market rates on its own. Kopf appropriately conceives seniority as “a pre-requisite” for a soft loan. Roubini and Setser argue that otherwise the IMF “would need to lend to a sovereign at high market rates in order to avoid systematically losing money and would be less able to put money in when other creditors are pulling out” (2004, p.253f).

But, it all depends on the size of the bailout package. Gros (2010b) argues that senior multilateral assistance getting too large (analogously a eurobond scheme) sends out a discouraging signal to

⁴¹ Not even the idea of introducing a sovereign default mechanism in the euro zone reaches a consensus. De Grauwe (2010b) pleads against it as he is convinced that it “will make the eurozone more fragile by making financial crises an endemic feature of the eurozone”. In the last section we devote some attention to this question linking it to a general eurobond scheme. De Grauwe is convinced that the mere existence of a sovereign default mechanism will induce investors to ask higher risk premia on bonds and thus paving the way to recurring defaults and thus destabilisation of EMU.

private lenders; thus, an “optimal bailout size” has to be found - “large enough to be credible and act as a catalyst to re-start private lending, and [...] small enough to encourage continued private lending at reasonable rates” (Kopf 2011, *ibid.*). Kopf’s proposal thus strikes a balance between protecting the lender’s funds and the debtor’s market access in the short term. He concludes that “there is no empirical evidence that IMF seniority has stopped private creditors from providing new money to solvent sovereigns that were recipients of multilateral funds over the past twenty years or so” (2011, *ibid.*).⁴²

So, even if Kopf writes about emergency funding we might use his findings thinking about the introduction of Eurobonds. If they were introduced akin to the US Brady plan, i.e. via bond swaps, it could be actually considered as some kind of emergency lending - trading in troubled assets for senior claims may be in the interest of both private lenders and sovereign debtors if the swap came along maturity extensions and concessional interest.

3.3.2 Actual Indebtedness and Guarantee Ceiling

In a comprehensive approach Kopf (2011) dismisses the idea of common Union bonds for three reasons. One being merely theoretical the other two deal with current concerns. Applying the Miller-Modigliani theorem to the “blue bond proposal” he reasons that no advantage in terms of interest rates can be drawn from the mere decomposition of debt on one side of the balance sheet. He puts forward a legal objection regarding institutional and legislative deficiencies within the EU, and, for our topic most importantly, he maybe hastily points at the weak current macroeconomic environment.

“[A] risky sovereign has the present value of future payments to creditors on the asset side of its balance sheet, and the present value of its debt on the liability side of its balance sheet.” Adopting this view we can use the Miller-Modigliani theorem (1958) to show the ineffectiveness of Delpa’s proposal.⁴³ Splitting the liabilities in two tranches equals altering a firm’s financing structure in the balance sheet. But alongside the theorem the composition of debt cannot have any influence on its average value expressed in interest rate term - “because there has been no change on the asset side of the balance sheet”. Thus if the blue debt falls in value the red debt has to rise equivalently to offset the “blue” effect - anyway, the consideration comes regardless of possible liquidity gains.

Kopf’s second point - an empirical corollary of the first - assesses the unfavourable fiscal conditions of some EMU countries. On basis of IMF figures he draws a hypothetical scenario for Portugal.

⁴² In case of insolvency Kopf favours “to restructure the sovereign debt and to let the private sector take a hit” (2011, p.14). We will come back on his proposals in the last section.

⁴³ The theorem basically tells that in a functioning market a firm’s value is unaffected by its financing structure.

Quoting 7% interest on five-year government bonds and 90% debt-to-GDP ratio for 2012 he assumes a 60/30 split of red and blue debt whereat the latter yields 2.8% (as EFSF bonds in January 2011). According to the Miller-Modigliani theorem the liability split won't alter the present value of payments to creditors leading to a "red" interest rate of stellar 15.4% obviously negating market access to country.⁴⁴

Even though theoretically valid we can assume Kopf may not have been so well-grounded in his dismissal as his critique heavily relies on one implicit assumption namely a one-shot swap from national to mutual bonds. This is totally unrealistic as we saw above it ignores the necessary 10 to 15 years wide time horizon (see Kager, 2011). We conjecture that even with a Brady plan like introduction of the common bonds as proposed by Delpla and Von Weizsäcker themselves some attention would be devoted to immediate default risks of heavily indebted countries. Further Becker (2010) argues that government bond markets have been mostly harmonised so the countries' timely refinancing frameworks must resemble each other. Thus there still is some time left to reduce deficits in an appropriate manner also for the periphery, furthermore a transitory solution might be found involving ESM loans for non-compliant states.

But Kopf clearly adverts that the desolate public finances in Europe are no good pretext for the introduction of Eurobonds and here his contribution is worthwhile.

His third contestation reminds that no joint and several guarantee will be enforceable in the absence of clear legal statutes. Picking up the argument that an interest advantage may emerge from the elimination of country specific risk premia due to mutual liabilities Kopf argues that EMU members "should be happy to grant seniority to such instruments ex ante, but it would be very difficult to motivate these member states to remain current on almost half of their debt stock in a severe economic crisis" as national interest would prevail (2011, p.9). As a matter of fact Kopf's main concern deals with the legal framework while he recognises the idea of risk sharing as a mean to bring down interest rates.⁴⁵

He enumerates some examples from the "*realpolitik* perspective" where the Union tried and failed to "interfere with fiscal policies of member states" concluding that "this constitutional and political setting implies that the Stability and Growth Pact is incompatible with the nature of European Union" (2011, *ibid.*). As long as a sanction effectively cannot be enforced any member state may give his consent to it. The same holds for the joint and several guarantee for common debt obligations; "[n]either the Union nor individual member states have the constitutional or political power to prevent

⁴⁴ Kopf's calculation is very straightforward as he equates $0.6 \cdot 0.28 + 0.3 \cdot x = 0.9 \cdot 0.7$ whereat the first term represents the 60% share of blue debt, the last one 30% of red debt and the last one total current debt without decomposition. Rearranging yields $x = 15.4\%$ (2011, p.7).

⁴⁵ Thereby he somehow contradicts his own analysis along the conclusions of Modigliani and Miller. Risk sharing brings down interest rates because it alters the composition of the risk structure and thus we do not see a mere „decomposition“ of debt but an actual change in its structure. See chapter 5.1.

fiscally challenged states from defaulting on “Blue Bonds” in times of crisis” meaning to respect their obligations in full or in part - thus every participant of one or the other scheme may turn seniority into “an illusion” by pretending to assent while truly dissenting.

This concern has to be taken serious. Indeed Boonstra (2011) proposed some sanctions that can be enforced easily as they would not infringe any constitutional rights. Most importantly a clear incentive structure has to be created either setting rewards or punishments; then - at least according to agent theory - participants won’t step out of line.

Reassuming we have to remember that all 4 proposals meet Boonstra’s “five commandments” presented in the previous chapter. Thus we have to focus our attention mainly on the question whether the current high indebtedness of the euro area forms an (insurmountable) obstacle. Kopf’s example shows that at debt-to-GDP levels exceeding the Maastricht criteria unsustainably high interest probably needs to be paid on government debt. If the euro area members don’t manage to reduce their debt significantly over the next say 15 years then a Eurobond scheme akin to the Delpla & Von Weizsäcker proposal could meet heavy difficulties if it was introduced in the near future. Contrary, no such problem concerning the lending ceiling occurs if the Maastricht criteria are met as Gros implicitly recognises while differentiating between illiquidity versus insolvency.

Gros (2011a) might be right in attesting “no free lunch” could be expected from the introduction of Eurobonds but his is a merely static view of the problem as mechanisms are proposed employing negative incentive schemes to lower debt over time. De Grauwe (2011a) gives a good explanation why the common bond scheme actually lowers the underlying risk of sovereign bonds, we eventually return on the point in the last chapter.

Finally, we stay somewhat unclear on the seniority issue. It surely raises the cost of future refinancing but contributes to foster the euro’s role as a leading currency. Senior eurobonds will both bear lower interest and find higher acceptance among creditors than unsecured bonds. Contrarily it will contribute to aggravate situations when countries will see the need of issuing debt on their own.

4

Refinements of the basic models

In the previous chapter we learned that under certain circumstances, i.e. a combination of over-indebtedness and a yield-pushing seniority clause, the introduced basic eurobond models might be insufficiently engineered. We saw that apart from the technical seniority argument (admittedly a minor but tricky one) two main premises need satisfaction. The launch of common bonds will enjoy way more success if first what we called times of “financial peace” - basically a sound fiscal condition of most of the participants - and second a strong political will to the common project prevail.

In what follows we introduce three more elaborate models considering these requisites. Gros and Mayer (2010) address the issue of heavy indebtedness with their proposal for a European Monetary Fund alongside a procedure for sovereign default in the EU. Duebel (2011) suggests limited bond insurance instead of limited common debt to overcome first moral hazard problems paradoxically triggered by the Blue bond mechanism build to avoid exactly these issues and secondly to keep alive financially stabilising aid in times of non-Maastricht conform situations. Finally, Messori (2011) calls for an internal auctioning of common bond allotments to prevent political dissent.⁴⁶

4.1

The European Monetary Fund (EMF)

The call for an EMF emerges from an analysis of the ongoing European sovereign debt crisis but it still can be handled in purely theoretical manner. Gros and Mayer (2010) actually describe a mechanism also in view of future crisis prevention and not exclusively as a rescue operation.

