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A Mechanism to Regulate Sovereign Debt Restructuring in the Euro Area

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A MECHANISM TO REGULATE SOVEREIGN DEBT RESTRUCTURING IN THE EURO AREA

To make the no-bailout clause credible and enhance the effectiveness of crisis assistance, a consistent institutional and legal framework is needed to ensure that private creditors contribute to crisis resolution. Getting activated as part of ESM crisis assistance, we propose a two-stage mechanism that allows to postpone the fateful distinction between liquidity and solvency crises: At the onset of a ESM programme, the framework demands an immediate maturity extension if the debt burden is high, followed by deeper debt restructuring if post-crises debt proves unsustainable. The mechanism is easily implemented by amending ESM guidelines and compelling countries to issue debt with Creditor Participation Clauses (CPCs). As debt is rolled over, the mechanism gradually phases in, leaving countries time to reduce debt. Given that private sector involvement reduces financing needs, the ESM could provide longer programmes and more time for reforms.

I. INTRODUCTION

1. The recent reforms of the euro area framework build on the premise that **national governments remain responsible for fiscal policy**. To this end, the Stability and Growth Pact (SGP) was reformed and additional fiscal rules were introduced. The European Semester and national fiscal councils were established. Despite these improvements, little was achieved to enact debt-reducing fiscal policies in countries with large public debt burdens. Enforcement powers of the European institutions remain limited. Therefore, future sovereign debt crises cannot be excluded.
2. With the creation of the European Stability Mechanism (ESM), an important element of a **crisis mechanism** was implemented. However, the automatic repayment of public debts falling due draws heavily on the limited financing envelope available and can raise concerns in cases of severe public expenditure cuts. A maturity extension of public debt held by private creditors when exceeding certain thresholds can therefore reduce the financing needs. In turn, this could enable to finance **macroeconomic adjustment programmes with longer durations**, leaving more time for reforms.
3. It is also important to prevent the ESM from incurring default risk by lending to already overindebted countries. The ESM limits the risk of contagion which increases the credibility of the no-bailout clause. However, government creditors may undervalue risks due to the **availability of crisis assistance**, which is detrimental to the markets' disciplining function. Hence, the ESM will not bring about complete market discipline unless ESM support is conditional on ensuring

sustainable public debt, if needed by initiating a deeper debt restructuring including debt reductions.

4. A restructuring framework which credibly stipulates a creditor bail-in would not only help with respect to **burden sharing** (similar to the bail-in rules for the banking sector), but also bolster **crisis prevention**. A mechanism to regulate sovereign debt restructuring provides creditors incentives to assess crisis risks as accurately as possible and factor them in using risk premiums for government bonds and loans. This should result in ex ante disciplining of government budgetary policy. However, by creating a way to bail in creditors, a restructuring mechanism could also incentivise debtors to amass excessive debt. A restructuring therefore has to be accompanied by a **macroeconomic adjustment programme** that corrects these negative incentives as policymakers partially pass their sovereignty over economic policy to the European Commission.
5. The German Council of Economic Experts (GCEE 2015) argues for **regulating sovereign insolvency** in close connection with the ESM helping the market to adequately price sovereign bonds and, thus, disciplining government budgetary policy. The current version of the ESM Treaty already mentions private creditor participation. However, this is limited to the mandatory introduction of collective action clauses (CACs) in government bond contracts which are deemed insufficient to prevent holdouts (Große Steffen and Schumacher 2014, Corsetti et al. 2015). This paper outlines a set of **feasible reforms** that form a comprehensive framework for orderly sovereign debt restructuring in the euro area, and analyses the transition into such new regime. One of the advantages of this proposal is that its introduction only requires an amendment of ESM guidelines and the introduction of Creditor Participation Clauses (CPCs), in other words CACs with single limb voting very similar to the model clause already proposed by the International Capital Market Association (ICMA).

II. THE CASE FOR REGULATING SOVEREIGN DEBT RESTRUCTURING

6. The Treaty on the Functioning of the European Union (TFEU) aims at preventing taxpayers of EU member states from assuming liability for the excessive debt of a fellow member. This principle is expressed by way of the **ban on monetary government financing** and the **no-bailout clause**. In a crisis, the ESM can provide funding to reduce crisis effects through bridge financing and prevent contagion. Yet, to remain consistent with above principles, the ESM can only be allowed to lend to solvent governments and must be protected from losses. Hence, a mechanism needs to overcome a deadlock situation where a country is in need of assistance but the ESM is barred from providing support.
7. Strengthening market discipline, a clear framework for sovereign debt restructuring can prevent excessive market movements. Such mechanism for countries

anchors the expectations of market participants and thus reduces the risk of destabilizing market volatility caused by uncertainty. It also ensures that the restructuring process runs **more orderly and rule-based**. This in turn reduces the risk of contagion and thus strengthens the no-bailout clause. The mechanism would therefore be an improvement over past instances of sovereign debt restructuring in the euro area, which pursued very different objectives and used very different approaches. [↗ BOX 1](#)

8. At the onset of crises, it is hard to distinguish between a pure **funding crisis and a solvency crisis**. While the latter requires a reduction of the debt burden to sustainable levels, the former can likely be overcome through maturity extensions and interim funding, such as that provided by the ESM. In close resemblance to the **IMF's new lending framework**, a framework to restructure sovereign debt in the euro area would provide for maturity extensions, appropriate for both funding and solvency crises, as well as deeper restructuring to overcome solvency crises. However, as opposed to the IMF, our proposal puts these two possible debt operations in sequence, as the liquidity need is eminent at the onset of the crisis while the solvency cannot be reliably assessed until later.
9. The benefits of **maturity extension** – sometimes also referred to as reprofiling or standstill – at the onset of a crisis include:
 - **Lower volume of crisis funding.** Extending the maturity of debt due reduces the liquidity need for principal repayments. This, in turn, reduces the draw on the backstop facility and the joint liability from ESM crisis lending. [↗ BOX 2](#)
 - **Reduction of subordination.** Maturity extensions maintain creditors' exposure, which can later become subject to further debt operations. In contrast, replacing these exposures with ESM funds, which enjoys preferred creditor status, would imply a subordination to the detriment of remaining creditors and could thus trigger adverse financial market reactions.
 - **Wider burden sharing.** By maintaining creditors' exposures and avoiding subordination, the burden of the crisis is shouldered by a wider set of creditors. This ensures not only a more equal treatment among creditors, it may also reduce the burden on other stakeholders to the extent that it facilitates a more gradual fiscal adjustment, as [↗ BOX 2](#) exemplifies.
 - **Adjustment time.** Maturity extensions are viewed as less disruptive than debt reduction, therefore reducing the risk of contagion. Creditors are also given more time to create buffers before an eventual debt reduction is implemented.

[↗ BOX 1](#)

Sovereign Bond Restructurings in Greece and Cyprus

A restructuring in **Greece** was first discussed by the government in June 2011. One month later, creditors floated a concrete proposal. In October, a nominal haircut was first proposed at the euro summit. Negotiations lasted until February 2012, and the restructuring was completed in April.

The operation became one of the biggest debt restructurings in history. It achieved an overall debt relief of more than 50 % of GDP. [↗ TABLE 1](#) The offer consisted of new bonds with longer maturities and cash in the form of short-run EFSF-bonds. The deal was implemented by retrofitting bonds under Greek law with CACs allowing for aggregation. Yet, debt sustainability remains doubtful given a debt ratio of almost 180 % of GDP post-restructuring. Furthermore, the large cash component and other debt service still resulted in a costly transformation of private into official debt. Official debt was later also restructured by extending maturities and reducing as well as capitalizing interest.

Compared to Greece, the debt operation in **Cyprus** was rather minor, affecting domestic bonds with about €1.5 bn in face value maturing before 2016. After an announcement in May 2013, the offer for maturity extensions of 5 to 10 years without nominal haircut was published in June. The transaction was completed in July 2013.

