

Working Paper 04/2018

Bank of Italy – DG Economics, Statistics and Research

JEL Classification: F33, F34

Keywords: sovereign debt crisis, euro area, IMF, financial assistance

Authors' E-Mail Addresses: marco.committeri@bancaditalia.it; pietro.tommasino@bancaditalia.it

Abstract. – European economic governance is again under the spotlight. Several reform proposals have been put forward in recent years, including new arrangements for the management and resolution of sovereign debt crises. This note purports to: (a) critically review earlier debates on the reform of the international financial architecture, identifying those elements that could be still relevant for Europe today; (b) discuss recent proposals to establish a restructuring scheme in the euro area, drawing some tentative considerations on possible ways forward.

Summary

- 1. Introduction
- 2. Early debates
 - 2.1 The evolution of IMF lending rules
 - 2.2 The quest for an international sovereign debt restructuring framework
 - 2.3 Intermediate considerations: what have we learnt?
- 3. The ongoing European debate
 - 3.1 A taxonomy of reform proposals
 - 3.2 Similarities and differences with respect to the early debates
- 4. Concluding considerations and possible ways forward

1. Introduction¹

Sovereign debt crises are a recurrent feature of the international financial system. The related theoretical literature has long tried to explain the behavior of sovereign debtors, particularly the reasons why they generally choose to honor their financial obligations, in light of the factors that influence both their "ability" and "willingness" to pay (Panizza *et al.* 2009). More recently, research has focused on the "dual" or opposite phenomenon, namely the failure of market discipline to sanction sovereign over-borrowing (Buchheit *et al.*, 2013).

At the risk of over-simplifying the wealth of academic research on these matters, it seems fair to say that policy debates ultimately revolve around a single crucial variable, namely the expected cost of a sovereign debt restructuring (SDR) for the debtor country, net of any associated gains, relative to the size of its economy. These costs may include: (a) reputational losses leading to a more or less durable exclusion from international capital markets; (b) international trade retaliations by creditor countries; (c) political costs for the country's authorities (survival in power); (d) legal hurdles (e.g. litigation) that make the restructuring process less predictable and unduly prolong a state of economic uncertainty for the concerned countries; and, importantly, (e) losses of domestic output due to adverse balance sheet effects on the economy's real and financial sector (banks in particular).

The key aspects of these debates may perhaps be captured by a simple "normative" rule of thumb, saying that for an SDR to be desirable from a collective welfare perspective its costs C for the sovereign must fall within a certain interval:

$$C_L < C < C^U.$$

The first inequality represents a necessary condition for a sovereign debt market to exist altogether. Given the absence of strongly enforceable property rights vis-à-vis sovereign borrowers, costly SDRs induce debtors to honor their obligations and provide an expedient means for obtaining this enforcement.

The second condition reflects the idea that very costly defaults may be sub-optimal for debtors and creditors alike. For example, they could induce the country to inefficiently delay the moment in which insolvency is acknowledged; this would damage the country's ability to recover after the SDR and therefore to partly repay its debts. In principle, preserving the country's ability to pay is also in the very best interest of private creditors, which nonetheless suffer from collective action problems, i.e. they do not internalize the effect of C on their own utility. Addressing these collective action problems is a key objective any SDR framework, loosely defined as the set of rules, procedures and institutions aimed at achieving an orderly crisis resolution.

¹ The views expressed in this paper do not necessarily coincide with those of the Bank of Italy. The authors wish to thank Fabrizio Balassone, Pietro Catte, Giuseppe Parigi, Marino Perassi, Paolo Sestito and the participants to the Central Bank of Ireland - ECB Workshop on "Deepening Economic and Monetary Union: The past, the present and the future" for their insightful comments and suggestions. They are responsible of all the remaining errors.

C enters the utility functions also of official lenders, which have an interest in preserving the stability of the international economic and financial system at large. They may therefore be led to intervene and contain the cost borne by the country.

The role of multilateral official lenders such as the IMF (or, in Europe, the ESM) is all the more important, as they typically provide "interim finance" to the distressed country while sending signals to private creditors about the reliability of the country's adjustment efforts. Large-scale official loans might generate moral hazard, both *ex post* (leading to excessively generous bailout terms) and *ex ante* (encouraging over-borrowing). In other words, there exists a link between official loans (as a means for crisis management), SDR frameworks, and market discipline (as a tool for crisis prevention). For this link to operate in a virtuous way, it is quintessential that the perceived costs of an SDR are high enough to incentivize the debtors to honor their financial obligations, but also not too disruptive and surely – if one wants the framework to be credible – not too costly from the point of view of the broader economic and financial system.

Given this remarks, it should be clear that designing an adequate SDR framework requires a very difficult balancing act. One could even conclude that the problem is intractable, and that it is better to adopt a case-by-case and "reactive" approach to sovereign defaults. As Martin Feldstein (1987) once put it, with reference to Latin American debt crises in the 1980s, "*muddling through can be just fine*"; it is also well-known that there can be advantages in a regime of "constructive ambiguity", which at least discourages excessive risk-taking.

Not surprisingly, the debate reignites after each crisis, as the pitfalls of the previous SDR framework (or lack thereof) are laid bare. Yet, recent debates on sovereign debt restructurings in the Eurozone appear to hinge on somewhat different problems than those discussed in the early 2000s. First, the focus is not any longer on the SDR costs determined by legal hurdles. Rather, today's major concern is about discouraging *ex ante* over-borrowing and *ex post* over-reliance on public sector money. Second, while the "statutory" proposal of an SDR Mechanism (SDRM) was soundly rejected in the past, it might be viable in the European context, where member countries are strongly integrated and already share part of their economic sovereignty.

Proposals to establish an SDRM for the Euro area raise serious concerns. While such a mechanism is meant to reduce uncertainty and strengthen market discipline, it might be counterproductive if it unduly restricts the room for maneuver available to European crisis management authorities. In any event, such mechanism should only be adopted once the existing legacy problems are solved, i.e. when the debt-to-GDP ratios of member countries are brought down to sufficiently low levels.

The rest of this note critically reviews old debates about sovereign crisis management and resolution (Section 2) as well as new proposals, specifically focused on the euro area (Section 3). Finally, we draw some lessons from old as well as recent discussions (Section 3). In particular, we conclude that while the institutional context and the specific features of the debt to be restructured may vary, the main trade-offs involved in any SDR framework remain the same, and that sovereign

debt crises should always be addressed in a holistic manner, taking into account their multi-faceted dimensions (prevention, management, and resolution).

