

Managing Deep Debt Crises in the Euro Area: Towards a Feasible Regime

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“10 Years Since the Global Financial Crisis: Lessons Learned, Opportunities Missed”

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For most advanced countries, 2010 was the year in which the global financial crisis was overcome – with growth resuming much more quickly than had been expected even in late 2009.² For Europe, it was the year in which the global financial crisis morphed into the Euro area debt crisis. As the crisis unfolded in Greece and spilled over to Ireland and other “peripheral” European countries, 2010 brought three main realizations. First, the financial architecture of the Maastricht treaty, which assigned responsibility for stable government finances to the Stability and Growth Pact (SGP), had a gaping hole: poorly supervised financial systems and cross-border flow, leading to excessive *private* debt accumulation, which could turn into a government debt problem. Second, the SGP had not even attained its narrow objective, namely, to keep *public* debt low and manageable. It had not prevented persistent fiscal deficits debts in several countries, notably Greece, and provided insufficient incentives for accumulating fiscal buffers in many others. Third, the Euro area lacked any instruments to deal with debt crises, perhaps because such crises were never meant to happen. Now that they had happened, these instruments needed to be invented in a rush.

Over the next four years, Euro area policy makers reacted to these problems – sometimes imperfectly and haphazardly, but react they did. The reaction involved three elements: revamped rules and surveillance procedures aimed at influencing economic policies of EU members directly; new European institutions focused on both crisis prevention and crisis management; and legal changes aimed at extending private sector burden sharing in a crisis

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² Although both the 2009 Spring and Fall editions of the IMF’s World Economic Outlook got the 2009 output decline in advanced countries almost exactly right (about -3.5%), they greatly underestimated growth in 2010, which was forecast at 0 and 1.3%, respectively, but turned out to be over 3%.

and thereby strengthening market discipline. With respect to crises related to private debt and external imbalances, this led to the creation of the European Systemic Risk Board (2010), the macroeconomic imbalance procedure (2011), the Single Supervisory Mechanism and Single Resolution Mechanisms (2014) and the EU Bank Recovery and Resolution Directive (also 2014), which forces some private creditors to share the losses of bank resolution. With respect to sovereign debt crises, steps included reforms of the SGP (2011), the creation of the ESM (2012), and beginning in 2013, “collective action clauses” in Euro area sovereign bonds, which allow the restructuring of bond contracts with the agreement of a qualified majority of bond holders. As in the case of the BRRD “bail-in” rules, these were intended to provide the legal underpinnings for private sector burden sharing, should this become necessary, and thereby strengthen market discipline.

The present paper focuses on the attempt to create a regime for managing sovereign debt crises in the Euro area that allows private sector burden sharing if necessary. It serves three purposes. First, it explains why the status quo does not live up to its aims – namely, to provide a reliable alternative to ESM bailouts when countries are deeply insolvent and thus to strengthen market discipline. Second, it summarizes policy proposals that attempt to address this, centred on legal changes but also (and particularly) on stronger commitment devices to prevent inappropriate ESM bailouts. It argues that these commitment devices raise problems that make them inherently difficult to adopt – and that they are hence unlikely to ever be adopted. Third, it proposes an alternative approach that would allow orderly sovereign debt restructuring in the Euro area.

The main idea underlying the proposal is to focus less on rules and commitment devices and instead undertake reforms that would reduce the adverse economic spillovers of sovereign debt restructuring. In addition, the Euro area will need legal changes to address the creditor collective action problem as well as policies to manage the uncertainty about whether debt restructurings are ultimately required or not. The combination of all three aspects would, finally, create a feasible regime for managing deep debt crises in the Euro area.

The Euro area’s current “debt restructuring regime”

Sovereign debt restructurings are often “too little, too late” (IMF 2013, CIEPR 2013). An example for this is the famous March 2012 Greek debt restructuring. It came too late: implementing it in mid-2011 for example, when the extent of Greece’s insolvency was amply clear, would have saved the Greek and/or European taxpayer about €10 billion (Zettelmeyer et al 2013). It was too little: although it led to a transfer of around €100 billion Euros from private creditors to Greece, and notwithstanding significant adjustment and reform efforts in the meantime, it turned out to be insufficient to restore Greece to solvency. As of mid-2017, a

further deep restructuring looks inevitable, this time at the expense of official creditors (Zettelmeyer et al 2017a, b).

There are several reasons for this phenomenon. Some have to do with the legal risks of sovereign debt restructurings. A specific risk is the fact that a restructuring agreed with most creditors may be challenged by “holdouts” refusing to take part in the restructuring. The sovereign is then faced with the difficult choice. It can refuse to pay the holdouts, which may lead to protracted legal battles and restrict its ability to issue debt internationally, and possibly even to service its existing debts. Or it can repay them, which reduces debt relief (Greece chose the latter).

The option of “holding out” also gives some creditors additional bargaining power, which can make it tougher to achieve a deal restoring debt sustainability. In emerging market countries, sovereigns and their lawyers have historically developed techniques to deal with holdouts (Bi et al 2016), but these techniques often require aggressive actions which governments that want to maintain good reputations may find unpalatable, and that may make the country vulnerable to challenge (as in the case of Argentina’s court saga, which began in 2005 and was resolved only in 2016).

Beyond the legal risks, the reluctance of governments to face debt crises by restructuring their debts likely reflects much deeper political and economic problems. Some have to do with the distributional consequences of sovereign defaults on the one hand and attempts to avert defaults through fiscal adjustment on the other. Defaults may hurt the elites more than the average taxpayer, while the opposite tends to be true for attempts to restore fiscal solvency through protracted periods of austerity. For example, there is some evidence that sovereign defaults sharply increase the likelihood of political turnover (i.e. a drop in support for the ruling party or coalition, or a change in government).³ Even when domestic redistribution is not an issue, policy makers will tend to resist defaults because of their economic costs for the country as a whole – particularly their impact on the domestic financial sector, which is often highly exposed through sovereign bonds held in banks and pension funds.

Importantly, high ex-post costs of default – whether from the perspective of a political incumbent, or the country as a whole – can give rise to a time consistency problem. Before a debt crisis develops, a tough approach to managing debt crises, which requires creditors to bear some losses, could be optimal because of its disciplining implications. Private creditors

³ See Borensztein and Panizza (2009), Livshits et al (2014).

that bear the risks of reckless borrowing and lending are less likely to extend credits to countries that may not be able to repay. This leads to less accumulation of potential bad debts in the financial system, and earlier corrective action (potentially with the support of international crisis lenders such as the IMF or ESM).

