



European  
Commission

**Five Presidents' Report Series**

Issue 03 / 2015 | 09 November

**European Political  
Strategy Centre**

Severing the 'Doom Loop'

# Further Risk Reduction in the Banking Union

There are several questions still to be addressed in the full implementation of the agreed Banking Union actions. These include the full transposition of the Bank Recovery and Resolution Directive and of the Deposit Guarantee Directive into national law by all Member States, and making the Single Resolution Fund fully operational. Another important issue in this context concerns the exposure of banks, notably in the euro area, to debt issued by their own governments, in some cases by more than the total capital of banks. This situation remains a source of potential vulnerability that so far has not been addressed by the many reforms of the euro area or the banking legislation. This note explores possible ways to deal with this situation.

## **Sovereign-Bank Links Remain a Significant Problem**

Sovereign-bank links were at the heart of the euro area crisis and remain a severe weakness as bank balance sheets are still overwhelmingly exposed to their own sovereigns. This source of risk has not been sufficiently addressed to date.

## **Rules on Government Debt Add to the Trouble**

Zero-risk weighting of sovereign debt in the EU, as well as the exemption from existing large exposure requirements, are a source of vulnerability. This does not reflect a global regulatory constraint – as the global Basel framework does not prescribe zero-risk weight for bank exposures to sovereigns – but a regulatory choice made at European and global level.

## **Diversification of Portfolios Leads to Sizeable Reduction of Risk**

Reducing this exposure could be achieved through diversification of government debt portfolios, including by the purchase of government debt of other euro area Member States.

## **Large Exposure Regimes are Preferred Policy Option**

An adequate way to operationalise risk reduction would be to introduce limits on large exposures, as they are already in place for other asset classes. The EU could introduce them itself first and work towards adoption of similar rules in the international context (a 'Basel 3.5' system).

### **Disclaimer**

The *Five Presidents' Report Series* is produced by the European Political Strategy Centre (EPSC), the European Commission's in-house think tank. Its aim is to intellectually accompany the implementation of the Five Presidents' Report on completing Europe's Economic and Monetary Union. The views expressed are those of the authors and do not necessarily correspond to those of the European Commission.

## Severing the Link: Banks' Exposure to Sovereign Debt

There are several questions still to be addressed concerning the implementation of the Banking Union. First of all, the relevant legislation concerning the Bank Recovery and Resolution Directive and the Deposit Guarantee Directive needs to be implemented and applied in all Member States, and the Single Resolution Board needs to become fully operational. Bridge financing for the Single Resolution Fund needs to be put in place and agreement reached on a common backstop. Secondly, in addition to making sure that the agreed legislation is applied as foreseen, it may be useful to reconsider some aspects of the so-called Single Rulebook (a term used to describe the 2009 unified regulatory framework for the EU financial sector).<sup>1</sup> Thirdly, a significant amount of national discretion also remains on macro-prudential tools, where examining these tools in more detail could be warranted. Finally, another very important point as concerning the Banking Union is the level of banks' exposure to sovereign debt.

The possibility of funding problems in government debt markets, especially in advanced economies such as the euro area Member States, has largely been underestimated.<sup>2</sup> The euro area sovereign debt crisis – in which government funding costs sharply diverged, resulting in a very significant increase in the riskiness of the balance sheet of banks exposed to euro area 'periphery' – changed this prevailing perception in two ways:

- it highlighted that government debt *is not risk free*, even for advanced economies such as euro area members (arguably largely due to the incomplete nature of the common currency);
- in case where the banking system needs public support to avoid a financial meltdown, stress in the banking sector is transmitted to the public sector. Conversely, government bonds on the balance sheets of banks are the main transmission channel through which weak government finances may affect the banking system and can constitute a systemic risk.

