

Debt in the Eurozone: Time to act

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Hélène Rey

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“Il nous faut de l'audace, encore de l'audace, toujours de l'audace ».

Danton, 2 Septembre 1792.

Abstract

The paper makes a number of simple proposals to improve the fiscal governance of the Eurozone and deal with the issue of the bank sovereign loop. It also proposes the creation of a Eurozone safe asset.

Introduction

The sovereign debt crisis in the Eurozone, the paralysis of the European Union in front of growing populist movements (with some advocating an exit from the common currency) and the emergence of strong popular discontent with the ECB in some parts of the Eurozone are all symptoms that Europe failed to design institutions robust enough to weather difficult times. The stakes are now high: when economic shocks and political crises coincide, the risk of disintegration rises to alarming levels. We are living through the consequences of a Brexit vote, an unexpected US election outcome and more political surprises may yet appear. Coordinated actions are needed to improve the resiliency of the euro-zone, but these are difficult to implement because of the political climate and the electoral calendar.

The diagnosis of the current situation follows. The Eurozone suffers from several woes:

- 1) **Debt overhang.** We are living with a *large debt overhang*, a legacy of the global and euro-zone debt crisis. This large level of debt impairs growth by discouraging new investment. It also constrains policy actions, for example preventing governments to pursue countercyclical fiscal policy during crises. It can be argued that austerity policies, often implemented by cutting local public goods, have led to some of the political backlash we are witnessing: Brexit vote in the UK, rise of the Front National in France, of the Cinque Stelle movement in Italy, etc...
A high level of debt also hinders the effective transmission of monetary policy and may cause financial instability. When aggregate risk aversion goes up, market segmentation goes up endogenously tightening monetary conditions in highly indebted countries while core countries benefit for capital inflows and even lower costs of borrowing.
- 2) **Weak fiscal governance.** The governance of the Eurozone is weak as far as fiscal externalities are concerned. The stability and growth pact has been breached many times and proved counterproductive from an economic and political point of view. A more credible governance is needed, starting with a sovereign debt resolution regime allowing countries to restructure their debt orderly within the Eurozone. When such a system is absent, the periphery of the Eurozone is forced to deleverage massively after a crisis and this depresses aggregate demand in the entire Eurozone.
- 3) **Bank sovereign links.** In some countries, the banks' balance sheets (and possibly the balance sheets of other financial institutions such as insurance companies) are very exposed to sovereign risk. Vice versa, sovereigns are exposed to their banking system.

This may hinder the clean-up of the Non-Performing Loans (NPLs) and may prevent the banking sector to support the recovery. The completion of the banking union, via a common deposit guarantee scheme, is blocked in part because of the issue of legacy NPLs.

- 4) **Lack of a euro-wide safe asset.** There appears to be a large demand for safe assets. The Eurozone could contribute to the supply of safe assets and share the “exorbitant privilege of the United States” ((Gourinchas and Rey (2007)) by issuing Collateralized Debt Obligations (CDOs) or Sovereign-Bond Backed Securities (SBS) (as in Corsetti et al. (2015, 2016), Brunnermeier et al (2016)). The existence of a euro area safe asset could also be beneficial for the functioning of the banking system.

My goal in this paper is to build on this diagnosis and propose institutional changes that can help address these issues while being politically feasible. I build very closely on the Monitoring Eurozone Reports 1 and 2 (abbreviated to MEZ1, MEZ2), on Farhi, Gourinchas and Rey (2011) and Gourinchas and Rey (2016). Unlike the Five Presidents Report (EU 2015) and other recent proposals, which suggest progressive steps aimed at achieving a closer economic, financial, and political union in the long term¹, I propose a limited set of measures which can be implemented now without requiring big steps in political integration. This, of course, does not mean that I do not consider a more ambitious plan desirable (on the contrary). First and foremost it would be fundamental to rethink the question of democratic legitimacy of euro area institutions, in particular by creating a euro area specific sub parliament (for example along the lines of the propositions of the Eiffel Group), but these are issues that I will not develop in this paper.

Brief outline of the propositions

First, I address the issues of **debt overhang and weak fiscal governance**.

Since deficit rules are routinely ignored, we should have **a sovereign debt restructuring regime (SDRR)** within which excessive debt assessments (EDA) would be conducted for each country. This would make it impossible for politicians to simply increase the size of public debt to unsustainable levels thereby imposing negative spillovers on other countries. An SDRR creates

¹See for example Villeroy de Galhau (2016) who proposes the creation of a Euro area finance minister backed by a legitimacy-enhancing appointment process; a genuine Treasury administration; and a strong democratic control over euro area affairs.

an endgame and gives credibility to the principle that fellow member states should not bail out a Eurozone country.

Having common restructuring rules has another advantage: it allows to manage an orderly managed default when a serious problem occurs. Knowing this *ex ante*, market participants price risk appropriately and do not expect bailouts. A fiscal and financial architecture that enforces discipline less by targets for debt and deficits and more by market mechanisms, would be more robust and more credible. It also would help avoid the massive forced deleveraging of the periphery of the Eurozone we have observed since the crisis.

The restructuring regime is no substitute for other institutions at national and Euro-area level. For example, it strengthens the role of independent fiscal councils, which could naturally be called to define the space for budget initiatives compatible with keeping debt in the safe zone. It should also be supplemented, perhaps at a later stage, by a Eurozone-wide public spending capacity, which should be much more ambitious than the Juncker Plan.

The proposed Sovereign Debt Restructuring Regime is discussed in **Section 1**.

Second, I address the issue of a **bank sovereign loop**.

Having observed the existence of a sizeable home bias in the balance sheet of financial institutions and acknowledging the significant risks arising from the presence of a strong link between the sovereign and the banks, we should ***delink banks and possibly other financial intermediaries from their national sovereign risk***. This could be achieved by imposing geographical diversification or maximum exposure rules or risk weights on sovereign debt holdings. I discuss those different approaches of financial regulation to the bank-sovereign loop in **Section 2**.

Third, I address the issues of **lack of a safe asset**.

We could **create a euro-zone safe asset** not by mutualizing the risk (as this is politically very difficult) but by creating a geographically diversified asset by putting together a basket of member states debt, thereby achieving risk diversification and creating a CDO/SBS with senior, mezzanine and junior tranches. The senior tranche would be at least as safe as the German Bund. This should help avoid destabilizing capital flows when risk aversion fluctuates and it should also give the euro area a share of the “exorbitant privilege” that the United States enjoy.