TABLE 1

Comparison of debt restructurings in Greece and Cyprus

	Greece – March/April 2012	Cyprus – July 2013
Volume	€199.2 bn. Excluded: Bonds held by ECB (€42.7 bn), national central banks of the euro area (€13.5 bn) and EIB (€0.3 bn), bonds under foreign law (€6.4 bn).	€1.5 bn of domestic bonds maturing before 2016, with one large issue initially maturing in July 2013 comprising 2/3 of total.
Instruments	Exchange package: <ul style="list-style-type: none"> - 20 new bonds (maturities between 2023 and 2042, coupons between 2.3 and 4 %) - Cash (15 % of face value) - GDP warrant. 	One new bond for each outstanding one. Only maturity extension (5 to 10 years), no change in coupon.
Haircut	Nominal haircut of 53.5 %, reduction in net present value of 59 to 65 % (Zettelmeyer et al., 2013).	No nominal haircut, reduction in net present value of 36% (Asonuma and Papaioannou, 2015).
Legal implementation	Bonds under Greek law: <ul style="list-style-type: none"> - Retroactive introduction of CACs - Aggregation, 66.6 % majority required. Bonds under foreign law: <ul style="list-style-type: none"> - CACs mostly included - Separate voting for each bond - 75 % majority required. 	Voluntary exchange, however, high political and regulatory pressure on domestic banks and institutional investors.
Holdouts	€6.4 bn, paid in full.	€0.5 bn, paid in full.
Compensation for banks	IMF estimate: €22 bn losses for Greek banks. €25 bn of EFSF-loans for domestic bank restructuring.	No direct compensation. However, separate initiative to recapitalise banks in 2013.
Effects on public debt sustainability	High haircut and backloaded maturity profile lessened debt burden, although debt ratio remains very high. Estimated debt relief of 50 to 55 % of GDP (Zettelmeyer et al., 2013).	Small effect on debt sustainability, debt relief only 1 - 2 % of GDP.

Source: Authors based on Trebesch (2015)

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10. The benefits of **deeper restructuring** – often also referred to as principal haircut – at the end of the maturity extension include:
 - **Resolve debt overhang.** Krugman (1988) and Sachs (1989) already show how high debt can imply negative incentives for investment. This view is supported by empirical evidence on the detrimental effect of excessive (public) debt for growth. By reducing debt overhang, debt relief can facilitate growth and a faster recovery.
 - **More precise calibration of debt relief.** As the post-crisis sustainability of public debt is not easy to assess at the onset of a crisis, delaying a debt-reducing restructuring to near the end of an ESM programme allows for a more precise analysis of debt sustainability and the extent of needed debt reduction.
 - **Improve equal treatment.** Broader creditor participation (facilitated by maturity extensions) may provide better opportunity for burden sharing by ensuring equal treatment of debts with remaining short and long maturity. This may reduce the ex ante bias towards shorter maturities in near-crisis situations.
11. The **drawback of a sequencing** of maturity extension and debt relief in a two-stage process is in situations where debt is clearly excessive. In that case, the sequencing would delay an unavoidable debt reduction. However, even then it is not immediately clear what extent of debt relief is needed. As a principle, the mechanism should not allow for successive reprofiling.

↳ BOX 2

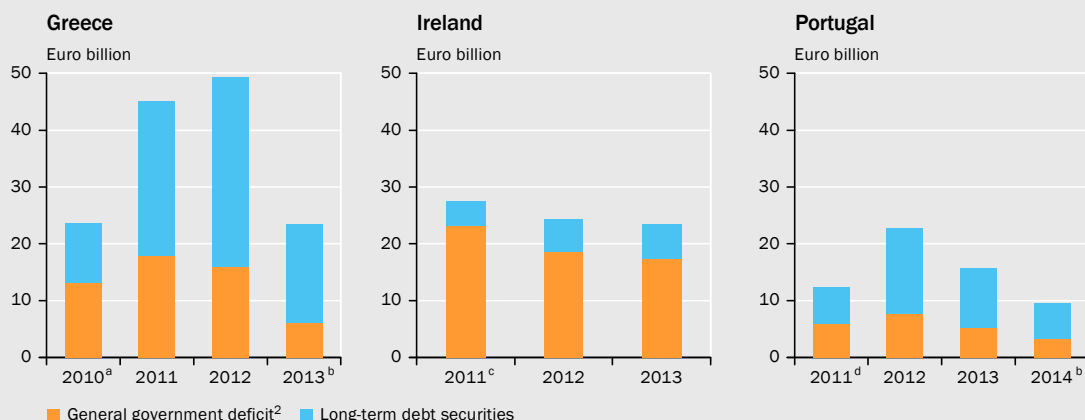
Crisis financing needs in Greece, Ireland, and Portugal

Governments' gross financing needs consist of funding for new deficits and the roll-over of maturing short- and long-term debt obligations. In sovereign debt crises, emergency assistance, for example through the ESM, usually provides for a **financing envelope** covering the total financing need for the duration of the programme, except for a limited amount of short-term debt that is assumed to roll over and other funding, such as from privatisation.

In the recent crises of Greece, Ireland, and Portugal, the portion of **maturing long-term debt securities** amounted to 62, 21, and 64 % of the total funding needs, calculated as sum of general government deficit and maturing long-term debt securities based on the European Commission's initial projections. For Greece, this pertains only to its first programme as planned initially and therefore excludes the debt operation conducted in 2012. The lower portion in Ireland is explained by its long average remaining maturity of its outstanding public debt and the large amounts for bank restructuring included in the budget. In total, for these three cases, €142 billion were needed to repay bondholders, more than the government deficits over the respective period.

Hence, the extension of maturities of long-term debt would reduce the **financing needs** of crisis countries significantly. Certainly, part of these funds may be needed instead to extend assistance to systemic institutions that are affected by the maturity extension, such as banks. However, the dimensions exemplify that a mechanism to extend maturities of sovereign bonds as part of ESM programmes could markedly reduce financing needs. In turn, part of the funds preserved could be used for programme designs with longer adjustment periods and more gradual fiscal consolidation.

FIGURE 1

Financing needs¹ during the crises in Greece, Ireland and Portugal

1 – Sum of general government deficit and amortisation of long-term debt securities. 2 – Greece: including PE borrowing need.
a – May - December. b – January - June. c – Including December 2010. d – June - December.

Sources: European Commission and own calculations

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III. EXISTING PROPOSALS

12. Numerous proposals have been introduced to describe the implementation of an insolvency mechanism for sovereigns (see Zettelmeyer, 2016, for a recent overview and discussion). These focus on the different challenges that such proposals need to tackle. They include:
 - **Setting triggers.** Restructurings should take place when necessary. On the one hand, they should not be protracted or avoided, e.g., by policymakers “gambling for resurrection” (type I error). On the other hand, they should not take place unnecessarily (type II error). At the start of a sovereign debt crisis, it is difficult to distinguish between liquidity and solvency crises. The appropriate trigger point may also shift over time and is likely influenced by the prevailing insolvency regime.
 - **Calibration of debt relief.** Besides deciding on when to invoke a restructuring mechanism, the extent of necessary or desired debt relief needs to be determined.
 - **Avoiding holdouts.** Holdouts need to be minimized as they can undermine the restructuring and the mechanism by free riding on the debt relief granted by other creditors.
 - **Preventing circumvention.** It should be ensured that the system cannot be circumvented. This includes both escaping the mechanism, for instance through other ways to incur debt, or manipulating the mechanism, for instance by changing the rules when push comes to shove.

- **Providing a transition.** Given current high levels of debt, the introduction of a mechanism would need to address this legacy, either by postponing any regime change, providing long transition periods, or a one-off debt operation that tackles existing debt.

Certainly, not all proposals strive to address all issues at the same time, so a fully specified mechanism such as this proposal may usefully draw on different existing proposals.

13. Following the debt crises of the late 1990s, a **Sovereign Debt Restructuring Mechanism** (SDRM) was proposed by IMF deputy managing director Anne Krueger in 2002 (Krueger, 2002). However, reaching consensus on a statutory regime across a constituency as large as the IMF membership has remained illusory.
14. Bruegel revived the idea in its proposal for a **European Crisis Resolution Mechanism** (ECRM) for the smaller constituency of the EU (Gianviti et al., 2010). Encapsulating crucial elements, such as interim financing provided for instance through the ESM, involving a competent authority to assess debt sustainability and economic adjustment such as the European Commission, the ECRM presents an important further development to the SDRM. However, the statutory imposition of a stay on litigation by creditors would require a change of the Treaty and is likely to be politically contentious even in a more homogeneous constituency such as the EU.
15. Related proposals seek to establish a court, such as an **International Debt Restructuring Court** (IDRC) proposed by UN experts (United Nations, 2009), to avoid holdout litigation from undermining effective restructuring. This would require such court to assume exclusive jurisdiction on debt-related issues under principles that prevent holdout problems. Requiring national courts to recognize the legitimacy of its judgements can unlikely be assured, or at least would be politically challenging and time consuming to achieve.
16. Another way to regulate the restructuring of sovereign debt relies on contractual clauses in bond contracts to facilitate a workout. The clauses allow for renegotiations of the terms between the debtor and a majority of creditors. At the heart of this approach are **collective action clauses (CACs)** allowing for a qualified majority of bondholders to bindingly impose the renegotiated terms even on dissenting creditors. In other words, CACs allow for a modification of the financial terms of a bond, such as its maturity date, coupon, or repayment value, by consent of a qualified majority of bondholders.
17. While not having lead to a differentiation of spreads in the euro area, CACs generally have a **positive track record**. CACs are traditionally included in bonds issued under English law and, since about 2003, New York law, two very common jurisdictions for international bond issuances. In response to the introduction of CACs, spreads for high-rated debtors have been found to decline while the evidence for lower-rated debtors is not clear (Eichengreen et al., 2003; Barozzetti et al., 2014; Bradley and Gulati, 2013). Carletti et al. (2016) find that the introduction of CACs in the euro area was associated with a reduction in yields

which was more pronounced in countries with better legal systems. This suggests that market participants weigh the benefits of efficiency gains through an orderly restructuring process higher than the risk that CACs help debtors to repudiate debt, unless an imminent debt restructuring seems likely.