The second aspect above is sometimes referred to as the 'doom loop' between governments and their respective banking sector. The Banking Union, through common supervision and resolution of banks, is aimed at severing this part of the doom loop. Yet the other leg of the loop, where stress in the government bond market is transmitted to the banking sector, has thus far not been adequately tackled.<sup>3</sup> The Five Presidents' Report recommended that a review of the regulatory treatment of government debt should be considered, which essentially aims at severing this leg of the doom loop as well. However, the Five Presidents' Report also

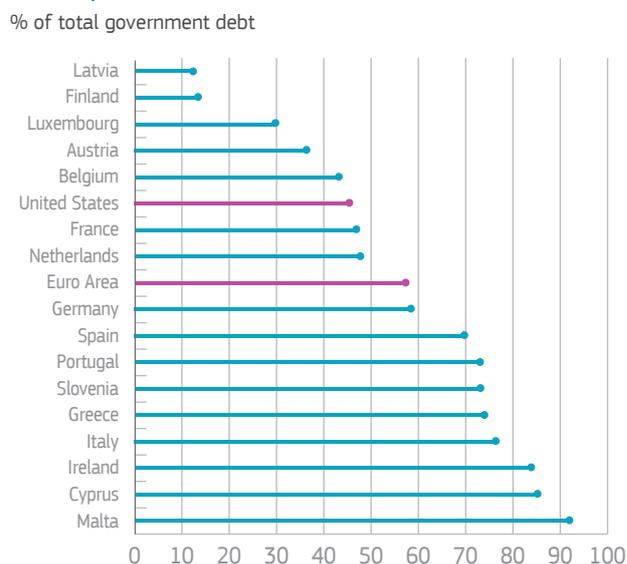
stressed that this should be part of a global reform in this area, to avoid an uncontrolled unwinding of exposures to euro area government debt by non-euro area banks, and to prevent euro area banks being placed at a disadvantage towards their non-euro area competitors.

### 1. Government Debt in the Euro Area Banking Sector

Government debt receives favourable regulatory treatment, at the European as well as the global level.<sup>4</sup> Because of this favourable treatment, and because of the role government debt plays in capital markets, government bonds are present on almost every bank's balance sheet.

The largest share of government bonds is in most cases held in the form of domestic government bonds. Figure 1 shows that the share of sovereign debt held by domestic banks varies significantly between countries, and that the average for the euro area is very high at 57% and has been increasing since the beginning of the crisis.<sup>5</sup>

**Figure 1. Sovereign Debt Held by Domestic Banks, End 2013**



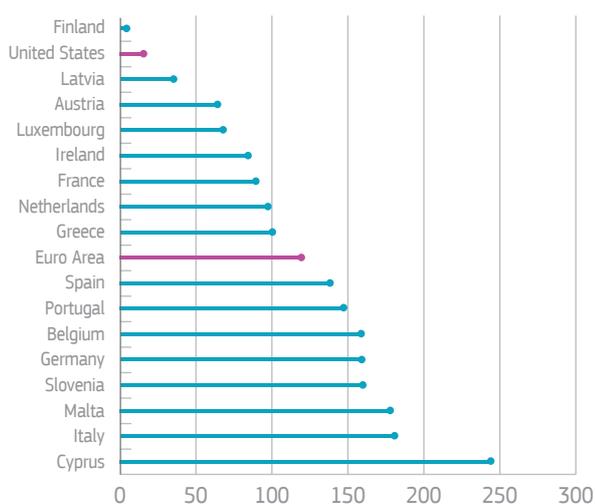
Sources: [Stress Test Data 2014, European Banking Authority](#), [Consolidated Banking Statistics, Bank for International Settlement](#), [Depository Institutions - Consolidated Balance Sheet, Board of Governors of the Federal Reserve System](#).

The average share of sovereign debt held by domestic banks in the euro area is not much higher than the average in the US of 45%, but varies very significantly from slightly more than 10% in Latvia to over 90% in Malta, reflecting factors like the size of the existing stock of national public debt and its attractiveness to non-national banks.