2. Early debates

At the dawn of the new Millennium the international community seemed confident to have devised, after two decades of lengthy discussions, a reasonably robust blueprint for addressing sovereign debt crises.

The blueprint included two key elements. First, a set of clear - and supposedly credible - rules for large-scale IMF lending, underpinning the Fund's ability to say "no" to distressed countries with dubiously sustainable debts. Second, a toolbox for conducting SDR in a relatively orderly and predictable manner, so as to contain the related costs for both debtors and creditors. The toolbox comprised "collective action clauses" (CACs) to be included in the legal documentation of sovereign bonds²; and a voluntary code of conduct drafted under the auspices of the International Institute of Finance (2005), which debtors and creditors were supposed to abide by.

As we shall see in a moment, both elements turned to have some limitations and therefore underwent significant changes in the subsequent years.

2.1 – The evolution of IMF lending rules

The IMF is a treaty- and rule-based institution, and its lending policies make no exception. Under its Articles of Agreement, the IMF must establish "adequate safeguards" for the use of its resources, so as to ensure that its loans are repaid when they fall due and the money becomes available to other members in need. Safeguards include, *inter alia*, limits on how much can be borrowed, assessments of debt sustainability, and policy conditions attached to the loans.

After the demise of the Bretton Woods System in 1973, the scale of Fund programs has ballooned, reflecting the growing integration of financial markets worldwide. Tensions have occasionally emerged between the need to abide by these rules and the margins of discretion necessary for managing sovereign debt crises.

 $^{^{2}}$ CACs received their first formal backing from the official community in 1996, with the G10 report "The resolution of sovereign liquidity crises" (so-called "Rey report"). The Report explicitly supported "contractual or statutory provisions governing debt contracts to facilitate the resolution of a crisis", by "fostering dialogue and consultation between the sovereign debtor and its creditors and among creditors" and by "reducing the incentive for, and ability of, a small number of dissenting creditors to disrupt, delay or prevent arrangements to support a credible adjustment program that is acceptable to the vast majority of concerned parties" (p. 3). The Report was also adamant in dismissing more statutory approaches to crisis resolution: "international bankruptcy procedures and other formal arrangements do not appear to provide, in current circumstances or in the foreseeable future, a feasible or appropriate way of dealing with sovereign liquidity crises" (p. 1).

Apparent traces of these tensions can be found in the IMF's EAP, which have been modified repeatedly in the last decades³. The old "exceptional circumstances clause", originally designed to address systemic financial crises but often abused in the 1990s, was abolished in 2003, with the adoption of a new EAP "in Capital Account Crises". The new policy was built on the principles laid down by the Fund's International Monetary and Financial Committee in September 2000 (so-called "Prague framework"), with the intent to make the Fund's lending decisions more rigorous and transparent, also in light of progress made in the crisis resolution field – and the related hope that SDRs would not need to be too costly in the future.

The EAP "in capital account crises" was perfected in 2009, with the approval of a new policy applicable to *all types* of balance of payments needs, including potential ones (i.e., to crises stemming not only from capital flow disruptions, but also from structural losses of competitiveness resulting in persistent current account deficits).

However, the EAP had to be modified further in 2010, to accommodate the first Greek program. On that occasion, the key condition on countries' debt sustainability was changed to allow Fund financing in cases of dubious sustainability but elevated risks of systemic disruptions (so-called "systemic exemption" – a revival of the old "exceptional circumstances clause").

The policy was changed again in 2016, after systemic risks in the euro area had receded: the systemic exemption was repealed, and large-scale loans are now allowed only if the country's debt sustainability prospects can be improved by a "debt re-profiling" or through additional external financing from other creditors (official or private), which can at the same time also provide sufficient safeguards for the Fund's resources⁴. In essence, when debt sustainability is uncertain, Fund resources are now expected to be combined with a "light" SDR and/or with additional external financing from other official or private creditors.

Taken at its face value, the new EAP would seem to mark a reprise of the old "Prague adage", that IMF resources are limited and other creditors should be involved in the management and resolution of crises. Nonetheless, it is important to observe that even with this new policy the Fund has maintained significant room for discretion, particularly in (a) assessing whether a country finds itself in the "grey area" of dubious public debt sustainability⁵; (b) determining the scope of the debt to be re-profiled; (c) identifying the appropriate financing modalities from official bilateral creditors; and (d) deciding upon whether the needed debt re-profiling should be undertaken *before*

³ For a review of these changes see Committeri and Spadafora (2013) and Balassone-Committeri (2015).

⁴ The current EAP states that, when a country's debt sustainability is uncertain, large-scale loans "would be justified if financing provided from sources other than the Fund, although (they) may not restore sustainability with high probability, improves debt sustainability and sufficiently enhances the safeguards for Fund resources. For purposes of this criterion, financing provided from sources other than the Fund may include, inter alia, financing obtained through any intended debt restructuring" (IMF 2016).

 $^{^{5}}$ This assessment crucially depends on the strength and credibility of the domestic policy adjustment negotiated by the Fund with the country's authorities – i.e., on information that the IMF and the IMF alone can extract from the distressed country.

the approval of the arrangement, or whether Fund support should be held up until the said debt operation is concluded More in general, it is important to stress that the Fund's lending rules (like many other policies of the IMF) can be modified with a simple majority of votes cast by the members of its Executive Board. Without this degree of flexibility, the Fund could have not responded to the challenges raised by an increasingly interconnected world—including by accommodating the request of European authorities to arrange a bailout package for Greece in 2010.

2.2 – The quest for an international SDR framework

An SDR framework envisages a series of procedural steps and tasks, concerning several legal, economic, and financial functions: (a) identifying the relevant governing laws or jurisdictions, as well as the bodies and techniques for dispute resolution; (b) initiating the sovereign debt procedure; (c) defining the perimeter of credits to be restructured; (d) verifying the eligibility of creditors' claims; (e) defining the realistically available resource envelope and the related relief to be sought via a debt exchange offer; (f) ensuring an orderly setting for the dialogue and negotiations between the debtor and its creditors; (g) sanctioning a stay on creditor litigation when payments are suspended before reaching an SDR agreement; (h) supervising/validating the voting procedures, and enabling a qualified majority of creditors to bind a dissenting minority to the terms of an SDR agreement; (i) protecting the (*de facto* or *de jure*) seniority of "interim finance" provided by official or private lenders during the stay.

