

## Banking Union with a Sovereign Virus The self-serving regulatory treatment of sovereign debt in the euro area

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The purpose of the proposed banking union is to de-link banks from their sovereigns. The 'Single Supervisory Mechanism' (SSM) should correct the tendency of national supervisors to overlook problems at home. Although the European Central Bank (ECB) will directly supervise only a limited number of large banks, it will also exercise a '*droit de regard*' over the rest of the banking system. This should make it much more likely that bubbles and other threats to the systemic stability of the banking system will be recognised earlier. It is also widely recognised that the SSM requires an SRM ('Single Resolution Mechanism'), the details of which are still being worked out. But it should contain a common resolution fund that would ensure that any problems that might still arise could no longer threaten the solvency of the national government, as happened in Spain and Ireland and more recently in an extreme form in Cyprus.

Establishing the SSM and the SRM is certainly useful to sever the doomed loop between the sovereign and the banks. But this is not enough. Any country that experiences a large-scale banking crisis will also have a very weak economy. This implies that government revenues will fall and expenditure on unemployment compensation will increase.

Large public deficits are the consequence of nearly all banking crises. This means that the finances of a government with a banking crisis will come under pressure even if a large part of the direct costs of the banking crisis is borne at the Union level through the mechanisms of a banking union. Under these circumstances, it is likely that the risk premia on public debt also increase and that there will be natural pressure on the banks in the country to become the buyers of last resort of the national public debt. The ECB might not have any effective instrument to prevent this from happening, and it will at any rate not be the supervisor for the many smaller banks that might assume this role on a massive scale. But once the local banks have accumulated large amounts of the national debt, the fate of the sovereign and the banks become again linked leading to the disruptive self-reinforcing feedback loops that brought the euro area to the brink of collapse in 2011-12.

The objective of de-linking banks from their sovereign will thus not be achieved if banks continue to hold massive amounts of the debt of their own country. De-linking banks from the sovereign (or rather their own sovereign) should be in the interest of all policy-makers because it would make the financial system more stable. However, it should be particularly in the interest

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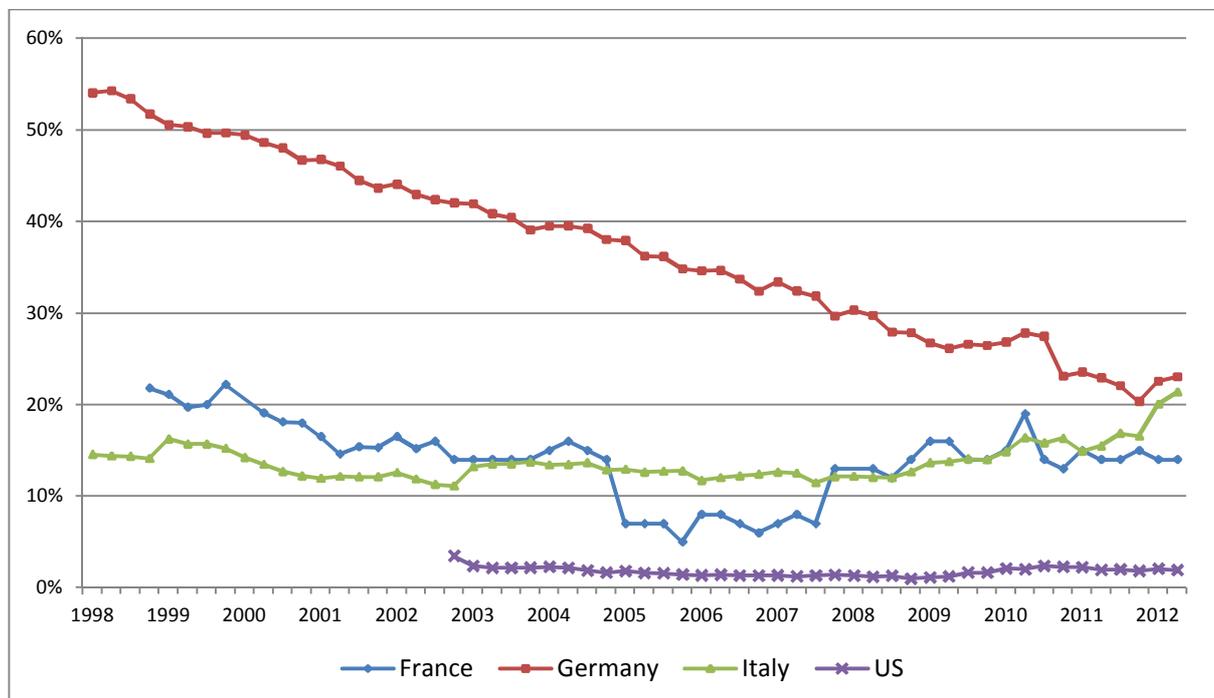
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of the creditor countries because market discipline can be effective only if the system is stable. The rescue operations for Greece (and other countries) were motivated by the fact that the prospect of a sovereign default had destabilised the entire euro area banking system. This would not have been the case if banks throughout the euro area did not hold massive amounts of sovereign debt on their balance sheets.

