# FAVOURABLE TREATMENT OF GOVERNMENT BONDS IN FINANCIAL REGULATION

By Brian Liltoft Andreasen, Morten Niels Haastrup, Thorsten Meyer Larsen and Lindis Oma, Financial Markets

## INTRODUCTION AND SUMMARY

Government bonds are usually seen as an asset class with low credit and liquidity risk. One of the reasons is that the central government has powers to raise taxes. However, this does not mean that government bonds are risk-free. History has several examples of sovereign states that have defaulted on their payment obligations.

In financial regulation, government bonds are in several respects treated as if they were risk-free. Regulation affects banks' behaviour, and failure to take the risks on certain assets into account may distort the banks' investment decisions. Hence, regulation may give banks an incentive to make disproportionately large investments in government bonds. Special treatment of government bonds applies when calculating risk weights, in the regulation of large exposures and in the new liquidity regulation. At the same time, many banks apply accounting policies whereby unrealised losses on government bonds are not fully reflected in the financial statements or the regulatory capital. This reduces transparency and may contribute to uncertainty about the robustness of banks at times when the markets for government bonds are stressed.

In March 2015, the European Systemic Risk Board, ESRB, has published a report on the regulatory treatment of sovereign exposures. The report examines a wide range of potential policy options to address the risks linked to sovereign exposures and can be seen as input for future discussions. The regulatory treatment of sovereign exposures is also on the agenda of the Basel Committee for 2015 and 2016.

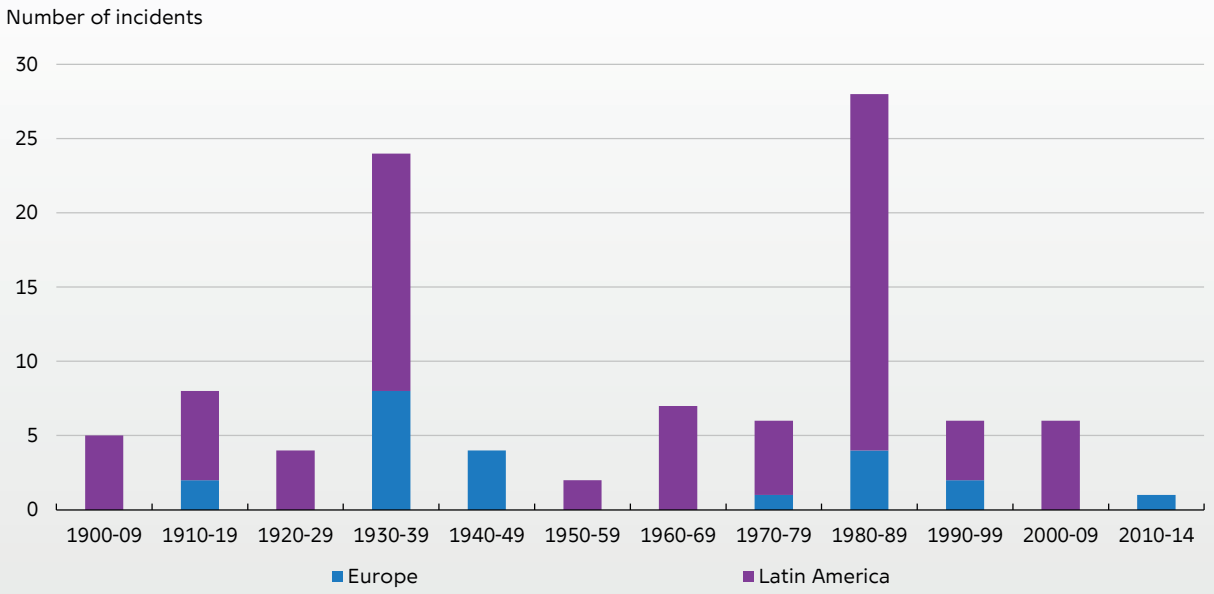
Danmarks Nationalbank finds it positive that the treatment of sovereign exposures in financial regulation is being reconsidered at the international level. Like all other exposures, sovereign exposures entail risks, and regulation should address these risks. Sovereign exposures should not automatically be assigned zero risk weights when the banks' capital requirements are calculated. At the same time, the valuation of government bonds should to a larger extent reflect current market values, even if the bank intends to hold the bonds until maturity. And finally, the definition of liquid assets should be based on indicators of their actual liquidity, not general assumptions such as government bonds are always extremely liquid.

## GOVERNMENT BONDS ARE NOT RISK-FREE

The government's powers to raise taxes and access to monetary financing are among the reasons stated when government bonds issued in a country's own currency are deemed to be risk-free. But there are several examples of countries that have defaulted on their obligations, thereby causing losses for investors, cf. Chart 1. Like other assets, government bonds entail risks, and by definition sovereign states cannot be forced to pay their debt.

