

The euro crisis: some reflexions on institutional reform

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The debate on the euro crisis understandably has had a strong short-term focus. Avoiding short-term disaster has been tantamount and the long-term sustainability issue sometimes neglected; yet, the institutional failure of the euro area forces us to reconsider current arrangements in order to restore credibility and sustainability. The article discusses various paths for the reform of the overall governance, from fiscal management to banking regulation, through the recent proposals to mutualise and repackage part of the sovereign debts into a supranational one or to introduce joint-and-several liability.

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NB: This paper develops some ideas that were first exposed at the Banque de France-Toulouse School of Economics conference held at the Banque de France on December 19, 2011. The author gratefully acknowledges financial research support of the Banque de France to IDEI and support from the European Research Council (Grant No. FP7/2007-2013 – 249429). The author is grateful to Olivier Blanchard, Patrick Bolton, Laurent Clerc, Thomas Philippon and Dimitri Vayanos for very helpful comments on an earlier draft.

To reflect on the future of the euro area and monetary unions more generally, it is useful to return to two well-known, but key observations about the causes of the euro area crisis.

Dual debt and competitiveness crisis

Short of an integrated global economic strategy, the euro area countries have not grown in tandem. Having failed or just not tried to implement reforms (labor market, pensions, pro-competition policies, tax collection infrastructure...) and having let wages increase much faster than productivity, Southern European countries have seen their competitiveness substantially reduced over the last decade. While the euro area is roughly in external balance, GIIPS countries (Greece, Ireland, Italy, Portugal and Spain) lost 20-30% competitiveness relative to Germany over the last decade.¹ As much trade is intra-European, substantial current account imbalances in Southern European countries emerged, leading to a concern about the sustainability of their debt.

Options are few. A *nominal devaluation* (high inflation and devaluation), the standard way for countries to restore competitiveness and avoid "default" (or at least formal default, as inflation is a form of expropriation) when over-indebted, is ruled out in a monetary union.² A *competitive disinflation*, with a substantial reduction of prices and wages, would require much coordination within each country and is rather unlikely to happen in Southern Europe. Finally, a *fiscal devaluation* (for instance in the form of an increase in VAT and a decrease in payroll taxes) would require a drastic increase in taxation in countries that are often already prone to fiscal evasion.³

At the same time, it would be hard for a country to abandon the euro; in the short run, this move would trigger an immediate run on banks;⁴ furthermore, the state might have trouble paying pensions and

salaries even if it defaulted. In the longer term, the country would forego the benefits of being pooled with countries perceived as more trustworthy.

Weak european institutions

The European Treaty's Excessive Deficit Procedure put the European Commission (with a needed backing from Commissioners) in charge of monitoring country compliance with the ceilings of 3% for the budget deficit and of 60% for public debt. The real power however lies with the EcoFin Council, which decides whether a deficit is indeed excessive.⁵ The EcoFin Council does not exert sufficient pressure. In contrast with, say, the IMF, the EcoFin council is too political, and therefore judge and party. As an outcome, no sanction has ever been applied.⁶

The political bias toward *laissez-faire* is understandable. First, there is little for a country to gain by insisting on imposing discipline on another country that does not comply with common rules; the former is unlikely to be pivotal in the 17-member euro area decision-making process while it can get into the latter country's bad books by taking an adversarial stance. Second, political benefits may dominate reputational concerns; a case in point is Europe's deliberate ignorance of Greece's and Italy's accounting gimmicks (well-documented by Eurostat and others) in order to allow these countries to join the euro area. Third, enforcers may feel that they will be granted a similar favor when their turn comes. Interestingly, France and Germany themselves violated the rules in 2003. Thus, free riding, political agendas and quid pro quos all concur to make sanctions an empty threat.

Ex post sanctions require not only courage, but also some thinking. Financial sanctions often are inappropriate, as they increase financial pressure at a time at which the country is already in financial straits.⁷

1 A prescient view on the likely consequences of this evolution (finally published as Blanchard 2007) was Olivier Blanchard's analysis of the Portuguese case.

2 This "smoother default" is one of the reasons why the United Kingdom, the United States, and Japan, which also have fragile public finances, currently have an easier time refinancing than distressed European countries.

3 See Farhi et al. (2011) for a general result on the feasibility of fiscal devaluations.

4 Introducing a new currency takes time and cannot be achieved overnight. Optimally the decision needs to be secret and a banking holiday be declared.

5 Very recently, though, the Commission regained a bit more power through the new EU governance measures (the so-called «Six Pack»).

6 There have been so far 97 violations (year/country) of the 3% rule, including 68 outright violations (29 corresponded to allowed violations linked to a recession).

7 The Stability and Growth Pact specifies a fine of 0.2% of GDP for each year, but the first, in which the deficit exceeds 3%; financial sanctions have been extended to encompass debt level violations as well under the third version of the Stability and Growth Pact.

In this spirit, De Grauwe (2011a) criticises the ESFS penalty rate lending policy.^{8,9} One can understand the willingness to discourage excessive borrowing in the first place. However, just like (never enforced) Stability and Growth Pact (SGP) sanctions aggravate deficits at a time distressed countries have difficulties controlling them, so do high interest rates on loans.

This difficulty of imposing monetary sanctions is familiar from the prudential regulation realm as well, as troubled banks are not asked to pay fair-value deposit insurance or exorbitant rates at the discount window; it is understood that high deposit insurance or interest rates would compound the banks' solvency problem rather than solve it. Instead, troubled banks optimally see their discretion reduced and their balance sheet downsized; a case in point is the 1991 FDIC Improvement Act in the United States, which specifies reduced degrees of operating freedom as the banks become less capitalised.

Similarly, and as is indeed standard practice for IMF programmes (as well of the "Troika – EC, ECB and IMF –" programs in Europe), troubled countries should see their sovereignty reduced rather than face monetary sanctions: their budget should be carefully monitored and structural reforms promoting competitiveness required, while protecting the poorest inhabitants. Needless to say, such interference is politically difficult and often successfully resisted, except when the country is about to fall off the cliff and accepts IMF-type conditionality.

European institutions also have had a bad record in the current crisis. Leaving aside attempts at shifting the blame (blaming rating agencies and speculators, which does not enhance investor confidence), lenient stress tests for banks (for example, Dexia was deemed solvent just before it defaulted),¹⁰

and a loss of credibility stemming from some confusing announcements proclaiming an inflexible determination to honor fully sovereign commitments and ruling out private sector involvement prior to Greece's default¹¹ on July 21, 2011, two recurrent problems are worth discussing:¹²

BUYING TIME

Larry Summers¹³ reminds us of Daniel Ellsberg' use of Pentagon Papers to document the US administration indecisive approach during the Vietnam War "At every juncture [policymakers] made the minimum commitments necessary to avoid imminent disaster – offering optimistic rhetoric, but never taking the steps that even they believed could offer the prospect of decisive victory. They were tragically caught in a kind of no-man's-land – unable to reverse a course to which they had committed so much, but also unable to generate the political will to take forward steps that gave any realistic prospect of success." and aptly points at the similarity with European decision-making with regards to the Euro crisis. The December 9, 2011 meeting was the 15th in the last 22 months. All – at least in their resulting decisions – have been mainly preoccupied by the short-run goal of avoiding an imminent collapse. As we will discuss later, though, some headway was made at that meeting.