18. Following the **Deauville agreement** in 2010, a model CAC has to be included in all newly issued euro-area bonds with maturity above one year since 2013. However, under these so called “euro-CACs”, holdout creditors can still block the full restructuring of individual bonds as the euro-CACs rely on both aggregate and bond-by-bond voting (Gelpern and Gulati 2013). While euro-CACs include an “aggregation feature” which is superior to the traditional series-by-series CACs (IMF, October 2014), it is weaker than the mechanism which was applied for instance in Greece (Buchheit et al., 2013).
19. Contractual approaches would usefully be complemented by a **mechanism that guides the process** to initiate debt renegotiations and invoke creditor votes. A common trigger for any sovereign restructuring could be a government’s request for official assistance. Along this line, the IMF has conducted a reform of its lending framework (IMF, April 2013; IMF, June 2014; IMF, April 2015). Related proposals linked to the ESM have also been floated for the euro area (see also [TABLE 2](#)):
 - The Committee on International Economic Policy Reform (Buchheit et al., 2013) proposes to tie access to European crisis lending to the use of a European Sovereign Debt Restructuring Mechanism (**ESDRM**). The mechanism would use three thresholds. For countries complying with the Maastricht criterion of debt below 60 % of GDP, no restructuring can occur. Above this threshold, countries would receive assistance based on standard fiscal conditionality. For countries above a second simple yet tamper-proof debt-to-GDP threshold, support would only be granted conditionally, leading to a debt restructuring process quasi-automatically. Compliance with the Maastricht criteria could be included as additional thresholds (Weder di Mauro and Zettelmeyer 2010). Given some countries have debt above the thresholds, a phase-in would require either upfront restructuring or a transition mechanism that copes with legacy debt (GCEE 2011).
 - The European Economic Advisory Group (EEAG 2011) has proposed a three-stage **European Stability Mechanism** whereby during a first stage, the ESM provides crisis loans for two years, followed by a second-stage mandatory restructuring of maturing bonds into partially-guaranteed “replacement bonds” with haircuts to mirror secondary market prices, and finally a third-stage full restructuring if default cannot be avoided. The proposal builds on Sinn and Carstensen (2010) who propose that a country in distress has to negotiate independently with the private creditors before an automatic haircut calibrated to current market valuations becomes effective.
 - Weber et al. (2011) propose the inclusion of **trigger clauses** in bond contracts which automatically extend the maturity by three years when a country’s request for ESM assistance is granted. Importantly, since being part of

the bond contract, such a maturity extension would not be considered default.

- Heinemann et al. (2016) propose “**accountability bonds**” which countries are obliged to use for funding excess debt when their structural deficit is larger than 0.5 % of GDP. Their maturity is automatically extended when the debt ratio exceeds 120 % of GDP. They also cease to pay coupons. If an ESM programme is initiated, the bonds are canceled. Brooke et al. (2013) also propose a combination of two different types of state-contingent bonds, sovereign cocos and GDP-linked bonds.
 - Fuest et al. (2014) advocate an immediate ESM Treaty change which becomes effective after certain criteria are met, but at the latest in 2030. Restructuring, facilitated by CACs and an immunity clause in the ESM Treaty, is triggered if market access is still not sufficient after a **standstill** for the duration of an ESM programme.
 - Corsetti et al. (2015) lay out a mechanism within the ESM lending framework that is triggered at **pre-determined thresholds** of 95 % for the debt ratio and 20 % for the gross financing requirement. It also includes a facility to buy back legacy debt.
20. Some proposals suggest a tranching of government debt in **senior and junior portions**, whereby a restructuring mechanism only applies to the junior tranche (see, for instance, Heinemann et al. 2016 or Wendorff and Mahle 2015). A tranching could limit expected drawbacks and make introducing mechanisms as outlined above politically more palatable. At the same time, the tranching would fragment bond markets and limit the advantages of introducing restructuring mechanisms.

▸ TABLE 2
Overview of Proposals

Proposal	Year	Authors	Mechanism
European Debt Restructuring Mechanism (EDRM)	2010	Weder di Mauro, Zettelmeyer	ESM conditional support above a lower threshold, and conditional on invoking the ESDRM above an upper threshold. Threshold tied to minimum standard of fiscal discipline, e.g. using a debt or deficit ceiling.
European Crisis Resolution Mechanism (ECRM)	2010	Gianviti, Krueger, Pisany-Ferry, Sapir, von Hagen (Bruegel)	Financial assistance conditional on sustainable debt, Court of Justice of the European Union to enforce restructuring. Treaty to establish rules, only applicable to newly issued debt.
European Monetary Fund (EMF)	2010	Gros, Mayer	The EMF facilitates an exchange of defaulted debt against new debt with a guarantee not exceeding 60 % of GDP.
European Stability Mechanism	2011	Corsetti, Devereux, Hassler, Saint-Paul, Sinn, Sturm, Vives (EEAG)	1st stage: 2 years ESM support if liquidity crisis; 2nd stage: bond-by-bond CACs to convert maturing bonds into "replacement bonds" at haircut of 20-50 % determined by market prices, plus a partial ESM guarantee; 3rd stage: full fledged default and restructuring of all bonds.

Trigger clauses	2011	Weber, Ulbrich, Wendorff	Introduction of bond clauses that trigger an automatic 3-year extension in case of a ESM assistance request.
European Sovereign Debt Restructuring Mechanism (ESDRM)	2013	Buchheit, Gelpert, Gulati, Panizza, Weder di Mauro, Zettelmeyer (CIEPR)	Change in ESM Treaty to foster restructuring at a pre-set threshold, proposed to be 90 % of GDP, in connection with an ESM programme. Holdouts are prevented by introducing an immunity clause to protect assets. Transition phase during which countries with high debt are required to either restructure upfront or agree to debt reduction path in exchange for support, e.g. guarantees or a redemption fund.
Viable Insolvency Procedure for Sovereigns (VIPS)	2014	Fuest, Heinemann, Schroeder	In a 3-year shelter period, ESM provides non-senior loans. If no market access is achieved, a 1-year negotiation period follows to achieve debt restructuring using CACs and an immunity clause introduced to the ESM Treaty. To become effective once debt is reduced to certain debt thresholds, but latest in 2030.
MEZ proposal	2015	Corsetti, Feld, Lane, Reichlin, Rey, Vayanos, Weder di Mauro	ESM lending framework to demand maturity extension if current, projected, or stressed debt ratio > 95 % or financing requirement > 20 %. Debt-buy back through stabilisation fund, paid down using earmarked revenue, e.g. ECB seignorage.
Accountability bonds	2016	Fuest, Heinemann, Schroeder	Excess debt funded by “accountability bonds” with automatic maturity extension and coupon cuts above a 120 % debt ratio and complete write-down in case of an ESM programme.
Source: Authors		© Sachverständigenrat SVR-16-081	

IV. PROPOSED MECHANISM

21. The following describes in detail our proposal for the design of mechanism to regulate sovereign debt restructuring. It draws on existing proposals described above and is closely related to the IMF’s new lending framework which has garnered the support of the Fund’s membership.