Motivated by unsustainably high public debt levels in the European periphery the authors argue for an orderly sovereign default mechanism to calm financial markets. The possibility of orderly default suspends potential disorderly defaults, i.e. the institution of sovereign defaults enhances clarity in the sense that investors can prepare for an institutionalised event and don't have to risk a surprise engaging in venturous lending. As long as the latter may occur they will eventually “gum up” sovereign bond and money markets. Not preparing for orderly default lets “debtor countries facing painful adjustment programmes retain their main negotiating asset, namely the threat of a disorderly default, creating systemic financial instability at the EU and possibly global level” (2010, p.2).

⁴⁶ As in chapter 2, In the proposals presented here and in each relevant section any citation refers to the paper in consideration, except if noted.

“Disarming” the heavy debtor both leads to more market confidence and protects the country’s interest *if* a step-in institution acts to shield it - the EMF.

The EMF should be set up as a mutual fund to which every (euro zone) member contributes depending “on the potential risk each member country represents”. Following the Maastricht criteria each of “excess debt” and “excess deficit” gets taxed with 1% and needs to be paid to the Fund. Say the deficit of a country amounts to 10% (7% over the Maastricht threshold) thus it needs to contribute $0.7 \times 0.01 = 0.007$ % of its GDP. The same applies to the stock of debt, 80% debt-to-GDP ratio yield a charge 0.2% of the GDP. Gros and Mayer argue that this indeed very modest duty “would not be impossible to bear even for countries already under acute financial distress”.

For start-up financing the Fund should be allowed to turn to capital markets to avoid lending shortfalls. This may pave the way to “develop a common euro bond”⁴⁷ akin to EFSF financing - funds raised or collected get “invested in investment-grade government debt” of euro zone countries; EMF debt (interest and redemption on EMF-bonds) will be serviced with future contributions of the member states. Strong countries contribution’s of will contribute less in terms of charges but “*de facto* carry the burden should a crisis materialise”. Gros and Mayer don’t explicate how the burden should be shared, but the formulation implies some kind of *pro rata* guarantee structure.

The authors argue that if EMF had been installed at the beginning of EMU up to 2010 it might have accumulated funds worth €120 billion - enough to rescue a periphery state. EMF could organise emergency funding in a twofold way. First by collecting money for on-lending purposes on capital markets or second by providing explicit guarantees on member’s bond issues. In both cases all EMF members would back the Fund’s actions with several liabilities.

Assuming the latter way Gros and Mayer project a two-step aid mechanism. First a country may at any time call on the funds of the EMF to the extent of its own deposits in case it convinces the Eurogroup with its promises of fiscal adjustment. If this should not suffice the country may apply for further help but must agree on a “tailor-made adjustment programme supervised jointly by the Commission and the Eurogroup”. The advantage of issuing new debt guaranteed by the Fund lies clearly in first crisis prevention and second in its relative promptness. If a country came under financial distress it could go on by emitting bonds on its own without any other institution intervening with some lag in time.

Adjustment programmes should be enforced in case a supervised tented to defect from its commitments. Similar to Boonstra (2010) the authors argue that apart from cutting fresh EMF funding or guarantees more severe steps such as revoking EU subsidies might be taken. In its harshest form

⁴⁷ Interestingly we find this point in the proposed mechanism although the authors don’t elaborated it further. However it surprises a little as they regularly won’t act as advocates of a common bond scheme; compare to various other publications, e.g. Gros (2011a).

punishment may go so far to exclude the country from euro zone money markets as the ECB may no longer accept the respective country's bonds as collateral in repo operations.

The core feature with the proposal surely touches a sensitive topic namely structured insolvency for states (EMU members). Gros and Mayer find the main merit of such a procedure in crisis localisation meaning that orderly default may avert contagion from the country of origin to the rest of EMU. Letting go bankrupt a single country and thereby sparing the others brings a twofold advantage. First it took the "strongest negotiating asset" out of the fiscal sinner's hands what in turn implies more budgetary discipline - to the respective country a default costs more than a bailout package. Second, saving a single country comes at a bargain price compared to the cost of bailing out the whole periphery - "Market discipline can only be established if default is possible because its cost can be contained" (2010, p.4).

A case of sovereign default should be dealt with by the EMF as a third stage of financial standby. As a country already had entered an EMF rescue programme at the time it stands on the brink of insolvency this implies that it failed to meet compliance with the adjustments agreed upon before. Consequently the Fund already supervising this country may manage a debt exchange at discount rates. "To safeguard against systemic effects of a default, the EMF could offer holders of debt of the defaulting country an exchange of this debt with a uniform haircut against claims on the EMF (*ibid.*)."

So Gros and Mayer advocate haircuts to take pressure from troubled countries while stepping in with EMF funding to guarantee liquidity access. They argue that also financial institutions would clearly benefit as the insolvency would proceed in a standardised manner and would thus bear calculable risks - also because the haircut would affect only one country's securities at a time. Market agents could anticipate the extent of the haircut as it would (once more) follow the Maastricht criteria - "the haircut would be set in such a way that the amount the EMF has to spend to buy up the entire public debt of the country concerned is equal to 60% of the country's GDP" (*ibid.*). This implies that according to a country's malaise debt restructuring might run up to 50% of the bond's face value in the case of Greece but far less for Portugal or Spain.⁴⁸ As the markets "prepare for failure" uncertainty would decrease alongside an increase in financial stability.

A guarantee to "acquire all the claims against the defaulting country" would further meet the interest of private investors - with two consequences. First private lenders would get rid of all their risky assets at one stroke. Second the EMF *de facto* achieves fiscal authority over the country as "any additional funds the country would receive could be used only for specific purposes approved by the EMF". Otherwise, Gros and Mayer fear, the country under supervision could threaten to trigger a systemic crisis "if financial assistance is not forthcoming". If a country saw this last step - contrary to the

⁴⁸ As the proposal dates from May 2010 no such thing as an Italian bail-out or haircut is discussed. The envisaged EMF clearly deals with distress in the periphery rather than in the core; a haircut of 50% on Italian bonds would surely results in considerable market convulsions.

authors - as interfering with its sovereignty the proposal foresees the possibility of exiting the European Union as alternative implying even higher costs for the country (and for lenders too as a matter of subsequent devaluation of the country's new currency).

Gros and Mayer conclude that costs due to financial crises would be contained as they eventually were concentrated on the country of origin and subsequently would reduce the incentive to unconcernedly spend other nations' money. We can agree on these two points generally but we might want to challenge some of their details. First we think that the contributions may not suffice to incentivise good fiscal behaviour as they are very low - usually, fiscal decisions are not made "at the margin". Consequently a slight increase (even over time) in contributions may not deter a government on a 4 or 5 years term from spending excessively; even the long term perspective of EMF supervision won't turn a short sighted prodigal into a humble saver. The next problem arises as the Fund may be insufficiently endowed with lending potential once a crisis hits in severely – contributions seem to low for ambitious capital build-up. The authors recognise this fact by pointing out that one peripheral country could be saved at a time and thus implicitly rely on the firewall they installed with the sovereign default mechanism. If a symmetric shock hit two peripheral countries at the same time probably the EMF would run out funds and hence would turn to markets anyway - what again means backing by the rich countries.

Further we should understand what Gros and Mayer design as "tailor-made adjustment programme". All they are concerned with is to disempower a highly indebted country in order not to end up as a "hostage" in terms of emergency lending. They lose sight of the political dissent they may provoke by such an imposed vigorous authority - as De Grauwe (2010b) rightfully claims the current sovereign debt crisis ain't no result of moral hazard and unrestrained borrowing (maybe with the exception of the Greek case). Spain and Ireland represent the classic cases in which private debt becomes public and thus promptly aggravates the budgetary position of the respective country. Installing supervision in such a case may influence the public opinion about the EMF intervention (and thus about the EU in general) in a not very favourable way.

Lastly we regard it as important to monitor more than just the Maastricht criteria when deciding whether to "punish" a country through higher duties to the EMF as a crisis may hit immediately also in cases of sound public finances (Spain, Ireland) without any foregone prolonged debt build-up. In this case imposing higher contributions could well result to be counterproductive.

De Grauwe (2010b) develops a very interesting argument against the proposed insolvency measures. Analogous to the ERM⁴⁹ he points out that installing a sovereign default mechanism designed to

⁴⁹ As the European exchange rate mechanism (ERM) was designed in a very fragile manner (frequent devaluation was allowed) it was prone to speculation against devaluation of the pegged currencies. De Grauwe

stabilise the euro area policy makers may achieve the opposite. Giving governments the institutionalised mean to apply haircuts to their debt two things will happen. First, investors' risk perception will change inducing them to demand higher interest on the bonds. Second, in case financial markets sense a country on the brink of insolvency⁵⁰ they will hurry to sell their bonds thereby pushing up interest rates and the country down the cliffs. De Grauwe as one of the few in this context thankfully offers a dynamic analysis rather than a static argument. He worries that the actual scope of the sovereign default mechanism was "to replace mutual financial assistance" with "unrestraint ERM-type speculation" behind the corner. When countries face higher yields debt service becomes increasingly difficult. "This changes the cost-benefit ratio of maintaining full debt service and increases the temptation to devalue the bonds (applying a haircut). Investors 'smelling' this temptation will intensify their selling of sovereign bonds, thereby increasing the cost-benefit ratio even further." (2010b, p.3) Thus, the very option to default plays in the hands of the speculators. Sportfully, De Grauwe dismisses orderly debt default but aligns with Gros and Mayer in what concerns the installation of an EMF. He emphasises that "no monetary union can survive without such solidarity mechanism" and calls for "strong enough conditionality" to deal with the moral hazard issue. So De Grauwe challenges two minor points we were tackling as well. On the one hand that the EMF mechanism needs stronger conditionality for participation (not necessarily for lending) and secondly that political solidarity within the Union is way more important than a "market solution" in times of heavy confusion.⁵¹

4.2

A Scheme of Partial Bond Insurance

Unlike Kopf who maybe exaggerates the fears of immediate default once a country reaches the red zone of its debt Dübél (2011) brings forward a more compelling argument against the Blue bond proposal. Claiming that the guarantee ceiling indeed was purely fictional he concludes that all debt will necessarily be blue and thus induce massive moral hazard. He counters with a scheme providing partial bond insurance on *all* euro area debt.

describes the self-fulfilling dynamics that pure market expectations were sufficient to force a country to devalue. For a further explanation please see De Grauwe (2010b, p.2).