This is discussed in **Section 3**.

Potential pitfalls in the implementation of these propositions are discussed in conclusion.

Section 1: Sovereign Debt Restructuring Regime for the Eurozone

1. The Debt Overhang

As is common after major financial and economic crises, public sector debt accumulates massively. This is due to the slowdown in economic growth and, for some countries to the cost of banking rescues. Large amount of private debt may get socialized in the aftermath of a banking crisis. The case of Ireland is particularly spectacular with a debt to GDP ratio jumping from 24% before the crisis to an astonishing 120% in 2013.

Table 1: Debt of the Eurozone Countries (Percentage of gross domestic product (GDP))

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Euro area	69.2	67.4	65	68.6	78.4	83.8	86.1	89.5	91.3	92	90.4
Austria	68.6	67.3	65.1	68.8	80.1	82.8	82.6	82	81.3	84.4	85.5
Belgium	94.6	91	87	92.5	99.5	99.7	102.3	104.1	105.4	106.5	105.8
Cyprus	62.8	58.7	53.5	44.7	53.4	55.8	65.2	79.3	102.2	107.1	107.5
Estonia	4.5	4.4	3.7	4.5	7	6.6	6.1	9.7	10.2	10.7	10.1
Finland	40	38.2	34	32.7	41.7	47.1	48.5	53.9	56.5	60.2	63.6
France	67.1	64.4	64.3	68	78.9	81.6	85.2	89.5	92.3	95.3	96.2
Germany	67	66.5	63.7	65.1	72.6	81	78.7	79.9	77.5	74.9	71.2
Greece	107.4	103.6	103.1	109.4	126.7	146.2	172.1	159.6	177.4	179.7	177.4
Ireland	26.1	23.6	23.9	42.4	61.7	86.3	109.6	119.5	119.5	105.2	78.6
Italy	101.9	102.6	99.8	102.4	112.5	115.4	116.5	123.3	129	131.9	132.3
Latvia	11.7	9.9	8.4	18.7	36.6	47.4	42.8	41.3	39	40.7	36.3
Lithuania	17.6	17.2	15.9	14.6	28	36.2	37.2	39.8	38.7	40.5	42.7
Luxembourg	7.5	7.9	7.8	15.1	16	19.9	18.8	21.8	23.5	22.7	22.1
Malta	70.1	64.6	62.4	62.7	67.8	67.6	70	67.6	68.4	67	64
Netherlands	49.3	44.8	42.7	54.8	56.9	59.3	61.6	66.4	67.7	67.9	65.1
Portugal	67.4	69.2	68.4	71.7	83.6	96.2	111.4	126.2	129	130.6	129
Slovakia	34.1	31	30.1	28.5	36.3	41.2	43.7	52.2	54.7	53.6	52.5
Slovenia	26.3	26	22.8	21.8	34.6	38.4	46.6	53.9	71	80.9	83.1
Spain	42.3	38.9	35.5	39.4	52.7	60.1	69.5	85.7	95.4	100.4	99.8

Source of Data: Eurostat.

Consider the euro area as if it were a single economic entity: its gross domestic product is the sum of the GDPs of the 19 member states; its sovereign debt the sum of the sovereign debts; and its deficit the sum of all government deficits. The aggregate debt of the Eurozone amounted in

2015 to 90.4% of Eurozone GDP whereas before the crisis it was only 65% of GDP. The crisis legacy is therefore a 25 points increase in Eurozone debt.

Since 2010, the aggregate deficit of the euro area decreased year after year, as pointed out by Caruso, Reichlin and Rico (2016). Yet, the aggregate debt-to-GDP ratio kept growing from 2010 to 2014. This illustrates the difficulty to eliminate the stock of legacy debt in a period of low economic growth. The debt overhang is very persistent. Simple calculations show that debt-to-GDP ratios are not going to reach pre-crisis levels in the next 10 years.

The debt overhang poses both acute (crisis) risks and chronic (low growth) risks. Large debt levels takes away fiscal space for a number of countries at a time when they badly need it; they prevent the adoption of desirable reforms because of risk to financial stability; they jeopardize the implementation of other reforms, such as the bail-in of bank creditors and they contribute to blocking the completion of the banking union. A debt overhang also weakens long-term growth prospects as the burden of debt servicing acts like a tax on private investment and labour income. Uncertainty about the fiscal adjustments required to ensure debt sustainability has a depressing effect on economic activity. Furthermore, a large debt exposes a country to potential self-fulfilling debt crises and liquidity problems².