Principles

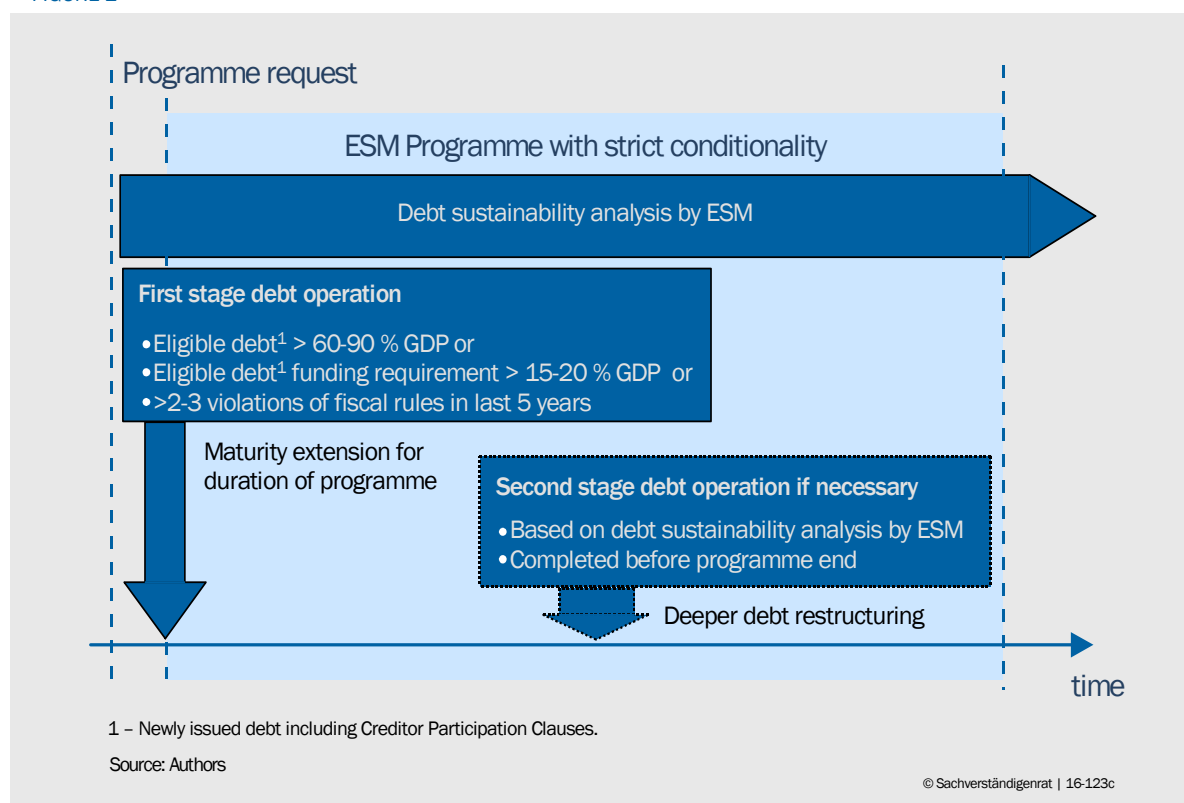
22. The proposed mechanism can exclusively be applied as part of **ESM assistance**. As already the case today, access to ESM credit facilities requires an assessment of public debt sustainability (ESM Treaty Article 13 1.(b)). Negotiations about a debt restructuring should be required when the assessment indicates that public debt may not be sustainable (see below).
23. If a debt restructuring is deemed appropriate, the disbursements of any ESM funds will become conditional on creditors and debtors reaching agreement on a **standstill**. In practice this means that a qualified majority of creditors consent to extend eligible debt maturities for the duration of the ESM programme.

24. The standstill does not preclude further debt relief through **debt reductions** in further course. Given the difficulty to assess debt sustainability at the outset of an ESM programme and the likely time needed to negotiate a deeper restructuring, face value reductions and other types of more severe debt operations should not be attempted at the start of an ESM programme. However, restoring debt sustainability is important to ensure durable market access and the repayment of ESM assistance. If necessary, this type of debt operation should be implemented during the recovery phase or when the country prepares for re-entry into bond markets.

Debt sustainability analysis

25. The debt sustainability analysis (DSA) determines whether debt restructuring will be required. The analysis includes **multiple indicators**, combining both forward looking indicators (such as projected debt ratios and financing needs) with backward looking indicators (such as historic fiscal performance). In addition, the analysis includes stress tests for a range of shocks.
26. A realistic view of a country's sustainable debt should prominently take into account its **past economic performance**. Comparing projections with past performance, for example for growth or fiscal balances, can help to identify overconfidence. Moreover, the debt sustainability analysis should also include an evaluation of a country's **track record under applicable fiscal rules**, which could be viewed as proxy for the economic and political capacity to deliver fiscal adjustment. Including past compliance reinforces the ex-ante discipline in adhering to fiscal rules: a lack of compliance would increase the chances that a restructuring is stipulated in case of crisis; in turn, investors would demand a higher risk premium and increase borrowing cost of countries that violate fiscal rules.
27. As it is in the ESM's own interest to ensure repayment, the task of preparing a debt sustainability analysis and provide an **independent assessment** of a country's debt sustainability should rest with the ESM. The ESM should therefore be enabled to express its own view on the likelihood that the agreed fiscal and debt trajectory under the EC monitored ESM programme can be adhered to. The ESM's evaluation of a country's track record under applicable fiscal rules should be independent of whether the country has been put under the corrective arm of the SGP.
28. We propose a **two-stage decision system**, outlined in [FIGURE 2](#). In a first stage, a fast and simple decision rule determines whether the ESM requires creditors to agree to a standstill at the start of an ESM programme. In a second stage in the course of the programme, a more comprehensive set of considerations will determine whether negotiations for a deeper restructuring should commence and what debt relief should be targeted. While there is no set timeline for the second stage needed, the deeper restructuring would necessarily take place while the standstill is still in effect. Such a two-stage approach allows for applying two different sets of decision criteria without undermining the ex ante disciplinary effect.

FIGURE 2



29. For the **first-stage decision**, our proposal is that a maturity extension is required if debt qualifying under this insolvency mechanism exceeds a range of 60 to 90 % of GDP, or its refinancing volume exceeds a range of 15 to 20 % of GDP during the ESM programme. These thresholds – albeit on a narrower definition of eligible debt – roughly follow the proposal in Corsetti et al. (2015). In addition, two to three or more violations of fiscal rules in the past five years trigger a maturity extension. These choices reflect the following considerations:

- To resolve the issue of legacy debt which currently exceeds any conservative threshold in many member states, only debt including new CPCs as described in the next subsection – not all government debt – counts towards the thresholds.
- While empirical evidence is ambiguous in pinpointing thresholds of debt sustainability, a common anchor for sound fiscal policy is to maintain a debt ratio below 60 % as used in the Stability and Growth Pact (see also IMF, 2011). In addition, a second threshold for gross financing need of 15 to 20 % of GDP or less is used, which is the benchmark used for advanced countries in the IMF's new debt sustainability framework (IMF, 2013).
- Despite the benefit of ambiguity possibly delaying creditor runs, the objective of generating an ex ante disciplinary effect requires that investors can form clear expectations. To reduce threshold effects, we propose a range which provides some (limited) discretion to policy-makers, guided by technical analysis such as a DSA provided by the ESM.
- Using simple and hard-to-manipulate criteria prevents judgements from being distorted too heavily by political considerations. However, our proposal

stops short of hardwiring the criteria triggering a maturity extension in bond contracts, as proposed by Weber et al. (2011), as we believe the drawback of contractual rigidities outweighs the gain in credibility of the no-bailout principle.

In cases where debt is clearly unsustainable and a deeper debt restructuring is unavoidable, the first-stage decision should also include an accrual, rather than pay-out, of coupons.

30. For the **second-stage decision**, the debtor country decides, based on the ESM's comprehensive debt sustainability analysis and guided by the views of relevant European institutions, whether negotiations about a deeper debt restructuring are initiated. This decision needs to be taken prior to the end of the ESM programme, yet to guide expectations the underlying DSA and its considerations should be provided as early as at programme start. The ensuing negotiations should aim at achieving a sustainable debt burden which is consistent with ESM programme assumptions and conservative enough to ensure durable re-entry to bond markets while minimising disruptions to the ongoing recovery.

Nuts and bolts

31. Implementing the mechanism requires two key challenges to be tackled. First, the mechanism requires a **legal foundation** that safeguards the principles established and prevents holdouts. Second, the mechanism needs to provide a **transition phase** to the new regime given currently high debt levels.
32. We propose to tackle these challenges through **three key changes**:
 - **Single limb voting procedures** for collective action clauses and amendments to pari passu clauses that are binding for all new bond issues.
 - An **enforcement moratorium** anchored in the ESM Treaty.
 - The **phase-out of privileges** for sovereign debt in banking regulations.

The following elaborates on these changes.