However, as Figure 2 on p. 3 illustrates, this home bias in government bonds results in a very significant concentration of counterparty risk in the euro area: the average euro area exposure to domestic government debt as a share of own funds is 118%, though again there is significant variation.<sup>6</sup> In comparison, the exposure of US banks to US government bonds is significantly lower, at 14% of equity.

**Figure 2. Exposure of Banking System to Domestic Government debt, End 2013**

% of own funds



Sources: [Stress Test Data 2014, European Banking Authority](#), [Depository Institutions – Consolidated Balance Sheet, Board of Governors of the Federal Reserve System](#).

Hence, the status quo is such that in case of a default of a sovereign, the respective banks' own funds would be wiped out. Even in the absence of a default, funding stress for any of these sovereigns is likely to significantly affect the banking sector as well, by forcing banks to adjust the amount of sovereign exposure in their balance sheets in ways that might constrain their profitability and capacity to extend credit to the broader economy.<sup>7</sup> Hence further action at European level could be warranted, bearing in mind also the ongoing international discussions in this area.

There is a variety of policy options of how to respond to the observed concentration of government debt in the banking system.<sup>8</sup> We focus on **large exposure regimes** as the policy to recommend, while outlining the advantages this solution has over other policy options discussed, most prominently capital requirements.

## 2. Large Exposure Regimes and Capital Requirements

Capital requirements for counterparty risk aim to ensure that enough capital is left in a bank in case of the default of a counterparty, and vary with the probability of that happening. Currently, the Basel III rules allow for but do not require a capital requirement of 0% for sovereign debt.<sup>9</sup> In the EU, the Basel Accord is transposed by the Capital Requirement Directive (CRD) and corresponding Regulation (CRR). Under European legislation a 0% risk weight is applied, under certain circumstances, to Member States' debt issued in euro or local currency.<sup>10</sup>

It can be argued that in case where the credit rating of the counterparty is very good, the capital requirements are very small as a result and hence would do little to ensure the solvency of the bank in case of default. **A considerable disadvantage of an approach based on capital requirements is that they are pro-cyclical.**<sup>11</sup> Namely, capital requirements tend to increase in a downturn, resulting in a bank being less able to lend and decrease in an upswing with the result of lending excessively in a boom. Also, the implementation of capital requirements for sovereign debt would probably result in very considerable market tension, and not only for euro area-based banks, as banks around the world would need to reprice their sizeable holdings of sovereign debt.<sup>12</sup> Furthermore, banks would need to raise additional capital in order to comply with the new capital requirements. This would weigh negatively on their ability to lend to the real economy.

Large exposure regimes require banks and investment companies to limit their exposure to any single counterparty. Unlike the regulatory approach through capital requirements, **the large exposure regime prevents the build-up of large exposures in the first place.** The approach underlying this regulatory tool is hence a different one. Large exposure requirements disregard the likelihood of default or funding stresses and rather account for the occurrence of unforeseeable events, which can result in prohibitive losses even for the soundest counterparties. **Exposure requirements carry the advantage that they are constant over the business cycle and are hence not pro-cyclical.**<sup>13</sup>

In the EU, a large exposure limit is set at 25% of own funds.<sup>14</sup> However, the EU's Capital Requirement Regulation exempts exposures to sovereigns where these sovereigns would be assigned a risk-weighting of 0% under Basel's 'standardised approach', which is effectively all the debt issued in local currency in the EU.<sup>15</sup> As a direct result of this policy choice, which is by no means restricted to EU Member States only, government bonds are highly concentrated in most EU Member States' banking systems. So far exposure limits have been reserved for

crisis situations, as was the case with Greece earlier this year (see Wolff, 2015). Yet a large exposure requirement can contribute a large deal to a safer and more resilient banking system in the EU.