Once a crisis erupts, however, these costs are “sunk”. What matters at that point is to minimize the cost of the crisis – for the real economy, for the incumbent politicians, and for other countries whose voices may matter. At that point, a bailout may seem (and often be, even in a broad welfare sense) the cost-minimizing way out. As a result, private sector burden-sharing will not happen. Anticipating this, private creditors will offer cheap and plentiful access to debt finance, and countries may overborrow – to the detriment of the domestic taxpayer whose obligation it is to repay these debts, the international taxpayer who bears the risks of a bailout, or indeed both.

For these reasons, proposals for creating an international financial architecture that involves credible private sector burden sharing have typically called for reform in two areas. First, legal frameworks – by statute or embedded in bond contracts - that would address the holdout problem. Second, policies or rules that constrain international crisis lending unless this is either very likely to restore debt sustainability by itself or is accompanied by a debt restructuring.

The current sovereign debt crisis management framework in the Euro area, enshrined in the February 2012 ESM treaty, can be interpreted as one such attempt:

1. To address the holdout problem, the treaty committed the Euro area countries to include a standardized collective action clause (the “Euro-CAC”, see Gelpern and Gulati 2013) in all bond issues after 2012. This clause permits a restructuring of the payment terms of the bond with the agreement of a qualified majority of creditors.⁴
2. As a precondition for crisis lending, the ESM treaty requires the European Commission to assess whether public debt is sustainable, “wherever appropriate and possible ... together with the IMF.” Furthermore, the treaty preamble states that “a euro area Member State requesting financial assistance from the ESM is expected to address, wherever possible, a similar request to the IMF”.⁵ Hence, co-lending with the IMF –

⁴ The required threshold is usually agreement of vote-casting creditors holding at least 75% of the face value of each individual bond. This threshold declines to 66.67 percent if the debt restructuring is supported by creditors holding at least 75% of the face value of *all* bonds.

⁵ The quotes are from the ESM treaty, see https://www.esm.europa.eu/sites/default/files/20150203_-_esm_treaty_-_en.pdf, Article 12.3 and Treaty Preamble 8.

which in turn is assumed to have policies committing it not to bail out countries with unsustainable debts – in effect plays the role of a commitment device.

However, as the experience since 2012 has shown, neither of these devices is likely to be very effective.

- While “Euro-CACs” have never been tested, the experience with very similar (English law) CACs in the 2012 Greek restructuring has not been encouraging. Among 35 English law bonds, only 17 were restructured. In the remaining 18 cases, holdouts succeeded in blocking the exchange. These holdouts have since been repaid in full – setting a precedent that holdout strategies can work in Europe, and hence increasing the likelihood that such strategies would again be tried in any future Euro area restructuring.⁶
- The use of the IMF as an “anchor” has by now failed twice in Europe – arguably, in every instance in which the anchor became binding. In 2010, the IMF’s “exceptional access policy” prohibited large-scale crisis lending to countries unless their debt were sustainable with high probability - a condition that Greece did not meet. To enable co-lending with the Europeans, the IMF changed its policy to carve out an exception. A few years later, when the IMF signalled, in June 2015, that it considered Greece’s debt unsustainable to the point that it would not participate in a new program, the ESM went ahead without IMF participation.

This is not to argue that the expectation that the IMF will participate in ESM-financed programs is entirely without bite. For example, the ongoing ESM program with Greece has recently been renegotiated in order to allow IMF participation in principle. However, the IMF’s assessment that Greece’s debt was (and continues to be) unsustainable has not prevented the Euro area countries from lending to Greece. This shows that commitment devices of this nature risk being circumvented when the political or economic pressures to bail out become too large.

⁶ As a last resort, the option of using the local legislature to implement a class voting mechanism across the entire stock of locally issued sovereign bonds remains on the table (see Buchheit and Gulati, this volume). This option was pivotal to the success of the 2012 Greek bond exchange (Zettelmeyer et al 2013). However, substantial stocks of government debt in Italy, Portugal, Spain, Greece and other Euro countries were issued under foreign law, and most of these countries continue to issue under foreign law. Furthermore, the fact that local law bonds issued after 2012 now carry CACs make it more likely that restructurings based on acts of the local legislature will be subject to legal challenge.

Proposals for a more ambitious sovereign debt restructuring regime⁷

Not surprisingly, calls for a more ambitious European debt restructuring regime have focused on the two most apparent weaknesses of the present regime: its likely inability to effectively deal with holdouts, and its lack of a hard device committing the ESM not to bail out countries with unsustainable debts. Proposals to address these weaknesses can be summarized as follows.

Dealing with holdouts. Some authors argue for a full-fledged, treaty-based legal procedure resembling corporate bankruptcy, involving a sovereign bankruptcy court (for example, a chamber of the European Court of Justice). Decisions of that court would be binding for all creditors (Gianviti et al. 2010, Paulus and Tirado 2013). A little less ambitiously, Lee Buchheit, Mitu Gulati and Ignacio Tirado (2013) — and following them, CIEPR (2013); Clemens Fuest, Friedrich Heinemann and Christoph Schröder (2014) and Giancarlo Corsetti et al. (2015) — proposed a change to the ESM treaty that would extend immunity from judicial process to sovereigns whose debt restructuring has been negotiated in the context of an ESM program and/or agreed by a (super)majority of creditors. Finally, several authors argue for CACs that allow “one-limb aggregation” of bondholders, an approach proposed by the International Capital Markets Association in 2014 and advocated by the IMF for some time (Gelpern, 2014; IMF 2003, 2014). CACs of this type would no longer require the consent of a qualified majority of the holders of each bond that is to be restructured, replacing this with the consent of a qualified majority of *all* bondholders (Gelpern 2014, IMF 2014). This would make it much harder for holdouts to acquire a stake that could block a restructuring.

Commitment devices limiting the use of the ESM could take the form of time or volume limits to ESM support (for example, a maximum of three years, or a maximum of 60 percent of GDP, see EEAG 2011, Fuest, Heinemann and Schröder 2014 and Gros and Mayer 2010). Alternatively, ESM support (or at least large-scale ESM support, or ESM support without an accompanying maturity extension) could incorporate explicit *ex ante* conditionality, that is, be open only to countries that have good policy track records, and/or remain below certain debt levels (Weder di Mauro and Zettelmeyer 2010, CIEPR 2013, Corsetti et al. 2015; Andritzky et al. 2016). Risks to official creditor and the taxpayers that back them can also be mitigated by bond clauses requiring a maturity extension if a country becomes a recipient of an ESM loan, exceeds a certain level of debt to GDP, or a combination of both (Weber, Ulbrich and Wendorff 2011; Fuest, Heinemann and Schröder 2015). The same idea could also be implemented via a change

⁷ This subsection draws in part on Weder di Mauro and Zettelmeyer (2017).

of the ESM treaty that requires such maturity extensions under some conditions (Corsetti et al. 2015, 2016, Andritzky et al. 2016).