33. Key to relying on CACs for orderly restructurings in the euro area is to consolidate voting procedures into a single limb to **avoid holdouts**. Under the current convention, euro-CACs are designed to require a qualified majority of 75 % of bondholders for each single bond issue. Given the multitude of bond issues and the chances that a vulture investor acquires a blocking minority in certain (small) bond issues are likely to render CACs less effective.
34. The IMF (October 2014) proposed an enhanced CAC including more robust aggregation features with the possibility to differentiate among different groups of bondholders. In particular, a menu of voting procedures including “**single-limb**” voting should facilitate restructuring by enabling a single vote across all affected instruments. Additionally, as a consequence of the Argentina case, the

pari passu clause in international sovereign bonds could be modified to enhance legal certainty by excluding the obligation to effect ratable payments.

35. Hence the proposal is to establish a **new class of bonds with improved terms** which could be included in a master agreement. These terms include:
 - A **single limb voting procedure** which allows the aggregation of votes across all bond issues eligible in a restructuring with a 75 % majority threshold; its design could follow the model clause of the International Capital Market Association (ICMA).
 - A **provision to ensure inter-creditor equity** – a potential pitfall under a single limb vote given creditors of small bond issues could be disadvantaged but may be unable to block the deal. For instance, a provision could be introduced that acknowledges the ESM's competency to evaluate and approve restructuring terms, which would also need to be anchored in the ESM Treaty.
 - A **modified pari passu clause**, if needed, that protects the restructuring deal under these new terms against lawsuits from other claimants, in particular in the case that old bonds or other types of debt are restructured by different means and at different terms.
36. By introducing these new clauses in all new issuances, an effective restructuring regulation **phases in over time**. [▷ BOX 3](#) provides simulations to illustrate how such a phasing-in could evolve regarding the debt criterion. If all existing bonds and new deficits would be rolled into new bonds with CPCs, Italy would reach the lower threshold of 60 % of GDP, depending on the assumptions, between 2021 and 2032 when its debt is projected at 121 and 100 % of GDP, respectively. Given the projected decline in German public debt, bonds with CPCs would not reach the threshold of 60 % of GDP in the long run. None of the countries ever reaches the upper threshold of 90 % of GDP. If only new deficits would be financed with new bonds with CPCs, no member state would reach the thresholds at any foreseeable time. However, in that case issuers would not be constrained to replace existing debt with new bonds with CPCs faster, possibly benefitting from their character as commitment device for sustainable debt.
37. Phasing in the mechanism through the issuance of new bonds, this proposal lends more **credibility to the introduction** of an effective no-bailout regime in contrast to proposals that set an introduction date far in the future, such as Fuest et al. (2014). Alternative solutions to the transition problem that cope with legacy debt immediately would obviate the need for a phase-in period altogether.

▷ BOX 3

The transition into the new regime

Implementing a transition phase provides countries time to put public debt firmly on a downward path and helps investors to adjust to a new regime. In our proposal, the phase-in occurs as current debt matures and is **gradually replaced with the new class of bonds with CPCs**. Regulation, similar to the one following the Deauville agreement in 2010, could set a starting date. Since the phase-in pro-

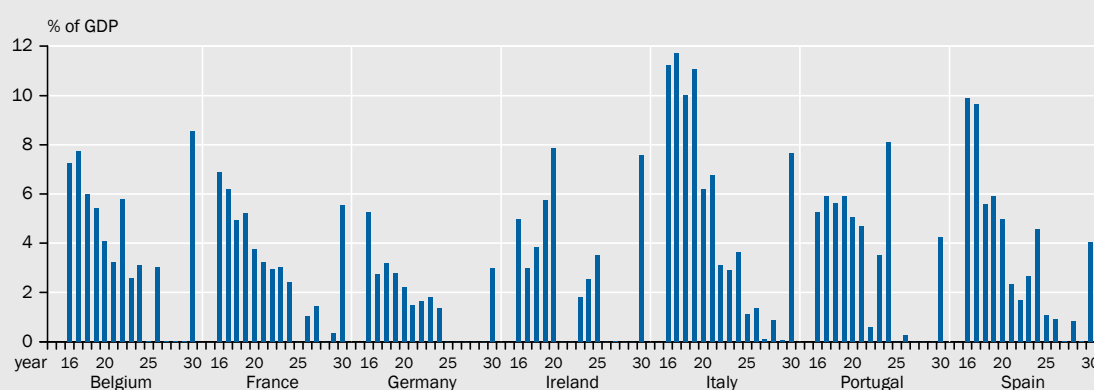
ceeds automatically, no negotiation over phase-in periods or ex post alteration of the transition are possible.

Data is based on Eidam (2016), who collects all government bonds issued by central governments available on Bloomberg. For our purpose, we focus on Belgium, France, Germany, Ireland, Italy, Portugal, and Spain. Data coverage is high in general, although some countries – such as Germany – have a large portion of public debt issued by entities other than the central government. This data is complemented by projections for GDP and public debt, which are taken from Commission forecasts (European Commission 2015) and are intra- or extrapolated.

The current payoff profile of long-term bonds indicates **refinancing needs** for existing debt that range between 5 and 11 % of GDP in the near term and reduce across time. [↘ FIGURE 3](#) The vast majority of the bonds are under domestic legislation. A notable proportion already includes 2013 CACs. The share of bonds under foreign legislation is small.

[↘ FIGURE 3](#)

Maturing long term sovereign bonds¹



1 – Sample of long term sovereign bonds issued by central governments since 1999 as of end-2014. Figure for year 2030 includes all amounts maturing in 2030 or later in % of 2030 GDP.

Source: Eidam (2016)

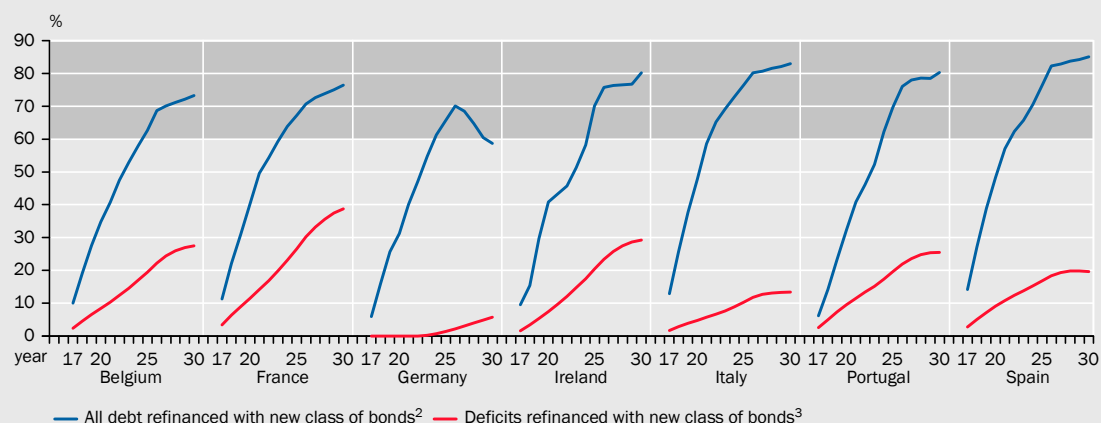
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To demonstrate this phase-in regarding our debt criterion, we consider the possibility that regulation postulating the **use of CPCs becomes effective in 2017**. [↘ FIGURE 4](#) shows the amount of government bonds including the CPCs over time in relation to GDP. These estimations assume a maturity structure for newly issued bonds in the future that is identical to 2014. It also assumes that public debt other than central government bonds remains constant as share of GDP.

For Germany, this implies a stark decline in federal debt, which explains the low portion of bonds with CPCs in the long run. For Ireland and Portugal, the significant share of ultra long term debt owed to the EFSF/ESM delays the penetration of the debt stock with new bonds. Given that debt is projected to decline in all countries except France, the share of bonds with CPCs increases as debt ratios fall, facilitating a **smooth transition into the new framework**: While not excluding the restructuring of debt in the transition period, the bonds subject to the new rule for access to ESM financing increase gradually.

Alternatively, we calculate the transition if only **new deficits** would be funded through debt including CPCs, and only this debt continues to become subject to the new restructuring regulations. Existing debt always remains unaffected by the new rules. The estimation relies on Commission forecasts until 2026 and subsequently assumes a convergence to a deficit of 0.5 % of GDP at a speed of 0.5 percentage points annually. [↘ FIGURE 4](#) shows that the resulting stock of debt with CPCs remains below 30 % of GDP for all countries by 2030, and below 60 % of GDP even in the long run.