### 3. Policy Options for a Large Exposure Regime

**Option 1: Full or partial exemption from the large exposure regime:** the full removal of the exemption for sovereign debt from the large exposure requirement would be the most straightforward option to sever the link between sovereigns and their banking sector. Another possibility would be to partially remove the exemption i.e. to account only for a certain share of the exposure (for example only 20% of the face or market value of the exposure). The threshold could be aligned with the 25% threshold currently applied in the Capital Requirements Regulations. Yet, this threshold is likely to be too low given the importance of the sovereign debt market for the functioning of European capital markets as well as the financing need of EU Member States. The exact limit to be set would need to carefully balance its regulatory aim and the role government debt plays in financial markets as well as the financing needs of euro area governments.<sup>16</sup>

**Option 2: Exposure limits as a function of portfolio diversification:** another option would be to make the exemption from the exposure limit conditional on the diversification of the government debt portfolio. The focus of this approach is rather on the diversification of the portfolio than on the actual exposure and in this way acknowledges that a well-diversified government debt portfolio is potentially less risky. Therefore, it could then be exempted from the exposure limit. A well-diversified portfolio could, for instance, be defined as a portfolio where the amount of debt held by any single euro area bank corresponds to that respective sovereign share in the euro area GDP (see ESRB, 2015).

The main disadvantage is that a well-diversified government debt portfolio can still be exposed to excessive counterparty risk because it does not exclude high exposure to any single government within the portfolio.<sup>17</sup> Also, the crisis highlighted that there is a significant degree of contagion threat between euro area governments, because the exit of a Member States would threaten the credibility of the euro area as such.<sup>18</sup> The market then prices such a scenario, leading to funding stress for vulnerable euro area Member States. As a result, even a well balanced portfolio with high exposure to the euro area can still constitute a significant risk to a bank.

**Option 3: Exposure limits as a function of likelihood of default:** another option would be to account for the different riskiness of government debt in calculating the exposure limits. In such a regime the permitted exposure to governments less likely to default would be higher than for those more likely to default. Yet such an option would not account for the very purpose of large exposure requirement i.e. that even the safest of all counterparties can experience a prohibitive unforeseen event, and it would also raise the question of how to assess the risk of a particular sovereign. The most obvious option to assess the likelihood of default are credit ratings. Yet, this would likely reinforce the systemic risk stemming from the so called 'cliff effect'<sup>19</sup> in credit ratings and be inconsistent with ongoing global efforts to reduce reliance on credit ratings.<sup>20</sup> Also this policy option would introduce a certain element of pro-cyclicality as measures of creditworthiness are usually at least partly dependent on the overall business cycle, with credit rating being better in a boom phase and worsening sharply during a severe downturn. Whichever way a large exposure regime for the euro area would eventually look like, it would require most banks to significantly reduce their exposure to those governments whose debt they hold in significant amounts. As illustrated above, this is mainly their respective domestic government. A well-designed phase-in period would need to be put in place in order to avoid market turbulence in the adjustment period.<sup>21</sup> Since government bonds continue to be high quality liquid assets, the institutions that have to reduce exposure to some governments are likely to substitute them with sovereign bonds from other governments.<sup>22/23</sup> In this way, large exposure regimes encourage diversification of portfolios on a firm level and reduce systemic risk from a macro point of view (see ESRB, 2015).<sup>24</sup>

## Conclusion

Largely reflecting EU and global policy choices, euro area banks are greatly exposed to their own sovereigns.

**A straightforward exposure regime would greatly limit systemic risk in the banking system, result in a well-diversified government debt portfolio and considerably weaken the doom loop between sovereigns and their banking systems.**<sup>25</sup>

A large exposure regime is the preferred policy option for the following reasons:

- it is a policy option that accounts for unforeseen events and addresses excessive counterparty risk,
- it is not a pro-cyclical measure,
- it incentivises a well-diversified government debt portfolio,

- it does not imply the renegotiation of global regulatory frameworks, so could be implemented directly by the EU (no 'Basel 3.5' needed for this). However, the option of a global reform should be pursued in parallel to ensure global convergence on this matter.