In the EU, the combination of independent central banks and a general ban on monetary financing means that member states cannot repay debt simply by printing more money. If a state is no longer able to raise new debt in the financial markets, repayment of the existing debt requires

**Sovereign default and restructuring in Europe and Latin America, 1900-2014** Chart 1

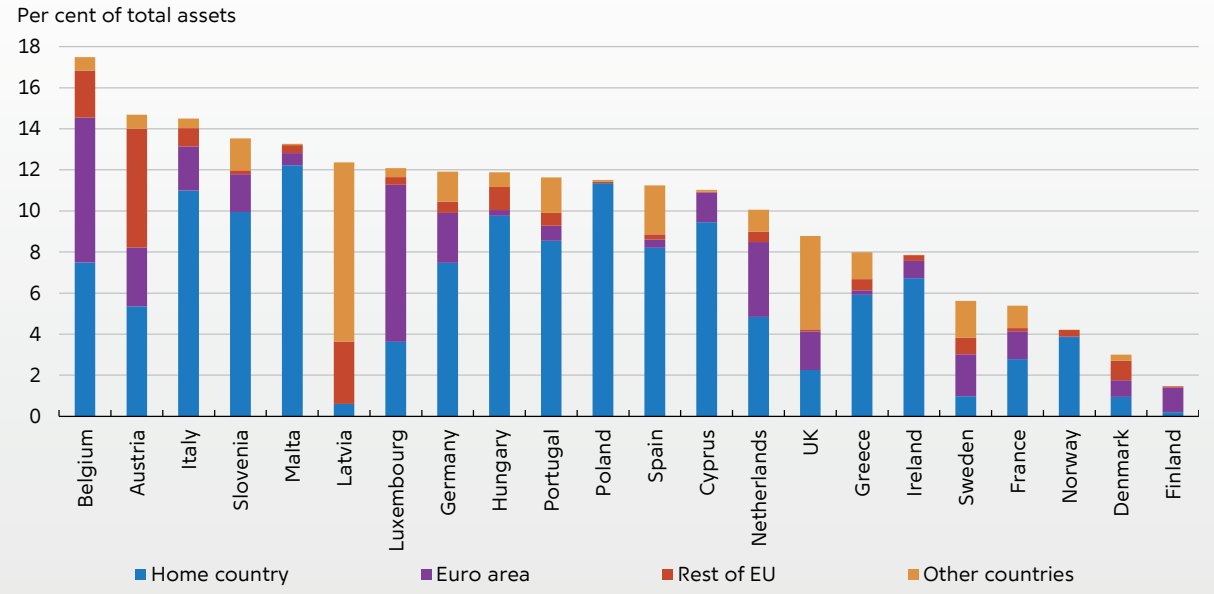



Source: Reinhart and Rogoff (2009) for the period 1900-2009. In the period 2010-14, the Greek sovereign debt was restructured, cf. Box 2.

a government surplus, which can be achieved by e.g. raising taxes or reducing public spending.

In connection with the 2014 EU stress test, the European Banking Authority, EBA, published data for the sovereign exposures of the largest European banks at end-2013. These exposures vary strongly across member states. In the euro area, the relatively largest sovereign exposures are

**Banks' total sovereign exposures by country** Chart 2




Note: The chart shows the banks' net exposures (netting of short- and long-term positions with maturity matching). 123 banks from 22 countries are included. Data from end-2013.
Source: EBA and SNL Financial.

seen among banks in Belgium, Austria and Italy, where they constituted more than 14 per cent of the banks' total assets, cf. Chart 2. The banks' domestic exposures are largest for Maltese, Polish and Italian banks. In general, there is a strong home bias in the peripheral member states, cf. Box 1. For Danish banks, sovereign exposures – to the Danish state and to other states – constituted a small share of the banks' total assets.

Banks may be exposed to sovereign credit risk in other ways than through direct exposures in the form of government bonds. This is particularly true in relation to their home country (and other countries in which the banks have substantial activities). The sovereign credit risk is typically closely linked to the risk on other assets in the economy in question. For example, a sovereign debt crisis may lead to fiscal tightening, which will (in the short term) have a negative impact on economic growth and reduce borrowers' ability to repay their loans. Changes in the sovereign credit risk may also affect the prices of other financial

