

***Completing the  
Banking Union:  
next steps and  
implications for Italy***

**PROMETEIA  
DISCUSSION  
NOTE**

# Main points

- › The banking union is an extremely ambitious project
- › It could significantly improve the euro area financial system, but it is currently half-finished
- › The debate over the next steps revolves around, on one side, improving risk sharing (i.e. the need for a sufficient euro area fiscal backstop for banks' resolutions and the creation of a common deposit insurance scheme)...
- › ...and, on the other, risk reduction (i.e. strengthening banks' balance sheets)
- › Within this debate, a controversial issue is whether or not and how to contain banks' exposure to domestic sovereigns
- › This note will discuss the limits of the proposals put forward so far for containing banks' exposure to the domestic sovereigns in the context of the banking union ...
- › ... and will argue that progress could come from the creation of a safe debt at euro area level.

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## I. Introduction

**“No banks without States, and no States without banks”.** This is the title of the first chapter of the well-known book on the history of the banking systems written by Charles Calomiris and Stephen Haber.<sup>1</sup> The book makes the case that, in the history of financial systems, the link between States and banks has always been tight. States have always relied on domestic banks when they needed financing and banks have always sought the protection of the States in order to thrive. The problem with this arrangement is that it has been a source of instability for the financial systems (from which the title of the book “Fragile by design”).

**Now, the euro area is trying to create a euro area banking union without a euro area State.** This is an extremely ambitious endeavor, which could potentially set the seed for a much less “fragile” European banking system in the years to come. However, the steps needed to sever the links between the sovereigns and their banks are still numerous and not easy to accomplish.

**The banking union was established in 2012 and since then has been successful in a number of dimensions, but it is still incomplete.**<sup>2</sup> Euro area leaders understand that the half-finished banking union is a source of vulnerability for the area as a whole, as the sovereign debt crisis has highlighted, and that this is the right moment to move forward with reforms as the European economy is experiencing a solid recovery.

**The debate currently revolves around two elements.** First, there is the recognition that troubled banks should not rely on their sovereign, i.e. more risk-sharing is necessary. The main elements of this pillar are the need for a sufficient euro area fiscal backstop for banks' resolutions and the cre-

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<sup>1</sup> C.W. Calomiris and S.H. Haber, *Fragile by Design: The Political Origins of Banking Crisis & Scarce Credit*, Princeton University Press, 2014.

<sup>2</sup> European Commission (2017) “Communication to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions on completing the Banking Union”, October 2017.

ation of a common deposit insurance scheme. These two elements should significantly reduce the risk of deposit runs and assure that troubled banks could be resolved without too much damage to the domestic sovereign.

**The second pillar, instrumental to the first, is the need to strengthen banks' balance sheets.**

This implies banks should reduce non-performing loans (NPLs) and excessive exposure to domestic sovereigns. No country would want to pool fiscal resources knowing that they could be used to save other member States' weak banks at the first opportunity. "Risk reduction", this is how it is called in euro area reform jargon, is a necessary prerequisite to unlocking the required resources for effective risk-sharing at euro area level.

**The debate on the banking union is part of a larger one on euro area reforms.** This involves issues such as transforming the European Stability Mechanism (ESM) into a European Monetary Fund, expanding the European Union budget and introducing a euro area finance minister, revising the European fiscal rules, and completing the Capital Market Union. However, the completion of the banking union is the real test that euro area leaders are currently faced with and its next steps will shape the euro area for years to come.

**This note will focus on the debate regarding the need to contain banks' exposure to domestic sovereigns.**<sup>3</sup> Section II makes the point that the issue of strengthening banks' balance sheet should consider the whole balance sheet position and not focus on a single asset class (sovereign bonds). Section III briefly discusses the rationale for limiting banks' sovereign exposures. Section IV provides a preliminary assessment of the different proposals put forth to contain banks' sovereign exposure based on recent data, and Section V presents a simulation of the likely impact of these different options on credit and economic activity in Italy. Section VI concludes.

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## II. The need to strengthen banks' balance sheets and the benefits of belonging to the banking union

**Limiting sovereign exposures does not seem to be priority in strengthening banks' balance sheets.** The need to strengthen banks' balance sheets involves many elements. At the moment, banks and regulators are working actively to contain NPLs, which seems to be a first order issue.