This contribution will discuss a number of regulatory incentives for banks to hold government bonds – the most important of which is specific to the euro area. These incentives apply to banks in all countries, but most of the time the rate of interest on government assets is lower than that on other assets, and often lower than the cost of refinancing for the banks themselves, thus diminishing the interest of banks to hold government bonds. However, during the euro crisis, the return on some government bonds was much higher than the refinancing cost for banks.

This provided a very strong additional incentive for banks in some countries to increase their sovereign exposure (Archayan & Steffen, 2012). It is thus not surprising that in many eurozone countries domestic banks often hold more than 20% of domestic public debt – much more than in the US, where banks do not hold significant amounts of government bonds. This relative concentration of public debt on bank balance sheets is not just a result of the euro crisis, as can be seen from Figure 1, which shows that in France and Italy domestic banks always held a considerable fraction of total public debt. The data for Germany are surprising as they show that in the not-so-distant past more than one-half of the country's total national debt was held by German banks. This might be partially due to the fact that a large part of public debt originates with the Länder and communes, which in general do not issue bonds, but obtain loans directly from the banking sector (especially the local savings and loans). However, since the creation of the euro, the German banking system has diversified its holdings of government debt.

Figure 1. (National) government debt held by domestic banks in France, Germany, Italy and the US (% of total)



Source: Agence France Trésor, Bundesbank, Bank of Italy and FED.

How could one wean euro area banks from massive investments in government bonds? This

note analyses four elements of banking regulation that need to be addressed:

1. The risk weights (on sovereign debt) should not be kept at zero. The new risk weights do not have to be large, but they should be based on 'objective' criteria, rather than ratings.
2. Large banks (de facto all those under direct ECB supervision) should not be allowed to 'cherry pick' by discarding their own risk models for sovereign exposure (which allows them to benefit from the zero weight in the standard approach).
3. Liquidity requirements should not force banks to hold only government bonds; there are enough other liquid assets around.
4. Diversification is more important than risk weighting for sovereign exposure; this problem can be addressed by applying 'large exposure' rules to sovereign debt.

This contribution briefly discusses these four issues in turn.

## 1. Recognising the riskiness of national sovereign debt in a monetary union

The case of Greece has shown that sovereign debt can no longer be regarded as riskless in the euro area. Banks experienced large losses from holding Greek sovereign debt that, from a regulatory standpoint, had been classified as riskless. These banks thus were not obliged to hold any capital to cover these losses. It is of course to be hoped that the Greek 'private sector involvement' (PSI) remains a 'unique and special case', but this is by no means certain. Moreover, the ESM Treaty foresees explicitly the possibility of private-sector restructuring should in future a debt sustainability analysis show that the country cannot service its debt in full. There is thus no reason to continue with the regulatory fiction that sovereign debt is always riskless.