With respect to the first bucket, the controversial question is not whether the legal framework ought to be extended to better address the holdout problem – the IMF, industry associations such as ICMA and all authors in this literature agree that it should – but how to go about this. In this respect, there are some straightforward trade-offs between the main proposals. Replacing “Euro-CACs” by ICMA-standard CACs in Euro area sovereign debt would make it less likely that holders of these bonds could block a restructuring, and subsequently protect the assets of the restructuring sovereign from holdout claims anywhere in the world. But they would help only with respect to claims of the holders of the (new) bonds that carry these clauses – not with the entire existing stock. Moreover, change is likely to be resisted by debt managers who have only recently, and reluctantly, signed up to Euro-CACs (Gelpern et al 2017).

In contrast, the Buchheit et al (2013) proposal would protect sovereigns from claims by *any* holdout – regardless of the vintage and governing law of the bond contract – but only inside the territory of the signatories of the ESM treaty (the Euro area). Finally, more elaborate bankruptcy-tribunal type proposals would shield assets outside as well as inside the Euro area, and do so with respect to claims based both on new and old vintages -- but only for bonds issued under the governing law of a Euro area country. Beyond this, the impact of such a more elaborate procedure would depend on exactly the role of the tribunal is specified – for example, whether it is limited to certifying that certain procedural criteria have been met, or whether it is asked to take a view on the substantive merits of a debt restructuring plan.

Proposals in the second bucket – hard criteria that would prevent the ESM from extending assistance in high-debt cases, or would require some form of restructuring as a condition – are much more controversial. There are two main reasons for this.

First, while hard commitment devices obviously reduce the risk that ESM will lend to unsustainable debt cases without an appropriate debt restructuring (“Type I error”), they will create a new risk: namely, to deny financing to countries that could have restored their solvency, without a debt restructuring, by undertaking adjustment and reform inside and ESM program (“Type II”). Proposals differ in their efficiency with which they trade off the two types of errors: the worst could create a large Type II error without reducing the Type I error very much, the best do a lot to reduce the Type I error and keep the Type II error manageable. But a Type II error always exists.

Second, introducing hard commitment devices at times when debt is already very high may well be counterproductive. Such times are “ex ante” in the sense that they precede a potential new crisis, but “ex post” in the sense that most of the macroeconomic and fiscal management

decisions that determine crisis risks have already been taken. As a result, the beneficial effect of a tough commitment device via better policies is small, and likely to be swamped by the adverse direct effects, on country risk and yields, of curtailing the ESM's ability to help a country that suffers a loss of confidence. Indeed, a change in official policy leading to expectations of greater private sector burden sharing may itself lead to a loss in confidence, with catastrophic effects in vulnerable countries. Europe got a taste of this when the results of the "Deauville beach walk" of German Chancellor Angela Merkel and French President Nicolas Sarkozy – a compromise at which the French and German leaders agreed both to the creation of the ESM and the general principle of private sector involvement – hit bond markets in October 2010, precipitating the Irish crisis.⁸

Some of the authors proposing hard commitment devices recognize these drawbacks and offer solutions. For example, the commitment could take the form of a rule or policy that becomes effective only after a long transition period, giving countries time to adjust. But transition plans of this sort create their own problems. If the plan creates too much discipline in the short run, it will precipitate a crisis. But if it creates too little, the country may not use the transition period to undertake the needed adjustment. In that case, the end of the supposed transition period will likely precipitate the crisis that the transition period intended to avoid, which imparts a strong incentive to postpone it. Without a credible deadline, the requisite adjustment may never happen.

The bottom line is that ensuring both the safety and the effectiveness of a transition plans requires getting the balance between discipline and (continuing) insurance just right. Although some plans are better than others in striking this balance (see the survey by Weder di Mauro and Zettelmeyer, 2017) this is not very reassuring.

Third, and beyond the issue of managing the transition: commitment devices only work if they are credible. In a crisis, however, the pressures to bail out a country even when this violates a supposedly "hard" device may be enormous. As argued above, one of the motivations for the ongoing search for "hard" commitment devices is the fact that the existing device – co-lending with the IMF – proved to be no match for the pressures that Greece and the Euro area experienced in both 2010 and 2015. But who is to say that the devices proposed by the literature – particularly those based on statute – would do much better? A statute can always

⁸ Specifically, Merkel and Sarkozy agreed to establish "a permanent and robust mechanism to ensure orderly crisis management in the future, which includes the necessary arrangements for adequate private sector involvement." See Brunnermeier et al (2016) and Weder di Mauro and Zettelmeyer (2017) for details.

be changed. And even devices hard-wired into bond contracts could be overruled by new statutes for bonds issued under local law, which are in the majority in the Euro area.

For these reasons, introducing hard commitment devices preventing bailouts of overindebted countries is risky, likely to face heavy opposition, and may ultimately not solve the underlying problem. A better approach may be to tackle the underlying problem that drives the demand for commitment devices in the first place: the exorbitant economic costs of debt restructurings in the Euro area. Reducing that problem may not fully eliminate the need for commitment devices. But it will greatly increase the chances that commitment devices – including devices that are not entirely “hard” in the sense that they allow some room for discretion – succeed in delivering effective commitment.

An example for such a commitment device is the IMF’s Exceptional Access Policy, which prohibits large-scale crisis lending to countries whose debts are not sustainable with high probability unless specific conditions are met, such as a “reprofiling” (maturity extension) of existing debts to the private sector (IMF 2016a, b; Schadler 2016). Policies of this type, which allow some discretion in deciding what “not sustainable with high probability” means exactly, are typically ineffective when ex post crisis costs are very large, because discretion creates loopholes that can be exploited to get out of the commitment. But exploiting these loopholes is not without (political or reputational) cost. When the ex post economic costs of following the spirit of the policy appears to be manageable, even commitment devices that allow some discretion could have meaningful ex ante effects.