Forced deleveraging in the periphery

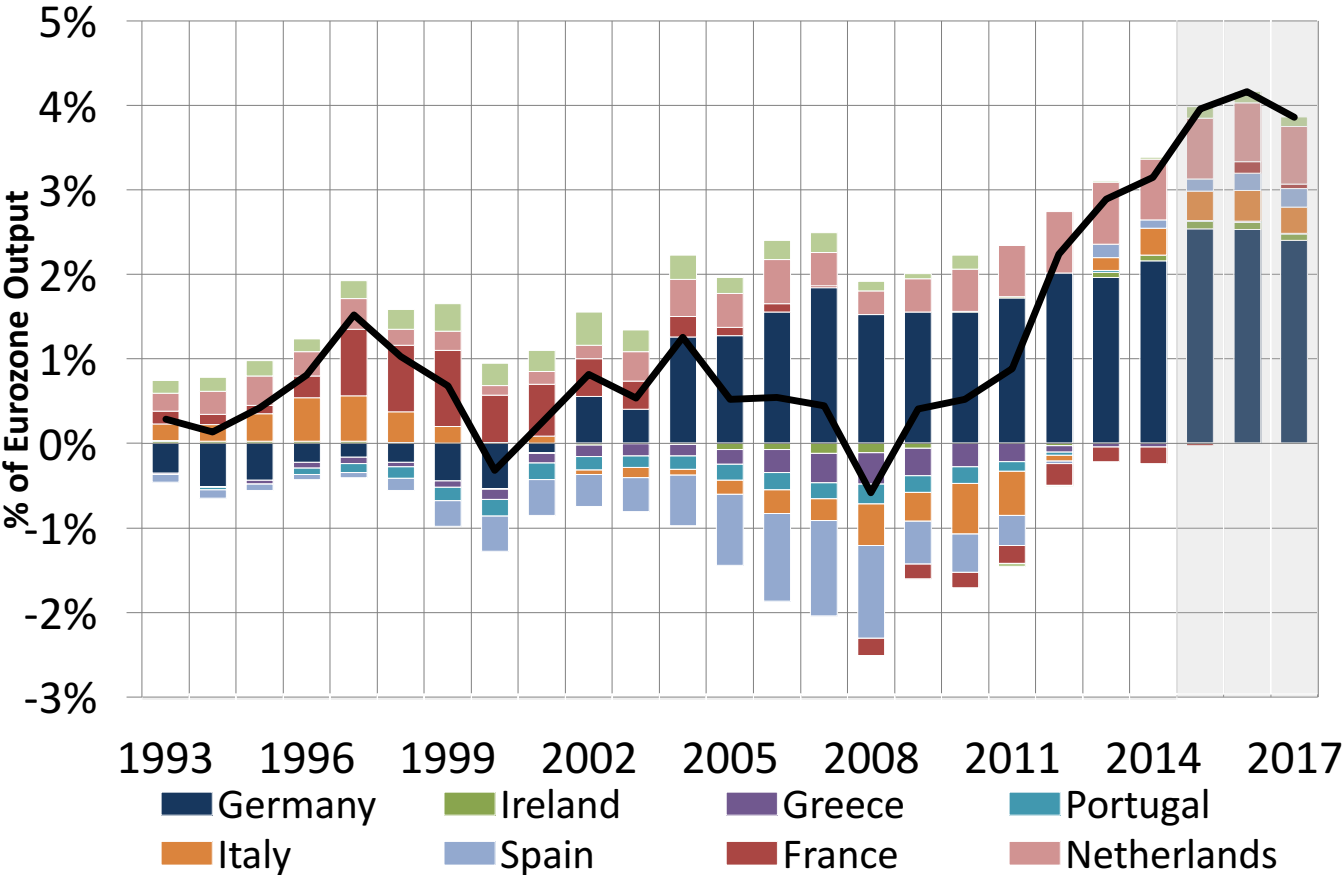
Since the crisis, a slow and painful deleveraging process is under way for the periphery of the euro-zone: from large current account deficits, the periphery now runs current account surpluses. Together with the large current account surpluses run by Germany, these countries contribute to decreasing aggregate demand worldwide. At the source of the problem was excess investment of the core countries into the periphery, in particular via debt and bank loans. As the periphery has not taken large losses, the adjustment process has been forced deleveraging of the periphery when the crisis hit. Had the core invested in equity in the periphery rather than using debt contracts and bank lending, the macroeconomic dynamics would have been very different with much more risk sharing.

If a restructuring mechanism were available, it would have been socially optimal for core countries of the euro area invested in the periphery assets to take some losses but instead forced deleveraging in periphery has morphed into weak demand in the entire zone. The forced deleveraging of Spain, Ireland, Italy, Portugal, Greece is very apparent on Figure 1 taken from Gourinchas and Rey (2016). There is a massive turnaround in the current accounts of these countries, which is due to a collapse in aggregate demand domestically. In turn, given that we

² See MEZ1 and MEZ2.

are at the zero lower bound in monetary policy, these current account surpluses (added to the German and Dutch ones) contribute to depressing aggregate demand worldwide and global deflationary forces.

Figure 1: Current account imbalances of the Eurozone. Source Gourinchas and Rey (2016)



2. A new institution for the euro area: a sovereign debt restructuring regime (SDRR)

The debt overhang problem outlined above puts two issues center stage. First the stability and growth pact was not credible. Second, once we have excess debt it is very hard to deal with it. It is persistent and forced deleveraging is deflationary and weakens growth.

A sovereign debt restructuring regime in the Eurozone aims at solving these issues. It instills ex ante discipline in preventing sovereign debt buildup and it provides an instrument to deal with a crisis ex post, should it occur nevertheless.

As explained in MEZ 2 (2016), without an effective restructuring mechanism in place, official lenders will always be tempted to deal with excessive debt with a combination of (a) procrastination (*kicking the can down the road*) and (b) provision of additional lending even in case of serious solvency concerns (*gambling for resurrection*) as was the case in Greece. The outcome is usually the worst of both worlds: countries in difficulty face burdensome fiscal adjustment programmes and undergo substantial social harm, while debt levels remain unsustainably high. This describes the present situation in the Eurozone (and certainly in Greece) quite accurately. This approach also creates perverse incentives on two fronts. Countries in difficulty tend to borrow excessively from other member states, hurting European taxpayers when these loans have to be written down. Meanwhile, the private sector continues to lend to countries in difficulty, as investors know they will be repaid, at least in part, by domestic taxpayers. The result is the underpricing of debt and over-borrowing.

Thus, the countries of the Eurozone have ended up with large amounts of debt and without the mechanisms to allow the reduction of this debt. The periphery has been forced into painful deleveraging and running current account surpluses, depressing aggregate demand worldwide. The alternative to this approach is to create a sovereign debt restructuring regime.

Monetary Union

In a monetary union the need for such a mechanism is even greater for two reasons: First, individual member states cannot count on devaluation or accommodative monetary policy to reduce the value of their debt ex post. Second, a debt crisis can hardly be isolated in a single member state, and can be expected to have strong spill overs and become a problem for the entire currency area. This is because of the close trade and financial linkages between countries and, in particular, the threat of the collapse of the common currency, which affects investors across the monetary union (*excess debt externality*)³.

The proposal is anchored in the **European Stability Mechanism (ESM)** access policies and uses thresholds for debt and gross financing needs as trigger.

³ This discussion draws extensively on MEZ2.