The standard objection to risk weights on sovereign debt is that they contradict fundamental principles on which the Basel capital adequacy regime is based. It is indeed true that all Basel accords stipulated that banks do not necessarily have to hold any capital against claims on their own government (and in

their own currency) because government debt is regarded as riskless if it is the national currency.<sup>1</sup> The rationale for zero risk weights under normal conditions (i.e. the country has its own national currency) is clear: when the country has its own currency the government can, *in extremis*, always order the central bank to print enough money to be able to service its debts. This might create inflation, but the government should always be able to pay its debt on time (at least in nominal terms). Under the 'nominal' principle applied almost everywhere, such debt should thus be riskless. This is no longer valid in the euro area, however, where the debtor government has no authority over the creation of money. The ECB is actually forbidden to provide monetary financing to any government or even the EU authorities. When monetary and fiscal authorities are separate entities as in the euro area, default risk on sovereign debt is not zero. This was the intellectual mistake made when the Basel rules were transcribed into EU law (i.e. the Capital Requirements Directive).<sup>2</sup> For any bank in the euro area, the CRD specifies that the risk weight of any sovereign exposure denominated in euro is zero. This should be changed.

<sup>1</sup> Prominent representatives of the Bank for International Settlements have emphasised that the zero rating of sovereign exposure within the euro area also contradicts the spirit of the Basel accords, which are based on the principle that capital requirements should be related to the effective underlying risk of an exposure, rather than formal criteria (see Hannoun, 2011).

<sup>2</sup> Annex VI of the CRD reads:

1.2. Exposures in the national currency of the borrower

4. Exposures to Member States' central governments and central banks denominated and funded in the domestic currency of that central government and central bank shall be assigned a risk weight of 0%.

This was the case even before EMU. The legal fiction employed when the euro was introduced was simply to argue that from a legal point of view the euro became the domestic currency of all participating member states in EMU. The economic reality was (and remains) of course the opposite in the sense that the euro is not under the control of any individual member state – but the legal fiction was attractive because it provided member states with cheaper access to funding.

But on what basis should one determine any risk weights on sovereign debt in the euro area? It does not make sense to treat governments like corporate institutions because governments, after all, retain the power to tax. From a financing point of view, governments are actually in a similar situation as banks because they have liabilities (public debt) whose maturity is usually much shorter than their assets, which consist essentially of the present value of future tax revenues.

Under the normal Basel rules, most risk weights are based on the ratings of the three globally recognised ratings agencies (Standard & Poor's, Moody's and Fitch Ratings). However, the euro crisis has shown that these ratings often follow events rather than serve as a leading indicator of problems. Moreover, certain ratings categories (e.g. junk) lead to cliff effects as many investors have similar minimum ratings requirements. This is why a reliance on ratings risks creating a self-reinforcing effect. For example, once the debt of a government has been rated 'junk', few investors can still hold that debt, which in turn will make market access close to impossible and could thus provoke a crisis by itself.

It would therefore be better to make risk weights on government debt a function of objective factors (debt/deficit), rather than ratings. For example, the risk weight could remain at zero if both debt and the deficit as a percentage of GDP remain below 60% and 3%; but the risk weight would be increased if either the deficit or the debt ratio exceeds the 'reference' values of the Stability Pact (or the Fiscal Compact). For example, the risk weight could be increased by 30 percentage points for each point of GDP of an excessive deficit that persists for a number of years. Or the risk weight could be set equal to the amount the debt/GDP ratio of the country concerned is above the 60% threshold level.

One has to keep in mind that even a risk weight of 100% means only that the bank has to hold the 'full' 8% of capital against this risk. The formula proposed here would thus imply that the risk weight of a country whose deficit is 1% of GDP above the permitted level (say of the Fiscal Compact) would increase from zero to 30%. But this would mean 'only' that the banks would have to hold more capital equal to  $0.3 \times 8\%$  or equivalent to 2.4% of their exposure to this

country. Even with a cost of capital for banks of 25%, this would imply an increase in funding costs of 60 basis points. This approach would thus lead to higher borrowing costs and represent a real deterrent. But it should not provoke a crisis because the data on deficits (and even more debt) changes only slowly over time. This implies that relating risk weights to these objective factors should be much less destabilising than linking them to ratings (as is done in the haircut rules of the ECB) which sometimes jump by several notches within very short periods of time.