## Home bias

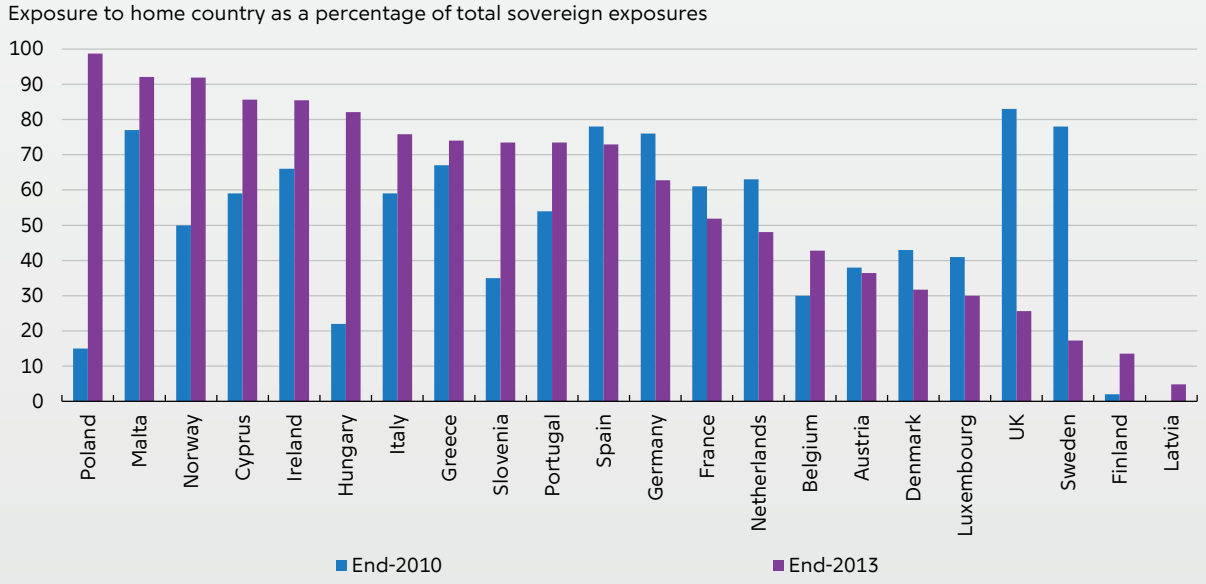
Box 1

Banks are often more strongly exposed to domestic sovereign debt than foreign sovereign debt. This home bias may be attributable to several factors, e.g.:

- The bank wishes to ensure a currency match between its funding and assets. If the bank primarily funds itself in its own currency, it may therefore be an advantage also to invest in assets denominated in its own currency. However, euro area banks can invest in government securities in their own currency (the euro) from a number of member states.
- The bank is dependent on the general economic situation in the home country and affected by the sovereign credit risk, irrespective of the size of the direct sovereign exposures.
- The bank typically has more insight into the economy of the home country than of other countries.
- The bank may be under formal or informal political pressure to invest in domestic sovereign debt. De Maro and Macchiavelli (2014) find that politically controlled banks that have been recapitalised by their home governments subsequently increase their exposures to domestic sovereign debt.

Since 2011, the European Central Bank, ECB, has offered banks 3-year loans against e.g. government bonds as collateral. Especially Spanish and Italian banks have made use of this facility. Among the banks in the peripheral euro area member states (with high levels of debt and interest rates compared with the other euro area member states) there is a clear home bias, cf. the chart.

### The banks' home bias broken down by country




Source: EBA.

assets and make it more expensive and difficult for the banks to obtain funding. Moreover, higher sovereign credit risk may reduce the value of bonds pledged as collateral in e.g. repo transactions.

This risk of contagion effects goes both ways. The financial crisis has shown that problems in the banking sector may – via implicit and explicit government guarantees to banks – cause public finances to deteriorate, thereby increasing the sovereign credit risk. The new European Crisis Management Directive and the Banking Union will contribute to ensuring that distressed banks can be handled without the use of taxpayer money, e.g. via increased use of bail-in. This reduces the risk of contagion between banks and sovereign states.

## HANDLING OF DEBT RESTRUCTURING

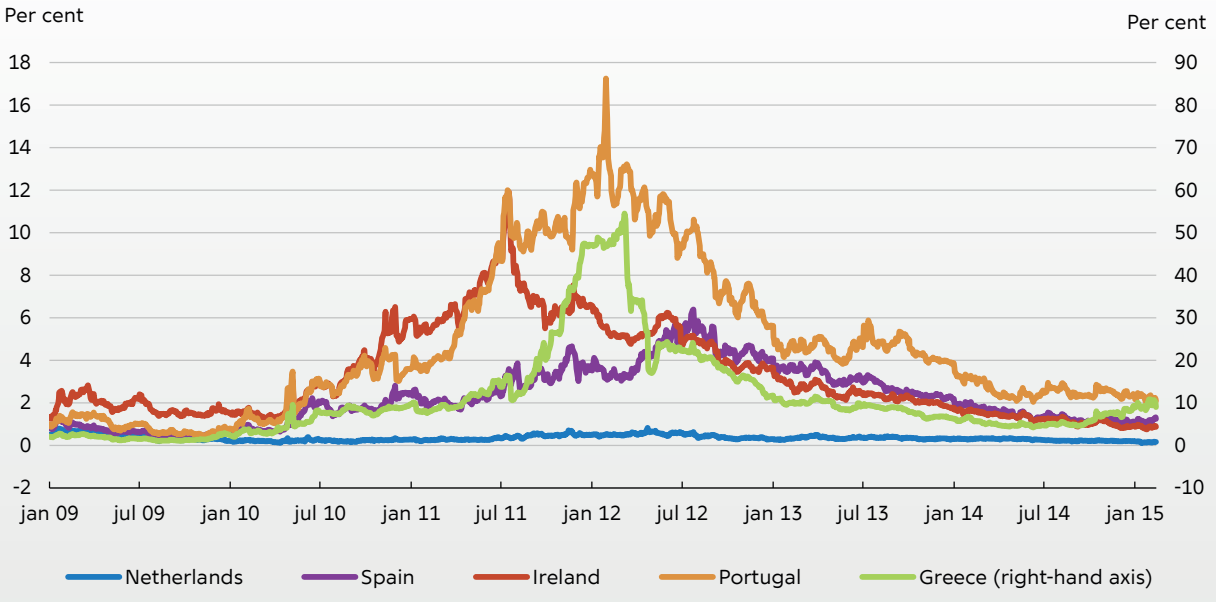
In connection with the financial crisis, focus on the creditworthiness of individual sovereigns increased. This was reflected in e.g. a considerable widening of the spread between interest rates on securities issued by states with high debt and weak public finances and states with low debt and sustainable public finances, cf. Chart 3.