At the same time, allowing room for discretion will greatly reduce the chance of committing a Type II error -- forcing a restructuring when none is needed – because it permits the consideration of all relevant information at the time when the decision has to be made. This is not the case with hard devices, in which the criteria for allowing crisis lending and the information used to determine if the criteria have been met need to be specified in advance.

Reducing the economic costs of debt restructuring

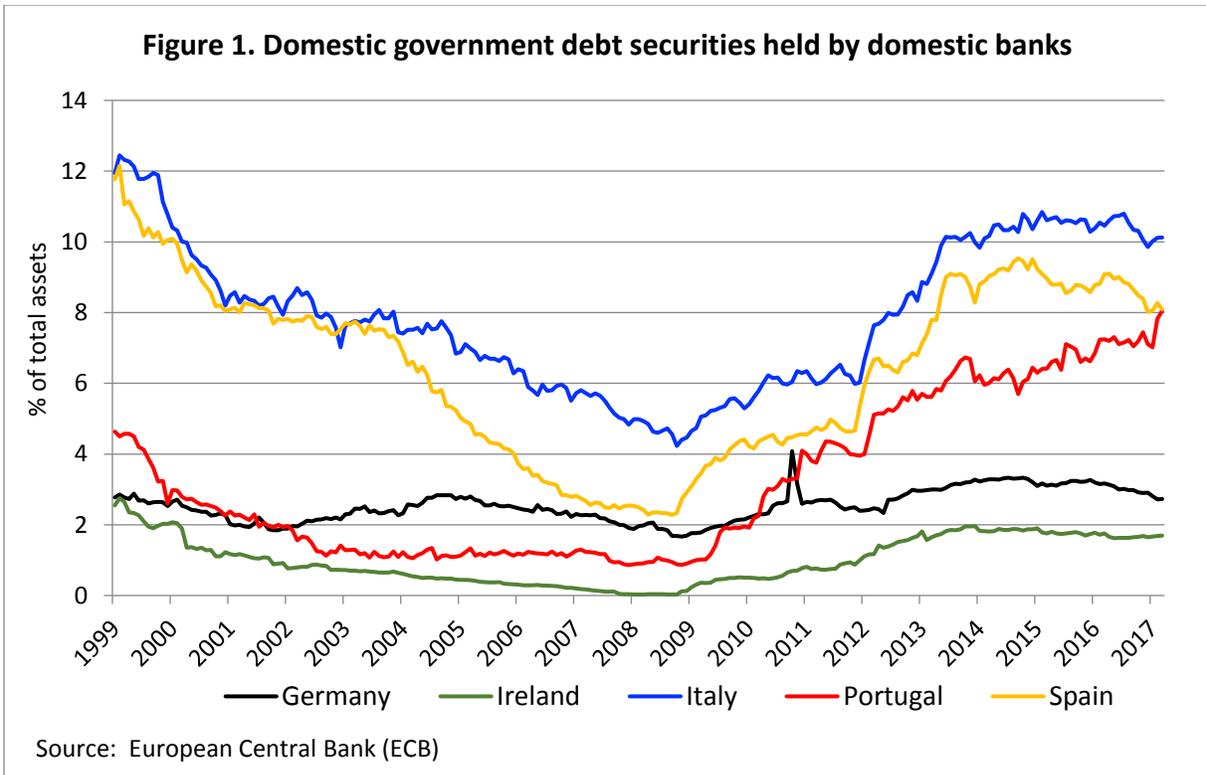
Defaults and debt restructurings have reputational costs, which result in temporarily higher costs of borrowing after sovereigns have restructured their debts (Cruces and Trebesch 2014). For the most part, however, the economic costs of defaults and restructurings are related to the close links between the sovereign and the domestic financial system. The most important direct link is a typically high exposure of banks to their sovereigns, in the form of bank holdings of sovereign debt. This guarantees that any restructuring of debt obligations that strongly reduces the net present value of claims on the sovereign will instantly translate into a solvency problem for the banks holding these claims. Anticipating this, impending sovereign debt troubles can lead to runs on banks and capital flight. The result is a collapse in investment,

which leads to a recession that further weakens government finances. This loop from weak government finances to banking crises and back has been referred to as the “bank-sovereign-doomloop”. It has been a hallmark of the Euro area crisis (Pisani-Ferry, 2014),⁹ but was previously well known from emerging market crises (Sturzenegger and Zettelmeyer 2007, Panizza et al 2009).

In the 2012 Greek restructuring and in many previous debt restructurings in emerging markets, the impact of sovereign debt restructuring on the balance sheet of domestic banks was mitigated ex post by recapitalising domestic banks immediately after the restructuring, in effect recycling a portion of the pool of resources transferred from external creditors to the domestic financial system (Zettelmeyer et al 2013, Sturzenegger and Zettelmeyer 2007). As a result, domestic banks in effect enjoy a partial guarantee on the debt holdings of their own sovereigns: as long as they are systemic and hold a sufficiently large share of sovereign debt, the sovereign will be forced to compensate them for losses that would otherwise trigger a collapse.

Reflecting this, the Euro area crisis triggered a “repatriation” of sovereign debt to the domestic banking systems of countries such as Italy, Portugal and Spain (Battistini et al 2014 and Brutti and Sauré 2016), as illustrated in Figure 1. In these countries, and several others, bond of the home country sovereign are now back to 8-10 percent of total banking assets. This implies that a sovereign debt crisis in these countries, and a debt restructuring if this were to become inevitable, will have a large negative impact on the domestic banking system and consequently on the domestic economy. It also makes debt restructurings increasingly ineffective as a last-resort tool for resolving debt crises, as an increasing share of the transfers from private creditors to the sovereign will have to be used to rescue the domestic banking system.

⁹ In the Euro area crisis, the trigger for the “doomloop” was for the most part a banking crisis, which spilled over to the sovereign due to both recession-induced deficits and the need to recapitalise the banks. The remaining elements of the doomloop operated as described above.



The key to reducing the damage of sovereign debt troubles on the economy – and to making sovereign debt restructurings feasible as a last resort – is hence to reduce the exposures of banks to their own sovereigns. In principle, this could be done through Euro-area level changes in regulation or bank supervision. In practice, however, this is likely to be very difficult and encounter heavy resistance, for much the same reasons why introducing a hard commitment device limiting bailouts proves to be very difficult: at a time of high debt and, in some cases, weak bank balance sheets, forcing banks to shed sovereign exposures could weaken both banks and sovereigns. By forcing banks to sell sovereign debt at a loss and raising the borrowing costs of sovereigns, it could precipitate a new crisis.