Any threshold would need to be carefully calibrated and account for the importance of the sovereign bond market for the functioning of wider capital markets and eventually for the funding of the real economy as well as of sovereigns. The exposure limit of 25% of own funds, as stipulated in the Capital Requirements Regulations, is unlikely to take these special circumstances adequately into account.

A large exposure regime, if introduced, would be placed with the ECB, the supervisory authority in the context of the Single Supervisory Mechanism. However, more wholesale changes in the regulatory framework (for instance, rethinking of the assessment of the riskiness of sovereign debt) would likely necessitate global discussions and agreements and should be pursued in the relevant international fora.

## References:

- de Groen, Willem Pieter, (2015) *The ECB's QE: Time to break the doom loop between banks and their governments*, CEPS Policy Brief No. 328
- European Systemic Risk Board, (2015), *ESRB report on the regulatory treatment of sovereign exposures*
- Wolff, Guntram B., (2015) *European banking supervisor should limit banks' exposure to all eurozone governments, not just Greece*, Bruegel Blog Opinion

## Notes

1. For instance, the Capital Requirements Directive and the Capital Requirements Regulation (known as CRD/CRR) framework contain 122 options and discretions. While some of these are justified, as they reflect particularities in the banking sectors of the individual Member States, a case can be made for a reduction of these, in particular in areas linked to the Banking Union implementation.
2. An underlying assumption is that a central bank will be able to support its government as long as the government debt is issued in the local currency, therefore limiting the possibility of such funding stresses. This is not the case in the euro area, as a) monetary financing is prohibited (Article 123 TFEU), b) complex with one central bank serving 19 sovereigns that issue debt independently.
3. It can be argued that the Banking Union helps to mitigate, but not eliminate, the risk of contagion from the public to the banking sector due to improved supervision and the recovery and resolution mechanisms.
4. Most prominently the *de facto* exemption from capital requirements and exemption from the large exposure regime. Partially, also to ensure easy access for sovereign to the bond market. See ESRB for an overview of the different ways in which government debt is favoured.
5. Part of this increased demand for government bonds is due to new regulation that induces banks to hold more High Quality Liquid Assets (for instance to comply with new liquidity requirements). A general trend of financial fragmentation can explain the increased home bias. An additional explanatory factor why the exposure to domestic governments has increased particularly in crisis countries is that regulators have urged banks to support the government by increasing their holdings. It can be expected that the latter aspect (referred to as 'ring fencing') will play no role in the future as the ECB is the new single supervisor of the Euro area.
6. The data we employ here is from the EBA 2014 stress test covering *the euro area systemically important banks*, and hence is a snapshot of the government bond holdings at the end of 2013. The results, however, are representative, given their high relative importance in terms of the national bank systems. Also, for various reasons (reduction of uncertainty, forbearance by national regulators), it is likely that these holdings have rather increased than decreased.
7. This was reinforced by a policy of credit rating agencies of largely capping a bank rating at around the rating of the jurisdiction in which a bank is incorporated (so-called 'ceiling'), as the sovereign was considered to be the ultimate guarantors of deposits in the absence of a European Deposit Guarantee Scheme and access to liquidity (the latter together with the ECB). However, most rating agencies are phasing out this so-called 'ratings uplift' provided by an expected support from a sovereign, opting to use instead the 'standalone' rating of a bank.
8. The ESRB offers a good overview of the different policy options available (See ESRB 2015).
9. The Basel Committee on Banking Supervision is the committee of bank regulators from around the world which aim to align banking regulation in the different jurisdictions as much as possible. While the Basel agreement *does link the capital requirement for sovereigns to its underlying risk* and in general foresees capital requirements between 0% and 150%, its implementation by EU authorities, *by their own choice and not as an imposition of Basel regulations*, does allow for a 0% capital requirement for sovereign debt denominated and funded in the currency of the corresponding EU MS in which the in question bank is located, and also to such exposures denominated and funded in the currencies of any other EU Member State (see BIS, at [http://www.bis.org/publ/qtrpdf/r\\_qt1312v.htm](http://www.bis.org/publ/qtrpdf/r_qt1312v.htm)).
10. For the rationale behind this see Note 1
11. However, capital requirements can in principle be implemented in a way that their pro-cyclical nature is limited, by defining a band - a floor and a ceiling - within which the capital requirements can move. Nevertheless, such an option may imply a cumbersome level of banks' micromanagement.
12. See ESRB for a more thorough discussion of the pros and cons of credit requirements.
13. Further, competent authorities could be given the possibility to change the exposure requirement in case where a severe downturn results in increased demand for safe assets and an increased supply of government bonds due to stabilising public measures (in other terms, if properly applied, exposure limits can even be *counter cyclical*). See ESRB, 2015)