**Moreover, the effort to further strengthen banks' balance sheet should take a holistic view.** It should not only focus on sovereign exposures, but also assess the issue of Level 2 and Level 3 assets and derivatives positions.

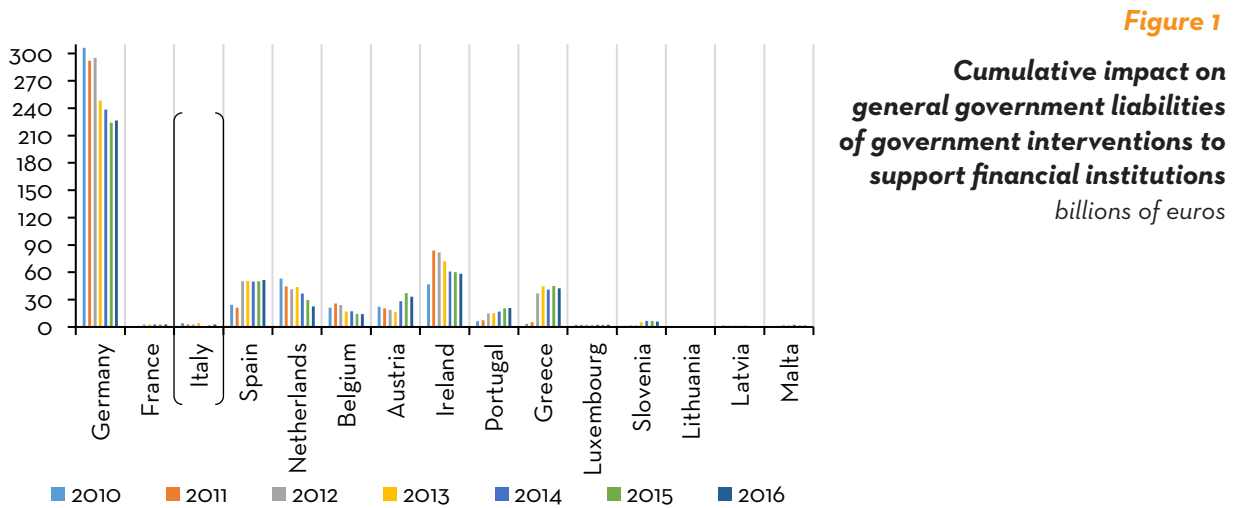
**Proper recognition should be given to the fact that different banking systems are in different positions.** There are various differences across banks and national banking systems in the holding of sovereign exposures and in the overall strengths of their balance sheets. This is partly due to the recent history. Some countries experienced deeper recessions during the 2008-09 and 2011-12 crises and are only recently resuming a decent growth rate. Moreover, countries have recapitalized banks using public money at different rates in recent years (Figure 1).

**An agreement on the necessary risk-sharing elements should also be worked on.** Currently only the first of the three pillars of the banking union (Single Supervisory Mechanism, Single Resolu-

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<sup>3</sup> We note that on December 7 the Group of Governors and Heads of Supervision (GHOS) has endorsed a package of amendments to the Basel III framework which does not contain modifications on the rules regarding sovereign exposures. Also on the same day, the BIS has issued a discussion paper "The regulatory treatment of sovereign exposures" derived from report of the high-level Task Force on Sovereign Exposures.

tion Mechanism and Common Deposit Guarantee Scheme) is fully operational. It is important to reiterate the commitment to move forward on the other two elements in order to create the right incentives for countries and banks and to give confidence to the market regarding the euro area governments' commitment towards further integration and risk sharing.



Source: Eurostat (2017). No interventions were reported by Cyprus, Estonia, Finland and Slovakia.

### III. The rationale for limiting banks' holding of sovereign exposures

**Concentration limits is an important principle of risk diversification.** A bank, as any other investor, should not concentrate excessively its exposure. This would allow banks to better weather price fluctuations in sovereign bonds. After all, sovereign exposures are as other assets. They carry different returns because they reflect different risks and this element should be taken into account in setting up a long-lasting banking union.