In the early 2000s, there was an increasing awareness that the investor base for sovereign debt had radically changed (in particular, with the shift from syndicated loans to dispersed bond holders and the emergence of vulture funds, whose business model hinges on settlement holdout and litigation). As a consequence, the traditional way of handling SDR cases had to be updated and upgraded.

Reform discussions in those years polarized around two alternative approaches to SDR: "contractual" and "statutory". The former approach was epitomized by the already mentioned inclusion of CACs in sovereign bonds; the statutory approach was instead outlined in November 2001 by the First Deputy Managing Director of the IMF Anne Krueger (2001), with her "sovereign debt restructuring mechanism" (SDRM).

The "contractual" and "statutory" approaches diverged in the way in which the various SDR steps were to be allocated to the relevant players (the Fund, the sovereign, its creditors, and other institutions). Broadly speaking, in the contractual approach most functions were expected to be performed by the debtor, based on detailed contractual clauses and voluntary codes of conduct, albeit preferably in cooperation with the IMF; private creditors, on their side, had the choice to either engage in restructuring negotiations via their own committees, or sell their claims on the secondary market.

By contrast, in the statutory approach the leading role was played by official institutions, partly acting as a sort of "bankruptcy court". The proposed SDRM was intended as a treaty-based and IMF-centered mechanism, to be established by amending the Fund's Articles of Agreement. Although the idea that the mechanism had to be activated by the IMF was promptly rejected by the Executive Board, the Fund continued to play a key role also in subsequent versions of the proposal, by providing short-term financial support and by determining, via its conditionality, the future trajectory of the country's primary surplus. Interestingly, in all its variants the SDRM was not supposed to work in a mechanical manner, as the relevant actors always retained some room of maneuver and discretion.

According to its proponents, the SDRM offered important advantages over the contractual approach (Krueger, 2002). First, it would address the "transition issue": extending these clauses over the entire outstanding stock of sovereign bonds would have taken a long period of time. Indeed, barring the (cumbersome and expensive) option of a one-off exchange of all existing bonds with new ones containing CACs, these latter would have to be included on an issue-by-issue basis. Second, the SDRM would solve the "aggregation issue", as the then prevailing CAC template had no provision for binding creditors across multiple bond series that were to be restructured at once.⁶ This means, for example, that some creditors could obtain a blocking minority in the restructuring of certain bond series, especially those of smaller dimensions, by purchasing these bonds at a discount during the crisis with the expectation of recovering their full nominal value through litigation. On the contrary, embedding the rules for debt restructuring in an international Treaty would make it possible to extend their application to a broad range of debt instruments. Moreover, giving responsibility for dispute settlement to a single institution would also avoid possible differences in interpretation.

This notwithstanding, the SDRM proposal was abandoned by the International Monetary and Financial Committee in April 2003. While the proposal had gained the support of a large majority of IMF members, including European ones, it was in the end vetoed by the United States. The strong opposition of the U.S. was mostly motivated by the fear of handling too much power to international institutions, but also by the desire not to antagonize their own financial industry.⁷

The contractual approach to SDR has evolved further since then, under the pressure of such consequential events as the euro area sovereign debt crises.

⁶ More generally, it seems unrealistic to rely on a decentralized market solution to internalize the several externalities involved in a sovereign crisis, as stressed among others by Guzman and Stiglitz (2016). After all, this is arguably the reason why the settlement of private insolvency, within countries, is not just a matter of contractual clauses but it is also subject to the rules of bankruptcy law.

⁷ U.K. was ambivalent at that time, perhaps due to the expectation that CACs would have ultimately won the day (thereby boosting the attractiveness of their own financial market, where CACs already represented the prevailing standard). On the political causes of the dismissal of IMF's SDRM proposal, see Setser (2010) and Gelpern and Gulati (2010).

The most important "contractual" development pertains to the aggregation of creditors' claims during an SDR⁸. Today there exist two international templates for "enhanced" CACs aimed at addressing aggregation issues. One is the standard agreed by the European Council in March 2011, which euro area countries have committed to include in their new sovereign bonds with maturity above one year, starting from January 2013 (so-called "euro area Model CAC 2012"). The other standard was proposed in 2014 by the International Capital Market Association (so-called "ICMA Model Clauses").

These templates basically differ in their voting procedures. The euro area CACs rely on a "two limb" voting structure, which requires that a minimum threshold of support be achieved *both* in each bond series (66 ²/₃ percent of outstanding principal) *and* across all series subject to the SDR (75 percent of outstanding principal)⁹. The ICMA model contemplates a "single-limb" voting procedure, requiring only a single vote calculated on an aggregated basis across all affected bond series. The IMF has clearly expressed its preference for the latter model (IMF 2014a), which would seem to effectively mimic some SDRM features and eradicate the possibility of holdout blocking positions on particular bond series.

2.3 – Intermediate considerations: what have we learnt?

The proposals presented in section 2.2 were designed to address a *specific* type of SDR costs, namely those associated to litigation risks and lack of creditor coordination during a restructuring process, not to the domestic economy's disruption that normally follows a sovereign default. This was perhaps motivated by a concern that the new "bonded finance" paradigm had pushed SDR costs above their "socially desirable" interval (i.e., we are now in a context in which $C > C^U$), and in a context where the typical clients of the IMF were scarcely integrated with the global economy and thus not very relevant from a systemic point of view.

In this regard, however, a first lesson to be learnt is that the empirical relevance of legal hurdles has probably been overstated. The lack of any strong evidence about the feared detrimental effects of creditor coordination failures on debt renegotiations¹⁰ has led some authors to ask whether these

⁸ Two additional developments, which will not be discussed further in this note, concern, respectively, (a) new legal language for the so-called *pari passu* clause – a technical innovation aimed at preventing Argentina-style litigation on sovereign bonds without CACs, and (b) proposals for devising new "state-contingent" debt instruments for sovereigns, including "equity-like" contracts such as GDP-indexed bonds, which purport to link debt service to the sovereign's capacity to pay, thereby reducing the incidence and cost of sovereign debt crises (see IMF 2017).

⁹ If some creditors were able to obtain a blocking position with respect to a particular series, that particular series would be excluded from the restructuring, while the remaining series would be restructured so long as the two-limb voting thresholds are met.