In addition, the risk weights should be linked to the stages of the excessive deficit procedure (EDP), e.g. when the procedure is initially launched, the risk weight would be increased by a certain amount (say, 20 percentage points). For each additional stage the EDP is ratcheted up, the risk-weighting would be increased further. This would equip the EDP with real teeth to induce reforms even without resorting to the imposition of fines. The ECB could of course adopt a similar tactic for the haircuts it imposes on sovereign debt in its collateral framework.

Introducing positive risk weights for government debt will not be enough to prevent a crisis because of the 'lumpiness' of sovereign risk. Experience has shown that sovereign defaults are rare events, but the losses are typically very large (above 50%) when default does materialise. In many peripheral countries, banks hold sovereign debt equal to (or greater than) their total capital. Even with a risk weight of 100%, these banks would only have sufficient capital reserves to cover losses of 8%. Risk weights would thus have to become extremely high before they could protect banks against realistic LGD (loss given default) scenarios in case another 'PSI' materialises. This suggests that the more important aspect is diversification, which will be discussed below.

## 2. **Obscure but very important: 'Permanent Partial Exemption'**

This term refers to one of the many wrinkles in the way the EU has implemented the Basel agreements on banking regulation in its own Capital Requirements Directive (CRD). This exemption is contained in Art. 145 of the Regulation accompanying the CRD on the

“Conditions for permanent partial use” and says that banks that use the internal risk models (so-called IRB banks) to calculate the riskiness of their assets may not use their internal risk models for sovereign exposure.<sup>3</sup>

This seemingly secondary exemption is in reality crucial.<sup>4</sup> Most large banks use their internal risk models to calculate the riskiness of their lending to households, the corporate sector and their other assets. By doing so they can generally arrive at a lower level of capital requirement than under the so-called standardised approach in which all lending falls in certain risk classes determined by rating levels. However, these internal risk models must use objective indicators to assess risk, for example past levels of losses or market prices like the cost of insuring

<sup>3</sup> Article 145

Conditions for permanent partial use

1. Where institutions have received the prior permission of the competent authorities, institutions permitted to use the IRB Approach in the calculation of risk-weighted exposure amounts and expected loss amounts for one or more exposure classes, they may apply the Standardised Approach for the following exposures:

(a)....

(d) exposures to central governments of the Member States and their regional governments, local authorities and administrative bodies provided: (i) there is no difference in risk between the exposures to that central government and those other exposures because of specific public arrangements, and (ii) exposures to the central government are assigned a 0 % risk weight under Article 109(4)”

[http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SPLIT\\_COM:2011:0452%2801%29:FIN:EN:PDF](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SPLIT_COM:2011:0452%2801%29:FIN:EN:PDF)

<sup>4</sup> In the words of Hannoun (2011), “the main criticism which can be leveled at the European directives is that, instead of confining the zero risk weight to the standardised approach, they permit a generalised zero risk weight through the so-called ‘IRB permanent partial use’ rules. According to these rules, a bank can apply the IRB approach to corporate, mortgage or retail exposures, while applying a one-size-fits all zero risk weight to the sovereign debt of EU member states. This is equivalent to a mutual and unqualified exemption of certain sovereign risks from capital charges; an exemption inconsistent with Basel II’s risk-sensitive framework.”

against the default of a counterparty as expressed in the price of a so-called CDS (credit default swap) contract. The problem is that in many cases no objective indicator of the riskiness of government bonds would indicate a strictly zero risk. This implies that banks that use the IRB model would thus have to hold capital against their sovereign exposure (at least for those sovereigns for which the CDS prices are not very close to zero). But this EU regulation allows banks to ‘cherry pick’ how they measure their risk: for sovereign exposure, banks can use the standardised approach, which, as explained above, assigns a risk of zero to all government bonds of euro area countries if they are denominated in euro.