⁵⁰ In another paper (2011b), De Grauwe emphasises the difficulty of distinguishing between insolvency and illiquidity and declares: „If it were easy to separate liquidity from solvency problems, the markets would also find it easy to do so.“

⁵¹ Once again, Issing's view on solidarity (see chapter 3.2.1) is challenged when De Grauwe (2010b, p.3) clarifies that „[f]inancial solidarity is deemed politically unacceptable in a number of countries. The truth, however, is that a monetary union can only survive if there is a willingness to provide mutual financial assistance in times of crisis.“ Actually, in the following chapter when introducing his design of a new governance for the euro zone (2011a) we will emphasise his concerns with social improvements.

Dübel and Kopf actually share the same starting point dreading that the blue/red spread as in the proposal discussed above will be so immense that countries entering the red zone in times of crisis might be unable to sustain the accelerating debt burden. But where Kopf gives the impression to base his analysis upon a one-shot bond swap in the whole euro area Dübel offers a dynamic argument (irrespective of the way of introduction). Once reaching the debt ceiling a country will be forced to contain its expenditures to further profit from the common lending conditions. But if a crisis hits “the positive impact of blue bonds for such a borrower would be [...] limited to the secondary market, while his primary market will be thrown into turmoil”. At precisely this point the guarantee ceiling would disappear as the country ran for cover applying for ESM aid - which likewise passed on “most of their interest rate advantages”.⁵² Delpla and Von Weizsäcker actually integrate a sovereign default mechanism in their proposal in order to render the no bail-out rule more credible; Dübel seems to ignore that fact as he holds that “[b]ecause red bonds cannot work in a stressful situation, the distinction between blue and red bonds is an artificial one”. Investors realise that no EMU country may go bust and thus “consider all bonds issued under the scheme as blue, i.e. fully protected by the ESM”. In his view, the blue bond mechanism leads to the exact opposite of its intended scope as it amplifies rather than mitigates cyclical developments.

As discipline would be swept away on the sovereign bond markets, other markets may get infected as they “will be ‘pegged’ [...] via explicit or implicit sovereign guarantees”. The loosening in parallel markets (corporate bonds, insurance, mortgage,) would in turn accelerate the “surpassing of specific sovereign debt-to-GDP level” and so on.⁵³ Thus the author actually sees only two stages of debt mutualisation being partial and full guarantees. Once a country surpasses the debt ceiling and was forced to issue red debt it would turn to the community demanding more blue debt; if access to ESM funding is granted (so the author supposes) this creates a precedent for other countries to follow. Finally the situation must look “exactly the same as the eurozone situation of the 2000s, when spreads of sovereign bonds to Bunds already were minimal”. Emitting exclusively blue bonds will subsequently cause “substantial delay in addressing fundamental fiscal and economic problems”, in other words a perfect moral hazard scenario.

Because full bond insurance can’t work within the intended limits Dübel proposes a partial bond-insurance without any emission limit. Containing marginal costs of funding in times of crisis and “sufficiently high” cost of funding in normal times generally eliminates possible free riding - and thus sets no example for the “pegging of other bond markets”. Essentially Dübel propounds a “partial

⁵² Actually Dübel is a little suggestive on this point as Delpla and Von Weizsäcker propose one issuing combined with one allocating institution to deal with blue bonds only and emphasize in their relaunch (2011, p.3, translation mine) that “no EU mechanism and especially not the ESM should assume any ‘red’ debt service”.

⁵³ Dübel relies on some very strong assumptions. First, debtors and thus debt crises are uniform in taste and behaviour, i.e. he does not account for the difference in the history of recent EMU debt build-ups (De Grauwe, 2011c). Second, he totally ignores the proposed mechanisms to inhibit free riding over the guarantee threshold. We consider his implicit assumptions as a not very scientific handling although he is theoretically right to criticise the cyclical design.

insurance wrap of both principal and interest by the ESM”.⁵⁴ This insured bond carries a “dormant senior-junior structure”. “Dormant” means that in case the ESM is called to action the uninsured principal and the interest upon are split off thereby creating a junior bond. The new junior bonds may then be object to restructuring or haircuts arranged between the ESM and the borrowers⁵⁵. As a matter of course participation in this scheme means compliance with some fiscal rules of conduct, granting insurance to a participant means “ample control rights” for the “sponsors”. Participants fund the scheme via differentiated insurance premia depending on certain (unspecified) fiscal and financial sector policy criteria.

One possible advantage of Dübels’ scheme lies in the perpetuation of sovereign risk premia at all levels of debt so to incentivise its reduction also at debt-to-GDP ratios of below 60%. The scheme allows for correct risk pricing whereas the blue bonds would “treat a high-risk sovereign artificially as low-risk”.⁵⁶ Moreover the interest rises constantly alongside the level of debt meaning that the jump in interest payments when entering red debt is avoided, instead of being (immediately) forced under the ESM shield “the borrower gets additional room for manoeuvre for strategies reducing debt or debt growth”. Dübels underlines on various occasions the need to build anti-cyclical incentives to invest “as the borrower succumbs to fiscal adjustment programmes”. Investors need to be induced to hold (to keep holding) periphery bonds rather than consider the countries as pariahs. Additionally he introduces the notion of “beneficial speculation” equivalent with secondary market trading of the junior tranche as they represent a fine leveraging tool for “credit funds and other risk-takers”. By partly wrapping the bonds Dübels achieves exactly the investment duality attracting both risk-averse institutional buyers and speculators.⁵⁷ The former get access to ultra safe securities whereas the latter see high yields at reasonable risk.

He argues to enrol both existing and new bonds in the scheme as to “immediately stabilise intermediary balance sheets” and restore confidence on both on primary and secondary plus interbank markets. Instantaneously “pricing distortions between primary and secondary markets” would fade, Bund-spreads would fall. The mere guarantee (the insurance) to communitarise periphery debt will calm the markets.⁵⁸

⁵⁴ A wrapped security is insured or guaranteed by a third party. A third party or, in some cases, the parent company of the ABS issuer may provide a promise to reimburse the trust for losses up to a specified amount. Deals can also include agreements to advance principal and interest or to buy back any defaulted loans. The third-party guarantees are typically provided by AAA-rated financial guarantors. (http://en.wikipedia.org/wiki/Credit_enhancement#Wrapped_securities, accessed on 01.12.2011)

⁵⁵ As a new bond was created a sovereign can even default on it without triggering a credit event as CDS would still refer to the initial wrapped bond.

⁵⁶ One of the Blue bond proposals’ rationales is precisely to eliminate risk premia on sovereign bonds. Thus Dübels’ critique on this point may be misguided.

⁵⁷ Speculation gets „beneficial“ because „the current ‘mezzanine’ problem – a dry-up of institutional investor liquidity in the middle spread range where interest by credit funds is still low – is being avoided“. Attracting more investor classes means reducing the need for ESM/ECB liquidity assistance. (Dübels 2011, p. 6).

⁵⁸ We guess that not the insurance itself but the clear formalisation may calm the markets. In many papers’ logic (Dübels is no exception) one argues that financial markets anticipated the de facto debt guarantees from the (EMU-) north to the south because of the single currency - hence no distortions on the markets should occur as

Although addressing important issues, Dübél sometimes gives the impression to ignore some of the important macroeconomical aspects. Putting it bluntly, he just adds one particularity to an already existing scheme, namely the EFSF/ESM structure. Partly insuring national bond issues surely is a clever way to deal with sovereign debt in times of crisis but contrary to his assertion has little impact on national budgetary decisions in quiet times. The author argues that financial markets would stimulate debt reduction by demanding ever increasing risk premia on national debt even below the Maastricht threshold. Contrary we think that Dübél relies too much on “collective eurozone efforts to improve fiscal discipline” We saw before (inter alia chapter 3.2.1) that financial markets did a poor job as referees in the first 10 years of EMU. Because we see an analogy, we return to our argument from above that budgetary decisions often do not depend on marginal interest changes. An interest variation of some basis points due to increasing or decreasing debt levels may not sufficiently impress politicians in reposed times whereas during financial turmoil any slight variation must be hastily interpreted as heavy market reaction. Politicians often react proportionately to this perception - heavy (and hasty) in distressed and delayed in peaceful periods. We might call this behaviour a “cyclical bias towards debt” - both observable with politicians and financial markets.