Extricating the balance sheets of banks from those of the sovereign hence requires more than just tougher regulation or supervision. To ensure that the “extrication operation” does not kill the patient, two conditions must be met. The first ensures that bank balance sheets are protected, the second, that the average costs of sovereign debt issuance are not affected.

First, banks must be offered an alternative asset that is genuinely safe, in the sense that any restructuring is extremely unlikely – even in a deep debt crisis that results in the restructuring of the debts of one or several Euro area sovereigns. Reflecting this safety, the asset should inherit the zero-risk weight and lack of exposure limit currently bestowed on sovereign debt. A smooth transition from the new to the old regime – that is, one that avoids valuation losses in bank balance sheets – can then be engineered by allowing banks to replace maturing sovereign

debt with the new safe asset. The transition would be complete once the entire sovereign debt stock has been replaced (except for small holdings subject to the new regulatory rules).

Second, the safe asset must be generated in a way that does not lead to sharp drop in net demand for sovereign debt issued at the national level, and hence avoids sudden increases in borrowing costs. This rules out simply assigning safe asset status to sovereign debt issued by highly rated Euro area sovereigns, for example – that is, imposing a capital charge on all but AAA or AA+/Aa1 rated sovereign debt. The latter would lead to a sharp increase in the yield of lower rated government bonds, and a sharp increase in demand for – and (further) decrease in the yield of – highly rated bonds.

There are several approaches to creating a safe asset that could meet these two conditions, which are briefly reviewed below. Whichever is chosen must be capable of producing safe assets in sufficient volumes to replace sovereign holdings currently on bank balance sheets. What does this mean in practice? The answer is given in Table 1, which shows current Euro area-wide as well as national banking system holdings of sovereign debt. Euro area sovereign debt securities holdings range from tiny amounts (0.4% of Estonian GDP, for Estonia) to about 30% of Italian GDP for Italy. Italy also leads the group in terms of debt volumes held on the balance sheets of resident banks (over 23% of Italian GDP). All Euro area banks together hold about 16% worth of Euro area GDP in Euro area debt securities in their balance sheets. If one focuses only on bonds (i.e. excludes treasury bills and other short term government securities) holdings are slightly lower – about 15% of GDP.

For the purposes of creating a safe asset, the implications are as follows:

- If the objective is merely to replace Euro area bank holdings of sovereign debt, this would require safe assets of at least 16% of Euro area GDP.
- If, in addition, the objective is to avoid a brusque change in average national borrowing costs, and construction is found in which the safe asset creates a net demand for (or equivalently reduces the need to issue) national sovereign debt in proportion of national GDPs, a volume of about 30% of GDP is required. This would be enough to replace Italian bond holdings in Euro area bank balance sheets. It would be more than enough to replace the remaining Euro area sovereign bonds, leaving a “surplus” of safe assets, worth about 15% of Euro area GDP -- about €1.6 trillion, slightly higher than the total volume of currently outstanding German government bonds (about €1.5 trillion, according to ECB data), and much higher than German federal tradable bonds (currently about €1.1 trillion, according to the German Finance Agency).

The following section sketches four approaches to creating a “safe asset” that could meet the conditions outlined above.

Table 1. General government debt in the Euro area, by issuer
(end-2016 stocks, in percent of issuer GDP)

	General government debt			Debt securities held by banks of ...		Bonds held by banks of ...	
	total	All debt securities	bonds	Euro area	Issuing country	Euro area	Issuing country
Austria	84.6	70.3	67.2	19.0	9.6	18.9	9.6
Belgium	105.9	86.8	80.0	20.0	10.6	18.8	10.1
Cyprus	107.8	35.2	33.6	15.8	13.6	14.1	12.4
Estonia	9.5	1.1	1.1	0.4	0.6	0.4	0.6
Finland	63.6	49.0	46.3	8.2	2.3	8.1	1.4
France	96.0	81.2	73.7	11.4	7.5	10.4	...
Germany	68.3	49.6	47.3	9.3	7.2	9.0	7.2
Greece	179.0	32.5	26.7	7.1	6.6	3.1	2.9
Ireland	75.4	46.7	45.8	9.7	6.7	9.5	6.7
Italy	132.6	112.0	105.6	30.4	23.1	28.9	22.2
Latvia	40.1	29.4	29.4	6.4	3.9	6.4	3.9
Lithuania	40.2	31.8	31.8	6.5	3.1	6.5	3.1
Luxembourg	20.0	11.5	11.5	4.2	2.1	4.2	2.1
Malta	58.3	54.3	51.8	18.4	17.5	15.8	14.9
Netherlands	62.3	48.9	46.5	9.2	5.9	9.1	5.8
Portugal	130.4	71.9	63.8	25.8	16.5	20.6	11.8
Slovakia	51.9	44.3	43.8	18.0	11.7	17.6	11.5
Slovenia	79.7	67.0	66.3	15.8	12.0	15.1	11.5
Spain	99.4	82.6	75.2	26.4	19.6	24.1	17.5
Euro area	89.2	71.0	66.2	15.8	...	14.8	...

Source: European Central Bank

Note: "Bonds" refer to debt securities with original maturity of more than one year. "Debt securities" refers to all original maturities (i.e. bonds plus short-term bills)

Alternative approaches to creating “safe assets” for the Euro area

Although the conditions outlined above rule out simply assigning the role of safe assets to existing top-rated Euro-denominated sovereign debt, they leave room for creating safe assets purely at the national level. One approach, suggested by Wendorff and Mahle (2015), would be to require all Euro area sovereigns to issue their debts in tranching form: a senior tranche, comprised of up to 30% of GDP, and a junior tranche, comprising the remainder. If every Euro area country can “safely” sustain debts of at least 30% percent of GDP, senior tranches should be rated AAA or AA+/Aa1, regardless of the issuer. Subsequently, either a capital charge or an exposure limit would be imposed on the junior tranches, while senior tranches inherit the

present zero risk weighting and lack of exposure limit of sovereign debt. If the regulatory treatment of the junior tranches is identical across countries – that is, it does not lead to changes in the relative regulatory attractiveness of holding, say, Italian versus German debt – this package of changes should have no impact on the demand for various national sovereign bonds. And so long as the changes are applied only to newly issued debt, they should not trigger valuation losses in banks holding large stocks of national sovereign debt.