It is clear that this so-called ‘permanent partial exemption’ represents an anomaly. It is especially likely to be allowed in the countries under financial pressure where the government relies on the local banking system.<sup>5</sup> The question is who will decide in future on whether banks can continue to rely on this loophole. The Regulation (see footnote 3) says that the ‘competent authorities’ have to permit the use of this exemption. But unfortunately it is not clear whether this term refers to the regulators or the supervisors. If competent authorities here were to refer to the regulators, nothing much will change even with the establishment of the SSM since the regulators will remain national. However, if competent authorities here were to refer to the supervisors, the establishment of the SSM might bring about important changes since the ECB would then become the ‘competent authority’ for most large banks, most of which use the IRB approach. This means that it would be up to the ECB to stop the use of this permanent partial exemption, which in turn would encourage banks to diminish their overall sovereign exposure. For example, the possibility for IRB banks to permanently use the standardised approach for certain exposures was never meant to be used for internationally active banks and supervisors were (and will continue

<sup>5</sup> “The 2011 European stress test report that only 36 out of the 90 participating banks applied their own internal model to sovereign risk, a lower fraction than for the corporate, mortgage or retail asset classes” Hannoun (2011).

to be) expected not to approve it for those banks.<sup>6</sup>

### 3. Liquidity requirements

Another reason why banks hold large amounts of government debt on their balance sheets is that they have to hold a certain amount of 'liquid' assets. Until recently, only government bonds were recognised as liquid.<sup>7</sup> However, experience over the last few years has shown that at times even government bonds can become illiquid. Forcing banks to hold large amounts of government bonds might thus be counterproductive in the case of macroeconomic crises because the banks might then experience liquidity problems exactly at the time when their own sovereign is in difficulties as well. This concern seems to have been at least partially addressed because the latest version of the so-called liquidity cover ratio (LCR) allows banks to hold also other assets to satisfy the requirement of the LCR that they should be able to offset potential outflows of funds by selling liquid assets.

Liquidity should be measured by market turnover, bid-ask spreads and similar objective variables, rather than formal criteria. The past few years have shown that in times of acute stress, government bonds of some countries have become illiquid, whereas there was never any problem with stock markets.

### 4. The key: Exposure limits

The reason why a fall in the price of the sovereign bonds of a country so strongly affects also the banks of that country is that the government bond holdings are often so

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<sup>6</sup> A response of the European Commission to criticism of the permanent partial exemption is interesting: "... the possibility for IRB banks to permanently use the standardised approach for certain exposures was never meant to be used for internationally active banks and supervisors were (and will continue to be) expected not to approve it for those banks." See Basle Committee on Banking Supervision (2012).

<sup>7</sup> For a summary description of the LCR, see: <http://www.bis.org/press/p130106a.pdf>

"Level 1 assets generally include cash, central bank reserves, and certain marketable securities backed by sovereigns ....."

concentrated on the home sovereign. This concentration is contrary to the general principle of risk diversification.<sup>8</sup> The need to diversify risk is the reason why all regulated investors (banks, insurance companies, investment funds, pension funds) have to limit their exposure to any single counterparty to a fraction of their total investment or capital (for banks). For banks, the limit on the exposure to any one borrower is 25% of their capital, but this limit does not apply to sovereign debt. The logic of this exemption was simple: since there was thought to be no risk in sovereign debt, there was no reason to put any limits on concentration.<sup>9</sup> The result of this lack of exposure limits has been that banks in the periphery have too much debt of their own government on their balance sheets which has greatly contributed to the deadly feedback loop between sovereigns and banks.

Table 1 below shows the degree of 'domestic leverage' of the systemically important banks in major euro area countries which were subject to the EBA stress tests. It is apparent that in most countries the domestic banking system would not survive a Greek-style 'hair cut' on public debt. In the context of the PSI operation of March 2012, holders of Greek bonds had to accept a nominal haircut of over 50%, and on a mark-to-market basis the haircut was over 80%. It is apparent that no bank that has a sovereign exposure worth over 100% of its capital would survive such a loss. Unfortunately this type of data is not available for the entire banking system, but since smaller banks will have a

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<sup>8</sup> A related risk that remains difficult to assess is that of correlation across groups of countries. During the euro crisis the risk premia on the peripheral countries were highly correlated; but the yields (and thus prices) of the group of peripheral countries were at times negatively correlated with those of the core (especially Germany).