**Limiting banks' holding of domestic sovereign exposure would constrain their ability to stabilize the sovereign debt market.** Some have argued that, in the absence of a national monetary policy, banks can buy government bonds using central bank liquidity at times of tensions and, in this way, provide a stabilization tool in the sovereign debt market. This has certainly been the case in some countries during the sovereign debt crisis in 2011-2012. Since 2012, a sovereign facing severe market tensions has the opportunity to apply to an ESM program and activate the ECB Outright Monetary Purchases. By doing so, the need to rely on domestic banks by sovereigns has been reduced. This option, however, might be very costly considering the stigma generally associated with activating a bailout program. More so if the sovereign is facing a temporary liquidity issue as opposed to a solvency one. Therefore, it is understandable that countries might be reluctant to go along this way.

**Less relevant seems to be the concern of shielding domestic banks from the possibility of a sovereign debt restructuring.** Banks still have most of their assets invested in the domestic economy and therefore would be severely damaged by all the dislocations that would come together with a sovereign debt restructuring.

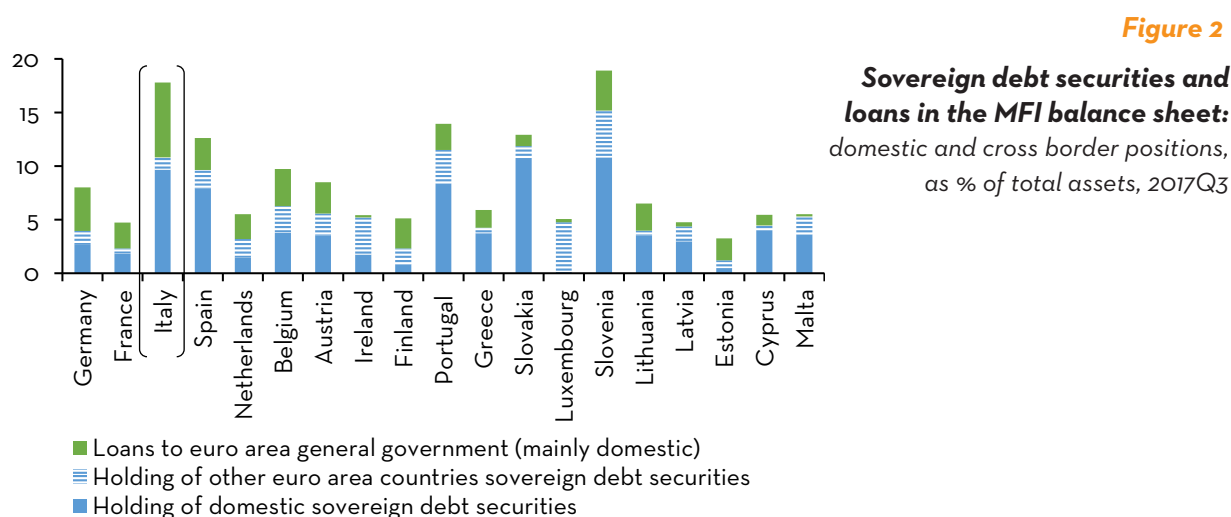
## IV. Limiting banks' sovereign exposures: a look at the main proposals

A very comprehensive analysis of the issue is provided by the “ESRB report on the regulatory treatment of sovereign exposures” of March 2015.<sup>4</sup> In the forward to the report President Draghi writes that “The report recognises the difficulty in reforming the existing framework without generating potential instability in sovereign debt markets, as well as the intrinsic difficulty of redesigning regulations so as to produce the right incentives for financial institutions.” With these words in mind, in this section we provide a brief assessment of the main proposals put forward using updated data.

**Banks' exposure to sovereigns is more relevant for high debt countries.** In the last few years, past the worst phase of the euro area sovereign debt crisis, banks have reduced their exposures to sovereigns, but these have remained high for those countries with weaker fiscal positions. Banks' exposure to sovereigns as a share of total banking assets at the end of 2017Q3 amounted to 17.8, 13.9 and 12.6 per cent in Italy, Portugal and Spain, respectively (Figure 2). Moreover, banks are exposed to the domestic sovereign via both bonds and loans, especially in Italy and Germany.<sup>5</sup>

**Cross border sovereign debt holdings are quite limited.** Financial institutions could be vulnerable also through the exposure to other members' sovereign debt. However, at the end of 2017Q3, banks' cross-border exposure to other EMU members was relatively limited (Figure 2).