Dübél raises a good point with insuring already emitted bonds. He also recognises the importance of expanding EFSF/ESM funds as enrolling both old and new debt equals the one-shot bond swap referred to before and thus costs might be immense; unfortunately the sovereign debt crisis reached the core of the euro area, we see the credit standing of core countries at risk, Italy in the markets’ focus and in addition experience difficulties with the EFSF. Austria and France already lost their triple A rating from Standard & Poor’s.⁵⁹ Thus, how should the enormous guarantee extension be managed if it comes at one shot? The advantage of prompt realisation through EFSF enhancements is obvious, but who should stand in for the guarantees if the fiscal position of the core countries degrades? Seemingly only one lender of resort remains, at least Gros & Mayer (2011a) and De Grauwe (2011b) convincingly hold this view.

We have to read Dübél’s proposal as a crisis paper when it confronts the blue bond regime neglecting the liquidity and the reserve currency argument and misunderstanding the risk argument. He wants to chill capital markets in reaction to their panic but avoids such points as the liquidity gain and the installation of a reserve currency euro. Moreover, he paints his analysis of Delpla and Von Weizsäcker in the darkest colours; we actually don’t see such free rider problem because we acknowledge the conditionalities attached to ESM lending (neither ESM nor ECB shall accept red bonds as securities).

agents anticipate rescue packages and implicit guarantees. The only uncertainty may concern the means employed in bailouts.

⁵⁹ For the actual EFSF issues see Gros & Giovannini (2011). Italy provoked the market’s attention through political struggles within the government in the summer of 2011. Therefore please see or Schäder (2011). On the S&P threat of a euro area mass downgrade see Brandimarte (2011). On January 13th S&P announced the downgrade of Austria, France as well as seven other EMU members, see Spiegel e.a. (2012).

Let's assume that a country surpassed the proposed blue bond frontier and thus would turn to the ESM for further "blue money". It could be done once but surely not repeatedly. The lending comes with conditionalities to assure a country may only apply for emergency aid in exceptionally tight circumstances. This means that it faces an unbalanced trade-off when applying with no other reason than some higher interest payment, namely the loss of some of its fiscal sovereignty in exchange for some cheaper money.⁶⁰

Hence, why should a country have incentives to borrow excessively from an emergency fund?

Although his analysis of Delpla and Von Weizsäcker might be biased towards his own contribution, the partial bond insurance model stays valid. Still, we need to differentiate between the ways a country accumulates debt - either through excessive spending or attempts of crisis resolution (bail outs for banks or the like). In the latter case, sudden anti-crisis measures shall always be based on solidary action as De Grauwe (2010b) stipulates. In the former case a country should ideally face the problem on its own; but with the various designs proposed above spending driven crises may no longer occur as the disciplining apparatus of the debt union aims at inhibiting excessive borrowing anyway.

4.3

An auctioning mechanism for eurobonds

Once more, Messori (2011) too starts from the observation of rising government bond spreads in the wake of the euro area debt crisis. Contesting that EFSF or ESM were insufficient means to deal with overindebtedness as their emergency character offered "no structural solution" he proposes to tackle the debt overhang with a European Debt Agency (EDA) buying up government securities thereby taking pressure from both strained sovereigns and the ECB.

Messori's proposal incorporates various details from the proposals discussed above he retains "consonant" with his solution. The set-up of EDA closely relates to the mechanism proposed by Delpla and Von Weizsäcker (see 2.2.1). It mainly differs on the point on compulsory participation; *all* EMU members jointly and severally guarantee for EDA bonds worth up to 60% of EMU's GDP. The funds procured this way are used to buy bonds from EMU members "that elect to avail themselves of

⁶⁰ It is actually not clear if interest rates on the blue-red margin would drastically jump up or if they only would start to increase slightly. Remember that periphery countries were paying very low interest around 4-5 % in pre-crisis EMU times, an amount that might as well be charged on the first emissions of red debt. If a country like Austria in November 2011 pays reasonable interest on purely national debt having a debt-to-GDP ratio of around 70% (17% over the Maastricht limit) it may implicate that investors see no immediate default risk. Thus 10% of GDP issued as purely national debt (despite the junior status) may yield low if investors consider the country's fiscal status as satisfactory. Even Belgium paid around 4% despite facing nearly 100% debt-to-GDP (ECB Long-term interest rate statistics for EU Member States, <http://www.ecb.int/stats/money/long/html/index.en.html>).

this opportunity". This implies either debt buybacks on secondary markets consequently passed on or direct intervention on the primary bond market for countries "that prefer to resort to the EDA rather than to tap the market for new issues".⁶¹ Contrary to Gros and Mayer (2011b) states effectuate bond buybacks on their own in order to hand them on to EDA at the same rate thereby reducing organisational burdens in constructing the agency.⁶² As the current average EMU debt level exceeds EDA's lending volume it implies that "the potential demand for member states' securities from the EDA [...] is lower than the maximum potential supply" thus preparing the sole for a "non-uniform price reverse auction". Excess supply leads to price competition amongst the suppliers, specifically the price of bonds sold by the participants to EDA.

EDA opens the auction by setting a maximum quantity of bonds Q_d willing to take on at a maximum price equalling its own bonds (eurobonds) market yield p_d . Simultaneously, each of the members willing to sell primary or secondary market securities sets an individual minimum price p_s^i , with $i=1, 2, \dots, n, n \leq 17$ and the individual quantity offered q_s^i . Participation requires to set a price below EDA's maximum, thus $p_s^i \leq p_d$. The sum of bonds offered may exceed the quantity EDA wants to take on, meaning $\sum q_s^i > Q_d$. In the case of a supply overhang, "the order of access to transactions with the EDA is inverse to the supply price set by each of the n member states". This triggers price competition amongst the suppliers in the sense that the country most in need of EDA sustain will demand the lowest price, the country with some slighter need of help will sell at a somewhat higher price, etc. as "the country that set the lowest price is the first to sell to the EDA the desired quantity". The procedure continues until offerings amount to Q_d , the last one selling gets the highest price but at the highest risk of not placing all bonds.

Although participation is voluntary one can imagine that all peripheral countries will enter the auctions deemed "to be illiquid or even on the brink of insolvency". Core countries would most unlikely take part in this scheme as they face no need to apply discounts on their bonds because of their integral primary market access and the confidence of bondholders in their liquidity. Ergo, only "weak" countries will apply for EDA financing; consequently discounts will result to be "modest, but more than symbolic" and depending on the size of Q_d they "have a very good chance of transferring all their sovereign debt".⁶³ This means nothing less than government debt restructuring akin to the Brady

⁶¹ As Messori himself notes the intervention on primary markets, i.e. EMU MS selling bonds directly to EDA „presupposes the amendment of Article 125 of the European Treaty“ (2011, p.4).

⁶² Gros and Mayer propose that the central debt agency negotiates directly with private lenders to obtain discounts on the national bonds it's acquiring.

⁶³ The functioning of the whole scheme depends on the size of Q_d , as argued on a different occasion by Kopf (see 3.3.1). On the one hand to provoke discounts Q_d has to be sufficiently small whereas on the other hand not too small so to give shelter to all applicants. Applying too strong discounts can't be beneficial for the troubled countries, while buying bonds to a non-discount rate may give way to free riding. Thus the Q_d must be known before the auction starts, calculated on basis of the desired average discount similar to a Stackelberg first mover anticipating the competitor's reaction.

bond scheme, as bond swaps are proposed to private creditors providing them with highly safe assets in turn for assumption of “moderate” write-offs.

Unlike with the blue bond proposal peripheral countries could convert all their securities into eurobonds (see Junker and Tremonti, 2010) thereby completely cancelling the default risk of the periphery and thus avoid crisis spillover without the contention mechanism of Gros and Mayer (2010). However, Messori addresses three important questions - first, how to treat the “inevitable” EDA profits due to the modest spread between the own eurobond and the on-lending rates, second, how to curb moral hazard, and third, how to convince Germany from the possible benefits if it guaranteed for “a mechanism that it is most unlikely ever to use”.

The first and second question actually are related to each other, as proceeds should be collected in a European infrastructure fund rather than being redistributed to countries that underwent strong debt restructuring.⁶⁴ Moral hazard should not prevail because “the reverse auction mechanism and the EDA’s ceiling [...] would remain operative through time so that the peripheral countries would have to limit their future issues of securities”. To borrow “recklessly” from the EDA (just the idea of doing so seems a bit unusual as no country can have an interest to live “on welfare” forever) means either to apply a heavier cut each time or to risk to generally stay out of the scheme.⁶⁵

As for the last question, how to convince Germany to sustain such agreement means not less than how to implement fiscal discipline within EMU. Or put differently, once certain “rules of good conduct” established fiscal discipline, Germany can count on the following advantages.

- First, as discussed above eurobonds reduce liquidity risks within EMU and enhance the euro’s role as a future reserve currency.
- Second, as the common bond’s rating “would align with that of the German Bund”, i.e. investors would heavily request this security, the need for ECB interventions would disappear; German policymakers “unwillingly” accepted the central bank’s Securities Markets Programme seeing strong risks of the ECB losing its credibility due to high-yield bonds in its portfolio.

⁶⁴ Redistributing funds back to countries active under the EDA scheme would mean to give them incentives to apply ever increasing discounts on their bonds and to bargain for higher haircuts on their outstanding debt - investors would anticipate the internal bias towards haircuts and ask for higher risk premia beforehand. Further, „it fails to resolve the problem of providing an incentive for the peripheral countries to share a set of fiscal and macroeconomic policy rules compatible with growth“ as Messori emphasises (2011, p.7).