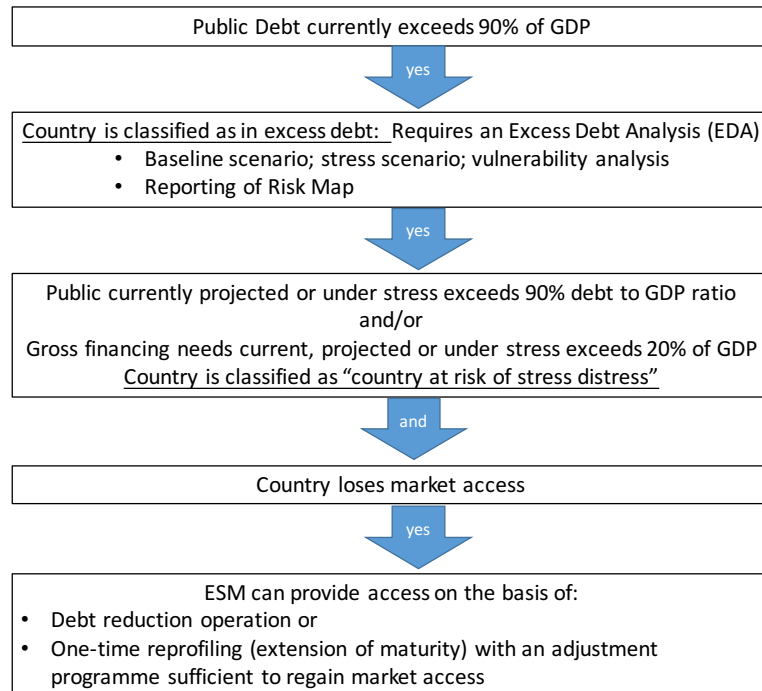
A well-designed SDRR has three characteristics. First, it must be able to declare that debt is excessive via an excess debt analysis (EDA). Note that we are not talking about sustainable debt but **excessive debt** because what matters is the negative externality imposed by member states with excessive debt on other members of the Union. Second, it must define the instruments for orderly restructuring. Third, it must credibly “tie the hands” of lending institutions, to avoid that they renege on the principle of not lending into insolvency once a country is declared in excessive debt.

To achieve these objectives, we design a mechanism made of two parts. The first part acts as the preventive tool, in that it corrects the existing *ex ante* incentives to postpone debt restructuring indefinitely. The second part fixes *ex post* incentives, ensuring that a restructuring is viable by limiting the power of holdouts.

The first part amends the existing ESM lending policies, inserting hard thresholds for the risk of excessive debt. We propose there should be two such thresholds: the ESM should only lend to countries when their sovereign debt is less than 90% of Gross Domestic Product (GDP). In the case of countries with previous ESM programmes, the net present value of the debt should be less than 90% of GDP.⁴ The proposal of 90% should be read as an attempt to be concrete: a more careful study could pick an alternative number.

Secondly, the ESM should only lend to countries whose gross financial needs are less than 20% of GDP. Again the 20% exact figure is indicative. If any of these two thresholds are broken, and the country loses market access, access to the ESM is subject to one of the following options: either one-time re-profiling, or a debt-reduction operation. The precise mechanics can be described in the graph below (see MEZ2):

⁴ Our proposal is to use net present Value of the debt in line with IMF and WorldBank practice , i.e. using a 5% discount rate.The reference for NPV use in The IMF/WB debt Sustainability Framework can be found at <https://www.imf.org/external/np/exr/facts/jdsf.htm>



The second part involves dealing with the “hold-out problem”, preventing small minorities of creditors from free riding on a restructuring which is agreed to by a majority. Hold-outs may prevent restructurings by refusing to participate even when they are in the collective interest of creditors. There are contractual remedies for the holdout problems (Collective action clauses – CaCs- with strong aggregation features) or statutory solutions. We propose a statutory solution by inserting a clause in the ESM Treaty that would extend immunity from judicial process to sovereigns that negotiated a debt restructuring with a (super-)majority of creditors in the context of an ESM programme (see MEZ2 for more detailed explanations):

ARTICLE ___ Immunity from judicial process

“The assets and revenue streams of an ESM Member receiving stability support under this Treaty which are held in, originate from, or pass through the jurisdiction of an ESM Member shall not be subject to any form of attachment ... in connection with a claim based on or arising out of a debt instrument that was eligible to participate in a restructuring of the debt of the beneficiary ESM Member after the effective date of this Treaty.”

Such a mechanism, which bears some resemblance with the way the International Monetary Fund deals with debt sustainability issues but is really tailored to the excess debt problem of the Eurozone, should instill ex ante discipline to prevent sovereign debt buildup and provide an instrument to deal with a crisis ex post, should it occur nevertheless.

Section 2: Making banks and sovereigns safer (jointly)

1. The bank-sovereign loop

The fact that banks tend to hold a lot of domestic government debt and that banks are large relative to the fiscal capacity of their sovereign (*the bank sovereign loop*) has been widely recognized as an important factor contributing to the financial instability of the Eurozone. The vicious dynamics is well-known: when sovereigns are in trouble, so are the banks, as their government debt holdings lose value and weigh on the banks' valuations. Conversely, if large credit institutions have difficulties, sovereigns can also be dragged down, as the fiscal capacity of governments is too small to backstop the banks, making investors question the overall stability of the financial system.

While important steps have been taken with the creation of the Banking Union, the establishment of Single Supervisory Mechanism (SSM), of a Single Resolution Authority (SRA), there are still problems. For a start, a joint deposit guarantee, the third pillar of the Banking Union together with the SSM and the SRA, is still missing. Furthermore, the Resolution Fund is very small compared to the size of the banking system and the strict application of the resolution rules (bail in) seems problematic in some countries due in particular to the fear of contagion in a context where the sovereign cannot provide a credible backstop. It is a positive step that the European Stability Mechanism (ESM) can finance the recapitalisation of financial institutions by issuing loans to the governments of member states. However, that adds to the debt burden of the sovereign and reinforces concerns over the size of the legacy debt from the crisis.

In this context, it is quite worrying that the sovereign–bank loop is still alive and well as evidenced in Figure 2 (see also Altavilla, Pagano and Simonelli (2016)).