**Three main proposals have been put forward to reduce domestic sovereign exposure in banks' balance sheet.** One possibility is to reverse the zero risk-weight treatment of sovereign exposures towards euro area issuers and adopt risk weighting according to the Basel general rule.<sup>6</sup> A second one, recently put forward, is to apply sovereign concentration charges (SCC) on sovereign holdings above 33 per cent of TIER1.<sup>7</sup> Sovereign exposures above this threshold would be subject to



Source: Prometeia's calculations based on ECB data.

4 See <http://www.esrb.europa.eu/pub/pdf/other/esrbreportregulatorytreatmentsovereignexposures032015.en.pdf>. On this issue see also *European Economy - Sovereign and Banking Risk: what policies?* 2016.1, <http://european-economy.eu/book/sovereign-and-banking-risks-what-policies/>

5 In order to track the monetary financial institution (MFI) holding of sovereign debt in Figure 2 we refer to the European Central Bank (ECB) statistics that disclose information on the consolidated MFI balance sheet for euro area countries and sectors.

6 European Systemic Risk Board (2015) “Report on the regulatory treatment of sovereign exposure”, March 2015.

7 Véron (2017) “Sovereign Concentration charges: a new regime for banks' sovereign exposures”, European Parliament, November 2017. The proposal includes a gradual phase-in (between five and ten years), the grandfathering of the existing stock, and at the same time the introduction of the European Deposit Insurance Scheme. In this note, we assess the proposal assuming full phase-in.

capital charges increasing with the sovereign exposure ratio.<sup>8</sup> This proposal, thus, is meant to provide incentives to reduce the amount of sovereign debt held and consequently tackle the “home bias” phenomenon. The last among these three options is to set a common cap on holdings in relation to each sovereign issuer.<sup>9</sup>

**To assess the main direct implications of these different proposals on banks and on sovereign debt markets we use the recent European Banking Authority’s transparency exercise (EBA-TE) data.** These provide comparable information on key (consolidated) balance sheet items for 132 banks across the EU updated to 2017Q2 as well as their sovereign exposures to each European country and extra-EU aggregated areas. In the following, results are presented for the banking systems of 17 euro area countries, although comments are provided only for a subset of them.<sup>10</sup> The sample includes 80 significant financial institutions (SIs) and, in some cases, it covers between 73 and 93 per cent of each country’s significant institutions’ total assets (93 per cent in Portugal, 91 per cent in Germany, 89 per cent in France, 89 per cent in Italy<sup>11</sup>, 92 per cent in Ireland, 73 per cent in Spain). It is important to stress that the EBA data do not cover the entire population of banks. Therefore, the results of the analysis must be taken with caution as the amount of sovereign exposures covered by the EBA data is not exhaustive.

**The impact of the different proposals can be assessed in terms of the amount of capital needed.** The assessment is made on the banks’ balance sheets as they were at the end of 2017Q2, without assuming a response to the reform on their part. We consider an estimated capital need in order to restore the original (pre-reform) TIER1 ratio. The effect of introducing a cap is instead measured in terms of banks’ excessive sovereign exposure.

**Risk-weights would be applied according to the ratings assigned by the External Credit Agency Institutions (ECAI, Table 1).** Only public exposures whose rating falls between AAAs to AA- would maintain a zero risk-weight. For lower ratings, the weight would increase according to Art. 53 of the Basel II document.<sup>12</sup>

**The impact of introducing risk weights would be substantial for the banks headquartered in those countries whose sovereign debt is riskier (Figure 3).** Specifically, TIER1 ratio of the Ital-

**Table 1 Ratings and Basel’s risk weight parameters for euro area countries.**

Ratings	Risk-weights	Countries
From AAA to AA-	0%	Austria, Belgium, Estonia, Finland, France, Germany, Luxembourg, Netherlands
From A+ to A-	20%	Ireland, Latvia, Lithuania, Malta, Slovenia, Slovakia
From BBB+ to BBB-	50%	Italy, Portugal, Spain
From BB+ to B-	100%	Cyprus, Greece
Below B-	150%	

Source: Risk weights are assigned according to Basel Committee on Banking Supervision (2006). S&P’s ratings updated to February 2018.