At times, individual states were partly or fully prevented from obtaining funding in the market so that they had to resort to alternative sources of funding. Consequently, the ministers for finance and economic affairs of the euro area member states in November 2010 announced that all new issuance of government bonds by euro area member states would include standardised Collective Action Clauses, CACs, from 2013. These clauses make it possible for a qualified majority of investors to negotiate a restructuring on behalf of all investors and to force a minority to participate.

In 2012, CACs were introduced on all debt issued in Greece under Greek law. This made it possible to restructure the Greek sovereign debt on the basis of an agreement with a majority of investors, cf. Box 2.

**10-year yield spreads to Germany**

Chart 3




Note: Par yield spreads for government bonds with a maturity of 10 years.
Source: Bloomberg.

### Restructuring of the Greek sovereign debt[1]

Box 2

In 2010, Greece obtained a loan programme under which the other euro area member states and the International Monetary Fund, IMF, provided loans totalling 110 billion euro. Weaker-than-expected economic dynamics and non-implementation of reforms meant that this programme was insufficient to stabilise the Greek sovereign debt. In 2012, the euro area member states and the IMF therefore reached an agreement with the Greek government on the conditions for a new loan programme. It was a programme condition that loans granted by private sector creditors, which at the time constituted 206 billion euro of the total Greek debt of 356 billion euro, were to be written down and restructured. Loans granted by the euro area member states and the IMF were not comprised by this restructuring. Negotiations with private sector investors in Greek debt issued under Greek legislation resulted in an agreement whereby 85.8 per cent of the investors accepted that the principal was written down by 53.5 per cent and that the remaining principal was replaced by new bonds with longer maturities and lower coupon rates than the existing loans. Since Greece introduced Collective Action Clauses, CACs, on all existing debt issued under Greek legislation, the same conditions, and hence losses, were imposed on private sector investors who did not participate in the voluntary debt restructuring. Support for the voluntary agreement was sufficiently strong for the Greek government to be able to subject all private sector investors in bonds issued under Greek legislation to the same restructuring.

1. See Mikkelsen and Sørensen (2012) for a more detailed review of the Greek loan programme.

## SOVEREIGN EXPOSURES IN REGULATION

The EU Capital Requirements Regulation, CRR, which entered into force in 2014, is a single rulebook for all EU banks. The rules are aimed at ensuring financial stability in the banking sector and contributing to a well-functioning single market. The Regulation includes a number of provisions under which government bonds are treated as if they were risk-free. This applies when calculating risk weights, in the regulation of large exposures and in the new liquidity regulation. The special treatment of government bonds should be viewed in the light of the EU Treaty's ban on giving states and other public undertakings privileged access to funding unless the measures in question are based on prudential considerations.

Furthermore, many banks apply accounting policies whereby unrealised losses on government bonds are not fully reflected in the financial statements or the regulatory capital, cf. Box 3. This reduces transparency and may contribute to uncertainty about the robustness of banks at times when the markets for government bonds are stressed. Uncertainty about the banks' portfolios of government bonds was one of the reasons for conducting the EU Capital exercise in 2011-12. In this connection the EBA recommended that the participating banks should increase their Core Tier 1 capital to at least 9 per cent after a temporary adjustment. The aim was to a greater extent take into account unrealised losses on portfolios of government bonds.

### Accounting treatment

Box 3

Continues next page

The International Financial Reporting Standards, IFRS, do not include any special provisions on sovereign exposures. So in the financial statements sovereign exposures are to be treated in the same way as other financial assets. Valuation will depend on their accounting classification, which is determined by factors such as the bank's intention, including e.g. whether the bond has been acquired for trading or whether the bank intends to hold it until maturity.[1]

Accounting classifications vary considerably within the EU, cf. the chart. In most member states, most of the portfolios are classified either as *held to maturity* or as *available for sale*. Danish banks cannot apply the classification available for sale when reporting accounting data to the Danish Financial Supervisory Authority. This may explain why the classification *held for trading* is used more widely by Danish banks than by other EU banks.

1. In July 2014, the International Accounting Standards Board, IASB, adopted a new International Financial Reporting Standard, IFRS 9, which includes a new model for classification and valuation of financial assets. The standard is to enter into force from 2018, but has not yet been approved by the European Commission.

**Continued** Box 3

### Classification of sovereign exposures


Note: 123 banks from 22 countries are included. Data from end-2013.
Source: EBA.