ALLOCATING RISK IN AN AMBIGUOUS MANNER

Another area where European policymakers have been indecisive concerns who will foot the bill in case of sovereign default. Should the official sector cover the losses or rather impose private sector involvement (PSI)?

The perceived or implicit promise until Greece defaulted on July 21, 2011 was the absence of default,

8 The European Financial Stability Facility (EFSF) was created in 2010, and will become a permanent rescue fund in July 2012 (the European Stability Mechanism). Its remit is to provide loans to euro area countries in trouble.

9 Ireland borrowed from the EFSF at almost 6% for example; its risk premium was scaled back at the July 21, 2011 summit. The future ESM will lend at 2% above its funding rate.

10 Stress tests were published by the European Banking Authority in July 2011 for 91 European banks. 8 flunked and 16 were warned to be insufficiently capitalised. Dexia, which went bust early October, was in the healthy group.

11 Technically Greece is not "in default", as default is defined as a lack of repayment. The European Union twisted the arms of European banks to "voluntarily" forego some of the value of their assets.

12 Another institutional handicap of European institutions is the speed of reaction. For example the July deal took 3 months to ratify. In the meanwhile the ECB had to fill the gap. To be certain, ECB had already become a fiscal authority anyway. It had become a lender of last resort by substantially expanding the size of its balance sheet in the last few years (through its EUR 180 billion securities market programme), and this expansion had accelerated in the recent months. Since then, on December 8, 2011, the ECB announced measures to support bank lending and money market activity; in particular it decided to conduct refinancing operations (LTROs) with a maturity of 36 months and the option of early repayment after one year. On December 21, 2011, euro area banks rushed to take out the corresponding low (1%) interest rate, three-year loans and borrowed 489 billion euros. At the time, it was unclear whether banks would use this money to buy sovereign debt (as was suggested by France) or just use it to boost their balance sheets. But so far, ECB interventions have not led to inflationary pressures.

13 Summers' op-ed was published in the September 18, 2011 Financial Times.

as Europe was widely expected to bail out troubled countries; in effect, until last July Europe was ruled by an implicit full joint-and-several liability. The preservation of the sovereign risk-free regulatory tag by prudential supervisors further reinforced financial institutions' belief that euro area countries' sovereign debt was perfectly safe. Greece's default, like Lehman's in 2008, was the wake-up call that the widespread perception of full guarantees may have been erroneous after all. PSI still is an object of intense debate.

Who foots the bill is not solely a redistributive matter between public and private sector. First, ambiguity creates large gambling opportunities. Spreads of 6 or 10% create substantial gain opportunities if PSI is indeed excluded *ex post*, while country risk exposes financial intermediaries to large losses if policymakers instead opt for PSI. This creates a large-scale conundrum for banking regulators in their determination of the risk weights to be applied to bank holdings of sovereign bonds. In particular the zero or low risk weights currently applied may encourage banks in trouble to use risky sovereign bond investments to gamble for resurrection.

Second, the discussions on who should bear the burden of sovereign default are unstructured. They mention valid arguments but generally lack the "big picture". Arguments include the "ex post view" that private sector involvement makes it difficult for a troubled country to roll over its debt in the marketplace; and the "ex ante view" according to which *ex post* solidarity among countries to bail out each other when distressed creates moral hazard.

Section 3 will develop a couple of frameworks that bear on the allocation of country risk between the market and the international community. Economics teaches us that the key driver of an optimal allocation of risk should be the incentives it creates. The most familiar theory in this respect is the monitoring theory: who foots the bill also determines who monitors. Regardless of one's view as to who (international community, market) is a better monitor, one will agree that the recent *no-man's land* has proved rather unsatisfactory: governments have imposed no discipline on each other and markets have long thought that their lending to weak sovereigns would go unpunished. Put differently, no-one felt accountable.

14 Taking US history as a precedent, then the first step was balanced budget amendments ("golden rules") introduced in the 19th century. The growth of the Federal Government came much later.

15 See Reinhart-Rogoff (2009).

1 | A BROADER REMIT FOR THE STABILITY PACT?

It has long been understood that Europe, with its limited labor mobility and its quasi-absence of an automatic redistribution mechanism (a federal budget), is not an optimal monetary zone. Even though one should not take institutions as cast in stone,¹⁴ it seems unlikely that fiscal federalism will come about, as it would presumably involve large and predictable transfers across countries.

Short of fiscal federalism, European countries will still have to accept a substantial loss of sovereignty if they are to continue living together. Fortunately, there is still some scope for making institutions more compatible with the existence of a monetary union. Two reforms come to mind:

1|1 Regulating the banking sector at european level

Financial regulation by and large still operates according to the country-of-origin rule: national regulators supervise the financial institutions chartered in their country. There are at least two rationales for centralising prudential regulation at the European level and creating an independent supervisory authority. First, it is unlikely that all 27 financial regulation authorities in Europe (17 in the euro area) are sufficiently well-staffed to match the sophistication of private banks.

Second and more to the point for the focus of this paper, there is growing awareness that private debt is now public debt; the banking fragility following the construction booms in Ireland and Spain is a case in point; Ireland and Spain did not have extravagant public deficits and debts to start with. But banking bailouts threatened to take a heavy toll on public finances. More generally, many exchange rates and sovereign debt crises start with a credit expansion and a real estate bubble that authorities treat leniently.¹⁵

Europe does have supranational financial authorities such as the European Systemic Risk Board (ESRB)

and the European Banking Authority (EBA). But these do not have the prerogatives of ordinary regulators. For example the ESRB can go and see national regulators and suggest some change of course. It can ask the domestic regulator to “comply or explain”; while the threat of embarrassment always has some impact, there is only so much that can be expected from such an approach; for, to make it public that the national regulator is putting the domestic financial sector at risk, the ESRB must voice concerns about the country's financial sector and thereby run the risk of unsettling markets and triggering a run on the country. For good reasons, crying wolf is not part of central bankers' culture.

1|2 Fiscal rules and independent fiscal policy councils¹⁶

There has been much discussion lately about using golden rules specifying a (cyclically adjusted) target for the budget deficit.¹⁷ As with all constraining rules, they are resisted for two reasons: the reduced freedom left to those whom they constrain, and the need for the population to come to terms with the notion that those who govern are not necessarily to be trusted and just like everybody else react to the incentives that there are confronted with.¹⁸

DESIGN ISSUES

Golden rules raise complex design and enforcement issues and are no panacea.¹⁹ These difficulties are not a fundamental flaw and golden rules should be strongly endorsed. In this respect, the December 9, 2011 summit's project²⁰ is encouraging, as it calls for a binding golden rule (specifying a maximum primary deficit – i.e. gross of debt service – below 0.50% over

the cycle),²¹ automatic sanctions (reverse qualified majority voting),²² and enforcement by the European Court of Justice.