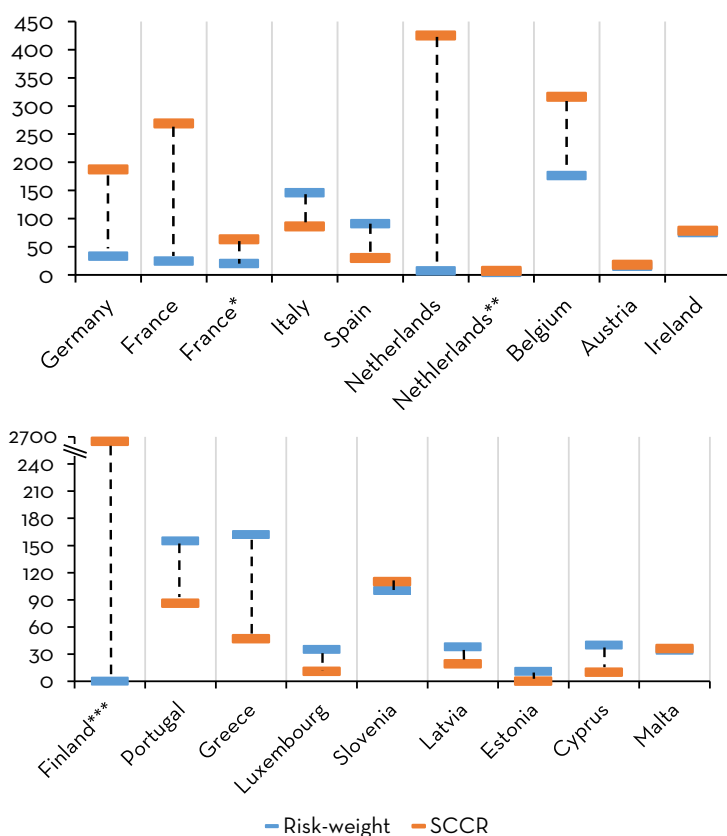
8 The sovereign exposure ratio is defined as the ratio between the sovereign exposure and the TIER1 capital.

9 De Groen (2015) “Time to break the doom loop between banks and their government”, CEPS Policy Brief, No. 328, March 2015.

10 No information is available for banks located in Lithuania and Slovakia.

11 The sample considered for Italy has been integrated with data from banks’ balance sheets. Moreover, when available, balance sheets data have been updated to 2017Q3. The total number of Italian banks in the sample is 10.

12 Basel Committee on Banking Supervision (2006) “International Convergence of Capital Measurement and Capital Standards. A revised Framework Comprehensive Version”, June 2006.



**Figure 3**  
**Fall in TIER1 ratio from**  
**applying risk-weights**  
**and SCC**  
 basis points

Source: Prometeia's calculations based on EBA (2017).

\*Calculations on the French sample of banks excluding Société de Financement Local

\*\* Calculations on the Dutch sample of banks excluding ING Groep N.V. and N.V. Bank Nederlandse Gemeenten

\*\*\* Results for Finland are attributable to one particular bank (Kuntarahoitus Oyj)

ian and Portuguese banks would fall on average, respectively, by 146bp and 155bp, while it would fall by 91bp for the Spanish ones.<sup>13</sup> The banking sector of Ireland would also suffer a significant reduction in the TIER1 ratio (75bp). The fall experienced by the French and German banking sectors would be much more contained (24bp and 33bp, respectively).

**The impact of SCC would be greater for those banks holding large amounts of sovereigns in relation to their capital.** Figure 3 shows that TIER1 ratio of the French and German banking systems would fall, on average, by 269bp and 187bp, respectively. However, in France, if we exclude one particular bank (Société de Financement Local) TIER1 ratio would fall only by 63bp. Meanwhile, Italian and Portuguese banks would experience a fall of TIER1 ratio by 86bp.<sup>14</sup> Ireland would be less affected (78bp) and Spain even more so (30bp).

**An alternative proposal involves introducing caps on the amount of sovereign debt held by banks.** In particular, the same cap would be applied in relation to each single sovereign issuer. For illustrative purposes, we assume three levels (25, 50 and 100 per cent) of eligible capital as well as the SCC exemption threshold.<sup>15</sup> The limit on large exposures in relation to non-sovereign issuers

<sup>13</sup> The change in TIER1 ratio at country level is calculated by means of weighted averages according to the share of each banks' capital and RWA.