⁶⁵ Unfortunately, Messori gives no time horizon for a country’s permanence in the scheme; it takes a certain time for sovereigns to return to financial markets after a (partial) default on their outstanding debt. I would add that as participation in EDA auctions will always be a temporary, non-permanent issue under certain conditionalities no country would generally benefit from sticking to it longer than the time span needed to re-access capital markets on its own as repeated haircuts surely will do great harm to the country and its credibility.

- Third, decent haircuts realised through bond swaps “would have a tolerable impact on the balance sheets of the German and other European banks [...] thus eliminating the need for new and costly state interventions”.⁶⁶
- Fourth, “ad hoc interventions” to prevent the EMU periphery from insolvency crises would belong to history once a mechanism for crisis resolution is set up; arguably reacting “ad hoc” is more costly for EMU members and hence for Germany than acting collectively armed with institutional means.
- Fifth, inherent EMU instability would be reduced letting thus internal market trade flourish, or better it “would also ease the recession in the weaker countries, and facilitate those structural reforms at national level that are essential to attenuate the worst intra-EMU imbalances and so strengthen Germany’s role as leader of an economically dynamic area”.
- Sixth, once a crisis resolution (and prevention) mechanism were installed Germany would have “a decisive say in setting the new rules” for the euro area and depending on the design of EDA even for the Union as a whole.

Reassuming, Germany would foster its leading role in EMU while promoting it as important and prosperous player in world economics. To achieve the sixth and “crucial” point, Messori proposes to “give each member state powers of decision in inverse proportion to the volume of public debt that it sells to the EDA” thereby also reducing the risk of free riders within the scheme. The more funding a country receives from EDA the more it loses influence in decision making procedures. If Germany (and probably France) were the only country not to swap national for European bonds, “its leadership would stand fully acknowledged”. On the other side countries were eager to convert only as little bonds as necessary in order to safeguard financial stability so not to lose influence in important trend-setting decisions such as “the revision of the Stability and Growth Pact” or “the definition of macroeconomic coordination standards within the Union”.⁶⁷

We think that Messori’s approach is good, maybe even the best suited among of the presented proposal above to deal with the current crisis as he handles the issue of rising *political* dissent in a convincing manner. His mechanism builds on equal voting rights in financially equilibrated times

⁶⁶ Much attention has been devoted to the point whether applying haircuts to periphery debt will help to resolve the EMU crisis; even if we think that a small haircut won’t do any harm to large banks or to CDS-originators we must first acknowledge, that a “modest” haircut may actually be dangerous. Imagine that a haircut has been too small to put a country back on a sustainable debt reduction path - in this case the country would have lost access to capital markets anyway and consequently faces the next “modest” haircut, in the present case again under the EDA scheme. Second we need to recognise that many authors argued that haircuts on periphery debt led to bank recapitalisations throughout EMU. For further reading consult Darvas (2011), Ruparel (2011) or Gros & Mayer (2011b).

⁶⁷ Actually, we find it very important to have a second big player - not necessarily an antagonist - besides Germany as to guarantee that EMU won’t be „germanised“; without going into further detail we quote Soros (2011) claiming that Germany had „unsound ideas“ on macro policy. This should actually not hint at Germany taking advantage of the periphery’s weakness but more that the Bundesregierung’s vision of EMU/EU might not be so righteous or beneficial as they suppose.

while providing for a clear management structure in times of financial distress; at the same time he is eager not to provoke political woes amongst the participants. Even if Messori does not emphasise this point we think that a counterpart to Germany, i.e. France, is necessary to avoid ideological imbalances in the euro area.

But however we perceive it to be (in a comparable fashion to Dübél) too short-sighted. Eurobonds shall prominently be considered as a political concept fostering European integration and to promote the Union's stance in world politics; Messori partly understands this conception. Nevertheless he fails to adequately emphasise the political dimension of the project, like most other economics do. With the exception of a small part of the third model all authors neglect what was intended to present in the "basic" models namely the long term project. We may actually see chapter two's basic models as a political "development projects" whereas the refinements are built to cope with the current crisis and thus formally represent possible precursors of the former. While refining both financing and ruling mechanisms no farsighted perspective is developed. The next chapter will serve the purpose of designing a new governance structure for the euro area dealing with both economic and political issues giving the eurobond a fundamental role as shield against disruptive speculations and in strengthening the political ties.

5

Further Aspects of Financial Stability

We perceive Eurobonds ideally as a political means to promote the European idea while economists mostly speak too little about it. In this last chapter we present Paul De Grauwe's proposal for a reform of the "governance of a fragile Eurozone" which addresses important political issues. His argument convinces us that contrary to Gros' conviction (2011a) there still is some "cash on the table" - synergies due to the changing of risk composition eventually permit to reap a liquidity as well as a risk premium when launching a common debt instrument.

In this section we follow a twofold goal. On the one hand we want to emphasise the political character of EMU and thus of the common bond. On the other hand we develop a game theoretical approach sketching how a common bond scheme might lead to "gains for all". We recognize that at the current moment no liquidity premium could be reaped as markets are way too agitated. Still we see "indirect liquidity gains" in the sense that a common bond is a way to avoid the rising of liquidity crises due to market sentiments.

5.1

The Governance of a Fragile Eurozone

We learned in the third chapter that some economists mistake the nature of the current government debt crisis as they fail to recognize that with the exception of Greece the periphery states see themselves torn into trouble because they overtook massive amounts of private debt to save their home economies. But this sudden debt explosion only served as trigger of the debt crisis while the subjacent systemic reasons are twofold as De Grauwe explains.⁶⁸

As members of a monetary union emit debt securities denominated in a "foreign" currency, i.e. a currency they do not control, market sentiments suffice to push them into a "bad equilibrium" which may ultimately force them to default on their debt. De Grauwe calls this phenomenon a "coordination failure". Such a bad equilibrium is characterised by "punishingly high interest rates, chronically high budget deficits, low growth and a domestic banking crisis".

With the high degree of financial integration prevailing in a monetary union, bad equilibria tend to spread over to other member states thereby mainly affecting the banking sector (due to cross-boarder

⁶⁸ The section builds on De Grauwe (2011a).

holdings of sovereign debt). This propagation mechanism breeds “strong externalities [...] making it impossible to isolate a financial problem of one country from the rest of the eurozone”.

The governance structure De Grauwe intends to design tackles exactly the two named problems first by collective action “aimed at steering countries towards a good equilibrium”, i.e. permanent installation of a mutual financial assistance fund. Second, governments must internalise the external effects, thereby reducing the risks of crisis contagion in the eurozone. Both collective action and internalisation materialise at two levels namely the ECB and the respective government budgets. In stand-alone countries (e.g. the UK) a liquidity crisis is very improbable as the government theoretically can always compel the central bank to provide the necessary liquidity in stressful periods thereby avoiding locking into a bad equilibrium leading to a solvency crisis. The ECB can and therefore may overtake this same responsibility as its “*raison d’être*” is to preserve the monetary union”.⁶⁹ Government budgets shall also serve the double stabilisation scope by consolidating “into one central budget”. Moving towards a budgetary union means organising “a mechanism of automatic transfers” in order to ease negative shocks occurred in one member state. However, even without a budgetary (fiscal) union a common authority endowed with some supervisory power “can issue debt in a currency under the control of that authority”. This is actually a very important point that has never been addressed in any of the Eurobond proposals presented before as they took a too narrow look at the problem and thus ignored the immense crisis solving potential within the tandem of ECB and a bond issuing central authority.

Many politicians or economists nowadays claim a fiscal union to be a prerequisite for Eurobonds. We do not think so. Frankly, we feel that De Grauwe is right when stating that a *political* union will be necessary to sustain EMU in the long run but as he emphasises currently an “unwillingness to go in the direction of more political union” rules the minds of Europe’s politicians. Consequently, we need to apply a “strategy of small steps” in order to immediately resolve the current fiscal and political crisis and to open the doors for further unification steps once our most pressing problems will be overcome. De Grauwe aims at three steps being a reform of the European Stability Mechanism (ESM), the introduction of Eurobonds and finally a fortification of the ECB’s rule in macroeconomic supervision and corrective pre-crisis intervention.

De Grauwe in principle welcomes the decision to set up a precursor of a European monetary fund with the ESM but finds that it might need “a more intelligent approach” to deal with the current sovereign debt crisis. He sees three major points incorporated in the ESM lending programmes tending to aggravate financial stress rather than alleviating the pressure on borrowers.

⁶⁹ Actually, the ECB went into secondary markets to buy government debt of various troubled EMU members. As it has been “severely criticised” preponderantly from northern free market champions the public opinion turned against the bank’s interventionism even though the balance sheet still seems to carry a small amount of government debt compared to the Fed’s or the Bank of England’s exposure (De Grauwe, 2011b).

- Firstly he criticises that EFSF loans come at punitive rates. The EFSF thereby acted akin to financial markets that created the current distress of countries like Ireland. Paying an interest of 6% on EFSF loans implies two major consequences for the country. On the one hand the loan comes with a premium of almost 3% over the primary lending rate. Hereby policy makers (maybe involuntarily) send the same signal to the markets that Gros used referring to the seniority of loans: *caveat emptor*. Or put differently the institution signalises “to the market that it does not truly believe in the success of its own lending programme”. Institutional, i.e. risk neutral investors will lose any interest in the country’s bonds.