Designing good fiscal rule features, such as for example cyclical adjustments principles, is not straightforward. Furthermore, capturing debt sustainability through a single cap requires converting contingent liabilities and revenues into current recommendations. In theory, investments that will improve tax revenue or the current account in the future should not be treated as current consumptions and therefore not be subject to cash accounting (which fully charges investments to the budget).²³

The issue is mainly a practical one of where to draw the line, as most public policies can always claim the existence of some benefit down the road; in practice, this is doable primarily for investments that produce tangible revenues, although one can rapidly grasp the difficulties involved in defining revenues: a one-shot compensation to owners of taxi medallions against a (credible) introduction of competition reducing taxis fares by half is obviously an investment, although it creates no revenue for the government. Investments in higher education or in creating efficient labor markets generate similar accounting difficulties. Or to take a topical example, the recapitalisation of a bank through public capital, financed by public debt, raises the question of which part is an investment (restructuring) and which part is “consumption” (political benefits or capture).²⁴

Likewise, a number of policies transform contingent assets or liabilities into cash (privatisation, tax amnesties against one-shot payment, public-private partnerships²⁵...) or the reverse (lending to corporations or countries in trouble). Even traded assets (say, gold, oil or gas reserves) raise accounting

16 For description of the institutions and performance of existing fiscal councils, see e.g. Debrun-Takahashi (2011), von Hagen (2010) and Wren-Lewis (2011).

17 Traditionally, a golden rule refers to the constraint that current taxes cover current expenditures (borrowing being allowed for long-term investments), but we will use the term more broadly to describe rules that constrain budget deficits and borrowing.

18 For a discussion of how the electorate's motivated beliefs shape public policy, see Bénabou-Tirole (2011).

19 For this reason, it is often proposed to err on the conservative side, by requiring that fiscal adjustments take the form of a surplus reserve fund that can be tapped into in a recession, but no deficit ever.

20 On January 29, 2012, 25 of the European Union's 27 countries signed up to the treaty enshrining the tougher fiscal rules (the United Kingdom and the Czech Republic did not sign).

21 This golden rule is largely inspired by the German one, which among other things prescribes (from 2016 on) a maximum deficit of 0.35% of GDP in the absence of output gap, is cyclically adjusted (except for the possibility of a natural disaster), mandates the use of external measurements and intertemporal recordkeeping. The German golden rule also gives a prominent role to the Constitutional Court in Karlsruhe in enforcing the rule.

22 The adoption of a reverse majority rule has been recommended many times earlier, including in the van Rompuy report in 2010.

23 The UK government reports public net borrowing. Since 1997, it is in principle obliged to borrow only to finance capital (over the cycle). In this spirit, Blanchard and Giavazzi (2003) have proposed that the budget be balanced for operational purposes and that debt be employed solely to finance public investments.

24 These behaviours do not exhaust possible government behaviours in bank bailouts: see Hertig (2012) for taxonomy and an empirical analysis.

25 See Maskin-Tirole (2008) for references on accounting issues in public-private partnerships and for an attempt at modeling the relevant trade-offs in an environment in which politicians may try to funnel hidden future rents to contractors or pander to special interests.

issues, such as fair value versus historical cost or the choice of a depreciation rate for investments, which are familiar in private sector accounting.

Defined benefit pensions loom particularly large in the mis-measurement of public debt. They usually are off-balance-sheet and thus not treated as public debt on the ground that they are only contingent liabilities. To be sure, and as we observe now in some southern European countries, pensions can be reduced; the scope for adjustment remains rather limited, though. In the United States, the main loophole seems to have been state pension commitments; unfunded liabilities (USD 3.23 trillion out of a total of USD 5.17 trillion pension liabilities of the 50 states) are not counted as debt. Total state debt with pension liabilities included is actually almost 4.5 times the value of outstanding state bonds (Novy-Marx and Rauh, 2009).

Debt sustainability is a complex phenomenon and the detection of accounting tricks requires expertise; regardless of the institutions in charge of enforcing them, golden rules require the public sphere to boost its economic analysis capability. The need for technical expertise and the prevention of manipulations calls for the creation of independent fiscal councils endowed with professional bodies.²⁶ These independent bodies must include not only economists, but also members (coming from the ministry of finance/budget or the general accounting office) with expertise on all the gimmicks that are employed to conceal deficits and debt. Their composition, independence and processes could be audited by the IMF, as suggested by Rogoff (2011).

Enforcing fiscal discipline is also complex: in practice independent fiscal councils issue reports and forecasts; their forecast may need to be used by governments when preparing their budget. They may have a broader remit than issuing independent forecasts; for instance, the Swedish fiscal council looks at the consequences of government policies.

But fiscal councils do not enforce compliance. Constitutional courts, such as the one in Karlsruhe for Germany, do.²⁷ But these courts' economic expertise must be beefed up.

A fiscal rule is only one element of a set of good practices for fiscal policy. John Hassler argues²⁸ that the Swedish success in the matter (spending ceilings have been respected) owes not only to a successful Fiscal Policy Council with a broad remit and a fiscal rule specifying a 1% surplus target over the business cycle,²⁹ but also to complementary features: a top-down approach to budget planning (starting with decisions on aggregate spending and income, and disaggregating), three-year decisions on spending ceilings, prespecified budget buffer for unexpected expenses, and balanced budget requirement on local governments.

POLITICAL ECONOMY OF BALANCED BUDGET RULES

Another key factor for the success of golden rules is a political and popular support for budget discipline. Countries such as Sweden, Germany or Chile benefit from a broad consensus in the matter and reforms have by and large been bi-partisan.³⁰ A serious concern in countries like France and some other countries in Southern Europe is that golden rules are the objects of maneuvering and clashes within a political establishment rather unkeen to see its prerogatives reduced. This absence of bi-partisanship, together with the recent concerns about the United States (driven mainly by a political inaptitude to come to terms with budget realities), serves as a reminder that institutions cannot deliver optimal outcomes if they do not gather a minimum level of political consensus.

The history of the United States provides an interesting case study for the development of balanced-budget rules (see for example Henning-Kessler 2012 for an excellent discussion). Following the Revolutionary war and under Treasury secretary Hamilton, the

26 In Council Directive 2011/85/EU (8 November 2011) on requirements for budgetary frameworks of the Member States, it is also envisioned that Member States compare their forecasts with those of the Commission and of independent bodies; and that fiscal rules be equipped with well-specified targets together with effective monitoring by independent bodies (or at least bodies that are of the fiscal authorities of the Member State). According to the Commission proposal of 23/11/2011 (currently under discussion in Council and Parliament), euro area Member States would be required to have in place independent fiscal councils and to base their budgets on independent forecasts.

27 In the United States, balanced budget rules are better enforced when the state's Supreme Court judges are elected rather than nominated by the governor and confirmed by the legislature (Bohn-Inman 1996).

28 Presentation at the Banque de France-Toulouse School of Economics conference held at the Banque de France on December 19, 2011.

29 By contrast, no budget in France was balanced since 1974!

30 There has been some recent bickering in Sweden, but amusingly it was the opposition that proposed a bit more stimulus.