An alternative approach would be to create safe assets at the Euro area level. The conceptually (but not necessarily practically or politically) simplest way to do this would be to create a Euro area budget that can issue debt, either as a by-product of Euro-area stabilization policy (see Zettelmeyer 2017a) or as its main purpose, as suggested by Angel Ubide (2015). Such a budget would require an agreement on revenue sources to service the debt issued by the budget and on the use of the funds raised. These could include specific expenditures items (e.g. Euro area wide infrastructure or social spending), and/or the funding of national budgets (Ubide 2015). These expenditures would reduce the national financing needs that must be channeled through the bond markets, offsetting the decline in demand for national bonds when these are replaced by Euro area bonds on bank balance sheets.

An alternative would be to rely on one or several intermediaries that buy national bonds and issue debt securities. In one variant of this approach – the Brunnermeier et al (2011, 2017) “European Safe Bond” (ESBies) proposal – the intermediaries would issue sovereign bond-backed securities in several tranches, the most senior of which – the ESBie – would inherit the current zero capital charge currently enjoyed by national debt. Once the market for ESBies is up and running, changes in the regulatory treatment of sovereign exposures would induce banks to reduce their holdings of national bonds. But so long as the intermediaries buy equivalent amounts of national bonds to produce their securities, the price of national debt should not be affected.

Compare to the previous approach, an advantage of the intermediary-based approach is that it does not require agreement on Euro area-level revenues. Instead, the debt securities issued by the intermediaries would finance the purchases of government bonds, whose interest would provide an income source which is used to pay the interest on the securities issued. ESBies have a corresponding disadvantage, however, namely, that they require a liquid secondary market of sovereign government bonds, since the intermediaries would purchase these bonds in the market. This will set an upper bound on the volume of national bonds that can be purchased by the intermediary, and hence on the volume of ESBies that can be produced. Depending on where that upper bound is set, the approach may or may not be able to produce the requisite volume of safe assets, i.e. 30% of Euro area GDP (see Zettelmeyer, 2017c for details).

Another variant which requires neither revenues nor a liquid secondary market would be to have a public intermediary purchase national bonds at nominal (face) value, up to 30% or GDP for each Euro member state. National fiscal authorities would agree to pay the intermediary its funding costs plus a small fee (this is how the ESM currently operates, except that it generally extends loans rather than buying bonds). Like the ESM, the intermediary would be senior, in the sense that national issuers would be required to meet their debt service obligations to the intermediary in full before servicing their national bonds.¹⁰ As a result, the yields paid by lower-rated national issuers, and hence their *marginal* borrowing costs, would be higher than in the status quo. However, the *average* borrowing cost of lower-rated national debt issuers would not rise, since the higher issue cost of national debt sold into the markets would be offset by the lower cost of selling debt to the intermediary, who would pay all Euro area countries the face value of their issues, regardless of differences in risk.¹¹ And from the point of view of debt sustainability, it is the average borrowing cost that matters.

Unlike early proposals to create a “Eurobond” (e.g. De Grauwe and Moesen 2009) — none of the three proposals to create a common Euro area safe asset would require a joint and several guarantee by Euro area members. “Safety” would instead be created through a combination of diversification (payment obligations spread across many countries whose risks are only partly correlated) and seniority.

In the first (Ubide 2015) and third of the Euro area-level ideas sketched (Monti 2010, Zettelmeyer 2017c), seniority refers to the preferred status of the *institution* the issues the safe asset, namely, either the Euro area budget or a public intermediary. This would be senior in the sense of getting first pick at either the revenues or the debt service promised by member

¹⁰ This is a version of the Monti (2010) “E-Bond” proposal (see also Juncker and Tremonti 2010). It is also closely related to Delpla and von Weizsäcker’s (2010, 2011) “Blue bond” proposal, without some of the institutional features of their proposal, and without requiring a joint and several guarantee.

¹¹ The claim that average borrowing costs would not rise refers to the impact effect of the introduction of a safe asset on the lower rated borrowers (for a discussion of how the average borrowing cost might develop over time, see next section). The intuition is as follows. Compare a situation with identical national debt stocks, growth prospects and risk-free interest rates, before and after the introduction of the safe asset. Assume also that the lending policies of the ESM, which influence the likelihood of a bail-in of privately held bonds in a crisis, are initially unchanged. Hence, the underlying sovereign risk faced by an investor holding sovereign bonds is unchanged. An investor buying the entire securities portfolio after the introduction of the safe asset – i.e. the safe asset plus all national bonds – would hence receive the same interest payments than an investor buying the entire portfolio before the introduction of the safe asset. Now consider the interest cost of *low* risk (AAA-rated) countries. Depending on whether the bond issued by the intermediary is AAA rated or not, this will be identical or possibly higher after the change. Hence, the interest cost of the higher risk country must be equal or possibly lower than before the change.

countries. Residual risk could be eliminated (or at least significantly reduced) by keeping the level of Euro area debt well below the maximum that can be sustained with the available revenues (in case of a Euro area budget) or by capitalizing the intermediary (for the intermediary in the third proposal -- and as was in fact done for the ESM). The initial cost of this capitalization would give rise to a modest redistribution from higher rated borrowers to lower rated borrowers, since shareholders would contribute capital based on the ECB capital key. However, this could be offset by allowing the intermediary to make some bond purchases in secondary markets rather than just at face value. This would generate profits at the expense of the lower-rated borrowers (since bond purchases in the secondary market would increase the extent to which private bondholders are subordinated to the intermediary, and hence raise the yields at which lower-rated borrower can issue debt to private creditors).

In contrast, in the ESBies proposal seniority applies not to the *institution* that issues the safe asset, but instead to the upper tranche of the multi-tranche, asset-backed security that is issued. Unlike the other two ideas, the proposal does not envisage any additional buffer for dealing with residual risk. However, the authors argue that if the junior tranche is thick enough, the combination of pooling and tranching will make the expected losses on the senior tranche negligibly small, while counterparty risk could be dealt with by using a special purpose vehicle to hold the underlying national bonds collateralizing the security.

The four proposals – tranching to create national-level safe assets, and the three variants for creating a Euro area level safe asset – have different pros and cons (see Zettelmeyer 2017c for a more detailed comparison). The main disadvantage of the national-level route is foregoing the risk-reducing benefit of diversification. Furthermore, creating many senior assets at the national level would not lead to one high-volume, homogenous safe asset – something that is sometimes mentioned as an additional objective of Euro area-level proposals, see for example Monti (2010) – but instead fragment the European bond markets even further. The main advantage of the national solution – at least from the perspective of the better rated national issuers – is that the proposal rules out any redistribution and any mutualization of risks.