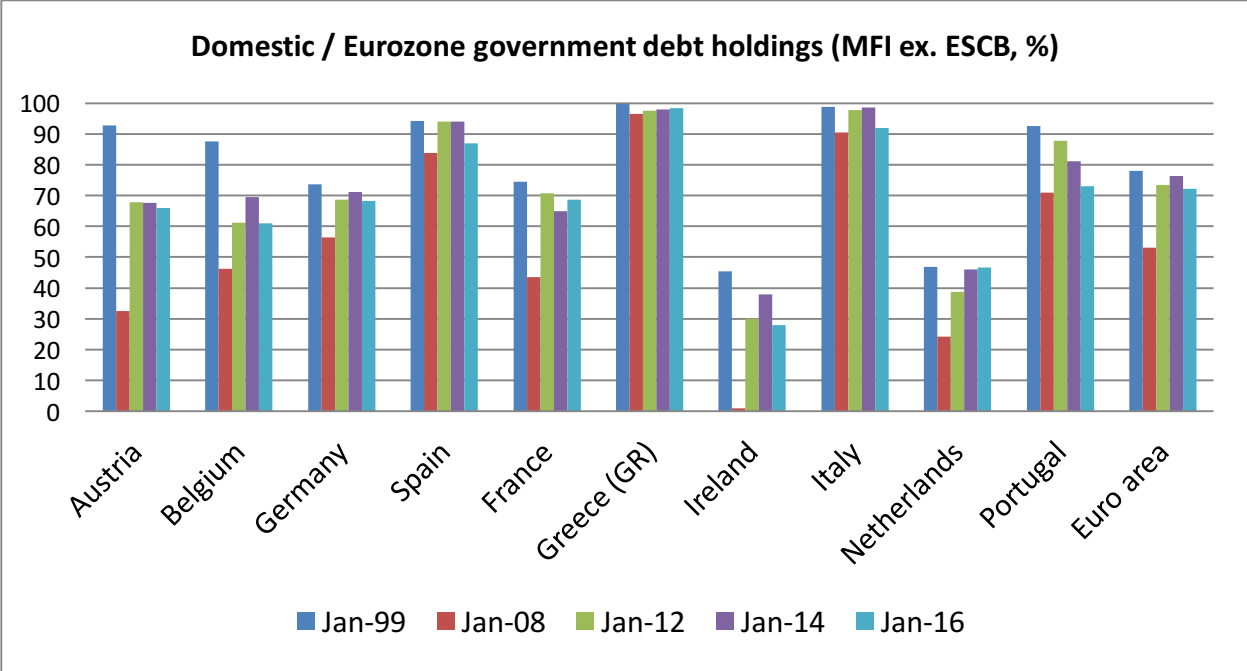


Figure 2: Home bias in government debt holdings. Source: European Central Bank.

The home bias in holdings of domestic sovereign bonds in the balance sheets of Eurozone banks has increased after 2008 and is high especially for vulnerable countries.

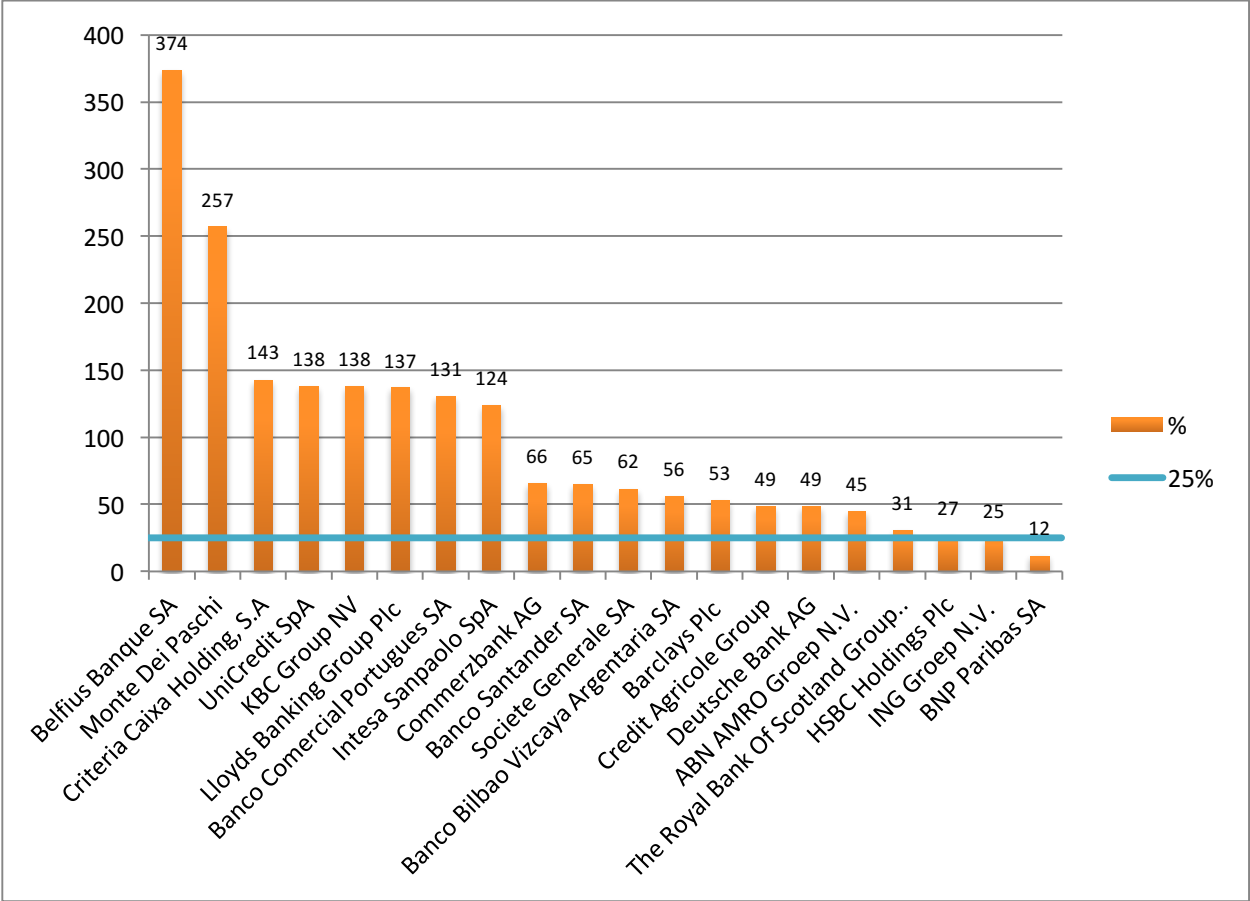
There are several possible explanations for this home bias. The first is moral suasion (financial repression) by domestic authorities (see for example Becker and Ivashina (2014)). The second is that banks may be (or have been) betting on a preferential treatment by the domestic authorities in case of a partial sovereign default. The third is the realization that in the case of a large sovereign crisis, their own fate is closely linked to the one of the sovereign anyway, so that there is less reason to diversify risk. The fourth is that the risk of a disintegration of the euro area is still very much present: banks therefore strive to match the currency of their assets and liabilities in the case countries were to return to their national currencies. For example, Battistini et al. (2013) have persuasively argued that market segmentation is a reaction of the banks to the sharp increase in systemic risk.⁵ This last explanation is comforted by the fact that insurance companies and mutual funds also exhibit some home bias (see Koijen, Kulischer, Nguyen and Yogo (2016)). Whichever the true explanation, the outcome is the same: the degree of home bias tends to increase when risk goes up (Reichlin (2014) and Colangelo et al. (2016)).