<sup>14</sup> For the Italian banking system, the residual capital gap needed to neutralize this effect would be equal to €9.2 billion.

<sup>15</sup> The eligible capital is defined as the sum of Tier1 capital and Tier2 capital. The amount of Tier2 capital cannot exceed one third of Tier1 capital.

**Table 2 Domestic sovereign exposure: total and above a cap of 25%, 50% and 100% of eligible capital and 33% of TIER1, billions of euros**

	Total	Concentration caps			SCC above 33%
		above 25%	above 50%	above 100%	
Germany	267.2	216.1	176.8	117.8	210.2
France	377.5	282.7	195.5	127.0	271.9
Italy	205.6	164.6	123.5	45.5	160.3
Spain	133.3	94.4	55.5	6.1	90.0
Netherlands	73.4	40.4	31.5	29.4	40.1
Belgium	47.9	38.4	30.9	16.5	37.3
Austria	22.6	12.1	4.5	1.4	11.8
Ireland	16.3	10.5	4.8	0.6	9.4
Finland	11.7	10.4	10.1	9.5	10.3
Portugal	27.2	22.7	18.2	9.2	21.6
Greece	18.9	11.2	6.2	2.8	9.2
Luxembourg	0.5	0.1	0.0	0.0	0.0
Slovenia	2.9	2.3	1.8	0.6	2.1
Latvia	0.2	0.1	0.0	0.0	0.0
Estonia	0.0	0.0	0.0	0.0	0.1
Cyprus	1.3	0.5	0.4	0.1	0.5
Malta	0.8	0.6	0.4	0.0	0.6

Source: Prometeia's calculations based on EBA (2017).

is set at 25 per cent<sup>16</sup>, which might be tight considering that sovereign bonds serve a number of functions, including for monetary policy operations and regulatory purposes.<sup>17</sup> Therefore, higher limits at 50 and 100 percent are considered. Table 2 presents the amount of domestic debt held above the caps for 17 euro area countries.

**In line with the “home bias” phenomenon (Figure 2), the largest amount of debt in excess is held by domestic banks.** As an example, with regard to French debt, the total amount in excess under a cap of 50 per cent would be equal to €202 billion, of which €195.5 billion held by domestic banks (Table 2). Next is the German debt for a total amount of €189 billion, including €176.8 billion held by domestic banks. As for Italy and Spain, the amount of debt in excess held by domestic banks would be equal to €123.5 and €55.5 billion, out of a total amount of Italian and Spanish debt in excess held by European banks of €152 and €59 billion, respectively. Despite these lower amounts, it could be more difficult for Italy and Spain to find new investors because of their lower rating. These figures, moreover, are not exhaustive as the EBA-TE data do not cover all banks but only the significant ones (which, however, are the larger ones and therefore those with the higher sovereign exposures).

**These different proposals start from different assumptions and have very different implications.** Setting limits would not discriminate across sovereign issuers and would penalize banks

<sup>16</sup> This threshold is currently under discussion at the European Commission.

<sup>17</sup> As an example, banks are expected to satisfy liquidity standards measured through the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR). Moreover, the Minimum Requirement for own funds and Eligible Liabilities (MREL) will determine the minimum loss absorbing capacity a bank must hold. The same objective will be achieved by the Total Loss Absorbing Capacity (TLAC) indicator, which will be applied only to global systemically important banks as of 1 January 2019.



holding large sovereign exposures (compared to TIER1 capital) regardless of their risk. Risk weighting takes a different route, assuming sovereign debt is risky and using ratings to define the capital charges. This proposal clearly penalizes banks in high debt states. The SCC tries to find a compromise, setting a relatively low cap but capital charges above the cap. The charges, however, would be the same for all sovereign issuers.

**The cap limit and the SCC are designed in such a way that they provide banks with the possibility for diversifying their sovereign positions.** The idea is that, if banks across different euro area countries would exchange sovereign exposures in excess of the cap limit or exemption threshold, they would not need to increase capital nor sell significant amounts of sovereign bonds on the market. Therefore, banks would end up with a more diversified sovereign portfolio position and there would not be tensions on the market. However, the amount of excessive sovereign exposures held by banks largely depends on the cap limit or exemption threshold. Moreover, banks may decide to sell off their sovereign positions in excess but without exchanging them with other sovereigns and thus missing to restore their original portfolio.