The classification held to maturity entails that the bonds are valued at amortised cost price so that the accounting value is not affected by current changes in the market value of the bonds. However, the banks must write down the value of the bond if there is "objective indication of value impairment", as was e.g. the case for Greek government bonds in 2011.

Like *fair value option*, the classification held for trading entails that the bonds are measured at fair value (mark-to-market), and current revaluations are carried to equity via the result for the period. The classification available for sale also entails that the bonds are measured at fair value on a current basis, but in this case the revaluations are carried to equity without any impact on the result for the year. A number of countries have introduced prudential filters on assets available for sale in their national regulation, which means that the effect of unrealised revaluations is neutralised via special deductions or premia when calculating the banks' regulatory capital. These filters will be phased out in connection with the implementation of CRR/CRD IV.[2]

2 In December 2013, the EBA prepared technical advice to the Commission on possible treatments of unrealised gains measured at fair value other than including them in Common Equity Tier 1 without adjustment. The document describes the possibilities of introducing a prudential filter for unrealised gains (i.e. unrealised losses are not neutralised).

## RISK WEIGHTS

Risk-weighted exposures are used for determining capital requirements for banks. For banking book exposures the banks may choose between the standardised approach and the internal ratings-based approach (IRB approach).[1]

Under the standardised approach, sovereign exposures must, as a main rule, be assigned a risk weight of between 0 per cent (if the credit rating of the issuer is AA- or higher) and 150 per cent (if the credit rating is lower than B-). However, two significant exemptions apply in the EU. Sovereign

1 For government bonds available for sale, the risk weights are calculated using the market risk rules. This means that the capital requirement is calculated on the basis of two different risk components, namely general risk (interest rate risk) and specific risk (credit risk). The capital requirement for specific risk is based on the risk weights of banking book exposures. Debt instruments which would carry a risk weight of 0 per cent under the standardised approach will likewise carry a zero weight for specific risk.

exposures to EU member states issued in the issuer state's own currency must be assigned a risk weight of 0 per cent, irrespective of the issuer's credit rating.[2] In practice this means that sovereign exposures within the EU must, as a main rule, be weighted at 0 per cent under the standardised approach. Secondly, sovereign exposures to third countries that have introduced equivalent regulation and where the regulatory authorities in the country in question assign the exposures a weight of zero must also be weighted at 0 per cent.

Banks that apply the IRB approach must, as a general rule, also apply the IRB approach to their sovereign exposures. But in the EU an exemption applies – permanent partial use – whereby banks applying the IRB approach may assign a risk weight of 0 per cent to sovereign exposures to EU member states under the standardised approach.[3] Due to this exemption, only few European banks assign IRB risk weights to their sovereign exposures, and no Danish banks do so. The IRB approach entails that banks must apply their own estimates of the probability of default, PD, and – for banks applying the advanced approach – also their own estimates of the loss given default, LGD. The PD estimates are typically based on historical data, and since the frequency of sovereign default is very low, the risk weights calculated are correspondingly low. For a government bond with a remaining term to maturity of 2.5 years, where PD and LGD are estimated at 0.01 and 45 per cent, respectively, the risk weight will be 7.5 per cent. For a higher PD, e.g. 0.10 per cent, the risk weight will be 29.7 per cent.[4]

## LEVERAGE RATIO

While the risk weights on sovereign exposures must be deemed to be very lenient, no special exemptions apply in relation to the future leverage ratio.[5] This ratio measures a bank's Tier 1 capital relative to its non-risk-weighted exposures. Under Basel III, Tier 1 capital must, as a main rule, constitute at least 3 per cent of non-risk-weighted exposures. Hence the leverage ratio can be seen as a kind of "backstop" for the risk-based capital requirements. Since sovereign exposures are fully included in the denominator, it will also function as a backstop in relation to banks that invest heavily in government bonds.

Whether the leverage ratio will in practice constitute a restriction for the individual bank will depend on the specific asset structure. If the bank has invested most of its balance sheet in high-risk assets and only a small share in government bonds, the risk-based capital requirements can be expected to constitute the binding restriction. Conversely, if the bank has invested primarily in assets with low (or no) risk weights, the leverage ratio can be expected to constitute the binding restriction.[6]

## LARGE EXPOSURES

In the EU, the Capital Requirements Regulation imposes requirements on the banks' oversight and management of large exposures in order to ensure diversification and prevent individual banks from becoming dependent on single counterparties. A large exposure is defined as an exposure that makes up 10 per cent or more of the adjusted own funds.[7] For each large exposure, the bank must report various details to the supervisory authorities. A core element of the regulation is the maximum limit, whereby the value of a bank's exposure to a single counterparty may not exceed 25 per cent of its adjusted own funds. For Danish banks, this maximum limit is supplemented with the Supervisory Diamond's limit values, stating that the sum of large exposures may not exceed 125 per cent of the adjusted own funds. In relation to both limits, sovereign exposures are exempted, provided that they are assigned a risk weight of 0 per cent according to the standard-

2 Until the end of 2017, an equivalent exemption (i.e. a risk weight of 0 per cent) applies to exposures to EU member states issued in another EU currency than that of the issuer state. This exemption will gradually be phased out from 2018 to 2020.