Federal Government assumed all state debts in 1790. Federal bailouts became the norm until the 1840s. Congress then rejected assumption petitions by bankrupt states (this was facilitated by the facts that financially sound states were a majority, that the economy was less dependent than earlier on foreign capital, and that the United States had little stake in state bonds). During the 1840s and 1850s the states voluntarily adopted budget-balance rules. The complete absence of bailout of states by the Federal Government has been the norm since, despite the fact that regularly some states got into fiscal trouble; the one exception is the bailout of District of Columbia in the 1990s, and this bailout involved Congress managing the state's budget for 4 years. Similarly, municipalities and counties have not been able to benefit from bailouts by higher authorities; there has been a single instance of state bailout of a municipality in the entire US history.

The Federal Government in the United States plays an important stabilising role through automatic stabilisers and countercyclical policies. Furthermore, discretionary policies, such as the 2009 stimulus package, are often directed toward covering shortfalls of revenues at the state level (up to 75% of the stimulus package was used to finance state deficits rather than fund new projects).³¹ Nonetheless, states are fully accountable for their debts.

These observations raise the question of whether the euro area should mandate the adoption of balanced-budget rules. Obviously, the credibility of such rules would be much enhanced if the euro area countries appropriated these rules (ownership). Yet, the spontaneous adoption of rules in the United States in the mid-19th century followed a strict no-bailout policy, which in Europe would probably prove very costly.

2 | BANKING REFORMS

In the wake of the 2008 financial crisis, there is a widespread recognition that prudential regulation and supervision require a substantial revision. This is not the place to discuss reforms that were or likely will be put in place.³² But some of these reforms interact with institutions that might emerge from the euro crisis, and so I should at least touch on the issues.

With some caveats, I feel that banking reforms on the whole go in the right direction: enhanced capital requirements (in the medium term, to avoid running the risk of a massive credit crunch in the midst of a recession); introduction of a countercyclical buffer³³ and of stricter liquidity requirements (while recognising our yet limited knowledge as to how to properly measure the cycle and the notion of liquidity); stricter rules on pay (in Europe, the United States has still some way to go); increased attention to systemic factors; better risk measurement.³⁴

I have more reservations concerning opposition to the use of ratings for regulatory purposes (as the Dodd-Franck Act suggests). To be certain, one could regulate rating agencies more tightly whenever their ratings are used by the official sector for prudential purposes or to determine the quality of collateral accepted by central banks. One might also reduce the sensitivity of capital requirements to the ratings. But shooting the messenger could prove a grave mistake. First, arguments against ratings usually focus on their shortcomings, without pondering about the alternative. In the absence of ratings, rumors and privy information in the markets would take center stage.

Second and especially, it is not clear how officials in government and central banks would assess

³¹ See Henning-Kessler (2012) for more details.

³² There are many articles and surveys about the causes of the recent crisis and their implications for policy reforms. My own views can be found in Dewatripont et al. (2010).

³³ See also Bolton-Samama (2010) for a proposal involving contingent bonds. By contrast, Bolton et al. (2011) look at the cyclical implications of using ratings as a prudential tool.

³⁴ Improving risk measurement has always been a concern since the introduction of risk weights in Basel I regulations in 1988. Some Basel II reforms were unfortunate. For instance the risk weight on mortgages was reduced from 50% to 35%; that on the trading book was widely acknowledged to be too lenient; etc... The new regulations have corrected some of these mistakes. Still there is a widespread feeling that proper risk weights are hard to design. Because of this, regulators have introduced a non-risk-based additional constraint, the leverage ratio. The leverage ratio, though, is a very poor statistic for the riskiness of a bank.

the riskiness of financial institutions and assets. One alternative approach would consist in using internal assessments made by regulators and central banks. This approach might be most appealing in the case of sovereign bonds, for which it is often argued that rating agencies have no specific information (by contrast with corporate bonds). On the other hand, this gives much discretion to regulators, who may use their assessment to exert forbearance.

Another alternative to ratings in prudential supervision is the use of internal risk based (IRB) models for qualified banks. While these models are monitored by supervisors, they leave much discretion to the institutions and would leave even more discretion in the absence of ratings. Regulators have substantial bargaining power vis-à-vis rating agencies, which derive much profit from their role as auxiliaries of prudential regulation; and even though regulating credit rating agencies is no easy task (e.g., Coffee 2007), regulators can use their leverage to have some control over process and deontological rules adopted by the rating agencies.

I also have mixed feelings concerning the tax on Systemically Important Financial Institutions (SIFI).³⁵ I am concerned that supervisors, who are already struggling to keep up with the traditional regulated sphere (commercial banks, insurance companies, pension funds) will lack the staff to monitor a much broader financial sector. The ease with which financial activities can migrate toward new players (energy companies for instance) and the difficulty in measuring who is “systemically important” (would LTCM or AIG have been deemed to be systemically important?) are causes for concern. An alternative is to protect the regulated sphere against defaults of non-regulated players. In this respect, the proposals on the use of clearinghouses (to assess and contain systemic risk) and of standardised products (to be able to measure clearinghouse solvency and thereby prevent them from reaching a stage in which they would invariably be deemed too big to fail) seem well-taken.

Returning to a point made in the introduction, another area where risk measurement needs to be improved is sovereign risk. The European Banking Authority in October 2011 recommended the use of a temporary capital buffer by European banks, so as to reflect current market prices.³⁶ At the BIS, Hannoun (2011) argued in favor of removing the risk-free sovereign tag. According to a recent IMF study,³⁷ European banks had EUR 339 billion exposure to GIIPS.³⁸ Not all was measured at market value: sovereign holdings by European banks decompose into 12% in the trading book (fair value), 49% available for sale (fair value; unrealised losses reduce equity, not profit), and 39% held to maturity (no recognition of losses).

Banking regulators have traditionally been generous with the assessment of sovereign risk, considering since Basel I that OECD countries could not default. Under current Basel rules, risk weights for sovereign debt rated AAA to AA- are still 0% (furthermore, Europe uses 0-risk weight for euro area countries for the purpose of stress tests.³⁹ The United States continues to apply 0 risk-weights to OECD countries). The low capital requirement, together with a new demand for “liquid” assets to satisfy the liquidity coverage ratio, creates a strong incentive for banks to hold sovereign debt.

Finally, efficient cross border resolution mechanisms are widely acknowledged to be a key issue for the future of regulation.

3| THE EUROBOND DEBATE

Solidarity among euro area countries has taken center stage in the policy discussions about the current crisis. Should solidarity take the form of Eurobond issues, a stability fund, a mechanism in which euro area countries are jointly liable for each other's default, or more informally an ex post bailout policy? While these questions make daily headlines,

35 On October 11, 2011, the US Financial Stability Oversight Council (FSOC) voted to monitor large hedge funds, asset managers, mutual funds, insurance companies, and other financial institutions whose failure might jeopardise the financial system. The FSOC's criteria are: debt level, derivative liabilities, leverage ratio, short term debt, CDSs written against the company. By contrast, the Basel Committee proposes the following equal-weighting indicators: size, interconnectedness, lack of substitutes for their services, cross-jurisdictional activities, and complexity.

36 Of course, market prices may be socially meaningless if guarantees and bailouts are expected. But from the point of view of banks they are relevant.