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## V. The macroeconomic effect: the case of Italy

**Assessing the macroeconomic impact of these different proposals is difficult.** The risk weighting proposal would give a capital shortfall that could require to be compensated for. The proposal to set a common cap would imply instead an offloading of sovereign bonds on the market, the amount of which will depend on the chosen threshold. These can be considered two extremes: on one extreme the shock would be on the banks' capital, on the other on the sovereign bond markets. The SCC is more difficult to assess, even once fully phased-in: it could lead to a nice reshuffling of sovereign bonds across national banking systems and have very limited impact or even no impact at all, or on the contrary it might bring to capital increases or offloading of bonds on the market if the reshuffling is incomplete. Finally, it can be argued that limiting sovereign bonds could bring about a reduction in the risk premiums banks have to pay on the financing side, although this might likely happen once the transition is fully phased in and not while the process is still ongoing.

**With all this caveats in mind, in this section we present a simulation assuming an increase of banks' capital needs of 100bp.** The purpose of the exercise is to assess quantitatively an increase in banks' capital in the range discussed in the previous analysis (Figure 3).<sup>18</sup> Our simulation is based on Prometeia's quarterly DSGE model.<sup>19</sup> In the model, the banking sector reacts to the shock by increasing lending rates. The need to accumulate capital induces banks to raise lending rates and cut lending, in order to increase profits and contain asset growth.<sup>20</sup> The resulting outcome for GDP and long term rates is represented in Figure 4.

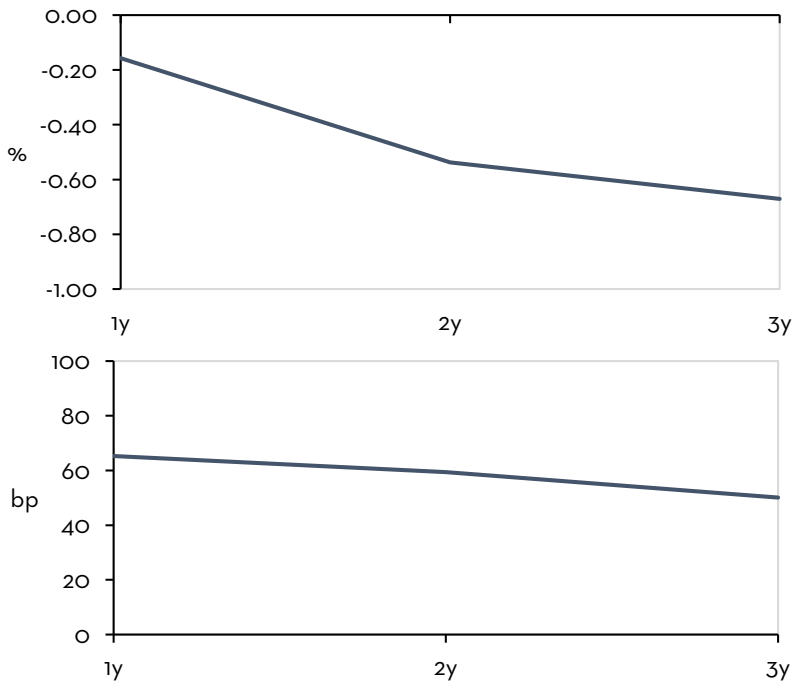
**The financial accelerator mechanism induces credit tightening.** It is worth noting that firms and consumers face borrowing constraints in the model. The fall in collateral value triggered by the increase in lending rates amplifies the impact, mainly reducing consumption and investment. The increase in interest rates brings about a reduction in the collateral value of firms and households through a decline in capital and house prices.

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<sup>18</sup> It is worth remembering that the capital needs estimated in the previous section are based on EBA data, which do not cover all domestic institutions. In the case of Italy, we calculate that the EBA data cover 78 per cent of the total Italian banking system in terms of total assets.

<sup>19</sup> Catalano M. and E. Pezzolla, 2014. "Fiscal policy evaluation in Italy with the Prometeia DSGE model", Note di lavoro, Prometeia Associazione per le previsioni econometriche, Bologna.

<sup>20</sup> Banks' reaction function is obtained by optimal and forward-looking profit maximization behaviour which triggers a smooth transition to a new capital level which in the simulation lasts three years.