3 In December 2014, the Basel Committee published a report on the EU's implementation of Basel III in which it assessed EU regulation to be "materially non-compliant" with the Basel IRB guidelines. For example, it is pointed out that the "permanent partial use" exemption in the CRR can be applied more broadly than the guidelines allow. Under the Basel guidelines, banks using the IRB approach may apply the standardised approach to exposure types that are insignificant in relation to both size and assessed risk profile, but there are no special exemptions for sovereign exposures.

4 For exposures to firms and banks, the regulation includes a "floor" stating that PD must be at least 0.03 per cent. A similar floor does not apply to sovereign exposures.

5 In the EU, the leverage ratio will initially be introduced as a disclosure requirement from 2015, but it may become a binding Pillar 1 requirement from 2018.

6 See Danmarks Nationalbank (2014).

7 The adjusted own funds are calculated as the sum of Tier 1 and Tier 2 capital; the latter may not exceed one third of the former.

ised approach to credit risk, cf. above. This means that in principle the banks can increase their investment in government bonds without reaching any regulatory limits to the size of the individual exposure. However, the relevant supervisory authority must consider the concentration of exposures to a single country, including sovereign exposures, in connection with the supervisory process under Pillar 2.[8]

### LIQUIDITY REGULATION

The new Liquidity Coverage Ratio, LCR, will enter into force on 1 October 2015. The purpose of the LCR requirement is to ensure that the banks have adequate high quality liquid assets to cover the outflow of liquidity in a 30-day intensive liquidity stress scenario. Government bonds issued by EU member states are assigned special properties in that respect. Regardless of their actual liquidity – and without limitations or haircuts – they can be included in the compilation of extremely high quality liquid assets (level 1 assets), which must constitute at least 60 per cent of the aggregate liquidity buffer. The same applies to government bonds issued by third countries with credit ratings of at least AA-.

## ESRB REPORT ON POTENTIAL POLICY OPTIONS

In March 2015, an expert group set up by the ESRB presented a report illustrating different issues in the treatment of sovereign exposures under current regulation. The report describes the treatment of sovereign exposures in e.g. Basel III and CRD IV/CRR and then discusses a number of potential policy options, cf. Box 4. The options are all very briefly outlined. The expert group encourages discussion and analyses and hence the report does not provide a basis for recommendations from the ESRB.

### RISK WEIGHTS

The report describes the option of removing the domestic carve-out in the standardised approach. This would mean that a sovereign exposure to an EU member state issued in that member state's own currency would no longer automatically be assigned a risk weight of zero; instead it would be treated according to the general rules for sovereign exposures, i.e. the risk weight would depend on the country's credit rating. This could reduce the banks' incentives to invest in government bonds with low credit ratings, while also increasing their ability to absorb losses on sovereign exposures.

**Overview of potential policy options in the ESRB report**[1] Box 4

1. Stricter Pillar 1 capital requirements for sovereign exposures
   a. Removing the domestic carve-out in the standardised approach.
   b. Introducing a non-zero risk-weight floor for sovereign exposures in the standardised approach.
   c. Reducing mechanistic reliance on external credit ratings in the standardised approach.
   d. Setting a minimum (regulatory) floor in the IRB approach.
2. Diversification requirements
   a. Fully or partially removing the exemption of sovereign exposures from the large exposures regime.
   b. Introducing a capital requirement for concentration risk.
3. Coverage of sovereign exposures in macro-prudential regulation (i.e. a flexible tool that would allow policymakers to change the capital requirement on sovereign debt to vary over the cycle).
4. Enhanced Pillar 2 requirements (through recommendations for stress tests and/or qualitative guidance on diversification).
5. Enhanced Pillar 3 disclosure requirements on banks' sovereign exposures (e.g. by implementing mandatory templates for disclosure).
6. Regulation of liquidity risk, including alternative approaches to treating central government debt in liquidity regulation.

1 For a more detailed review of the proposed changes, see ESRB (2015).

8 Cf. EBA (2014).

Based on data from 2011, the expert group has estimated that the banks' additional capital requirement would have been 9 billion euro, corresponding to 0.7 per cent of total equity, if the domestic carve-out had not applied. However, the volume of additional capital required varies considerably among the member states, cf. Chart 4. The requirement would be largest for Cypriot banks, reflecting their substantial exposure to the Greek government in 2011. The debt restructuring in Greece, cf. Box 2, contributed to a major banking crisis in Cyprus in 2012.

The report also describes the option of introducing a non-zero risk-weight floor for all sovereign exposures. The expert group argues that exposures always involve some kind of risk and hence they should always be assigned a positive risk weight.

Based on data from 2011, the expert group has estimated that the capital requirement for banks would rise by 11 billion euro, corresponding to 0.8 per cent of total equity, if EU sovereign exposures were assigned a risk weight of 10 per cent. For the four Danish banks in the EBA population, this change would increase their aggregate capital requirement by approximately kr. 0.5 billion, corresponding to 0.3 per cent of theirtotal equity, cf. Chart 5.