¹⁰ The bulk of available SDR experience pertains to bonds without CACs issued by emerging market countries; all varieties of "enhanced" CACs are too recent and remain untested to date. Empirical studies have tried either to count the number of lawsuit filed in courts, or to see whether these lawsuits could effectively delay or disrupt the whole restructuring process. On the first aspect, Schumacher *et al.* (2015) have shown that the probability of litigation has strongly increased in recent years. Regarding the second aspect, litigation and creditor coordination problems do not

reforms efforts were "barking up the wrong tree" (Panizza *et al.* 2009).¹¹ In essence, even before implementing the said contractual reforms, sovereign debtors could count on a variety of tools to force restructuring – including by making a sufficiently attractive bond exchange offer, by establishing minimum participation thresholds, and by resorting to "exit consent"¹².

A second lesson, concerning the rules for providing (or denying) official financing, is that it is illusory to think that discretion and flexibility in lending and restructuring decisions can be completely eliminated, especially in the presence of truly systemic threats. Unforeseen contingencies can and will always arise, requiring creative solutions.

A third lesson is a political-economy one. The demise of the SDRM proposal in 2003 suggests that both borrowing states and private creditors are unlikely to accept statutory constraints on their action. Even IMF creditor countries, which would benefit to the extent that more predictable and speedy SDRs would in principle limit the need for official help, are wary of transferring sovereignty to supranational institutions. Even if European countries did support Mrs. Krueger's proposal, it cannot be taken for granted that they would still support an SDRM for their own domestic debt. When the Krueger proposal was put on the discussion table, the default of an advanced economy was almost unthinkable; furthermore, as noted earlier, the proposal was meant to apply only to sovereign debt securities issued internationally, which represent a tiny fraction of their debt. Of course, the current European case has other peculiarities vis-à-vis the international arena that could alter the political economy of SDRM reform in the opposite direction. First, EU countries are much more accustomed to sharing sovereignty in economic governance issue. Second, given their high degree of economic and financial integration, they would stand to benefit a lot if they managed to better internalize all the intricate externalities related with a member state's default.

3. The ongoing European debate

3.1 – A taxonomy of reform proposals

The debate on how best to cope with sovereign default resurfaced in Europe with the sovereign debt crisis, when it was clear that even euro area sovereigns could lose market access. As is well known, Greece had to ask for financial help in April/May 2010, and then again in Spring 2012, when it also engineered a default, the first in Europe since WWII, and the world's largest ever. Ireland and

appear to have generally impinged on the successful conclusion of workout processes (among the others, see Bi *et al.* 2011).

¹¹ Indeed, legal experts (e.g. Gelpern and Gulati 2011) appear to view collective action clauses as broadly redundant from the point of view of advanced country issuers.

¹² An *exit consent* is a written permission for an amendment that is tendered along with the acceptance of an exchange offer (i.e. the consent is given as a bondholder exits the bond). This technique encourages full creditor participation in a bond exchange involving instruments that do not contain CACs, because it allows a simple majority to modify (with the issuer's consent) non-payment terms of the old (tendered) bonds in order to make them less attractive.

Portugal asked for help in November 2010 and in Spring 2011, respectively; Spain and Cyprus in June 2012.

The policy response was – perhaps inevitably – less than fully consistent: on one side, the member states finally agreed that some form of financial assistance should be provided, and they set up *ad hoc* facilities such as the EFSF and the ESM (which is meant to be permanent and has been operational since 2012); on the other side, they started to define a set of rules to handle sovereign defaults (in particular, the rules for the euro-CACs), reminding that this possibility cannot be ruled out.

Against this background, three questions are paramount. In case another episode of sovereign distress happens, to what extent and under what conditions should ESM help be provided? Should a procedure for orderly default of a euro area member be spelled out? If so, should it be based on contractual or statutory instruments?

Clearly, these are the same questions that were at the center of the international debate in the early 2000s. Both questions are particularly thorny for the euro area, given the sizable spillovers between the member states' economies (which increase the risk of moral hazard) and the absence of a central bank with a mandate to act as a lender of last resort for sovereign borrowers (which *ceteris paribus* increases the probability of crises). As discussed in the introduction, responses to these questions will determine how the burden of a default will be shared between the private and the official sector and also influence the *ex-ante* probability of default itself.

Gianviti *et al.* (2010) have been the first to advocate an SDR framework for the euro area. Not surprisingly, some of these authors were at the center of the earlier debate (among them, no less than Mrs. Krueger herself). They argue that a contractual approach would be inadequate and noncredible in the euro area context, as governments would be always tempted to step in and interfere with the post-default creditor-debtor negotiations. Instead, they propose to introduce "*a procedure to initiate and conduct negotiations between a sovereign debtor with unsustainable debt and its* creditors leading to, and enforcing, an agreement on how to reduce the present value of the debtor's future obligations in order to reestablish the sustainability of its public finances". To this end, a "statutory approach" is suggested for Europe, based on three institutions: "*a legal one in charge of adjudication, an economic one to provide the necessary economic expertise and judgement, and a financial one dealing with financial assistance. The legal body would have the authority to open a debt-restructuring procedure upon the request of a euro-area sovereign borrower and upon approval by the economic body that the debtor's debt is actually unsustainable*".

Key elements of this proposal can today be found in the treaty that established the ESM, as the latter performs most of the tasks assigned to the economic and financial bodies. Indeed, according to these authors, the financial body should also provide resources to countries facing temporary liquidity problems, without this automatically leading to an SDR, just as the ESM does. But the authors go beyond the current European setting. In particular, they propose to follow a detailed

procedure in case the distressed sovereign is deemed insolvent, and to create an institution which handles the case and enforces the rules of the procedure. Importantly, the outcome of the assistance request is not determined *ex ante*, leaving ample space for judgment.

On the contrary, Weber et al. (2011) propose to include a contractual "trigger clause" in government bonds, whose maturity would be automatically extended by three years as soon as the country receives financial assistance from the ESM, before performing any in depth solvency analysis. All other thing being equal, the automatic and compulsory re-profiling would reduce the net present value of creditors' claims. It would also significantly reduce the expected ESM disbursements, as the latter would have to finance only the country's residual borrowing requirements, not also the expiring debt. Therefore, the role of the ESM as a liquidity assistance provider would be much lessened. This suggestion has been articulated in greater detail by Deutsche Bundesbank (2016). The Bundesbank maintains the idea of a three-year automatic stay, and specifies the procedural steps to be followed in case of a request for financial assistance to the ESM. The Bundesbank also acknowledges that "it makes sense" to establish of a procedure for orderly debt restructuring in case the debt is deemed unsustainable¹³, but is careful to stress that, while the ESM could have a role in coordinating the main actors and providing technical and possibly financial resources, the terms of the eventual restructuring agreement should be left to debtor-creditor negotiations. To this latter end, the Bundesbank proposes to reinforce the current Euro CACs by introducing a single-limb majority requirement.