Such redistribution may or may not occur in the other three proposals. The ESBies proposal rules this out by design (the intermediary pays market prices for national bonds) – provided it works as intended.¹² In the other two plans, some redistribution to the detriment of the better-

¹² Critics have argued that in the event of a new a Euro area debt crisis, the market for ESBies and particularly their junior counterparts, European junior bonds could become illiquid, triggering a bailout by Euro area governments or the ECB. See Academic Advisory Council to the German Federal Ministry of Finance (2017).

rated borrowers is possible, but this will be negligible so long as the volume of debt purchased by the intermediary – or issued by the Euro area budget – is small enough to be rendered “safe” by seniority and diversification alone. Redistribution arises only to the extent that seniority and diversification leave a residual risk that is mutualized (for example, in the third proposal, through the capitalization of the intermediary). Even that very limited mutualization, however, could be neutralized by adapting other design elements.¹³ Another difference is the extent to which the proposal entails a disciplining effect by raising the cost of marginal borrowing for lower-rated borrowers. This is not the case for the ESBies (since they subordinate only the junior tranches of the security backed by national bonds, not the national bonds themselves) but it is the case for the other two proposals.

For these reasons, one would think that the ESBies proposal is the politically most realistic of the three Euro-level proposals: it requires less both of the “North” (redistribution ruled out by design) and the “South” (no disciplining effect) than the other ideas. However, this comes at a cost of a rather elaborate construct, which is harder to understand and perhaps more fragile than variants 1 and 3. This may be one of the reasons why the idea has been met with significant skepticism (see S&P 2017, Academic Advisory Council to the German Federal Ministry of Finance 2017).

Establishing a feasible regime for managing deep debt crises in the Euro area

A feasible regime for reducing the exposures of banks to Euro area sovereigns needs to rest on three pillars:

First, permanently eliminating or significantly reducing the exposures of banks to their own sovereigns. This requires a change in the regulatory treatment of sovereign exposures along with the introduction of a safe asset. For the purposes of the arguments that follow, it is not important which of these four variants discussed above is chosen, so long as it meets the three conditions outlined in the previous section: to produce a safe asset or collection of safe assets (AAA rated or close), to produce it in sufficient volumes (at least 30% of Euro area GDP), and to do this in a way that does not reduce the net demand for national sovereign bonds, so that average (and, for a given debt volume, total) borrowing costs of Euro area members do not rise.

Second, establishing a legal framework to deal with the holdout problem. As discussed above, there are several alternative approaches for achieving this: adopting ICMA model collective

¹³ As already explained, any redistribution from stronger weaker borrowers that might arise in the third proposal can be neutralised by allowing the intermediary to make profits at the expense of the weaker borrowers.

action and *pari passu* clauses into Euro area bond contracts; changing the ESM treaty in a way that makes claims of holdouts effectively unenforceable within the Euro area (Buchheit, Gulati and Tirado, 2013), or a more elaborate sovereign bankruptcy procedure that gives jurisdiction over Euro area sovereign debt disputes to the ECJ or a newly established court.

Third, an ESM lending policy that reduces the chance of bailing out the private creditors of countries whose debts are in fact unsustainable. This could follow the example of the IMF's "exceptional access policy", that is, require a "reprofiling" (maturity extension, at unchanged interest rates) or of privately held debts for the duration of an ESM-financed adjustment program.

To avoid financial instability, the process and sequencing of building these three pillars is essential. The remainder of this section describes a risk-averse approach – that is, an approach that prioritizes short and medium term financial stability in vulnerable countries over the desire to establish a debt restructuring regime as quickly as possible

Permanently reducing the exposures of banks to their own sovereigns. This would begin with the creation of the institutions and/or legal frameworks underpinning the safe asset(s), following any of the four approaches outlined in the previous section. The next step would be to obtain a credit rating for and issue the safe asset(s) in modest amounts. To spur initial demand for the asset, a favorable treatment by regulation as well as the ECB may be needed (without changing the regulatory treatment of sovereign exposures at this stage). Specifically, the safe asset should receive the same regulatory treatment as is presently the case for sovereign debt, the ECB should accept the safe asset as collateral in monetary policy operations, and include it in open market and quantitative easing operations.

With the infrastructure for issuing the safe asset(s) up and running and successful initial issues, the next steps would consist in the gradual replacement of sovereign bonds in bank balance sheets:

- Euro area bank holdings of *newly issued* sovereign debt would become subject to a capital charge (or equivalent regulatory or supervisory disincentive). The capital charge would not apply to (1) previously issued sovereign debt; (2) the safe asset. Hence, as national bond holdings of Euro area banks mature, Banks will have an incentive to replace these holding by Euro area safe assets rather than freshly issued national bond holdings.
- Annual issuance of safe assets would subsequently to be calibrated to the volume of maturing Italian sovereign bonds in Euro area bank balance sheets. For example, if 5 percent of Italian GDP worth of Italian bonds mature in a given year, the intermediary (or Euro area budget) would produce safe assets worth 5 percent of Euro area GDP.

Because these safe assets would absorb Euro area bond (fund Euro area sovereigns) in proportion of Euro area GDPs, the demand for Italian bonds that would ordinarily arise from the desire of Euro area banks to roll over their maturing bonds would be exactly matched by demand (or funding) arising from the creation of safe assets. As a result, Italian bond yields would remain stable.¹⁴

- This transition phase would continue until all national sovereign bonds owned by Euro area banks have matured and been replaced by the Euro area safe asset.

Changing the legal framework and modifying ESM lending policies. As argued in the previous section, the synchronized introduction of a safe asset and change in the regulatory treatment of sovereign exposures should not raise the *average* cost of issuing sovereign debt of the lower-rated countries on impact, because relevant fundamentals (debt levels and total demand for national debt) are unchanged. Over time, the average cost should fall as fundamentals improve (via fiscal adjustment induced by the higher marginal cost of national borrowing, and because the “doom loop” is gradually eliminated).

This argument presumes, however, that there is no change in official policies that might affect the propensity for private bond-holders to be bailed in in a deep debt crisis. But one of the aims of ending the doom loop is in fact to make bail-ins more feasible when they are appropriate. Hence, any such change in policy should not become effective until the “doom loop” has been eliminated. Such a delay would also give high-debt countries a tranquil period to reduce their debts.