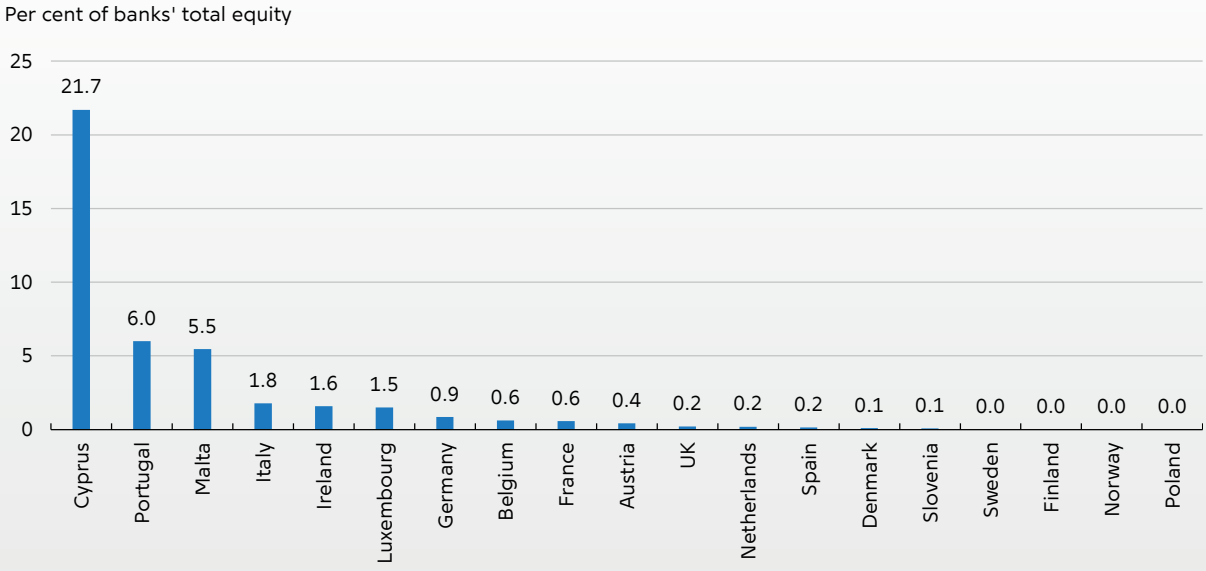
## LARGE EXPOSURES

The report also discusses the option of introducing an upper limit on the size of sovereign exposures. The expert group does not stipulate a specific limit as various opposite factors must be taken into account. For example, the banks must hold sufficient liquid assets in the currency of their greatest liquidity risk. For non-euro area banks, it may be difficult to find sufficient liquid assets in their own currencies if limits are introduced on the sovereign exposure to the home country.

If the exposure to a single state may not exceed 25 per cent of a bank's adjusted own funds – as is the case for other exposures – the expert group estimates that EU banks overall would have had to reallocate 43 per cent of their portfolios of government bonds in 2011.

At end-2013, 106 of the 123 banks in the EBA stress test population had at least one sovereign exposure exceeding 25 per cent of their own funds. Among the 10 largest banks, only BNP Paribas and Royal Bank of Scotland did not have any sovereign exposures exceeding 25 per cent of

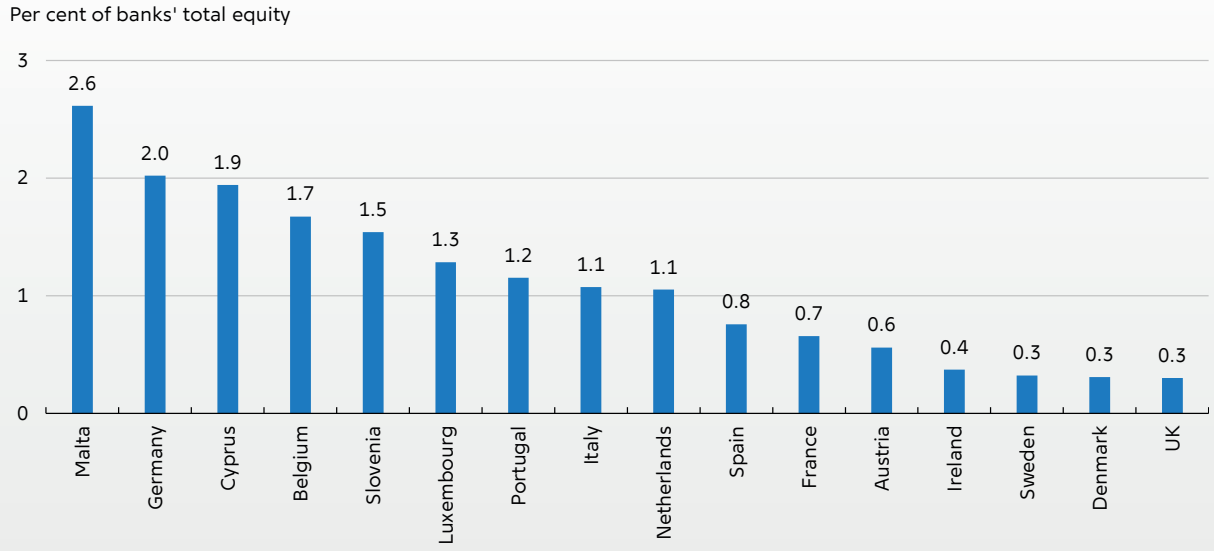
**Changes in the banks' capital requirements if sovereign exposures are assigned risk weights according to the standardised approach (without exemptions for the home country/EU)** Chart 4




Note: The aggregate change in the banks' capital requirements as a percentage of their total equity if the risk weights from the standardised approach are applied. Data from 2011.
Source: ESRB (2015).