FIGURE 4

Penetration of debt stock with bonds including Creditor Participation Clauses (CPCs) issued from 2017¹

1 – Assumes bonds are issued with new clauses starting in 2017 based on maturity profile for bonds as of end-2014, with (i) maturity of newly issued bonds similar to 2014 and (ii) nominal debt following European Commission (2015) and extrapolated from 2027. 2 – Assumes that shares of other debt relative to GDP remains constant. 3 – Deficits until 2026 based on European Commission (2015), and converging towards 0.5% of GDP at a speed of 0.5 percentage points afterwards. Bonds with CPCs falling due are rolled into similar bonds.

Source: Eidam (2016)

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We analyse the **sensitivity** of the phase-in to different assumptions by calculating the year in which the new class of bonds exceeds the lower 60 % of GDP threshold if introduced for all debt financing from 2017, 2020, or 2025. (In none of the countries, bonds with CPCs would reach the upper threshold of 90 %.) [TABLE 3](#) shows the following variations for the three starting years for issuing new bonds:

- The first variation in assumptions pertains the treatment of **non-marketable, short term, or non-central government debt** that is not included in the dataset; the first set of columns assume that the share (in % of GDP) remains constant (as in [FIGURE 4](#)), while the second set of columns assumes that all debt has a maturity structure that is similar to the one in the dataset. For the former programme countries Ireland and Portugal as well as Spain, the resulting penetration with new debt is likely too fast given the ultra long maturities of official debt. The same would apply to Greece.
- The second variation pertains the assumed **maturity structure of newly issued debt**. As in [FIGURE 4](#), the standard assumption is that new debt is issued every year at the same original maturity as in 2014. Alternatively, it is assumed that all newly issued debt is issued as 10-year bond.

These simulations demonstrate how a longer maturity structure delays reaching the lower threshold for the debt ratio of 60 % of eligible debt relative to GDP. For example, Belgium reaches the lower threshold much later than Spain although having only a slightly higher debt ratio (106 versus 101 % of GDP in 2015) because it features a longer average maturity (7.8 versus 5.4 years in the sample in 2014). Furthermore, the results suggest that **delaying the start of the phase-in** helps to delay countries from reaching the 60 % threshold, mostly by a proportional span of time. However, debt exceeding the threshold is likely smaller for those countries achieving a faster reduction of their debt. Debt ratios range at an introduction in 2017, 2020, and 2025 between [97; 121], [86; 115], and [76; 105] % of GDP, respectively, based on static projections by the European Commission (see column (5) in [TABLE 3](#)). The coverage of debt makes a great difference for Belgium, where a large share of public debt is issued by other entities. For debt restructuring to be effective, a broader base is desirable.

TABLE 3

Sensitivity analysis

Country	Start year	Conversion of marketable central gov. debt ¹		Conversion of all public debt over time ²		Ad memorandum: debt ratio
		Maturity profile of new issuance				
		as in 2014	10 year	as in 2014	10 year	year of column (3)
		(1)	(2)	(3)	(4)	(5)
Belgium	2017	2028	2025	2025	2025	100
	2020	2038	2027	2029	2026	97
	2025	2047	2032	2038	2030	92
France	2017	2030	2025	2024	2024	100
	2020	2032	2027	2027	2026	101
	2025	2036	2031	2032	2029	104
Germany	2017	a				
	2020					
	2025					
Ireland	2017	b		2025	2025	86
	2020			2032	2029	76
	2025			N/A	2033	
Italy	2017	2021	2025	2021	2023	121
	2020	2025	2027	2024	2026	115
	2025	2032	2030	2029	2029	105
Portugal	2017	b		2023	2023	116
	2020			2026	2025	112
	2025			2032	2029	104
Spain	2017	2024	2025	2022	2025	97
	2020	2026	2027	2026	2026	92
	2025	2031	2030	2030	2029	89

1 – The nominal amount of non-marketable or non-central government debt as of 2014 remains constant. 2 – All public debt is assumed to have a maturity structure as marketable central government debt and is replaced with debt including CPCs. a – Threshold is never reached. b – Not meaningful as IMF/EFSF/ESM official debt will have to be replaced.

Source: Eidam (2016)

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38. It remains important that debt other than the new class of bonds with CPCs remains restructurable. During the transition period, older bond issues may also need to be included in a restructuring to avoid that creditors of the new class of bonds bear an unduly large portion of the restructuring burden. Retaining the **possibility to restructure other debt** alongside the new class of bonds is also important to avoid countries from undermining the mechanism by issuing other debt instruments. Alternatively, it could be agreed that other debt also includes clauses comparable to CPCs.
39. Given that most countries issue other debt under local legislation, lawmakers can use twists to impose a restructuring on these instruments, as done in Greece (Buchheit and Gulati 2010; Zettelmeyer et al. 2013). Changing **domestic legislation** remains an important venue to facilitate debt restructuring. Circumventing this venue through incurring liabilities (or guarantees) governed by foreign

legislation (which would be harder to restructure) could be a tempting option for countries with unsustainable debt nearing a crisis. For the benefit of restructurings to be most effective, this must be avoided. However, a restriction to issue debt under foreign legislation would hardly be consistent with EU rules. At best, the European Commission can introduce a binding reporting requirement on such debts.

40. An optional, complementing element to protect a concluded debt restructuring from litigation by holdout investors is to introduce an **enforcement moratorium** to the ESM Treaty as proposed by Buchheit et al. (2013) or Fuest et al. (2014), among others. The immunity clause would protect the assets of a member state from attachment during and after an ESM programme as long as it has loans drawn from the ESM. In the case of Greece this period could stretch until 2054. Such a treaty amendment would make enforcing court judgements by litigious investors more difficult. A similar approach was successfully used to facilitate Iraq's debt restructuring from 2006 through a UN Security Council resolution.
41. The final element is the implementation of the GCEE's proposal to **phase out privileges afforded to sovereign exposures** in European banking regulation (Andritzky et al., 2016). Large exposures of banks to sovereigns, in particular to sovereign debt of their home country, may partly be a result of these regulatory privileges. The resulting sovereign bias in banks' assets presents a direct channel of contagion from sovereign debt crises and may distort the pricing of sovereign risk. Therefore, banks should be required to limit their holdings of sovereign debt to between 25 and 100 % of own funds, depending on the debtor's credit worthiness. Also, capital requirements for sovereign exposures should be increased by activating the Basel risk weights for sovereigns. The new rules could be phased in over time. Related rules to limit the sovereign nexus should be applied to other regulated entities, such as insurance and pension funds.
42. However, at the same time sovereign bonds should be enabled to function as collateral, even if undergoing first-stage maturity extensions. In particular, it should be ensured that sovereign bonds can continue to serve their role as collateral for **ECB's liquidity window** which can help to avert contagion to banks. However, adequate collateral haircuts need to apply.

V. TRADE OFFS

43. The introduction of a framework for restructuring sovereign debt is intended to lend credibility to the no-bailout clause and strengthen the role of market discipline. On the flipside, creditors could incur losses on their investment, possibly deepening the crisis. The following is addressing some of the most common concerns.

Does the mechanism create adverse incentives for less fiscal discipline?

44. The introduction of possibility of orderly debt restructuring must prevent creating perverse incentives, such as short-sighted policymakers running up debt to activate the mechanism intentionally. To address this, the mechanism is explicitly tied to an **ESM macroeconomic adjustment programme**. The programme mandates a member state to consolidate its budget and carry out structural reforms in the labour and product markets. As the programme often entails difficult political trade-offs, the introduction of the mechanism is unlikely to introduce a debt bias.