A proposal more in the "contractual" tradition is the one by Mody (2013). He suggests to introduce "sovereign CoCos", i.e. debt contracts that include provisions for automatic restructuring if the country's debt-to-GDP ratio exceeds an agreed threshold. More in detail, "upon reaching the threshold, repayment maturities could be extended; but the bonds could also have higher thresholds beyond which the debt repayment could be tied to economic and financial developments. An additional event triggering the change in the terms of repayment could also be the country's need to seek official financial assistance". One peculiarity of Mody's proposal is that it envisages the possibility – stretching to the limit the flexibility granted by the contractual approach – to have country-specific or even issue-specific debt-to-GDP thresholds.¹⁴

Other authors have articulated the "automaticity" of crisis management decisions in a more nuanced manner, in an attempt to better distinguish cases of insolvency from those of temporary illiquidity. Notably, Buchheit *et al.* (2013) suggested the adoption of numerical debt thresholds: for debt levels below 60 percent of GDP, assistance is granted with no conditionality; between 60 percent and 90 percent, countries can ask for financial assistance under some conditionality; beyond the second

¹³ This could happen either at the beginning of the crisis, when the country asks for ESM assistance or after the start of the program.

¹⁴ The state-contingent debt contracts proposed by Mody are akin to the GDP-indexed sovereign bonds mentioned in footnote 8. In both cases, the risk-return profile of these securities would depend on contingent events described in the contract, not on the interference of third parties such as the ESM. This said, there is an important difference between using state-contingent debt instruments to prevent sovereign debt crises or as a means for SDR.

threshold, assistance has to come with debt restructuring, which will be enough to bring the debt below the upper threshold again. A very similar threshold-based mechanism has been proposed by Corsetti *et al.* (2015). According to the latter authors, restructuring would be required if and only if debt is above 95 percent of GDP and yearly financing needs are above 20 percent of GDP.¹⁵ Both proposals differ from the Bundesbank's also because the current features of sovereign debt contracts would remain unchanged.

Andritzky *et al.* (2016) propose that if a country has total debt above 90 percent of GDP, has financing needs above 20 percent of GDP, and has violated several times the European fiscal rules in the previous 5 years, then it can access ESM financing only in connection with a maturity extension *à-la* Weber *et al.* (2010). They do not say what would be the length of the maturity extension; in any case, during the standstill period, a more in-depth analysis would be performed to see whether debt restructuring is needed. The standstill should be anchored in the ESM treaty. Furthermore, the authors propose to introduce "single limb" CACs in sovereign debt contracts. This proposal has two elements in common with the Bundesbank's (an automatic standstill and reinforced CACs); however, the standstill happens only in some well-defined cases, and it is enforced through a statutory change.

Finally, there are proposals in which the limits to ESM discretion are stronger than in Gianviti *et al.* (2010), but weaker than in other proposals discussed earlier, as they are based on time limits to ESM support. For example, according to the European Economic Advisory Group $(2011)^{16}$, the choice between insolvency and illiquidity would not be driven by thresholds, nor would there be automatic maturity-extension clauses; instead, these authors set the maximum length of ESM financing in case of illiquidity to two years, and also require that the haircut in case of insolvency should be between 20 and 50 percent of the debt. In the proposal of Fuest *et al.* (2016), the length of ESM financing in case of illiquidity cannot exceed three years, and the haircut should be no greater than what is needed to bring the county's debt-to-GDP ratio to 60 percent¹⁷. While the EEAG contribution only relies on changes to statutory rules, Fuest *et al.* (2016) recommend a strengthening of contractual clauses (viz. the introduction of single-limb voting provisions) as a useful complement to statutory changes.

More recently, a group of French and German economists (Bénassy-Quéré *et al.* 2018) has presented a comprehensive package of reforms to overhaul the European economic governance. In particular, these authors argue that the ESM criteria for deciding when a sovereign is insolvent *"must be transparent and consistent across countries"*, and that the sustainability assessment needs

¹⁵ An almost identical proposal is in Corsetti *et al.* (2016). These ideas were foreshadowed in a short column by Weder di Mauro and Zettelmeyer (2010).

¹⁶ The European Economic Advisory Group is composed by academic experts supported and hosted by CESifo, Munich. The group provides an annual report on the European Economy.

¹⁷ A similar objective is envisaged by Gros and Meyer (2010). The latter paper is also interesting because it proposes that, after the sovereign default and the haircut take place, the ESM should swap the debt still in the hands of the private sector with ESM bonds (the proposal is inspired by the experience with the so-called "Brady bonds").

to be based "on a data-driven method that can be reproduced and checked by the public". In any event, they stop short of spelling out a set of numerical triggers/thresholds. The Franco-German group appears also somewhat agnostic about how to tackle the holdout problem. Their document recalls that: "One approach could be to change collective action clauses...another approach would be to change the ESM treaty. These approaches could be complementary, since the first would apply only to new bonds, while the second would also apply to the existing stock".¹⁸

	Contract-based approach	Eclectic approach	Statutory approach
ESM discretion: High			Gianviti <i>et al.</i> (2010)
ESM discretion: Medium		Fuerst <i>et al.</i> (2016) Bénassy-Quéré <i>et al.</i> (2018)	Buchheit <i>et al.</i> (2013) Corsetti <i>et al.</i> (2015) Corsetti <i>et al.</i> (2016) EEAG(2011)
ESM discretion: Low	Weber <i>et al.</i> (2011) Deutsche Bundesbank (2016) Mody (2013)	Andritsky <i>et al.</i> (2016)	

Figure 1: a taxonomy of proposals

3.2 – Similarities and differences with respect to the early debates

It should be clear even from the short overview presented in Section 3.1 that euro area discussions have stressed somewhat different problems compared with earlier international debates.