On the other hand, the high interest rates surely handicaps the country in reducing its stock of debt and deficit. The combination of high costs for the emergency aid and the maladroit signal will push the country in the same place where it would have been anyway, indeed on the brink of default.

- Secondly De Grauwe opposes the implementation of collective action clauses (CACs) in the issues of government debt. From 2013 on, in case a EMU country turns to the ESM private investors might take on losses due to the clauses included in the bond contracts. This measure probably limits reckless lending, but not solely; if CACs get attached to sovereign bonds investors immediately demand higher risk premia as they know “that in the future their bonds will automatically lose value when a country turns to the ESM”. But even more drastic, if a bondholder winds that a country might apply for ESM funding (no matter whether his instinct led him astray) he will sell his bonds in order to avoid potential losses. Selling of bonds normally is associated with mob mentality; thus if some sell their bonds others will follow thereby pushing down the bonds market value, driving up the costs of refinancing and finally forcing the country to run for cover. In a monetary union without centralised political power the system is prone to confidence triggered liquidity crises. Thus, CACs will not do the job they are intended to do but will worsen the situation even more.

- Thirdly, ESM aid should not be linked to “tough austerity programmes” as they tend to deepen recessions via spending cuts and tax increases (diminishing demand) and inhibit the use of automatic stabilisers. The following quote explains perfectly the scope of De Grauwe; contrary to northern free market champions his thought is not caged in rational agent models as he recognises the social setting and thus the political reality. “The pro-cyclicality of government budgets is an important achievement in the developed world. It has led to greater business cycle stability and to greater social welfare, shielding people from the harshness of booms and busts in capitalist systems. The way the ESM has been set up, however, risks undermining this achievement.”⁷⁰ (2011a, p.14)

⁷⁰ The use of “pro-cyclicality” in the statement above must be an editing error, we conjecture that de Grauwe has meant “anti-cyclicality”. Actually another statement confirming our intuition is put in front of this quote. “Countries that apply for financing from the ESM will be subjected to a tough budgetary austerity programme as a condition for obtaining finance.. Thus, with each recession, when a number of eurozone countries may be forced to turn to the ESM they will be obliged to follow pro-cyclical budgetary policies, i.e. to reduce spending and increase taxes. A sure way to make the recession worse.” (*ibid*)

Actually, De Grauwe does not oppose austerity programmes at all, but he sees the broader picture of ESM help. Draconic austerity measures probably help politicians whose country takes part in the bailout (and maybe experience low popularity at home) but surely not the economy in the tutored country. He proposes to use “the carrot and the stick” implying low interest rates in exchange for targeted austerity measures he unfortunately does not specify. Anyway we can assume that austerity should spare the automatic stabilisers.⁷¹

The second step entails the introduction of a Eurobond scheme as a combination of the proposals of Delpa & Von Weizsäcker and De Grauwe & Moesen presented in chapter 2. His idea combines the guarantee ceiling and the differentiated fees for participants in the blue bond issues. Combining this two features actually he might have found a way to induce participants to reduce their debt levels even further than 60 percent of GDP.⁷² We don’t need to treat his arguments in detail as we already discussed the single proposals. Still we want to indicate two important details of his reasoning.

Even not expatiating it, De Grauwe sets up a system that could lead to dynamic second round effects as explained in chapter 5.3. The incentive to reduce the stock of debt even under 60% of GDP is given by the immediate reward of lower participation fees (internal interest rate). But at the next stage, at least theoretically, if some countries follow the path the primary (external) interest rate consequently must drop too. The lower interest burden frees funds on the national level that can be used for public investments or purposeful tax rebates thereby again fuelling growth.

⁷¹ Empirical evidence partly supports De Grauwe’s view that low interest rates can help to reduce the debt burden of a country. Between 2000 and 2008 overall euro area debt was reduced from 72 to 66% of GDP. Countries like Belgium (21.99%), Ireland (33.86%), Spain (39.06%) or the Netherlands (15.80%) reduced their debt burden significantly between 2000 and 2008. On the contrary, Greece or Portugal saw their debt burden strongly increase in the course of this period (Eurostat, own calculations).

If we now consider the proposed design of the mutual debt assistance entailing conditionalities on the use of emergency funding we can reasonably assume that the debt burden can be significantly reduced once the euro area returns on a sustainable growth path, inter alia thanks to low interest rates.

However, we must note that low interest rates alone may not suffice for a sustainable debt reduction. Low interest rates for private borrowing in these countries meant high, credit-fuelled growth rates eventually leading to (housing) bubbles. To achieve a durable reduction of the debt burden, a country must monitor such developments. Further it needs to reduce its structural deficit. If it does not, the general deficit will soar as tax incomes decline.

⁷² In the Delpa & Von Weizsäcker proposal a country may only be incentivised to balance his debt at 60% of GDP but not to reduce it beyond this margin; of course one could object that it is always in the vital interest of a country to pay little interest on its debt etc. However, governments elected for 4-5 years won’t have the time to reduce a country’s debt burden in one term; most probably initiating budget consolidation will have negative effects on voter’s support and thus the government may refrain from it generally if it does not see any other reward than lower debt burden in the middle run - fruits the successive governing party may harvest alone. Hence, if debt reduction in the blue bond scheme means dropping interest rates the success of the operation may be easier to sell (as residual money may be reinvested to the voter’s entertainment). But, under certain conditions the “safety margin” can also be reached within the blue bond framework. Compare to section 2.2.1.

Another possible way to push member states to reduce their debt more than the necessary minimum might be to evaluate the development of government debt at the time a country applies for ESM funding. If a country made convincing efforts to reduce the debt burden even further than the given threshold (the Fund could evaluate it ex post on grounds of deficit/surplus averages or the like) milder conditionalities could be attached to emergency lending.

Another very precious contribution lies in De Grauwe's explanation of Gros' (2011a) and Kopf's (2011) argument against the debt ceiling along the lines of the Modigliani-Miller theorem. According to Gros neither aggregate market value of the debt nor the underlying risk but only the composition of the stock of debt would change in case of a limited Eurobond introduction. But, as De Grauwe opposes, "the common bond issue is an instrument to shield countries from being pushed into a bad equilibrium. If the common bond issue succeeds in doing so, the underlying risk of the bonds of these countries does indeed decline. (2011a, p.15)" Thanks to the sharing of risks countries can enjoy a lower average borrowing cost (even if it comes at higher marginal costs).

Lastly, what De Grauwe calls "coordination of economic policies" actually means setting "some constraints on the national economic policies". While ideally national governments should transfer political power to Brussels we know that such drastic steps are very unlikely to happen in the near future. Identifying the roots of the Spanish and Irish crises as "local booms and bubbles [...] driven mainly by bank credit extension" he concludes that "any policy aimed at stabilizing local economic activity must also be able to control local credit creation" (2011, p.16). Since the member states ceded their supervisory powers in the monetary area to the EU, the ECB has to take over the task of controlling the "credit-fuelled animal spirits" not exclusively on the community but also on the national level. As the ECB monitors both price stability and financial stability in general it should take care of overshooting credit creation in the affiliate states. The Eurosystem may demand "differential minimum reserve requirements" or "anti-cyclical capital ratios" so to regulate excessive lending and prevent national financial systems from bursting bubbles triggering contagious crises. Furthermore the eurozone saw various reforms in the course of the crisis like the creation of the European Systemic Risk Board (ESRB).

De Grauwe's proposal can be interpreted as a roadmap towards a political union; his theory of bad equilibria emphasises the need of EMU member countries helping each other out. A monetary union without political union implies solidarity assistance amongst the members as they agreed to disrobe in front of very excitable financial markets. Solidarity means "mutual support *and* control" whereas in euro area's crisis responses "too much importance has been given to punishment and not enough to assistance".

5.2

Eurobonds as reinforcement of the Stability and Growth Pact

In the absence of a political union the Stability and Growth Pact (SGP) tried to make up for institutional lacunae within the euro area. However, experience over the last decade justifies the view

of a somewhat inefficient mechanism; at the time he presided the European commission, Mr. Prodi even used to call the pact “stupid” as of its rigidities. The 2011 update, sometimes referred to as the “Euro Plus Pact”, still may not convince as long as it builds along the lines of the predecessor (Monti, 2012).

In this segment we argue why a eurobond mechanism could be predisposed to achieve the financial and budgetary stability so utterly needed in a monetary union for lack of any form of political or fiscal union.

The crucial question is under which conditions EMU members will adhere to the rules of good fiscal conduct. During the years of SGP we saw the strongest core countries such as Germany and France sheer out of line without repercussions. This implies that the punishments designed on national governmental interventions were no efficient deterrent.

To some of the proposals above we attested the promotion of fiscal stability. Mainly they rely on a mix of positive and negative incentives, e.g. on differentiated interest payments or the like. Basically in the Blue Bond Proposal countries should abdicate heavy indebtedness because they would not be able to bear the red debt burden while with Boonstra’s mechanism a misbehaving country may forfeit political influence on the Union level. De Grauwe (2011a) favours a “carrot and stick approach” and holds that heavy punishments may result as counterproductive. Further the European Commission (2010) proposed to monitor certain macroeconomic variables (private and public debt, current account imbalances, competitiveness measures, house prices), so to drive member states towards the creation of greater convergence in these macroeconomic variables. In case such imbalances persist, a mechanism akin to the SGP sanctions sets off.