37 IMF Global Financial Stability Review, September 2011.

38 Euro area countries are particularly exposed to European risk: for example, foreign claims (cross-border and local claims of affiliates) on the public sector of Italy were, according to the same study, EUR 105 billion for France, 51 billion for Germany, 13 billion for the United Kingdom, and 13 billion for the United States.

39 The Capital Requirements Directive in the European Union based on Basel II, in its annex, specifies that exposures to Member States' sovereign debt and to the ECB receive a risk weight of 0%.

few elements of analysis are available. The purpose of this section is to shed some light on the relevant considerations.

3|1 Allocation of risk between the sovereign and its creditors

To put the proposals in perspective, it may be useful to remind ourselves of some economics of sovereign borrowing. This section focuses on the allocation of risk between the borrowing country and its foreign creditors, which has been the focus of the economic literature.

LIQUIDITY VS. SOLVENCY

Economists distinguish between liquidity and solvency problems. A solvency problem arises when the primary deficit and competitiveness problems make the path of sovereign debt unsustainable. A “pure liquidity problem” (*à la* Calvo 1988) arises when a country is actually on a sustainable path, but self-fulfilling realisations force it to pay very high interest rates, making its debt grow fast (especially if the sovereign debt has a short maturity) and in the end making it indeed difficult to reimburse the debt. The liquidity view of sovereign crises thus emphasises self-fulfilling realisations of insolvency; the country’s fundamentals are such that the debt could be sustainable, and indeed there is another market equilibrium in which the country maintains an easy access to the international debt market.

Whether a country is suffering from a liquidity crisis or from a solvency problem is often hard to tell; both lead to high interest rates and ultimately a lack of access to international capital markets. My hunch is that both are at work in Europe today, except for Greece whose insolvency under the *laissez-faire* path was transparent.

Unfortunately, desirable policies depend radically on the diagnostic. Illiquidity problems call for widespread guarantees against country default, while insolvency

problems require interference with country policies and acceptance of a potential default.

INSURANCE/MORAL HAZARD TRADEOFF

Countries understandably want to be insured against adverse shocks; on the other hand, insurance reduces accountability and countries can avail themselves of many ways to “expropriate” foreign investors: through default, devaluation, or extractive activities (taxation, straight asset expropriation). Policies leading to such expropriations fall into two groups:⁴⁰

- policies leading to a lack of competitiveness: labor laws, investments in non-tradable – real estate typically – rather than competitiveness-enhancing investments, protection of specific professions...;
- policies leading to public debt concerns: high public spending and low taxes – or insufficient tax collection efforts –, lax banking supervision, failure to reform the pension system...

High costs of devaluation or default counter the insufficient internalisation of foreign investors’ welfare and create a commitment to repay foreign investors. This may explain why untrusted countries often exhibit the “original sin”: emerging countries’ (public and private) liabilities to foreign investors are often debt liabilities, which are short-term and denominated in foreign currency (the dollar, say). Original sin liabilities limit foreign investors’ exposure to country moral hazard by making their claim less sensitive to bad country policy; but they expose the country to more risk.⁴¹

Symptoms of concern about such moral hazard are many. As we just saw, countries that are not trusted must issue debt that is short-term and denominated in a foreign currency. To assess whether a country is trustworthy, foreign investors scrutinise not only economic fundamentals, but also domestic political economy features. They thereby try to understand whether policies that protect investment are likely to be implemented; for example, such policies are more likely to be adopted, the more evenly distributed

⁴⁰ The discrepancy in behaviour before and after accession to the euro area is an illustration of potential moral hazard in our context.

⁴¹ An interesting issue is whether unregulated market lending to the country’s private sector is optimal. In a pure moral hazard context, the answer is no; the country actually ends up being exposed to too little risk; for, private lender-borrower relationships do not internalise the disciplining effect on the government of risky forms of liabilities and therefore their impact on other lender-borrower relationships (Tirole, 2003). Two arguments operating in the other direction – excessively risky equilibrium borrowing – will be given shortly.

security ownership is in the domestic population (say, because pensions are funded rather than pay-as-you-go). Similarly, it is understood that a home bias in portfolio investment, despite substantial costs in lack of diversification, makes it more likely that investor-friendly policies be adopted. Yet another symptom of the existence of moral hazard is the routine use by the IMF of stage financing (i.e. making tranches contingent on progress made) when implementing a restructuring of a country's debt.

Concerns over moral hazard also loom large in the legal debate on sovereign debt restructuring. Sovereign debt contracts often are written under New York law (the most common relevant law for sovereign borrowing), and include clauses such as the unanimity rule and the *pari passu* clause. It is well-known that such clauses favor holdouts and thereby create difficulties for restructuring debt;⁴² and so there have been widespread calls for including collective action clauses (CACs), which incidentally will be the case in the euro area starting in 2013.⁴³

There has been much debate among economists and among lawyers as to whether collective actions clauses are desirable; for, while they definitely improve the countries' ability to restructure when in trouble, they do not come for free: lenders' protection is reduced and the higher likelihood that they will have to incur losses makes them less eager to lend in the first place. So CACs, while offering undeniable benefits, should not be viewed as a panacea.

Bolton and Skeel (2004) argue that short-run political incentives introduce a bias toward hard-to-restructure sovereign borrowing. Borrowing with high restructuring costs bring a short-term benefit – borrowing at a cheaper rate – at the cost of a delayed and uncertain costlier default if the country gets into trouble.⁴⁴

ADVERSE SELECTION AND STIGMA

Signaling provides another reason why countries may choose to make default excessively costly. Interestingly, the same features that make countries more accountable for their misbehaviour (debt that has short maturity and is denominated in foreign currency) can be also explained by posturing/signaling concerns. To avoid stigma, countries may bend over backwards to demonstrate that they are confident that they will not encounter debt problems (so may do multilateral institutions or central banks, as was the case when Greece was deemed able to repay its debts). To this purpose, they take on dangerous forms of debt. Thus while dangerous forms of debt are vindicated by moral hazard problems, excessive dangerousness can also be observed due to adverse selection.

More generally signaling concerns are ubiquitous in foreign borrowing. They explain for instance the unfortunate experience with what a priori was a good idea: IMF's contingent credit lines (CCL), which gave countries an automatic access to a credit line support and thereby reduced the risk of illiquidity. CCLs were never used.

RENEGOTIATION AND SOFT BUDGET CONSTRAINT

Commitment is not easily achieved in the international finance realm. In fact, debt contracts are routinely restructured in ways that were not planned ahead. This is understandable: private creditors prefer to cut their losses and strike a deal than confront the possibility of a full-fledged default. Commitment is also hard to achieve when creditors are (directly, or indirectly through exposures of their banking system to the troubled country) sovereigns themselves. As is well-known, the EU treaty had ruled out bailouts, but Europe reneged on this commitment.

42 A well-known case in point is Argentina, which defaulted in 2001 on sovereign debt without collective action clauses. Argentina succeeded over the years in getting 93% of bondholders on board for an offer reimbursing 35 cents on the dollar (a low offer by historical standards). At the date of this writing, holdouts still create difficulties for Argentina to return to international capital markets (for an account, see "Gauchos and Gadflies", *The Economist*, October 22, 2011, pp. 82-83).