First, the main concern is not so much the "old-style" holdout problem (collective action problem among creditors), but *ex ante* over-borrowing (due to borrowers' and lenders' moral hazard) and *ex post* overreliance on public sector involvement. The early proposals were targeted to emerging market countries, for which the bulk of financing was represented by bonds issued internationally – i.e., sovereign debt securities governed by foreign law or subject to the jurisdiction of foreign courts – and mainly owned by foreign investors¹⁹. Yet, the debt of advanced countries is generally issued

¹⁸ Messori and Micossi (2018) have argued that the "*data-driven method*" proposed by Bénassy-Quéré *et al.* (2018) would be equivalent to a "*quasi-automatic trigger of restructuring based on quantitative indicators*". In a rejoinder to the two Italian economists, Pisani-Ferry and Zettelmayer (2018), two of the coauthors of the Franco-German proposals, reject this interpretation. Bini Smaghi (2018) provides a critical review of Bénassy-Quéré *et al.* (2018).

¹⁹ For sure, sovereign debt owed to domestic residents (or issued domestically) could not be categorically excluded from a possible SDR; but this possibility had to be assessed on a case-by-case basis, and pondered against the risks of triggering domestic bank crises. In any event, it was clear that this category of claims was to be treated differently, because sovereign debtors had plenty of means to restructure them (either coercively or via moral suasion). One recent

under domestic law, and more often than not held by domestic investors. Thus, the benefits that advanced countries (euro area ones in particular) can expect from reforming their CACs would appear limited, and CACs such as those already introduced in the euro area may be considered enough, at least for the largest euro area countries, whose sovereign bond issues are typically big enough to preclude individual investors from acquiring a blocking position over any specific series in case of a joint restructuring of multiple series²⁰.

Second, several proposals show a peculiar preference for relying on automaticity and quantitative rules, which was completely absent in the early 2000s. This is likely due to the perception that - if free to exercise discretion - the ESM would be too inclined to provide financial help and too prone to rubberstamp intergovernmental political compromise.

Third, another peculiarity of the European debate is – in many cases – an effort to combine contractual and statutory elements. However, it is not obvious that they can be combined in a non-contradictory and consistent manner. In particular, the introduction of statutory elements may undermine the very market-friendly nature of the contractual tools agreed by euro area countries in 2012. Those CACs have become *the* prevailing standard in the sovereign debt market of the area; private market participants are unlikely to accept any CAC innovations that allow a third party (other than the sovereign debtor) to initiate the workout process, or enforce any changes in the financial terms of the bond contract that are not agreed in advance by a qualified majority of creditors.

Symmetrically, the prevailing contractual provisions might conflict with some of the privileges that official institutions may expect to enjoy in the pursuit of their statutory objectives. In particular, bond contracts containing CACs would surely make it difficult to accord preferential treatment to official creditors that are in the same voting pool as private ones. Official bondholders could not avoid the related losses, unless they are expressly protected by some specific mechanisms. But envisaging the latter might discourage the very participation of private investor in the sovereign bond market, and make their behavior more unpredictable and volatile in case of sovereign debtor distress. In one word, if one wants these markets to continue to exist and operate in an orderly manner, it will become more and more difficult (if not impossible) to administer "private sector involvement" without having some form of "official sector involvement". By the same token, over

example of the coercive powers of a sovereign within the boundaries of its own jurisdiction is the successful exchange of domestic Greek bonds in 2012, which was implemented through changes in domestic low.

²⁰ While the ICMA model clauses would seem to ensure more effective protection to small euro area issuers, this is not a good reason for modifying the euro area standard. First, changing the existing CACs might be read by market participants as an implicit admission of their inadequacy; and the diffusion of the ICMA standard in the outstanding stock of sovereign debt securities would take many years to be completed, with attendant risks of market disruptions during the transition phase. Second, small euro area issuers could always tender an one-off exchange of their existing bonds with new ones containing the ICMA clauses, if they wished to do so. Importantly, the Fund has never said that the euro area CACs should be abandoned in favor of the ICMA standard. On the contrary, its Executive Board has held such CACs as entirely "appropriate" for the sovereign bonds issued by these countries (IMF 2014b).

the years the need has become all the more evident for central banks to give up their preferred creditor status²¹.

4. Concluding considerations and possible ways forward

The debate on the desirability of a European SDRM should be framed within the context of the wider discussion on the completion of the euro area institutional architecture.

As is well known, there is a consensus that the current governance needs to be completed, but people disagree on the direction to be taken. Some highlight the need to increase risk sharing, as currency union members can no longer accommodate idiosyncratic shocks via exchange rate movements. Furthermore, governments can no longer rely on a lender of last resort in case of liquidity crises (De Grauwe and Ji 2013; Corsetti and Dedola 2016). Better risk sharing can be achieved, for example, by swiftly completing the banking union, via a fiscal backstop for the Single Resolution Mechanism and a European deposit insurance scheme. The euro area at large would also benefit from introducing some form of common fiscal capacity, which could provide an area-wide automatic stabilizer to cushion against country-specific shocks or – in case of sharp and prolonged adverse common shock – could be used to implement a discretionary fiscal expansion (Caprioli *et al.* 2017; Balassone *et al.* 2014).

Others argue that deeper risk sharing would be detrimental if not accompanied by some risk reduction, i.e. reforms that minimize debtor moral hazard and avoid the risk of a "transfer union", i.e. an arrangement involving systematic transfers between the participating countries. According to the advocates of risk reduction, the new euro area architecture should feature a well-specified sovereign debt restructuring mechanism, with the aim of (1) credibly enforcing the no-bail out rule *ex post*, and (2) strengthening market-induced fiscal discipline *ex ante*.

Concerning the first argument, supporters of a European SDRM argue that it would facilitate a fair distribution of the cost of debt restructuring between the various actors involved. In their view, given the size of the cross-border spillovers and the risk of contagion, without a procedure agreed *ex ante* the debtors would always have the upper hand, obtaining a significant bail-out at the expense of other countries' taxpayers. However, it seems unrealistic to expect that the introduction of an SDRM would *per se* reduce the costs of a default of a large country to a level sufficiently low

²¹ On September 6, 2012, the Governing Council of the ECB clarified that all euro area bonds purchased by the Eurosystem through the "Outright Monetary Transactions" (OMT) programme would have the same (*pari passu*) treatment as private or other creditors, in accordance with the terms of such bonds. The OMT programme was formally legitimated by the Court of Justice of the European Union in its judgment of 16 June 2015 (Case C-62/14). On that occasion, the Court noted that "*a central bank, such as the ECB, is obliged to take decisions which, like open market operations, inevitably expose it to a risk of losses … in order to achieve the objectives of monetary policy*". The Court also noted that "*the lack of privileged creditor status may mean that the ECB is exposed to the risk of a debt cut decided upon by the other creditors of the Member State concerned*"; however, "such a risk is inherent in a purchase of bonds on the secondary markets, an operation which was authorized by the authors of the Treaties, without being conditional upon the ECB having privileged creditor status".