All these approaches can be useful if combined to a permanent and independent EMU institution effectively leading to a high degree of fiscal stability. However, even if some proponents of a common bond scheme already sketched institutional set-ups we still see the need to clarify various vital points. For instance we expatiated the benefits of entering the debt union and why subsequently a membership should be permanent, but we still see some need for refinement concerning the issue of rule adherence. Additionally, too little attention has been devoted to the independence of the institution. Lastly we propose a way to replace market arbitrariness with clear and foreseeable rules determining an EMU state’s interest level.

Alike to various proposals discussed above a central funding institution should issue debt on behalf of some or all EMU members paying a certain external interest rate i_E . The funds raised this way can be passed on to the members at differentiated internal interest rates $i_i = i_E + f(.)$, with $i = 1, \dots, 17$ or alternatively $i \in I = \{\text{Austria, Belgium, } \dots, \text{Spain}\}$. $f(.)$ is a linear price function determining the mark-

up on i_E an individual country needs to pay according to its macroeconomic performance. The function should be constantly updated so that every new issue of debt is subject to the latest macro developments; free riding attempts could thus be limited to very short periods. The variables can be akin to European Commission proposal (2010) and may also include some of De Grauwe's points on systemic risks (2011a).

A similar automatism could be used to calculate the extent of participation, i.e. the actual size of allotment (in percent of country GDP). In case a country misses its macro targets not only its interest rate rises but also the potential amount of covered mutual bonds may be reduced following another linear function $g(.)$ depending on the same variables as $f(.)$. If a country would lose a certain portion of its potential emission power it may choose to exit the agreement and resume issuing debt on its own. This would most certainly signal the markets that the country decided to leave because it was unwilling to commit to fiscal solidity and induced investors to demand higher interest. The looming loss of reputation might well be another reason for countries within the debt union to pledge them to the mutual spending agreements and should therefore constitute a further driving force in what concerns fiscal and political stability in the euro area. The neutral design of the system bears another important aspect. Since the interest and allotment functions $f(.)$ and $g(.)$ are generated automatically, eurobonds cannot be misused for or misunderstood as political games à la "germanisation of Europe" and would preserve or guarantee a balanced political standing to every participant as long adhering to the rules.

The unquestioned independence of the institution needs to be the first consideration even before the correct incentive compatible funding mechanism. Once set up, the institution can make its own, uninfluenced policy decisions including the variation of the price function thereby eventually correcting for past constructional flaws. To attain maximal credibility, the institution's actions have to be foreseeable and its rules must be characterised by full clarity. This cannot be the case if politicians may interfere at any given moment asserting certain individual "implicit rights" and asking for a change in the rules for their country. Boonstra (2005) acknowledges this point when saying that "no room" shall be given to "political bartering". Organising the institution similar to the ECB, that is granting almost full freedom in policy choice, meant equal treatment for all members and further made it an important reference point for financial markets.

Due to its normative character (determination of the internal interest rates via macro parameters), the institution shall have a rulemaking or supervisory board and an executive organ, both assisted by a technical board. The first can do the job the SGP was supposed to do. Via setting i_i it can sufficiently encourage certain favoured developments in the different member states and thereby support cohesion and policy harmonisation amongst the member states. The latter needs to be empowered to impose sanctions (e.g. those proposed by Boonstra) on deviating countries thereby fostering the credibility of the institution. Thus the mechanism deploys a twofold punishment mechanism; first with automatic

sanctions via the price function and second with occasional sanctions to be applied in case of serious misbehaviour.

We don't think that a member country's freedom would be restricted when entering the system of automatically adjusting interest rates. First, the internal rate reflects what the markets would do anyway but maybe anticipates their evaluations. Second, since the member states issue debt in a currency out of their control they are not all too free anyway. Further the way to calculate the internal interest rate would be known in advance which means that countries with higher debt levels or other difficulties wouldn't meet any uncertainty about the market's preferences when trying to bring down the yields on their bonds.

If the proposed mechanism turned out to operate smoothly, i.e. all participants behave according to the rules and thus collectively contribute to a fiscally sound and stable euro area, the technical difference between mutual (joint and several) and several liabilities should disappear as of the "harmonisation" of risks across the member states. In this ideal case the eurobond must stand its ground as the prevention mechanism described before as all parties can effectively guarantee for each other since no weak links should exist (in the longer run).

5.3

A game theoretical approach to the introduction of eurobonds

We now return on the aforementioned dynamic second round effects of eurobonds. Even if a bit different from De Grauwe's proposal the following model sketches a game theoretical approach to a common debt scheme illustrating potential gains for every player involved. It is thought as an input for further research and should not be considered as an exhaustive elaboration.

Let's assume that a European agency started issuing jointly and severally guaranteed bonds in the name of n of N eurozone members, which of course entails risk sharing. The game is set as a multi-stage game with a finite time horizon T (to be defined e.g. by the final consolidation of the system or alternatively the failure of the process).

Participation in the mechanism is subject to credible and effective, disciplining rules, i.e. their design is such that we avoid an unsupportable free rider problem and that also moral hazard is reduced to a sustainable minimum. The rules could consist of macroeconomic compliance with some benchmark or

the like as already installed by the Maastricht Treaty⁷³. The project is launched in times of financial peace meaning that each of the N players initially meets or nearly meets the participation terms.

Players being either big (B) or small (S) are of one of the different types representing diligent (D) and negligent (N) governments, that is governments with lower or higher debt to GDP levels than a certain threshold, defined by the aforesaid compliance rules. Thus the game knows four kinds of players: BD, SD, BN, SN. The diligent ones already pay little interest on their national debt, the negligent ones pay higher interest due to a risk premium, but none of the governments is unsustainably indebted and even for the lightly indebted governments there is a small margin to reduce interest rates even further. Additionally the small players have to pay extra liquidity premium regardless of their type.

The N agents are perfectly rational in a game where common knowledge of rationality is given. They maximise their (or their country's) utility in terms of lowering the interest payments on government debt by basically choosing between three strategies, i.e. participate from round one, participate from round t or never participate. The players still have got memories of the last currency or debt crisis when there was no such thing as common debt instrument, i.e. they know that if a (random) shock with some given probability p hits their economies they will suffer less damage if under the protection of the common bond scheme. Some diligent players might have an incentive never to participate as on grounds of the given probability of a shock occurring they estimate the costs of the participation higher than the costs of bearing a shock on their own.⁷⁴ Finally, players have a timely discount factor δ indicating how much they prefer present over future pay-offs, i.e. the higher δ the more far-sighted they act.

The pay-off structure (as inverse utility of interest payments or the like) can reasonably be assumed as follows. BD-type players pay the lowest, SD a slightly higher, BN and SN the highest interest if standing alone. In case of association there are good reasons to assume that the external interest rate i_E

⁷³ As we now know, the Maastricht criteria haven't had the desired stability effects on the euro area, thus most certainly the contract needs a reform. See 5.2 and references therein.

⁷⁴ The shock could be formalised as a randomly appearing negative pay-off in one randomly selected round of the game. The issue of permanence in the debt union is of course important but should not be of concern here. Let's just assume that once a player decides to participate he sticks to his strategy. Naturally there exist scenarios where permanence in the debt union becomes very costly, for instance when too many member misbehave too badly.

So consider the setting where exit is possibly either at some costs or for free. Then exiting the game can be interpreted as the diligent's punishment (in case of non-compliance with the rules) of the negligent as this would drive interest rates up for the remaining members. This threat is credible as again - at least for the first rounds of the game - the diligent countries would pay less interest on their national bonds and thus exiting yields a positive payoff. It would not be self-evidently beneficial for negligent players to exit - at least not during the first rounds.

will lie between the average of the individual rates and the lowest interest paid among the participants.⁷⁵

The logic of eurobonds implies that the more players enter into the debt agreement the lower the mutual interest rate may drop in the longer run due to the liquidity premium initially and the mandatory household discipline later on; however this must not hold in the short run where it is quite possible that BD-type players would pay a higher mutual interest rate if participating.

According to this adequately realistic framework we can examine what incentives the diligent governments would have to enter into a debt union with the negligent ones as they assumably would initially be facing higher interest payments and maybe even a higher risk premium on the common bonds as on their own national liabilities.

In the first round all N players face the choice whether to participate; n participants form a debt union. All players agree on paying differentiated, internal interest rates $i_i = i_E + f(.)$ ⁷⁶ and accept a common set of rules and punishments. The participants may unilaterally decide whether to stick to the rules whereat deviation (i.e. breach of macroeconomic criteria) of course implies automatic punishment in the next rounds, e.g. fines, higher interest rates or gradual restriction of issuance for one player etc.

In the second round the remaining $N-n$ players may again decide whether to join the debt union; as they temporised in the first round (which could be interpreted as a sign of egoistic opportunism instead of European solidarity) players entering into the agreement in the second round pay an additional “hesitation fee” on their interest. The same procedure is repeated in the third, fourth, ..., t^{th} round. The later a player participates the higher gets his corrective “hesitation fee”, arguably a punishment for defecting from the European cause. In other words, the longer a government hesitates to commit the higher get the costs of entering the game – either the country gets in at an early stage or it stays out at all.