⁵ Specifically, they find that banks in peripheral countries respond to an increase in own-country risk premia by raising their domestic exposure, while in core countries they do not; and that all banks' home bias increases as a result of an increase in systemic risk. They conclude that for peripheral countries, this can be explained in part by carry trade, but that something like hedging redenomination risk must be playing a role throughout the euro area.

For both Italy and Spain, domestic holdings of sovereign bonds by monetary and financial institutions amount to about 10% of their total assets according to the ESRB Report on regulatory treatment of sovereign exposures (2015). This means that, in a conservative case where bank leverage is equal to 10, a 50% loss on sovereign debt would wipe out half of the equity of the banks.

When looking at disaggregated bank data, the bank-sovereign loop problem seems, if anything, more severe. Figure 3 shows the exposure to sovereign risk (including sovereign debt and loans) as a percentage of bank capital (own funds). The numbers are very high for a number of key banks, in particular of the periphery. There is a risk that banks and sovereigns enter a dangerous dynamic.

Figure 3: Home country net sovereign exposure over Tier 1 capital, %.



Source: EU Stress Tests (2016).

Bank sovereign loop and monetary policy

The issue of home bias in the holdings of government bonds by banks is a problem not just for financial stability but also for monetary policy, as it segments the credit market across national lines, hindering the transmission of monetary policy.

First, since home bias increases when investors are more risk averse and when risk increases, financial segmentation in the euro area tends to increase in time of stress. This significantly impairs the functioning of monetary policy and makes the realization of the ECB's inflation target very difficult.

Second, in a world of volatile financial markets and unstable risk premium, high debt is a cause of financial fragility and segmentation. This puts a heavy burden on the ECB, since it has to monitor market conditions continuously and intervene occasionally in order to safeguard the monetary transmission channel. The role of the ECB in stabilising the system has become paramount. This was made clear by the July 2012 intervention of President Mario Draghi when he stated the ECB would do "whatever it takes" to save the monetary union, contributing to a sharp reduction in risk premium on sovereign bonds.

When there are shocks to the risk premium, the debt burden of sovereigns rises and may prevent them from stabilizing their debt-to-GDP ratios. In some cases, reducing the stock of national debt while serving soaring interest rates would require unattainable primary surpluses equal to several percentage points of GDP. Seeing this, market participants might require an even higher risk premium, which further tightens monetary conditions. The ECB then has to counteract this destabilizing process by loosening monetary policy and coordinating market participants on the stable low interest rate equilibrium that helps to make the debt service manageable. But this has not been uncontroversial and several policymakers have highlighted the moral hazard consequences of this policy stance.

It is important to realize that adverse shocks to risk premia may not be necessarily have domestic reasons, but may have their origins abroad and reflect global economic conditions and risk aversion of international investors (Global Financial Cycle, see Rey (2013, 2016)). Because of the existence of self-fulfilling debt crises, the lines between solvency and liquidity problems are continuously blurred and are endogenous to monetary policy. Indeed, the experience of the euro area debt crisis has shown that the risk assessment of markets has gone from extreme paranoia to excessive tranquillity. This severe volatility may be partly explained by the uncertain governance of the Eurozone: markets either believe in the strong commitment of the central bank to backstop individual sovereigns, in which case credit risk is low everywhere; or they doubt

the commitment to monetary union. This can cause a flight to safety that generates risk premia so large that they are plausible only under (possibly self-fulfilling) expectations of currency redenomination with a breakup of the euro area. In either case, but especially in the second one, market signals appear unable to provide a realistic assessment of the fundamentals of each country's fiscal position. This is why in all jurisdictions, the lender of last resort function of the Central Bank is an essential pillar of financial stability. This is also why it is important to provide a transparent framework for countries to restructure debt if necessary and to break the bank sovereign loop.

Breaking the loop: principles for regulation of sovereign holdings by banks

The current regulatory treatment of government bonds for the purpose of both capital charges and collateral in the Eurozone considers all sovereign bonds essentially riskless, independently of the level of public indebtedness of the country of reference. This framework introduces moral hazard and does not reflect a country's fundamental risk.

When regulating the banks' holdings of sovereign debt, the following principles should be taken into account (see MEZ 2) :

- Limit systemic risk. This implies reducing the incentives to accumulate excess holdings of domestic sovereign debt.
- Pay attention to geographical diversification and to maturity risk.
- Limit transition costs and asymmetric effects across countries. This implies preserving financial stability during the transition period when portfolios are reshuffled.
- Ensure consistency with other Basel prudential regulation such the Liquidity Coverage Ratio (LCR) or Net Stable Funding Ratio (NSFR).
- Ensure consistency with regulation of other financial intermediaries such as prudential regulation of insurance companies to avoid regulatory arbitrage. Maturity risk is very different for banks and for insurance companies.
- Avoid imposing regulations which are pro-cyclical.
- Ensure consistency with the objectives of monetary policy and financial integration.

There are several options which can be enacted to achieve some of these objectives.

- 1) **Impose limits on banks' exposure to their own sovereign.** For example, regulators could lift the exemption of sovereign bonds to the limited exposure rule and decide that banks can hold no more than, say, 25% of their core Tier 1 capital in exposure to their sovereign. Exact numbers for the limits should of course be cautiously discussed taking into account the disruptions of portfolio reshuffling following implementation. Some banks, especially in the periphery, would need to downsize massively their holdings of domestic sovereign

debt. While we have no precise estimates to date for the absorption capacity of the non-bank sector for additional sovereign debt holdings, it is likely that this would be limited and that the ensuing price effects would be high. Imposing this limit on bank exposure with a long transition period could somewhat mitigate this problem. However, since asset prices are forward looking, some price adjustment would take place right away. Another way to limit this shift would be via asset purchases by the European Central Bank.

- 2) **Impose risk weights on sovereign debt.** The weights could be decided by the credit ratings agencies and based on market measures such as CDS prices or on economic fundamentals. In that latter case, it would be rational to use the results of the Excessive Debt Assessment (EDA) described previously to assign the weights. This proposal may introduce an element of pro-cyclicality, if based on prices, since banks could be forced to sell some sovereign bonds at a time of stress. This may amplify sovereign distress especially if the weights are based on market indicators. Just as before, it may lead to substantial portfolio shifts during the transition. But this proposal has the advantage of making banks more solid by increasing their loss-absorption capacity. One could in particular explore weights which would depend not only on fundamentals of the sovereign (via the EDA) but also on whether an institution is already very exposed to that particular country risk or not.