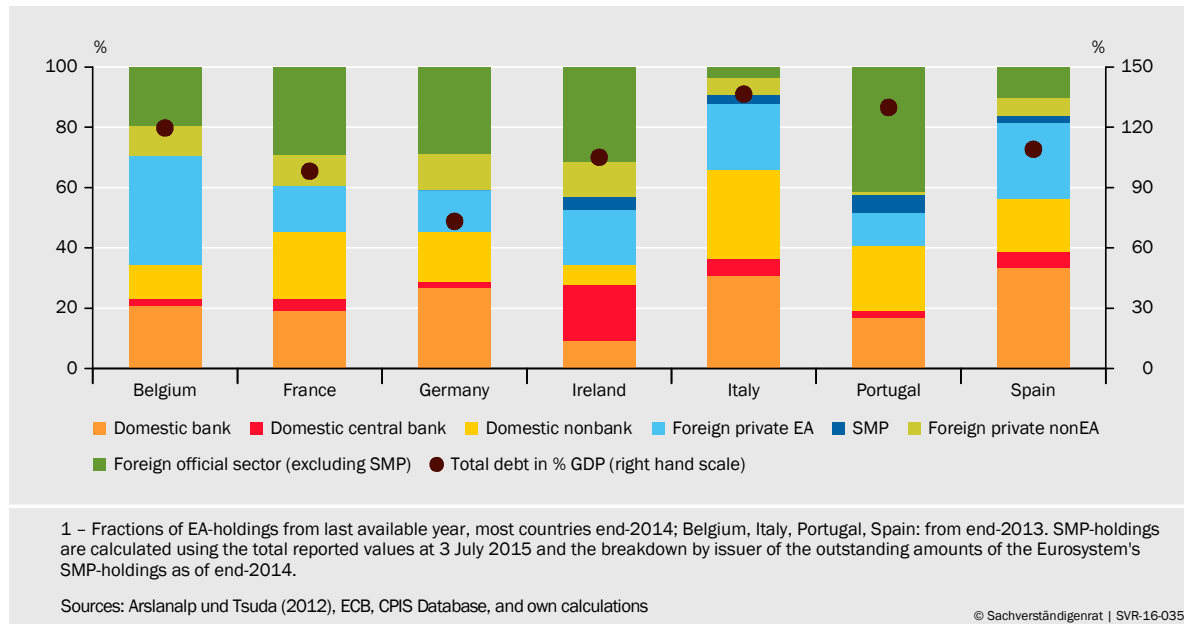
Does the mechanism affect countries' reliance on ESM assistance?

45. The introduction of the mechanism could deter governments from requesting ESM assistance, for instance if debt sustainability thresholds have been exceeded and policymakers fear that debt restructuring entails severe spillovers. Instead, policymakers may choose to delay the request, foregoing the benefit of a timely crisis intervention and “**gamble for resurrection**”.
46. As argued above, ESM programmes generally include strict conditionality on structural reforms and fiscal adjustment. In other words, ESM programmes have **several strings attached**, with debt restructuring being only one among others. It is certainly important that the programme considers any spillovers from debt restructuring. For instance, if debt restructuring instills losses on pension funds, conditionality on pension reform should take these into account.
47. Key to this proposal is that a first-stage decision on maturity extension at the onset of a programme is triggered **quasi-automatically** based on the range of pre-determined thresholds. This avoids excessive ambiguity, strengthens markets' ex-ante disciplinary effect, and keeps creditors in the game. However, the second-stage decision on deeper debt restructuring is based on a more comprehensive assessment, including a stronger judgemental component, more akin to the case-by-case assessment favored in the IMF's reformed lending framework (IMF 2015). No decision on a deeper restructuring needs to be made at the onset of a ESM programme.

What is the risk of spillovers?

48. Two main channels for spillovers should be distinguished. First, **direct spillovers** affect those holding claims on the sovereign that undergo restructuring – they share directly the burden of a debt crisis. Second, **indirect spillovers** affect entities through second-round effects, such as bank failures, or confidence effects (“non-fundamental contagion”, Dornbusch et al., 2000).

FIGURE 5

Holders of advanced economy government debts, 2015Q2¹

49. An estimation of the **bondholder composition** can help to analyse direct spillovers. Overall, the composition reveals a significant home bias of investors. FIGURE 5 Domestic investors hold between 35 (Belgium, Ireland) and 65 % (Italy) of debt issued by their respective government. Domestic banks hold around 30 % of domestic public debt in Germany, Italy, and Spain. In the case of the former programme countries Ireland and Portugal, a large share of debt is owed to foreign official creditors which do not fall under the restructuring mechanism. For France and Germany, the large share of about 30 % of debt held by foreign official creditors consists of foreign central banks holding euro reserves.

50. The analysis suggests that euro area investors themselves hold the bulk of public debt subject to the restructuring mechanism, ranging between 60 % for France and Germany to close to 90 % for Italy. For most countries, a debt restructuring is hence an **internal redistribution** within the monetary union. The large home bias also within the euro area suggests that the largest direct burden of a restructuring would even fall on bondholders in the respective country. The situation differs from that of early **emerging market restructurings** where the largest creditors were foreign.

51. This is one of the key arguments of opponents to sovereign insolvency rules. Yet, we believe two aspects need to be taken into account:

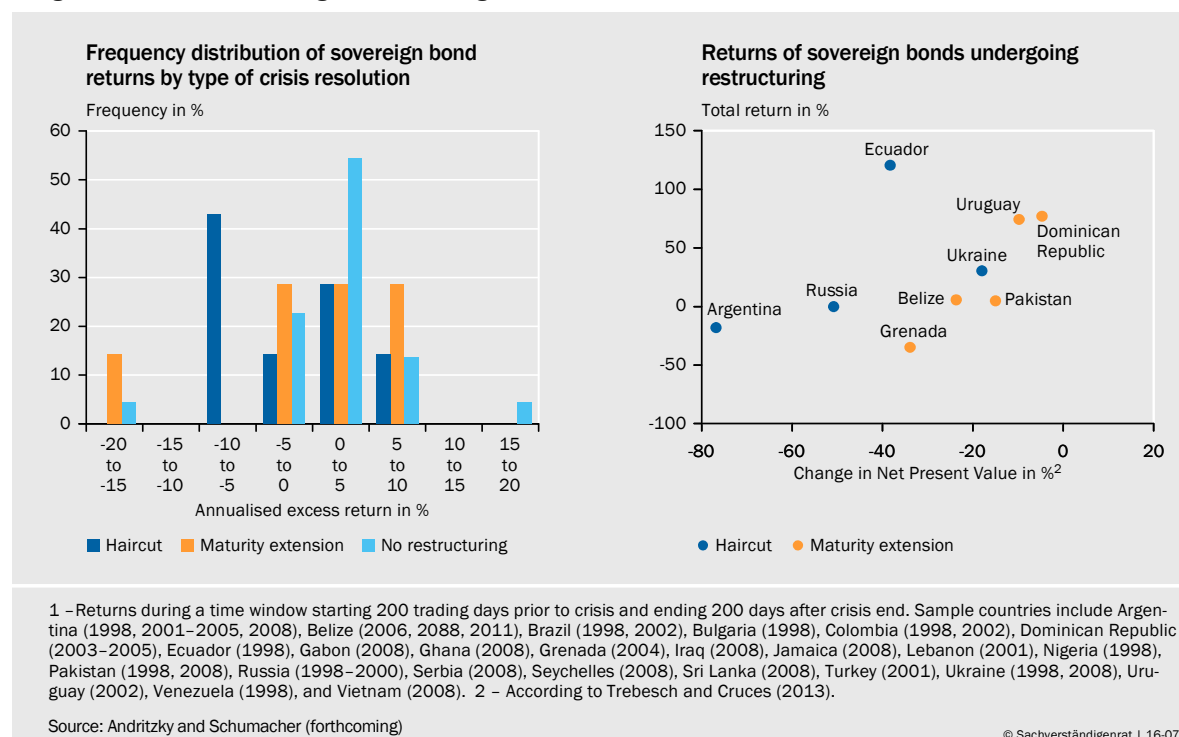
- First, large advanced economies such as Italy are likely “**too big to be saved**” anyway. Despite the OMT rhetoric, it is hard to imagine that a bail-out package of sufficient size could be mobilised if a sizable shock was to hit Italy’s economy. Safeguarding against indirect spillovers within the euro area, and in particular in the country entering a sovereign debt restructuring, remains therefore crucial.
- Second, the mechanism serves to **promote conservative debt levels** and, in cases where debt levels remain high or large shocks occur, **reduces un-**

certainty. Clarity with regard to the applicable policy framework in debt crises contain indirect spillovers and dampen volatility (IMF 2015).

52. Furthermore, the analysis of the bondholder composition should not be overinterpreted with regard to the severity of direct spillovers. It is important to take into account valuation effects and how they affect investors.
- An empirical analysis of long term bond returns by Andritzky and Schumacher (2016) shows that maturity extensions imply **moderate losses** on bondholders during an event window starting about six months prior to crisis start and lasting to six months after crisis end, as defined by ratings or spreads.
 ↘ **FIGURE 6 LEFT** Traded bonds suffer severe price declines in the run-up to crises, both in cases with and without debt restructuring. In both cases, they are followed by notable recoveries.
 - Long term bond returns suffer significantly less than the obtained net present value relief usually suggests.
 ↘ **FIGURE 6 RIGHT** This may indicate that restructuring helps to **overcome a public debt overhang** which is detrimental to economic growth prospects and ultimately also hurts investors.
 - Furthermore, the impact and its possible higher-round effects depend on the **type of investment portfolio and relevant accounting conventions**. Portfolios which are marked-to-market, such as in case of some investment funds and parts of banks' holdings, are affected by fluctuations in market prices which could be severe even in the absence of a restructuring regime. The recent euro area crisis has witnessed these gyrations.
 ↘ **FIGURE 7** Long-term investors, such as pension funds, are likely to absorb maturity extensions more easily. However, haircuts will require the recognition of losses.