At every point in time a player knows his possible pay-off streams. Thus, a BD knows that initially he would pay a certain amount more if entering the union but is also aware of the fact that interest rates decline over time if I) the debt union is lasting long enough (and of course if sufficiently large) and II) if the members are disciplined. Further a BD considers that entering is a signal to the other BD

⁷⁵ In the worst case, i_E can be assumed as the weighted average of the pre-eurobond interest every EMU member had to pay on its debt. In the best case, long-run case the interest rate will approach the interest rate the peer performers had to pay. With the latter scenario both a noticeable liquidity premium and a reserve currency premium should be realised. Initially, the external rate should thus be found to lie within these limits. Compare to chapters 2 and 4 as references therein.

⁷⁶ On the internal interest rate please see previous section. An alternative way to design the setting is to assume that participants pay the same interest rate independent from their risk profile. Depending on their performance they will get mark-ups or some rewards in the following periods, but finally the result must be the same on grounds of the incentive structure and its momentum.

players to join the union - the more BD associate, the higher are the probability that the common bond succeeds in terms of lower interest payments for *all* participants.

SD may have a similar incentive scheme as BD players, but that they don't necessarily depend on the other SD choices but rather on the BD's movements.

Negligent players then, almost regardless of their size, have nearly under all circumstances the incentive to form a debt union (presupposed there exists a liquidity premium to gain) that increases its attractiveness in case one or more diligent type players decide to guarantee.

From the setting above we recognise a kind of chain reaction: if BD participate it is likely that SD follow their example. If diligent type players participate, negligent players see even bigger opportunities in the common project and thus are even more incited to associated - and thus to stick to the common rules of conduct. Hence we return to the question raised many times before, *Why should the diligent participate?* Or put differently, what is an eventual BD participation based on?

The answer in this framework is quite intuitive. The timely discount factor δ has to be large enough to allow for the later gains to outweigh the initial extra costs. Regardless of the design of the allocation mechanism or the regulatory and hierarchic framework the single most important driving force of eurobonds' success is the convincing participation of the BD players themselves. The higher stake at the beginning can be easily justified as a form of pecuniary and moral credit to the negligent. First because if the project succeeds lending will be cheaper for everybody after its consolidation, thus the additional money paid returns back to the diligent type creditors and secondly because confidence is one of the necessary conditions for the project to succeed. Additionally, confidence building on financial markets is very often a self-fulfilling process that can be triggered by the BD.

In other words, BD and SD with a small discount factor δ either speculate against their own fate as members of the European community as they don't think it will last long enough to reap the fruits of their joint fiscal endeavour or they simply are impatient and thus anyway not suitable as members of a long term project as the EU.

Whatever the motivation of their timely preference the diligent players should consider the common debt instrument. With the setting pictured above *the interest rate will decline round after round* not only for the negligent players converting themselves into diligent ones because of the obvious benefit of reducing interest rates, but also the collective interest rate on the eurobonds would similarly fall and thus also the BD would reap more than just a simple interest premium.⁷⁷ BN and SN have the incentive to use the cheaper money they draw from the joint bonds for consolidating their budget instead of squandering it just because the first measure allows them to obtain ever cheaper refinancing

⁷⁷ Regardless of the actual configuration it seems to be plausible that the interest paid on eurobonds is affected by the virtual interest rate the member states would otherwise be subdue to.

and the latter will only be punished by the automatism described above with the interest and allotment functions $f(\cdot)$ and $g(\cdot)$. This mechanism reminds a little of the famous carrot and stick.

The longer the cooperation continues the more the common interest rate must drop (in case of macroeconomic convergence of the negligent agents towards the diligent). Successional primary benefits after some years can be named as currency stability, ever deteriorating probability of bailouts and other auxiliary measures for troubled eurozone members, an implicit shield against speculation against the common currency, and once tightened in the financial market's consciousness the rise of a reserve currency euro alongside the US-dollar including a share of the "exorbitant privilege" (once arrived at this stage an important liquidity premium should not be a mirage any longer). At least with the last point of promoting a reserve currency euro the diligent players should be convinced to foster the unification of the European government bond market still under the prerequisite of a large discount factor δ . Moreover we may argue that already from the first period on there will be undeniable benefits such as reduced or even vanishing probability of both EMU breakup and auxiliary transfers to the periphery.⁷⁸

But still, the analysis holds only under the presupposition that the Eurobond regime has to be introduced in times of financial peace. We easily recognize that the most important condition of all is the participants' political will to the union or put differently the BD-type players' willingness to pay in the first periods.

⁷⁸ Speaking of actual events in the Euro area from June 2010 onwards, reduced costs from the discontinuation of rescue packages may already have had counterbalanced the additional disbursement from raised interest rates; e.g. one can compare the (malignly suggestive) calculations of the Munich-based *ifo* on the additional costs to Germany (2011) and the German contributions to the EFSF (EFSF Framework Agreement, 2011).

6

Concluding remarks

One may of course suggestively quote Margaret Thatcher in sustaining that there is no alternative. But this does simply not coincide with the truth. We need to admit that other solutions of the current crisis may be more efficient than the eurobond also because we consider it more as a prevention than a resolution tool. Once installed it will surely serve the latter purpose but as we were keen to stress on various occasions, times of financial stress and market diffidence surely don't favour the launch and may put its potentially resounding success at risk.

We conjecture that the S&P mass downgrade of euro area countries in January 2012 would not have happened, if a common bond had been installed in the years when all EMU members virtually paid the same interest on their debt. And furthermore, we can assume that if an efficient eurobond scheme had been installed at the beginning of EMU, the now most troubled states of the periphery may not have amassed their unsustainably high piles of public debt. But all this can only be argued on theoretical grounds.

It is difficult to draw an exhaustive conclusion. We don't know any direct empirical evidence thus any statement on this topic must stay merely theoretical. We have shown that the main concerns can all be dismissed if the common bond scheme is build in the right way.

Additional costs for the core countries can be contained with respect to other auxiliary measures for the periphery. From the long-run perspective the eurobond may even turn out to be a bargain as the interest on it could drop even below the pre-crisis average of the Bund. As described in chapter 2 we have good reasons to believe that after some time the realisation of both a liquidity and a reserve currency premium could lead to a substantial reduction in interest rates. Experience with EFSF or EIB issuances shows that even at the beginning of the common bond project, the eurobond-Bund spread must not necessarily be unbearable.

Free riding can be contained when an appropriate incentive mix is considered in the design of the common mechanism. For instance, it may suffice to limit the individual issuance capacity of each participant to a certain debt/GDP ratio dependant on its fiscal soundness such as in the proposal of Delpla and Von Weizsäcker (2010). Generally every serious approach argues for a certain floor of guarantees so to curb moral hazard. Boonstra (2010) advocates even stricter sanctions in case a member would deviate from the fiscal agreements. For instance, a country may forfeit voting rights or

lose claims on EU regional funds or the like. Section 5.2 describes eurobonds as means to foster rather than to relax financial discipline along the path of a reformed Stability and Growth Pact.

Legal issues constitute no major concern of this thesis. But as far as we could see, the formulation of the Article 125 TFEU leaves enough room for interpretation so to allow for mutual financial assistances under special circumstances. This could be enough to justify a launch of a common bond scheme but if the project is meant to last the Treaty very likely needs some amendments.

In the light of theory no compelling argument against the introduction of a common bond scheme in the euro area has been presented up to now. Still, while fully supporting the idea of the eurobond, we need to emphasise the importance of the right moment in time to launch the project.

Two matters for further research were raised. First, as suggested in chapter 3, we may find a fortifying case for eurobonds by comparing the US with the European sovereign bonds market. The main idea is to see whether any US state obtained cheaper financing than the federal government in Washington. One may compare the interest on the state municipal bonds paid during the last 10-12 years. It should suffice to take the peer states (in terms of fiscal conditions or economical strength) like California, Texas or New York and put them side by side with the US Treasuries in order to see if the spread ever turns negative. If the Treasuries turned out to always have yielded less than the muni bonds, this might favour the introduction of the eurobond.

Second, in the last section we sketched a set-up for a game theoretical approach. There we concluded that the single most important driver of the success of the common bond was the commitment of the big and fiscally sound states to the debt union. We formalised it by saying that within their time preference they had to sufficiently value future over present payoffs. We are well aware that such an explanation seems rather limited. But, if this sketch would be extended to an actual model we are sure that it could bring forth some fruitful results.

In a recent newspaper comment the Italian Prime Minister Mario Monti wrote about the need to reconcile the Europeans with Europe.⁷⁹ As we noted on various occasions, the project of a common euro area bond in the first place needs to be seen as a political project entailing economical benefits. Following our elaborations, eurobonds should foster the European integration and provide for more transparency. And maybe tightening the political and economical strings could lead to a new way for the member states' citizens to understand the European Union. We also stressed the very importance of considering the risk of losing sight of the political equilibria within the EU when designing a common bond scheme. Monti recognises this danger as he speaks of the antagonism between “mutual respect” and a “diktat of the most powerful states”.

⁷⁹ Monti, Mario (2012) *Riconciliare gli europei con l'Europa per una stabile uscita dalla crisi*, Corriere della Sera, February 15, author's translation

As he writes, “stability can not be imposed by force. Decisions taken under such circumstances first of all risk being inefficient.” If policy makers manage to overcome what Monti calls “the tyranny of the short term”, then the population may gain a new sense for European citizenship.

7

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BBP	Bruegel Blueprint Series
BPB	Bruegel Policy Brief
BPC	Bruegel Policy Contribution
CEPS C	CEPS Commentary
CEPS PB	CEPS Policy Brief
FAZ	Frankfurter Allgemeine Zeitung
FT	Financial Times
FTD	Financial Times Deutschland

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