43 Under a collective action clause, a supermajority of bondholders (often 75%) can agree on a debt restructuring with the Sovereign. That agreement is then legally binding on all other holders of the bond. Collective action clauses will be introduced for new bond issues starting in 2013. Collective action clauses much facilitate the restructuring of sovereign debt *ex post*, but they also make it harder to issue debt *ex ante*. De Grauwe (2011a) notes that euro area bond spreads went up when Germany proposed to introduce such clauses in October 2010. Already about ten years ago the IMF proposed to introduce an automatic stay mechanism, the "Sovereign Debt Restructuring Mechanism" (SDRM), in which a debtor-creditors negotiation was meant to lead to an agreement that would come into existence if voted by a supermajority in each class.

44 Bolton and Skeel move on to argue in favor of the use of first-in-time absolute priority rule in SDRMs (as a baseline).

3|2 Allocation of country risk between the market and the international community

While a rich literature analyses the sharing of risk between a sovereign borrower and its creditors, much less is known concerning the optimal allocation of risk among creditors: official sector vs. private investors; and among countries within the official sector.⁴⁵

Who, of markets and governments, should bear the burden of default? In the current context, who foots the bill also determines who monitors. If *markets* are to monitor countries by removing their access to financing when bad policies are selected, then the private sector should be made accountable: banks should bear the burden for losses they incur when lending to the country; and prudential regulation should treat risky sovereign debt as a risky asset when computing capital adequacy requirements. If the *official sector* is in charge of controlling debt sustainability, then it should foot the bill and also intervene whenever a country's indebtedness path may not be sustainable. As we noted above, none of these alternatives prevailed in the euro area crisis.

As for the allocation of risk within the official sector, it is generally assumed in the European context that other euro area countries are the natural providers of insurance. This assumption, which is reflected in negotiations and current bailout policies, is at first sight startling. After all, insurance economics points at the desirability of spreading risk broadly, and not allocating it to a small group, which moreover may well face correlated shocks. Indeed, alternative cross-insurance mechanisms (taking the form of liquidity provision to countries) already exist, that do not involve insurance among countries within a monetary zone. We already noted that the IMF introduced in 1999 the CCL (replaced in 2009 by the Flexible Credit Line, with qualification criteria, but no pre-disbursement conditionality). The Chiang Mai Initiative, launched in 2010, is a multilateral currency swap arrangement pooling USD 120 billion. It encompasses the ten members of the Association of Southeast Asian Nations (ASEAN), the People's Republic of China, Japan, and South Korea. Crucially,

this scheme involves insurance among countries with different currencies, unlike the euro area scheme.

This raises the question of comparative advantage in the provision of official sector insurance to a sovereign. Insurance can be non-contracted-for/spontaneous/ex post, as in the case of a bailout, or contractual, as in the case of joint-and-several liability. Bailouts are driven by the fear that spillovers from the distressed country's default negatively affect the rescuer. In this sense, countries that are deeply intertwined within a monetary zone may be more natural providers of insurance than less connected countries. Collateral damages of a country's default are de facto collateral for the country.

Joint-and-several liability mobilises further collateral. In effect, a country's default becomes its guarantor's default if the latter fails to abide by its obligation to stand by the defaulting country. So the guarantor's incentive to pay is larger than in the absence of joint liability. But joint liability also makes domino dynamics more likely.

3|3 Mixing solidarity and market discipline

INTRODUCTION

Starting with a proposal by Delpla and von Weizsacker, three proposals mixing solidarity with a market mechanism have attracted wide attention in policy circles:

- "Blue bonds/red bonds" (Delpla-von Weizsacker, 2010)
- "Eurobills" (Hellwig-Philippson, 2011)
- "European safe bonds" (Euro-nomics group, 2011).

A first caveat: my understanding of the implications of these three innovative proposals is still very imperfect, and so the following notes are to be taken with a grain of salt and are only meant to stimulate further thinking on them. Furthermore, formal analyses will in the future substantially clarify their properties.

Second, despite the prominence of these three academic proposals, we should note the existence

⁴⁵ The official sector comprises governments and their agencies, central banks, government controlled institutions and international institutions. For the purpose of an economic analysis, banks that are likely to be bailed out by their government can also be considered as part of the official sector.

of related institutional suggestions. For instance, the German Council of Economic Experts, in its November 2011 report, argues for a “European redemption pact” in which national debt caps are binding and joint-and-several liability applies to 60% of country GDP and countries pledge collateral: 20% of loans in currency reserves, and earmarking of national tax revenue to further guarantee repayment.

In a Green Paper, the European Commission (2011) discusses various options for “Stability Bonds”, which would be jointly issued by Member States and accompanied by a substantially reinforced fiscal surveillance; these bonds’ guarantee structure could range from the absence of joint liability (each Member State is liable for its share of liabilities) to joint-and-several liability (Members are liable not only for their own share, but also for the others’ share in case the latter default), with an intermediate arrangement consisting of an absence of joint liability but some seniority and collateral enhancement (seniority status for Stability Bonds, partial collateral in gold or other assets, earmarking of specific revenues). Finally, there have also been multiple proposals made by leading European politicians.⁴⁶

The Euro-nomics group proposal (ESBies) on the one hand and the Delpla-von Weizsacker and Hellwig-Philippon proposals (joint-and-several liability) on the other hand offer different forms of solidarity. To some extent the distinction can be seen as one between “ex ante solidarity” (the pooling of interest-rate conditions among countries) and “ex post solidarity” (the obligation for healthy countries to stand by and foot the bill for a fraction of troubled countries’ debt). The Euro-nomics group requires no joint-and-several liability while the other two do. As I earlier argued, the purpose of joint-and-several liability is to increase the size of a guarantor country’s credible pledge: if the country does not honor its guarantee, it itself defaults and therefore incurs a cost that is much larger than just the spillover externality of the other country’s default. Put differently, joint-and-several liability leads to higher refinancing capability, but also to more contagion.

JOINT-AND SEVERAL-LIABILITY PROPOSALS

First, we consider the joint-liability proposals (Delpla-von Weizsacker, Hellwig-Philippon).

The Delpla-von Weizsacker blue bonds-red bonds proposal goes as follows:

“Euro-area countries should divide their sovereign debt into two parts. The first part, up to 60 percent of GDP, should be pooled as ‘blue’ bonds with senior status, to be jointly and severally guaranteed by participating countries. All debt beyond that should be issued as purely national ‘red’ bonds with junior status...The blue debt is the senior tranche (repaid before any other public debt – excepting only the IMF which enjoys super seniority) of the sovereign debt of the euro area participating countries...The annual allocation of blue bonds would be proposed by an independent stability council staffed by members who would enjoy a similar degree of professional independence to the board members of the European Central Bank (ECB). This allocation would then be voted on by the national parliaments of participating countries, having the ultimate budgetary authority required to issue the blue bond mutual guarantees. Any country voting against the pro-posed allocation would thereby decide neither to issue any blue bonds in the coming year nor to guarantee any blue bonds of that particular vintage.”