- 3) **Impose geographical risk diversification.** Regulators could decide that baskets of euro area bonds - weighted by GDP or by ECB capital share - should carry a zero risk weight at least up to some limit (and may be up to some maturity for the banking sector). One could also think of tranching these diversified securities in senior and junior debt. Meanwhile, governments would not be jointly liable for these securities. The advantage of this proposal is to create a safe asset (the senior tranche) that would be geographically diversified. By combining tranching with diversification, this expands the fiscal capacity that backs the safe asset and provides robustness to swings in perceived creditworthiness during episodes of flight to safety (see Brunnermeier et al, 2011, MEZ1 (2015), MEZ2 (2016), Brunnermeier et al, 2016⁶). This safe asset could also be used in monetary policy operations of the ECB (see Garicano and Reichlin, 2014).

- 4) **Hybrid proposal.** One hybrid proposal could be to both promote diversification (with creation of a Eurozone asset) and to impose tailored risk weights based on the fundamentals of the country as described in the EDA.

⁶ See also Benassy-Quere (2012)

- First, the ESM assigns risk weights to each Eurozone country's sovereign debt. These weights should be computed from the marginal bands based on the EDA exercise described in Section 1 and then aggregated into an average risk weight for each country. As a result, the riskiness of a sovereign bond would be consistent with the fiscal position of its government, as assessed and monitored by the ESM, within the SDDR framework.
- Second, the ESM introduces a registration scheme to encourage the private sector to create sovereign-debt-backed CDOs. Let us call them SBS (Sovereign Backed Securities as in Brunnermeier et al (2016)). Under the scheme, SBSs backed by qualifying portfolios of sovereign bonds could be divided into registered tranches and each would attract a different quantity of risk weighted assets (RWAs). To qualify, the underlying portfolio would have to contain sovereign bonds from the different euro area sovereigns in proportion to their shares of euro area gross domestic product (or ECB capital keys), within some explicit tolerance bands. The rule whereby different tranches would attract different RWAs would ensure that in aggregate these tranches attract the same RWAs as if the bonds were held directly by a bank. At the same time the rule would allow one tranche (the senior tranche, call it the A tranche) to attract zero RWAs while the others would attract more. The A tranche of the SBS would be able to play the role of a euro area safe asset. It can be designed to carry less risk than the German Bund (see Brunnermeier et al (2016)).
- This proposal has several advantages. First, the risk weights will ensure that each bank builds some risk absorption capacity when exposed to sovereign risk. Second, there is differentiation of credit risk across countries and market discipline is more easily enforced. Meanwhile, this scheme could help deal with the transition problem and stabilize debt prices as portfolio shifts are less pronounced because of the geographical diversification principle. We could even avoid large price effects by organizing swaps of national debt against GDP-weighted baskets of bonds between the ECB and the banking sector. For example, national commercial banks could swap their domestic sovereign bonds against an equivalent amount of diversified sovereign bonds (at the market price) held on the balance sheet of the ECB. Given the current, expanded balance sheet of the ECB, this swap operation could absorb a large amount of necessary portfolio rebalancing without any price effect and without changing the portfolio of the ECB (which would get back from the collection of national banks its previous portfolio of bond holdings). In effect, the ECB would be the mere intermediary of the swap of debt between national debts and the diversified bonds and the ECB would not take the slightest risk (it would get back the exact same portfolio). Meanwhile all domestic banking systems would be diversified.

- Mezzanine and junior tranches of the Eurozone asset would attract positive risk weights possibly differentiated depending on maturity in order to match duration of liabilities of different institutions. The maturity profile risk weights could differ to induce insurance companies to hold more long maturities securities while banks could be induced to hold shorter maturities.
- One big unknown is whether (or at which price) there would be demand for the mezzanine and especially the junior tranches. Regulators will also have to ensure that financial institutions (banks, insurance, pension funds) find the diversified asset more attractive than the status quo.

Section 3. Why creating a Eurozone asset could make a difference.

The creation of a Eurozone safe asset, without joint liability, can be viewed as in Section 2 as one option to help delink banks from their sovereign risk. But there are other rationales that would suggest that creating a Eurozone asset would be an important step forward, even without considering the feasibility or desirability of a joint fiscal capacity in the Eurozone and mutualisation of risk. I list four of them: monetary policy implementation, sharing the exorbitant privilege of the US dollar, overcoming the scarcity of safe assets and preventing a new Triffin Dilemma.

Monetary policy implementation

Since home bias increases when investors are more risk averse and when risk increases, financial segmentation in the euro area tends to increase in times of stress. This impairs significantly the functioning of monetary policy and makes the realization of the ECB's inflation target very difficult. For example, in stressed times, when the ECB would like to loosen monetary policy, financial conditions tend to tighten in the periphery counteracting the effectiveness of the Central Bank. Conversely, conditions may be too loose in the core countries, which benefit from capital inflows due to flight to safety, which in turn may feed asset price bubbles. If a Eurozone wide asset were created, this would significantly decrease the segmentation of markets and the detrimental effects of portfolio rebalancing. This would help the ECB to implement monetary policy. A Eurozone asset would also be very desirable when implementing quantitative easing.

The exorbitant privilege

Gourinchas and Rey (2007) documented the role of the US as a world banker and pointed out that given the structure of its balance sheet (borrowing in safe securities at a low cost and investing in riskier assets of longer maturity on average) it earned an excess return on its external position. They called that excess return the "exorbitant privilege" echoing the famous Valéry Giscard d'Estaing quote (often attributed to De Gaulle) of the 1960s.