14. Legislation requires that the exposure is calculated on a group basis and takes interrelated counterparties into account as well. This is done to avoid that the exposure to the group exceeds the threshold while the exposure to the individual entities of the group do not.
15. Article 400 of Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms (CRR)
16. The ESRB and CEPS have done some simulation with different exposure limits. Further analysis is essential to calibrating the right threshold (see ESRB and CEPS, 2015)
17. In the extreme, banks that wish to increase their exposure to a given government beyond the exposure limit could be incentivised to hold more debt of other governments in order to circumvent the exposure limit.
18. This has been addressed by various measures, but there is still some doubt left in the markets whether significant stress of a member state might lead to its exit of the euro area. However, the measures taken show a display of considerable political will to preserve the Common Currency (In the form of political initiatives like the Banking Union, the ESMs etc.) and the actions by the ECB through its intervention in the government bond market and Quantitative Easing.
19. Credit rating often change promptly and result in what is known as a cliff effect where investors are forced by regulation to sell holdings of counterparties below a certain rating threshold resulting in increased funding pressure of the already distressed counterparty.
20. See: Directorate General Internal Market and Services, EU Response to the Financial Stability Board (FSB): EU Action Plan to reduce reliance on Credit Rating Agency (CRA) Ratings, Staff Working Paper, May 12, 2014
21. Such 'phase in' should find a way to account for currently outstanding exposure when calculating the individual institutions' exposure. Commentators point out that the current environment of asset purchasing programs by the ECB and the low interest rate environment constitute a favourable set up to introduce exposure limits on sovereign debt. See CEPS and Bruegel (2015).
22. High Quality Liquid Assets are important in capital markets because (amongst other purposes) they a) serve as collateral in secured transactions, which have become increasingly common market practice as compared to before the crisis, b) are required to meet new liquidity requirements (as well as other new regulatory requirements e.g. the European Market Structure Regulation -EMIR), c) are a source of collateral to access ECB funds and d) are important to fulfil the needs for 'margin calls' in derivatives and securities repurchasing transactions. (CEPS 2015)
23. If this pushes more investments into government bonds issued outside of the EA, this would introduce foreign exchange risk. To correct for this, a ceiling on FX positions in government bonds could be considered (with an exemption for bonds of non-EA EU MS). As a positive side effect, this could also incentivise non-EA governments to issue debt in Euros.
24. Limiting the exposure of banks to their respective sovereigns would also have a positive knock on effect on a European Deposit Guarantee Scheme (EDGS) as the moral hazard associated with the mutualisation of risk in the EDGS would be significantly reduced. The reasoning behind this is that with an EDGS in place, a sovereign might try to prod its national banking system to hold more of its own government bonds, thereby effectively transferring any losses on government bonds to the EDGS. With an exposure limit in place this 'moral hazard' would be limited.
25. A result of this would be that a large amount of high quality government bonds would be distributed away from banking systems with an already sound balance sheet to banking systems that have a less sound balance sheet. The latter would benefit from reduced funding costs due to a stronger balance sheet and the former would profit from a more profitable government debt portfolio.