Hellwig and Philippon propose that the safe debt be Eurobills (common debt with maturity under a year); Eurobills would enjoy joint-and-several liability, just like the blue bonds described above. No country could have more than 10% of its GDP in Eurobills outstanding at any point of time. Benefiting from Eurobills issues would be conditional on sound long-term fiscal policy. Importantly, countries would not be able to issue short-term debt of their own. Eurobills would also benefit from a special prudential treatment in that they would be the favored asset for European banks to satisfy their Basel III liquidity ratios. Finally, all countries are meant to participate in the programme, so as to avoid stigma and unraveling.

⁴⁶ One of the most famous proposals, the Tremonti-Juncker proposal, was made by the then finance minister of Italy and prime minister of Luxembourg in a Financial Times article (December 5, 2010). This proposal, which allowed countries to issue up to 40% of their debt in the form of Eurobonds and up to 100% in harsh times, was promptly rejected by France and Germany.

Common features

Because the two proposals went through similar lines of economic reasoning as above, they share a number of features:⁴⁷

- None proposes an (unrealistic) full-fledged fiscal integration.
- Building on the observation that the implicit solidarity that prevailed over the last ten years led to disaster,⁴⁸ none of the proposals argues in favor of an extended solidarity.⁴⁹ Rather, both create (at least) two classes of debt: a safe senior tranche (respectively, blue bonds, Eurobills) and a risky junior tranche (respectively, red bonds, long-term claims). Both recognise the existence of both moral hazard and stigma avoidance strategies. They address the stigma problem through automaticity/ comprehensiveness. To mitigate the moral hazard problem, they call for the use of complementary policies to limit profligacy.⁵⁰ Relatedly, they acknowledge the existence of both a liquidity and a solvency problem, and therefore trade off insurance (provided by other sovereigns on the senior tranche) and market-based discipline (e.g. for borrowing above 60% of GDP).
- Both discuss the benefit associated with safe bonds' substantial liquidity premium, i.e. the "exorbitant privilege" of low interest rates (especially given new Basel III liquidity requirements and the concomitant high demand for risk-free assets).
- Both insist on reforming banking regulation so as to sever the link between banks and sovereigns and to reduce the risk of country bailouts motivated by the need to rescue banks. The proposals suggest a strong differentiation in regulatory weights between junior and senior tranches:

- The safe tranche would receive a 0-risk weight and be accepted by the ECB in repo operations.

– Delpla and von Weizsacker have the harshest prudential treatment of junior tranches: they suggest that European banks not be allowed to hold red bonds, and the ECB not to be allowed to accept them as collateral in repo operations.

The junior tranche in the two proposals is meant to be held by unregulated high-leverage entities such as hedge funds. The proposals are right in fearing that European banks' ownership of the junior tranche raises concern about Europe' pledge not to implicitly guarantee the reimbursement of that tranche. Note though that there is no free lunch here: the holding of the junior tranche outside the euro area reduces European countries' incentive to impose discipline and to repay that tranche.

Differences

Besides their shared features, the Delpla-von Weizsacker and Hellwig-Philippon joint-and-several liability proposals exhibit some differences. While agreeing on making the guaranteed debt (blue bonds, Eurobills) senior to other debt, they differ in their views as to how to make it senior: Delpla and von Weizsacker opt for a contractual solution,⁵¹ while Hellwig and Philippon view short maturities as the only way to enforce seniority.

Hellwig and Philippon argue that guarantees on long-term debt encourage "asset substitution": under long-term sovereign debt guarantees, the country has particularly low incentives to undertake reforms, such as a pension reform, that boost long-term debt sustainability. They want the European Union to be able to look at long-term market spreads of countries, which rules out long-term guarantees. By contrast, the rollover of short-term debt allows continuous monitoring by the guarantors.

Note that the Delpla-von Weizsacker and Hellwig-Philippon proposals' emphasis on making

47 This description about what blue bonds and eurobills have in common is applicable to ESBies (which we will later discuss) as well. The Euro-nomics group proposal also has a safe senior and a risky junior tranche. It does not propose full integration. It also recognises moral hazard and shares with the other proposals a two-pillar strategy to deal with it – market discipline must complement EU level authority. Finally, it also insists on reforming banking regulation.

48 There may also have been a misperception that risk had disappeared.

49 Recall that we de facto had (the perception of) a full solidarity until Greece defaulted.

50 Or they impose conditionality on a country's access to senior tranche financing. For example, Delpla-von Weizsacker suggest that a "blue committee" make a proposal as to the amount (bounded above by 60% of GDP) of bonds that can be issued as blue bonds; this proposal must then be ratified by all parliaments.

51 That is not an easy thing to do in practice. Establishing a seniority rule for sovereigns might require major legal changes.

official sector debt senior can be justified by the desire to prevent dilution of that debt through excessive issuing of other debt in the international financial market.⁵²

DISCUSSION

The proposals consider a limited set of instruments and of course cannot by themselves constitute a comprehensive policy to re-build a euro area (as they willingly acknowledge). Some remaining concerns relate to the applicability to the resolution of the current crisis, others to steady-state environments.

Short-term/transition

Cross-subsidy concern: Standard liquidity provision/risk sharing models presume that accord is reached behind veil of ignorance; this hypothesis is not realistic in our context and suspicion of a cross-subsidy from Northern to Southern Europe may thwart efforts to reach a consensus on these proposals.⁵³ This point is important because, once the veil of ignorance is lifted, healthy countries have no incentive to accept obligations beyond the implicit ones that arise from spillover externalities. Put differently, it is not in the self-interest of healthy countries to accept joint-and-several liability, even though they realise that it will be in their interest to ex post offer *some* solidarity in order to prevent spillovers of sovereign default; an ex ante transfer from distressed countries to healthy ones to compensate them for, and make them accept the future liability is ruled out as it would just add to the distressed countries' indebtedness and thus the compensation would be in funny money.

Joint-and-several liability emerges more naturally in an environment in which countries are behind the veil of ignorance and therefore are not necessarily reluctant to take on risky liabilities to create mutual insurance. The current reality is that Germany is on the hook, and any reform proposal has to address the question: what is in it for Germany?

No free lunch: as is recognised by the authors, the creation of a safe tranche implies that the leftover tranche is riskier than previous debt, implying a

short-term problem: how would it be rolled over? Rolling over sovereign debt is currently difficult; presumably rollovers would be more difficult to arrange under the new schemes unless there is a default on existing debt or relatedly existing debt is, unlike new debt, deemed "restructurable". The Hellwig-Philippon Eurobills proposal suggest a substitution of existing short-term debt by the Eurobills; in this configuration the priority of long-term liabilities remains the same, and their spreads might even be reduced a bit if the short-term spreads are reduced by the joint liability. On the other hand, this substitution strategy limits the feasible scope of the Eurobills programmes.

Legal aspects: both proposals find a way around standard clauses of treating creditors equally. The senior tranche-junior tranche feature implements the possibility of a selective default. Such a feature might face a risk of litigation whenever existing sovereign debt contracts include a *pari passu* clause or other provisions promising equal treatment of creditors. To be sure, European countries are quite different from emerging countries in that a sizeable fraction of their debt is issued under local law, and so selective default is easier. Nonetheless, this is a concern for the fraction of the debt issued under foreign law. And this may become an even bigger concern in the future if European countries other than Greece default, making it more difficult for sovereign debt to be issued under local law.