<sup>9</sup> This is the logic followed in Article 113 of the Capital Adequacy Directive:

3. The following exposures shall be exempted from the application of Article 111(1):

(a) asset items constituting claims on central governments or central banks which, unsecured, would be assigned a 0 % risk weight under Articles 78 to 83;

Note: Article 111 contains the concentration limit of 25% of capital.

larger domestic bias, one must assume that the overall exposure of the Spanish and Italian banking systems to their sovereign is higher than the level reported in Table 1, which refers only to the sample of large banks subject to EBA stress tests.<sup>10</sup>

Table 1. Domestic sovereign debt leverage (sovereign exposure/capital)

	2010Q4	2011Q4	2012Q2
DE	264%	241%	235%
ES	172%	131%	137%
FR	73%	53%	61%
IT	205%	155%	176%
PL	156%	141%	115%
PT	117%	102%	100%
UK	50%	52%	50%

Source: CEPS database.

In order to stabilise the euro area's financial system and make it 'resilient' to sovereign insolvency, banks thus need to be induced to diversify their holdings of government debt. (And in general one should foster direct sales of public debt to households, instead of leveraged intermediaries like banks.)

Introducing exposure limits now (during a crisis period) would of course be pro-cyclical, as it would force Italian and Spanish banks to sell large amounts of (mostly short-term) government debt. But this can be avoided by grandfathering the existing stocks. The new rules on exposure limits could be applied only in the future and only to new investments. In this way, there would be no pressure on the banks in the periphery to sell any of their holdings.

The concrete proposal, which would be easy to implement, would be to simply eliminate the

exemption for sovereign debt under the 'Large Exposure Directive'. Banks would then be prohibited from holding more than 25% of their capital in government bonds of any single sovereign. But this new rule would be applied only to flows during a transition period.

## 5. Concluding remarks

A large proportion of government debt is held by banks. This is not an ideal situation given that banks are highly leveraged and that sovereign debt is inherently subject to default risk within the euro area. For financial stability reasons, it would thus be preferable if a higher proportion of government debt were held by unleveraged investors, e.g. directly by households or via investment funds. Within the euro area, banks have actually about as much government bonds on their books as they have emitted bonds themselves. It is difficult to see why the public should invest in bank bonds (whose proceeds banks then invest in government bonds) rather than directly in government bonds. The transactions costs for households buying government bonds directly could certainly be further reduced given that most government debt exists anyway only in electronic form in any event.

In reality, however, it is unlikely that the financing patterns for government debt will change any time soon. But something could still be done to limit the dangers to financial stability in an environment in which highly leveraged banks continue to hold large amounts of government debt. The key problem is the excessive home bias, which leads to a concentration of risk. This needs to be changed. Banks should be forced to diversify their investment in government debt by a simple application of the large exposure rules which apply to all other bank business.

The case of Cyprus, whose banks attracted large foreign deposits to invest abroad illustrates the consequences of excessive risk concentration. The two major banks in Cyprus, which had to be closed or restructured recently, had invested more than their total capital in Greek government bonds. They thus effectively became insolvent when the PSI operation cut the value of these bonds to less than half their nominal value. Moreover, given the massive size of its banks

<sup>10</sup> It is surprisingly difficult to find reliable data on sovereign exposure. This is partially due to the fact that in some countries banks lend directly to regional and local governments (e.g. Germany), but also due to the many 'risk-mitigation' measures banks can take. For example, many banks have bought CDS protection to lower their risk. One must thus be careful in interpreting data on bank holdings of government bonds. The EBA stress test data does reflect risk mitigation measures and thus give a better picture of the residual risk on banks' balance sheets.

relative to the economy of Cyprus, these investments in Greek government paper amounted to a sizeable proportion of the GDP of the country. The Greek default thus put the solvency of the entire country in jeopardy. Had the large exposure rules been applied to government debt, the problem in Cyprus would have been manageable.

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