↘ **FIGURE 6**

Long term returns of sovereign bonds during debt crises¹

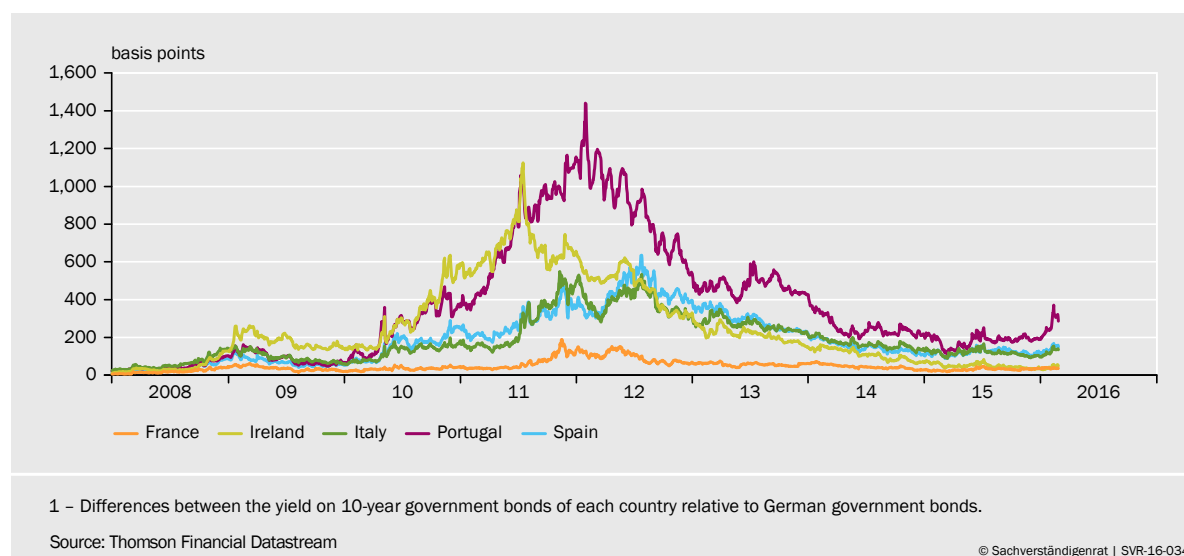


For banks, maturity extensions have also been found to be much less damaging than principal reductions (IMF June 2014).

53. Lastly, the strong home bias may be **endogenous** in the sense that domestic investors expect to be bailed out, hence explaining their willingness to hold their sovereign's debt at lower yields than foreign investors. Enhancing the credibility of the no bailout-clause may help to reduce home bias, increase the diversification of the investor base and spread the burden of crises more evenly.
54. An important channel through which sovereign restructuring can contain both direct but in particular indirect spillovers is the **confidence channel**. By setting clear rules that govern the resolution of debt crises in the euro area and by providing a solid legal foundation to implement bond restructurings, this proposal reduces uncertainty in crisis resolution. Since the mechanism helps to anchor investor expectations, both ex ante as well as during an unfolding crisis, indirect spillovers may become less common and less severe than in the current framework of ad hoc solutions (IMF June 2014).
55. Nevertheless, the introduction of a sovereign restructuring mechanism needs to be **complemented by other measures** to limit spillovers. This includes strengthening precautionary measures and adapting financial safety nets, in particular:
 - **Foster risk diversification and promote the creation of buffers:** Not only banks, also insurance and pension funds or other large investors may hold sizable sovereign exposures. To the extent that these institutions are systemic, it should be ensured that appropriate regulatory measures are in place to contain excessive concentration risks. In the insurance sector, consideration should also be given to large exposure limits and capital requirements for sovereign exposures.
 - **Stress tests and crisis simulations:** Scenarios including sovereign restructurings following this framework should become standard in stress tests,

↘ FIGURE 7

Interest rate spreads on government bonds compared to Germany¹



such as for banks, and crisis simulations, such as for the ESM. These should also evaluate whether the ESM lending capacity should be enhanced to provide a backstop to all member countries.

Does the mechanism limit fiscal discretion, foster crises, and increase funding cost?

56. Proposals regulating the restructuring of sovereign debt are furthermore criticised as Trojan horses that restrain fiscal policy. Yet, infusing a sensible dose of fiscal discipline may improve the stability of the euro area. If fiscal policy preserves sufficient fiscal space, including a sustainable level of public debt, there is **no contradiction between fiscal discretion and a sovereign restructuring mechanism**. On the contrary, in normal times all countries can benefit from a euro area architecture that includes a structured mechanism for dealing with sovereign insolvency (Panizza, 2013).
57. Embedding the sovereign restructuring mechanism in a well calibrated framework of backstops, such as through the ESM, should mitigate liquidity crises and facilitate a smooth adjustment through “loans for reforms” (GCEE 2015). Hence, it is up to the **responsibility of national policymakers** to run fiscal policy in ways that maintain conservative debt levels and minimise the risk of a crisis. Given that it is ex ante difficult to gauge policymakers’ reactions to the introduction of a framework to regulate sovereign debt restructuring, it cannot be concluded that crises would become more frequent or more severe.
58. In the special case of a large country such as Italy, it is doubtful anyway whether existing rescue packages would be able to protect it from a serious crisis and restructuring in the event of a major shock (“**too big to save**”). Concerns that the explicit introduction of rules for sovereign debt restructuring would be the very thing to provoke a sovereign debt crisis in Italy are therefore unfounded.
59. Empirical evidence for **increased funding cost or higher market volatility** is scarce (Trebesch, 2015). Studies comparing bonds with and without CACs suggest that there is no significant effect on interest rates after controlling for credit worthiness, except maybe for the most risky countries. (It needs to be noted that these results refer to studies of bonds other than euro area issues where pre-crisis bail-out expectations resulted in little spread differentiation in general.) The observation that restructuring announcements, such as the Deauville announcement in the euro area in 2010, are followed by a widening of spreads for crisis countries does not yet allow for a conclusion on interest rates in a new long run equilibrium. Market participants attest that at normal times credit is priced based on fundamentals rather than design features of the bond contract (IMF June 2014)

VI. CONCLUSION

60. The crisis in the Euro area has revealed shortcomings of the architecture of the European Monetary Union, in particular regarding the **credibility of the no-bailout clause**. The European Stability Mechanism and the European Banking Union have only partly resolved this credibility problem. Still, the restructuring of government debt as a consequence of a credible no-bailout regime has not been coped with so far. An explicit framework for sovereign debt restructuring has many advantages compared to the status quo. Above all, it anchors expectations of market participants by providing a rule-based framework and serves as disciplining device for national fiscal policy.
61. In this paper, we have outlined how such a framework could look like. It resembles similar proposals like, e.g., IMF's new lending framework by distinguishing between maturity extensions, appropriate for both funding and solvency crises, and deeper restructuring to overcome solvency crises. In contrast to the IMF, our proposal puts these **two possible debt operations in sequence**, as the liquidity need is eminent at the start of the crisis while the solvency cannot be reliably assessed until later. Restructuring would be facilitated by introducing Creditor Participation Clauses in debt contracts, which allow for single-limb voting on restructuring proposals and increase legal certainty for agreed restructuring deals.
62. In contrast to other proposals for sovereign debt restructuring mechanisms, we show how a **transition phase**, in which the bonds including CPCs and thus subject to the new rule for access to ESM financing increase gradually, could look like. Our simulations indicate that the large legacy debt of EMU member countries can be reduced while the new regime slowly phases in. Assuming both deficits and rollover needs are refinanced with debt including CPCs, Italy reaches the lower threshold for eligible debt exceeding 60 % of GDP between 2021 and 2032, when its total debt is projected at 121 and 100 % of GDP, respectively. Given the projected decline in German public debt, bonds with CPCs would not reach the threshold of 60 % of GDP. No country would exceed the upper threshold of 90 % of GDP. Overall this exercise illustrates that a mechanism for sovereign debt restructuring could be implemented even for a country with high legacy debt in a not so distant future.

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