Source: Prometeia's calculations.

**Figure 4**

**Effects of 100bp additional capital needs differences from the baseline**

A) on real gross domestic product

B) on long term interest rates

**This simulation points to a significant impact on GDP, while still not capturing all the possible effects.** First of all, the regulation regarding the exposure to sovereigns would involve all euro area countries. Therefore, the impact on one country's GDP would be magnified by the spillover effects that might come from other countries. Moreover, the new capital requirement would potentially trigger a fall in banks' equity prices, with possible significant consequences on ratings and financing costs.

## VI. Summing up

**Further steps to strengthen the banking union are required, but these should be part of a larger project.** Further strengthening banks' balance sheet is important in order to move forward with the banking union, but proper consideration should be given to an assessment of the whole banks' balance sheet and not only of sovereign bonds. Moreover, to avoid market dislocations, actions on sovereign bonds should be phased over time and accompanied by progress on the Single Resolution Mechanism and on the Common Deposit Guarantee Scheme.

**The proposals put forward so far to limit banks' sovereign exposure have important limitations.** Although our simulations should be considered preliminary, as they have assumed no phase-in period or grandfathering for legacy holdings (as the proposals put forward typically do) nor balance sheet adjustments on the part of the banks, they point to the risk of significant capital increase needs, with relevant macroeconomic effects, or possibly of large sell-offs of sovereign bonds which could trigger dislocations in the sovereign bond markets. In countries with weaker ratings, risk weighting could create the need for significant additional bank capital and possibly market tensions. Moreover, risk-weighting would be strongly pro-cyclical, as rating would deteriorate in times of crisis and recessions.<sup>21</sup> Setting caps would carry the risk of a sizeable sell-off of sovereign debt, creating a need to find alternative holders of sovereign bonds.

<sup>21</sup> Moreover, relying only on ECAI's ratings has its own distortions, see FSB (2012) "Roadmap and workshop for reducing reliance on CRA ratings", November 2012 and FSB (2014) "Thematic Review on FSB Principles for Reducing Reliance on CRA Ratings", May 2014.

**It is not clear that the SCC would minimize these drawbacks.** SCC represents a compromise between the different options: it is not pro-cyclical and it aims at diversifying banks' portfolio across sovereigns with possibly a moderate impact on the sovereign bond markets. However, the degree to which it will induce the reshuffling of sovereign debt from different issuers with limited impact on the sovereign debt market and on the banks' balance sheets is uncertain. Banks will try to replace domestic sovereign bonds with other safe assets and it is not clear how much they would be willing to diversify into sovereign bonds of higher debt countries.

**Progress on this matter could come from the creation of a safe asset at the euro area level.**

The European Commission and, more recently, the European Systemic Risk Board have presented proposals for a safe asset resulting from a diversified portfolio of national sovereign bonds.<sup>22</sup> Moreover, there is consensus among academics that the creation of a euro area safe asset could facilitate the reduction of sovereign debt in banks' balance sheets.<sup>23</sup> This appears to be also the position of Italian authorities.<sup>24</sup> Although there are technical and legal issues to be addressed before moving ahead with a euro area safe asset, it would become much easier for banks to replace domestic sovereign exposure if such a safe asset existed.

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22 Esrb (2018) "Sovereign bond backed securities: a feasibility study", January 2018, available at [https://www.esrb.europa.eu/pub/task\\_force\\_safe\\_assets/html/index.en.html](https://www.esrb.europa.eu/pub/task_force_safe_assets/html/index.en.html)

23 Bénassy-Quéré et al. (2018) "Reconciling risk sharing with market discipline: A constructive approach to euro area reform", CEPR Policy Insight No. 91, January 2018, available at [http://www.delorsinstitut.de/2015/wp-content/uploads/2018/01/20180117\\_Reconciling-risk-sharing-and-market-discipline\\_Enderlein-et-al.pdf](http://www.delorsinstitut.de/2015/wp-content/uploads/2018/01/20180117_Reconciling-risk-sharing-and-market-discipline_Enderlein-et-al.pdf)

24 See [https://www.bancaditalia.it/pubblicazioni/interventi-governatore/integov2018/Visco\\_10022018.pdf](https://www.bancaditalia.it/pubblicazioni/interventi-governatore/integov2018/Visco_10022018.pdf)

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