to avoid the bailout temptation. Most proponents of a European SDRM also argue that it should be accompanied by effective measures to reduce banks' holdings of domestic sovereign bonds, which tend to amplify the effect of sovereign market tensions. This, in turn, raises other thorny issues, which are clearly outside the scope of this paper.²²

Concerning the second argument, discussions about the relative importance of markets forces vis-àvis rules, procedures and institutions as a means to enforce fiscal discipline are not new and date back to the early days of the EMU. For example, one can read in the 1989 Delors report that: *"Experience suggests that market perceptions do not necessarily provide strong and compelling signals and that access to a large capital market may for some time even facilitate the financing of economic imbalances. Rather than leading to a gradual adaptation of borrowing costs, market views about the creditworthiness of official borrowers tend to change abruptly and result in the closure of access to market financing. The constraints imposed by market forces might either be too slow and weak or too sudden and disruptive".* These considerations lay at the very root of the current fiscal governance system, based on rules and limits to deficit and debt.

By and large, the evidence vindicates Delors' skepticism: from the start of the EMU to the beginning of the crisis, sovereign yield spreads in the euro area periphery were arguably too small; afterwards, they increased abruptly, and in some cases they reached levels not justified by fundamentals (see e.g. Giordano *et al.*, 2013).

The introduction of a formal and binding SDRM, if based on numerical triggers, may increase the likelihood of self-fulfilling debt crises. Runs on sovereign bonds may start as soon as debt levels reach the vicinity of thresholds. This is precisely the kind of problems that the introduction of the ESM was meant to address. We know only too well from economic theory that countries with high public debt but fundamentally solvent are exposed to this sort of crises (Calvo 1988; Cole and Kehoe 2000, Corsetti and Dedola 2016).

As is evident, the transition problem caused by high legacy debts would have to be fully and convincingly addressed *before* introducing an SDRM.

²² See Lanotte et al. (2016), Visco (2016) and Basel Committee on Banking and Supervision (2017).

The introduction of an SDRM has to be postponed until all public debts are brought down to sufficiently low levels (as proposed, for example by Fuest *et al.* 2016).²³

In conclusion, while an SDR Mechanism for the euro area, if properly designed, might be helpful in reducing to a certain extent market uncertainty, it might also be counterproductive if it unduly restricts the room for maneuver available to European authorities in the management of possible sovereign debt crises in the future. In any event, an European SRDM can only be adopted when the existing legacy problems are solved, i.e. when the debt-to-GDP ratios of member countries are brought down to sufficiently low levels. European debates are still ongoing and very far from reaching a consensus on a satisfying solution.

²³ Alternatively, the SDRM could be launched immediately, but accompanied by a one-off buy-back of the national debt above a certain level (e.g. 60 percent of GDP), via a European vehicle (e.g. the ESM), as in Corsetti et al. (2015, 2016). Countries would then transfer a sufficient fraction of their seigniorage and/or tax revenues to the vehicle; the ECB would stand ready to contrast runs on the vehicle. The technical aspects and the distributive implications of similar schemes are discussed in Cioffi *et al.* (2018), together with the possible complementarities with the introduction of an SDRM.

References

- Andritzky, Jochen, Désirée I. Christofzik, Lars P. Feld, Uwe Scheuering (2016), "A Mechanism to Regulate Sovereign Debt Restructuring in the Euro Area", CESifo Working Paper, No. 6038.
- Balassone, Fabrizio and Marco Committeri (2015), Europe and the IMF: *nec sine te, nec tecum...* LUISS Guido Carli School of European Political Economy Working Paper 6/2015
- Balassone, Fabrizio, Sandro Momigliano, Marzia Romanelli and Pietro Tommasino (2014), "Just round the corner? Pros, cons, and implementation issues of a fiscal union for the euro area", Bank of Italy Occasional Papers, n. 245.
- Basel Committee on Banking Supervision (2017), "The regulatory treatment of sovereign exposures", Discussion Paper, Basel, December.
- Bénassy-Quéré, Agnès, Markus Brunnermeier, Henrik Enderlein, Emmanuel Farhi, Marcel Fratzscher, Clemens Fuest, Pierre-Olivier Gourinchas, Philippe Martin, Jean Pisani-Ferry, Hélène Rey, Isabel Schnabel, Nicolas Véron, Beatrice Weder di Mauro, and Jeronim Zettelmeyer (2018), "Reconciling risk sharing with market discipline: A constructive approach to euro area reform", CEPR Policy Insight, No. 91.
- Bi, Ran, Marcos Chamon, and Jeronim Zettelmeier (2011), "The Problem That Wasn't: Coordination Failure in Sovereign Bond Restructurings", IMF Working Papers No. 11/265, November.
- Bini Smaghi, Lorenzo (2018), "Reconciling risk sharing with market discipline Comment on the CEPR Policy Insight n. 91", LUISS School of European Political Economy, Policy Brief. Calvo, Guillermo A. (1988), "Servicing the Public Debt: The Role of Expectations", American Economic Review, vol. 78(4), pp. 647-661.
- Caprioli, Francesco, Marzia Romanelli, and Pietro Tommasino (2017), "Discretionary fiscal policy in the Euro area: past, present, future", Bank of Italy Occasional Papers, n. 398
- Buchheit, Lee C., Anna Gelpern, Mitu Gulati, Ugo Panizza, Beatrice Weder di Mauro, Jeromin Zettelmeyer (2013), *Revisiting Sovereign Bankrupcy*, Brookings Institution, Washington, DC.
- Cole, Harold L. and Timothy J. Kehoe (2000), "Self-Fulfilling Debt Crises", *Review of Economic Studies*, vol. 67(1), pp. 91-116.
- Cioffi, Marika, Pietro Rizza, Marzia Romanelli, and Pietro Tommasino (2018), "How we learned to stop worrying and (almost) love debt redemption", Bank of Italy, mimeo.