Steady state

Soft budget constraint: both proposals assume that the need to issue the junior tranche at market-determined terms will discipline countries, and that a no-bail-out clause will ensure that that tranche will not be rescued. However, the European Financial Stability Facility (EFSF) was not meant to exist, and the ECB was not meant to purchase the debt of troubled European countries. One argument for why this would change is that European banks would be prohibited from holding the risky part, making it less attractive for other European countries to bail out a distressed country

52 IMF credits routinely enjoy seniority. There is some debate as to whether the EFSF credits should similarly benefit from seniority. The first Greek rescue package in early 2010 had only IMF seniority; the EFSF was on *pari passu* terms with other claims. Gros (2010) criticises the later change in policy making European rescue funding senior to private debt (but subordinated to IMF lending) on the ground that this might reduce the willingness of the private sector to continue financing distressed countries; he argues that short-term debt should be rescheduled; finally he discusses the likelihood that ECB could ex post negotiate a seniority privilege for its very sizeable holdings of sovereign debt.

53 The following discussion draws from Tirole (2012).

(see, e.g., the discussion in Delpla-von Weizsacker). Also, to create better incentives, the Hellwig-Philippon and Delpla-von Weizsacker proposals create possibilities for exit, for instance through votes in parliaments and the payment of a fee for exiting (Hellwig-Philippon). For example the Finnish Parliament could decide that countries are not doing enough and quit. This would introduce market-like discipline at the expense of some solidarity/stability.

Domino effects and non-monitoring of buffer: the Delpla-von Weizsacker and Hellwig-Philippon schemes rely on ex post solidarity. The perception of a possible joint-and-several liability today starts raising concerns about the quality of even German bonds. Making this official policy might accelerate this process. Furthermore, joint-and-several liability, like average-cost-pricing, raises the spectrum of snowball effects associated with a shrinking tax base. As more countries default, each country is more tempted either to default, or to exit the scheme, in effect destroying it.

Relatedly, the schemes are designed mainly from the perspective of profligate countries, offering them a mix of insurance and accountability. But countries that are not in trouble may be called to insure large amounts of sovereign debts if either a large country or multiple countries in the euro area simultaneously are in trouble. An analogy with large payment systems may be useful here. Such systems when they allow for mutual credit lines require collateral in an amount sufficient not to create perturbations in the payment system if one bank fails.⁵⁴ Multiple bank failures by contrast are meant to be covered by a lender of last resort.

Returning to the euro area, by focusing on bad pupils, the proposals do not address the possibility that even Germany may not prepare itself adequately to its role as insurer. Somehow, either Germany needs to be monitored and become “super solvent”, or some second defense that involves non euro area parties must be planned: substantial credit line from the IMF or (with all associated hazards) ECB-led devaluation.

3|4 The sovereign debt repackaging proposal

Finally, consider the ESBies (Euro-nomics Group proposal) which is rather different from the other two. It works as follows:⁵⁵

“A European debt agency would buy on the secondary market approximately 5.5 trillion euros of sovereign debt (60% of the euro area's GDP). The weight of each country's debt would be equal to its contribution to the euro area's GDP. Hence, each marginal euro of sovereign debt beyond 60% of GDP would have to be traded on a single bond market, where prices would reflect true sovereign risk, sending the right signal to the country's government. To finance its 5.5 trillion purchases, the debt agency would issue two securities. The first security, the ESBies, would be senior on interest and principal repayments of bonds held by the agency. The second security would receive the rest – it is therefore riskier and would take the hit if one or more sovereigns default. European banking regulation and ECB policy would be adjusted so that banks face incentives to invest in safe ESBies instead of risky sovereign debt... Because they are a pure repackaging of existing debt, [ESBies] do not require additional funding by member states. They do not involve joint liability; if one member-state defaults, the junior tranche will take the hit.”

Note that there is no joint issuing and that there is no need to change existing treaties. To boost the demand for ESBies, the Euro-nomics group proposes that ESBies be treated as fully safe for bank regulation and ECB haircuts. By contrast, national bonds' treatment would now be based on ratings: national bonds rated AAA would still be treated as perfectly safe; but as a rule, national bonds would no longer be deemed risk-free. This would incentivise euro area banks to hold mainly ESBies rather than risky national bonds.

To create the ESBies, a “European Debt Agency” or EDA would buy national debts at secondary market prices and repackage them. The Euro-nomics group argues that the private sector could not as efficiently achieve the repackaging by bundling the debt of

⁵⁴ See Rochet-Tirole (1996b) for a description of the CHIPS system and related ones.

⁵⁵ Vox-EU, “ESBies: A realistic reform of Europe's financial architecture”.

multiple countries: the idea is that the private sector would have difficulty achieving the scale and degree of standardisation that the EDA could achieve. It might further fail to achieve standardisation of ESBies issues over time and produce regular issues of ESBies and junior bonds with the same composition for different maturities.

A key objective of ESBies is thus to allow Italy and Spain to earn part of the safety premium from a safe asset denominated in Euros – and that premium is high in the current crisis. The value-adding aspect of ESBies is the creation of a liquid asset in large supply and high degree of standardisation. The group further proposes to strengthen the ESBies (but not the junior bond) using a limited credit enhancement in the form of paid-in capital to the EDA by the European governments. This would spread any residual default risk equally across ESBies cohorts, homogenising them further and increasing their liquidity. While the credit enhancement would be used with low probability, its size would be too large for any private securitising entity to offer. The credit enhancement would not apply to the junior bond.

4| CONCLUDING NOTES

This paper's objective was to identify long-term institutions that could restore the sustainability of the euro area. Because we do not stand behind the veil of ignorance, and cultures and institutions are not shared, the prospect of sizeable, well-identifiable cross-subsidies hampers solidarity among countries. For this reason, and also because of moral hazard concerns, fiscal integration or full-fledged Eurobonds

are not really on the agenda. Short of these, countries must draw the lessons of the failures of the Stability and Growth Pact. Countries must accept some loss of sovereignty in two respects: they must devolve powers to independent fiscal councils, and when push comes to shove, they must accommodate further interference in the management of their economy. More discipline in turn increases the scope for solidarity.

While we are moving toward more effective balanced budget requirements, much work is still required to make them work. A weakness of golden rules is that they very imperfectly capture a country's efforts to build its long-term competitiveness. Cleaning up over-indebted countries' debt and controlling fiscal deficits is insufficient if the countries continue suffering steady balance of payments difficulties. Economic research should pay much more attention than it currently does to a proper accounting of sovereign debt sustainability.

Formally, we have not discussed the potential role of the central bank in indirectly monetising sovereign debts. A breakthrough of the last decades has been the successful fight against inflation; a return to inflation, even temporary, would be a setback. This comeback of inflation will however become unavoidable if the sovereign crisis spreads to large European countries; put differently, the ECB will have to stand by as lender of last resort on an even larger scale than today. Hopefully the required institutional reforms will occur sufficiently soon to reestablish trust in Europe and thwart such a contagious spiral, and if they are insufficient to prevent such an adverse development, to ensure that inflating will be a "once in a lifetime event".

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