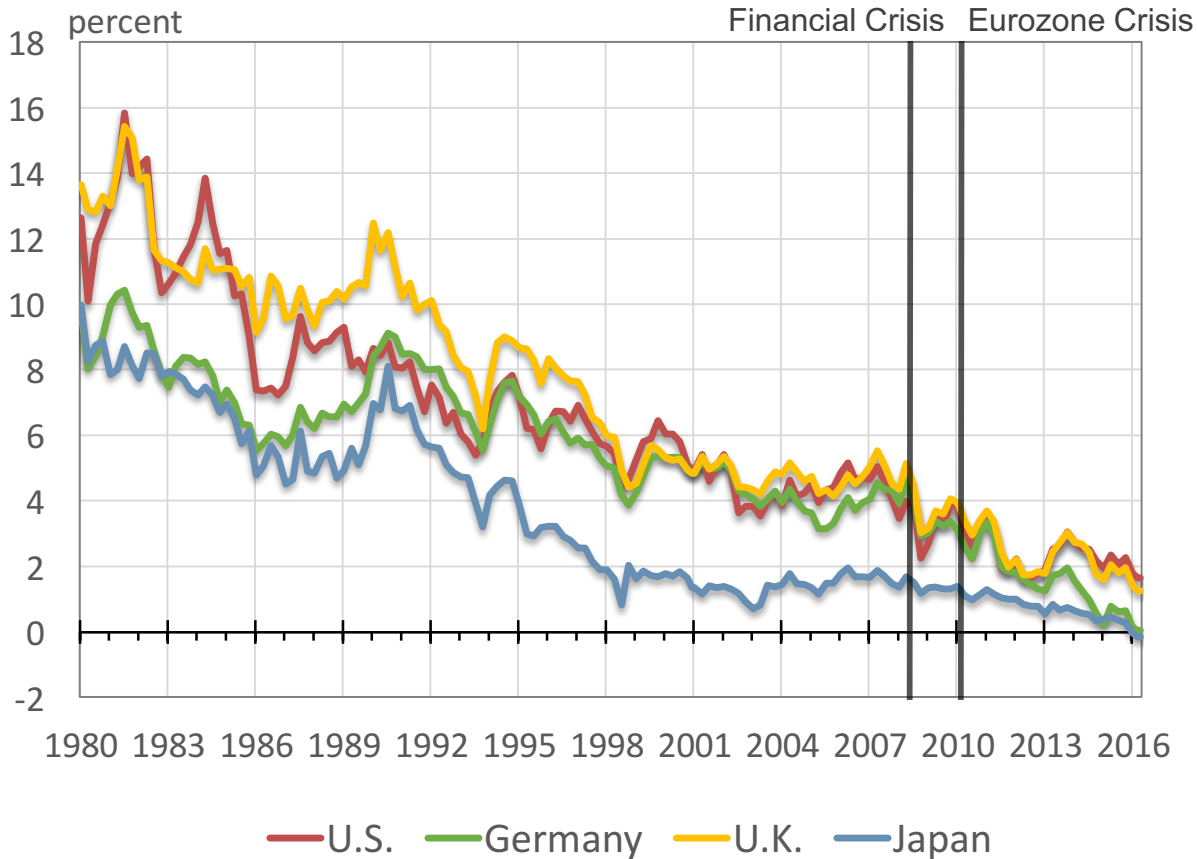
As a provider of the reserve currency and the largest market of safe securities (Treasuries and other government bonds) which are all in very high demand worldwide, the United States enjoys

an excess returns that Gourinchas, Rey and Govillot (2010) put at about 2% per annum. If the Eurozone were to issue a safe asset in large quantities, via for example the senior A tranche of the SBS, it could also benefit on a sustained basis of very low funding cost and effectively appropriate a share of this “exorbitant privilege”.

Low real rates, scarcity of safe assets and the New Triffin Dilemma

The striking decline in long term rates has been interpreted (see i.e. Farhi, Gourinchas and Rey (2011)) as reflecting an excess demand for safe assets. In a world where a large part of the demand for the reserve asset is driven by emerging markets and those are growing quickly, the price of safe assets may be driven up significantly. As a result, rates are going down (see Figure 4) and the problem of the zero lower bound becomes a more pressing one. If that analysis is correct, one way of getting the world out of the liquidity trap would be to increase the supply of safe assets (thereby increasing rates again). The Eurozone could contribute to alleviate the shortage of safe assets by issuing SBS.

Figure 4: Long term rates (10 year). Source Gourinchas and Rey (2016)



In the same spirit, Gourinchas and Rey (2007) have pointed out that we may be witnessing the existence of a New Triffin Dilemma. In a world where the US can supply the international currency at will, and invests it in illiquid assets, it still faces a confidence risk. There could be a run on the dollar not because investors would fear an abandonment of the gold parity, as in the seventies, but because they would fear a plunge in the dollar exchange rate. As Obstfeld (2011) puts it: “a Triffin dilemma arises any time increasing demand for a reserve asset strains the ability of the issuer to supply sufficient amounts while still credibly guaranteeing or stabilizing the assets value in terms of an acceptable numeraire”. As a solution to this problem Farhi, Gourinchas and Rey (2011) propose that other large financial areas of the world (the Eurozone, China) issue more safe assets. This would help alleviate the new Triffin dilemma by adding the fiscal capacity of those countries to the one of the US as a backing the value of these safe assets. In their view, a world with multiple reserve currencies may therefore be more stable than a world with only one hegemon (the US dollar).

There are, however, some limitations to the emergence of these Eurozone SBS as direct analogues to the US Treasuries: (a) it may take some time to build up sufficient quantity of these securities in the market to match the liquidity of the market for Treasury bonds, and (b) while protected by their senior status, these SBSs, unlike Treasury bonds, would still be backed by the several, not joint, obligations of the Eurozone sovereigns.

Conclusions

This paper lays out how a Sovereign Debt Restructuring Regime, changes in financial regulation and the creation of a Eurozone asset could all be positive steps to deal with the fiscal governance problem of the Zone. A stark warning has to be given however.

Given the status quo of high debt, we cannot immediately introduce an SDRR as described in Section 1. This would be dangerous, as the transition path could be highly destabilizing. Announcing the implementation of the debt restructuring mechanism in an environment where several countries are already highly indebted could result in a run on their debt.

Managing the transition towards better institutions is essential and the starting point cannot be ignored. One way to deal with the transition path problem would be a ***quid pro quo***: a **coordinated one-off solution to decrease the legacy debt in exchange for a permanent adoption of the SDRR** (see “Reinforcing the Eurozone and Protecting an Open Society” (2016) for further details). This approach reduces the risk of moral hazard linked to the coordinated elimination of the legacy debt. Every country ends up in a better place.

The most obvious alternative approach – letting the ECB hold government debt bought via quantitative easing indefinitely – would end up placing an excessive burden on the Central Bank and would let the situation drag on for decades.

This said, the creation of an SDRR, improving financial regulations and the creation of a Eurozone asset would all help restore prosperity in the Eurozone in the aftermath of the Great Financial Crisis. These are important steps. Many others should be done to improve governance and democratic legitimacy in the Eurozone.

It is time to act.

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