- Committeri, Marco, and Francesco Spadafora (2013), "You Never Give Me Your Money? Sovereign Debt Crises, Collective Action Problems, and IMF Lending", IMF Working Paper No. 13/20, January.
- Corsetti, Giancarlo and Luca Dedola (2016), "The Mystery Of The Printing Press: Monetary Policy And Self-Fulfilling Debt Crises", Journal of the European Economic Association, , vol. 14(6), pp. 1329-1371.
- Corsetti, Giancarlo, Lars P. Feld, Philip R. Lane, Lucrezia Reichlin, Hélène Rey, Dimitri Vayanos, and Beatrice Weder de Mauro. (2015), "A new start for the Eurozone: Dealing with debt, Monitoring the Eurozone 1", CEPR Press.
- Corsetti, Giancarlo, Lars P. Feld, Ralph Koijen, Lucrezia Reichlin, Ricardo Reis, Hélène Rey, and Beatrice Weder di Mauro (2016), Reinforcing the Eurozone and Protecting an Open Society, Monitoring the Eurozone 2, CEPR Press.
- De Grauwe, Paul, and Yuemei Ji (2013), "Self-fulfilling crises in the Eurozone: An empirical test", Journal of International Money and Finance, vol. 34(C), pp.15-36.
- Deutsche Bundesbank (2016), "Approaches to resolving debt crises in the euro area", Monthly Report, July, pp. 41-62
- European Economic Advisory Group (2011), 2011 EEAG Report on the European Economy, CESifo, Munich.
- Feldstein, Martin (1987), "Muddling Through Can Be Just Fine", The Economist, 27 June.
- Fuest, Clemens, Friedrich Heinemann, and Christoph Schröder, (2016), "A Viable Insolvency Procedure for Sovereigns in the Euro Area", Journal of Common Market Studies, vol. 54(2), pp. 301-317.
- Fuest, Clemens and Heinemann, Friedrich (2017), "Accountability Bonds Reconciling Fiscal Policy Based on Market Discipline with Financial Stability", EconPol Policy Brief 3, November 2017.
- Gelpern, Anna, and Mitu Gulati (2011), "Sovereign Snake Oil", American University Washington College of Law Legal Studies Research Papers No. 700, January.
- Gelpern, Anna, and Mitu Gulati (2010), "How CACs Became Boilerplate. Governments in 'Market-Based' Change", in Herman, Barry , Ocampo, José Antonio and Spiegel Shari (eds), *Overcoming Developing Country Debt Crises*, Oxford University Press, Oxford, UK.
- Gianviti, Francois, Anne O. Krueger, Jean Pisani-Ferry, André Sapir, and Jurgen von Hagen, (2010), "A European mechanism for sovereign debt crisis resolution: a proposal", Bruegel, Brussels.

- Giordano, Raffaella, Marcello Pericoli, and Pietro Tommasino (2013), "Pure or Wake-up-Call Contagion? Another Look at the EMU Sovereign Debt Crisis", *International Finance*, vol. 16(2), pp. 131-160.
- Gros, Daniel, and Thomas Mayer (2010), "How to deal with sovereign default in Europe: Create the European Monetary Fund now!", CEPS Policy Brief, n. 202.

Group of Ten (1996), "The resolution of sovereign liquidity crises" ("Rey report").

- Guzman, Martin, José Antonio Ocampo and Joseph E. Stiglitz (2016), "Creating a Framework for Sovereign Debt Restructuring that Works, in Martin Guzman, José Antonio Ocampo, and Joseph E. Stiglitz (eds.), *Too Little, Too Late. The Quest to Resolve Sovereign Debt Crises*, Columbia University Press, NY.
- International Institute of Finance (2005), "Principles for stable capital flows and fair debt restructuring in emerging markets", Washington DC, March.
- IMF (2014a), "Strengthening the Contractual Framework to Address Collective Action Problems in Sovereign Debt Restructuring", Staff Memorandum No. 14/265, September 2.
- IMF (2014b), "IMF Executive Board Discusses Strengthening the Contractual Framework in Sovereign Debt Restructuring", Press Release No. 14/459, October 6.
- IMF (2016), "The Fund's Lending Framework and Sovereign Debt—Further Considerations— Supplementary Information and Proposed Decision", Staff Memorandum No. 15/84 Supplement 2, January 6.
- IMF (2017), "State-Contingent Debt Instruments for Sovereigns", IMF Policy Paper, May 22, Washington.
- Krueger, Anne O. (2001), "International Financial Architecture for 2002: A new approach to sovereign debt restructuring", Speech given at the National Economists' Club Annual Members' Dinner, Washington DC November 6.
- Lanotte, Michele, Giacomo Manzelli, Anna Maria Rinaldi, Marco Taboga, and Pietro Tommasino (2016), "Easier said than done? Reforming the prudential treatment of banks' sovereign exposures", *European Economy: Banks, Regulation and the Real Sector* 2(1): 73-103.
- Messori Marcello and Stefano Micossi (2018), "Counterproductive Proposals on Euro Area Reform by French and German Economists", CEPS Policy insight n.4/18.
- Mody, Ashoka (2013), "Sovereign debt and its restructuring framework in the eurozone", *Oxford Review of Economic Policy*, vol. 29(4), pp. 715-744.

- Pisani-Ferry Jean and Jeromin Zettelmeyer (2018), "Messori and Micossi's reading of the Franco-German 7+7 paper is a misrepresentation", CEPS Commentary.
- Panizza, Ugo, Federico Sturzenegger, and Jeronim Zettelmeier (2009), "The Economics and Law of Sovereign Debt and Default", Journal of Economic Literature, 47:3, pp. 651-698.
- Schumacher, Julian, Christoph Trebesch, and Henrik Enderlein (2015), "What Explains Sovereign Debt Litigation?" CESifo Working Paper No. 5319, April.
- Setser, Brad (2010), "The Political Economy of the SDRM" in Herman, Barry, José Antonio Ocampo, and Shari Spiegel (eds.), *Overcoming Developing Country Debt Crises*, Oxford University Press, Oxford, UK.
- Tabellini, Guido (2017), "Reforming the Eurozone: Structuring versus restructuring sovereign debts", VOX CEPR's Policy Portal, 23 November.
- Visco, Ignazio (2017), "Banks sovereign exposures and the feedback loop between banks and their sovereigns", Concluding remarks, Euro 50 Group – The future of European government bond markets, Rome, 2 May.
- Weber, Axel A., Jens Ulbrich, and Karsten Wendorff (2011), "Safeguarding financial market stability, strengthening investor responsibility, protecting taxpayers: A proposal to reinforce the European Stability Mechanism through supplementary bond issuance terms", Bundesbank. (published in Frankfurter Allgemeine Zeitung, 3 March 2011)
- Weder di Mauro, Beatrice and Jeronim Zettelmeyer (2010), "European debt restructuring mechanism as a tool for crisis prevention", VOXEU, 26 November.