In defining the time period before the policy change becomes effective, it is important to avoid the mistake of the October 2010 Merkel-Sarkozy announcement at Deauville, which led to market panic. In that case, a policy change with respect to private sector involvement was announced for a future date, apparently overlooking the fact that this would immediately impact the yields of medium and longer-dated bonds through the usual expectations channel. To forestall this type of reaction, all relevant policy changes – both to the legal framework and ESM policy changes – should apply only to *future bond vintages*. Specifically, they should apply to any bonds issued *after* bank holdings of national sovereign debts have been reduced to a low level, using the gradual replacement process described above. Hence, not only would all

¹⁴ Since issuance of the safe asset is calibrated to keep Italian bond yields stable, the introduction of the safe asset would temporarily create net excess demand for the remaining bonds, as demand/funding via the safe asset would exceed the rollover needs of banks. This could temporarily depress the bond yields of these bonds, providing a temporary windfall to most Euro area issuers.

outstanding bonds be “grandfathered” with respect to the policy changes, but bonds within a certain time window after the announcement would also be grandfathered.

Transition to the new regime would hence take time – perhaps up to 10 years. Importantly, however, it would not suffer from the time consistency problems associated with transition to a sovereign debt restructuring regime as discussed in a previous section. Unlike these transition periods, the credibility of making the desired policy change at the end of the period does not depend on fiscal adjustment that is unlikely to happen unless the deadline was credible in the first place. First, in the approach just described, the risks of making the policy change fall during the transition period, even without any fiscal adjustment, because the impact of adverse debt market reactions on the banking system should progressively decline. Second, the transition period does in fact create incentives to improve fiscal fundamentals, but for reasons that have nothing to do with the deadline set for the end of the period: namely, the higher marginal cost of issuing national debt after the transition period has started. This is a consequence of the subordination of national debt issues by newly issued safe assets since the start of the transition period; not a result of policy changes expected at the end of that period.

Conclusion

This paper set out to explain what motivated the present Euro area regime for managing deep debt crises, why it is unsatisfactory, why reforming it is so difficult, and how a reform might nonetheless succeed. Its main findings can be summarised as follows.

The present Euro area regime for managing debt crises was intended as a compromise between establishing conditionality-based Euro area financial safety net – the ESM, operating through a combination of large-scale financial support and recipient country adjustment – and a framework for burden sharing with private creditors. The latter consists of collective action clauses that are being incorporated into all Euro area bond contracts since 2013, and a strong expectation that the IMF, whose policies prohibit lending to countries with unsustainable debt, would co-lend with the ESM. The philosophy behind this compromise is right. While the restructuring of sovereign debt can be costly to both debtors and creditors, maintaining the possibility of such restructuring is critical both to give incentives to governments not to overborrow and to allow deep crises to be resolved without protracted – and potentially self-defeating – austerity.

In practice, however, the private sector burden sharing leg of the current Euro area compromise does not work. This is partly for technical reasons (the “Euro-CACs” embodied in Euro area bond contracts are an inadequate tool for dealing with the so-called holdout problem). The more fundamental reason, however, is that calling for co-lending with the IMF is no match, as a commitment device to prevent inappropriate bailouts, for the economic and

political costs of debt restructurings. These will make bailouts look attractive even in a deep debt crisis – notwithstanding the risks that these bailouts may not be repaid, or may only be repaid at prohibitive cost to the domestic taxpayer. Recognising this fact, several recent policy proposals have called for tougher commitment devices – for example, imposing hard limits on how often the ESM can lend, in what amounts it can lend, or in what circumstances it can lend.

This paper argued that while the aim of these proposals is sensible – safeguarding taxpayer money and improving incentives – relying exclusively or even mainly on hard commitment devices to achieve this aim is wrong, for three reasons. First, introducing such devices at a time when debts are already high can give rise to a crisis, while committing to delayed introduction may itself not be credible. Second, hard commitment devices need to be simple to be hard. They could therefore give rise to large errors: forcing countries into a restructuring when this is not needed. Third, and most importantly, even supposedly hard devices may not be credible when the economic costs of debt restructurings are very high.

The key to improving the management of deep debt crisis in the Euro area is hence to tackle the problem that creates a need for commitment devices in the first place: the large economic costs of debt restructurings. The key to that, in turn, is to eliminate sovereign debt from bank balance sheets, because these constitute the critical link between sovereign debt restructuring, the financial system, and the real economy. Achieving that in practice, however, turns out to be tricky – for somewhat similar reasons why the hardening of commitment devices is tricky. In a situation of high sovereign debt and weak balance sheets, simply forbidding or penalizing sovereign exposures of banks could trigger a crisis.

For this reason, any serious attempt to strengthen the prospect for private sector burdensharing in the Euro area must go along with a structure that provides insurance against the potentially disruptive consequences of such a reform. In practice, this means that regulation that penalises the sovereign exposures of banks must be synchronised with the creation of a safe asset (or many safe assets) which would replace sovereign debt on bank balance sheets. Four options for creating such a safe asset were discussed – none of them requiring joint and several guarantees – with different pros and cons. For the purposes of this paper, it is not important which option is chosen, but only that the safe asset meets three conditions: that it is genuinely safe, does not lead to an abrupt reduction in the demand for national bonds, and can be produced in sufficient quantities.

Once the legal and institutional infrastructure for creating the safe asset is established, issuance could be tested in smaller amounts, followed by the gradual replacement of sovereign bonds on bank balance sheets as these mature. This would be incentivised by changing the regulatory treatment of sovereign exposures for new issues, while allowing safe assets to inherit the current regulatory treatment. Existing sovereign bonds in bank balance sheets would be

“grandfathered” in terms of regulatory treatment, until they mature. This approach avoids both a sudden weakening of bank balance sheets and a shock to sovereign bond yields. After this process is complete, changes to the legal framework and ESM policies could become effective which make it more likely that debt restructurings would occur when appropriate and that potential holdout creditor would have to accept the restructuring terms agreed with a supermajority of creditors.

To summarise, moving towards a better regime for managing deep debt crisis in the Euro area – and providing better incentives to avoid them – requires a reduction in the economic costs of debt restructuring, legal tools for dealing with holdouts, and ESM lending policies that prevent the bailout of countries with likely unsustainable debts, unless there is at least a maturity extension of privately held bonds and loans. The first of these steps is important not just in itself, but because ESM policies would no longer need to be designed to achieve the hardest possible commitment effect. With less pressure to circumvent the intention of the policy, there would be more room for discretion and pragmatism. This should in turn reduce the chances that these policies have unintended costs – and hence increase the chances that they will in fact be adopted.

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