**Changes in the banks' capital requirements if sovereign exposures are assigned a risk weight of 10 per cent**

Chart 5




Note: The aggregate change in the banks' capital requirements as a percentage of their total equity if a lower limit of 10 per cent is introduced for the risk weights of EU sovereign exposures. Data from 2011.
Source: ESRB (2015).

**The 10 largest European banks' three largest sovereign exposures as percentages of their own funds**

Table 1

| Bank | Home country | Largest exposure, per cent | Exposure to | Second largest exposure, per cent | Exposure to | Third largest exposure, per cent | Exposure to |
|---|---|---|---|---|---|---|---|
| HSBC | UK | 45 | USA | 31 | Hong Kong | 27 | France |
| BNP Paribas | France | 24 | Belgium | 17 | Italy | 13 | USA |
| Crédit Agricole | France | 52 | France | 7 | Italy | 4 | USA |
| Barclays | UK | 52 | UK | 24 | USA | 10 | France |
| Deutsche Bank | Germany | 49 | Germany | 48 | USA | 14 | Netherlands |
| Royal Bank of Scotland | UK | 21 | UK | 20 | USA | 16 | Germany |
| Société Générale | France | 32 | France | 24 | USA | 10 | Germany |
| Groupe BPCE | France | 131 | France | 11 | Italy | 4 | USA |
| Banco Santander | Spain | 61 | Spain | 44 | Latin America[1] | 8 | Poland |
| Lloyds Banking Group | UK | 81 | UK | 14 | USA | 3 | Poland |

Note: The assets of the 10 largest European banks make up approximately half of the total assets of the 123 banks. The banks' adjusted own funds are lower than their own funds in cases where the banks' Tier 2 capital constitutes more than 50 per cent of their Tier 1 capital.
Source: EBA.
1. The data does not allow a breakdown of exposures to "Latin America" by country.

their own funds, cf. Table 1. Two of the four Danish banks in the stress test population did not have any such exposures either.

**LIQUIDITY REGULATION**

As an alternative to the current definition of the liquidity buffer in the LCR, under which government bonds are always counted as extremely high quality liquid assets, the report points to the option of definingliquid assets on the basis of market indicators. This approach could either replace or supplement the current definition. At the same time, haircuts can be differentiated on the basis of actual market liquidity. According to the expert group, this will address the risk that current liquidity regulation reinforces the banks' home bias, while also giving them a better opportunity to diversify their liquid portfolios in relation to both liquidity and credit risk. The report also mentions the option that liquidity regulation should to a greater extent take into account the collateral basis of the central banks, e.g. in relation to haircuts.

**REGULATIONS SHOULD ADDRESS THE RISKS LINKED TO SOVEREIGN EXPOSURES**

The expert group points out that the potential policy options require further consideration and calibration. For example, the potential interaction between the options has not been considered. The outlined options are not intended to be introduced in the current economic situation, but are aimed at ensuring financial stability in the longer term. In addition, some of them will require phasing-in as they will entail a need for considerable adjustments of the banks' balance sheets.

The regulatory treatment of sovereign exposures is also on the agenda of the Basel Committee for 2015 and 2016. Like the ESRB, the Committee will consider various potential policy options. The need to adapt regulation has also been pointed out by members of the Supervisory Board of the Single Supervisory Mechanism within the Banking Union.

Danmarks Nationalbank finds it positive that the treatment of sovereign exposures in financial regulation is being reconsidered at the international level. Like all other exposures, sovereign exposures entail risks, and regulation should address these risks. Sovereign exposures should not automatically be assigned zero risk weights when the banks' capital requirements are calculated. At the same time, the valuation of government bonds should to a larger extent reflect current market values, even if the bank intends to hold the bonds until maturity. And finally, the definition of liquid assets should be based on indicators of their actual liquidity, not general assumptions such as government bonds are always extremely liquid.

## LITERATURE


Acharya, Viral V. and Sascha Steffen (2013), The "greatest" carry trade ever? Understanding eurozone bank risks.

Basel Committee on Banking Supervision (2014), Assessment of Basel III regulations – European Union (RCAP).

Battistini, Niccolò, Marco Pagano and Saverio Simonelli (2013), Systemic risk and home bias in the euro area, *Economic Papers 494*.

De Maro, Filippo and Marco Macchiavelli (2014), The political origin of home bias: the case of Europe.

EBA (2013), EU-wide transparency exercise 2013, Summary report.

EBA (2014), Guidelines on common procedures and methodology for SREP.

ESRB (2015), Regulatory treatment of sovereign exposures.

Danmarks Nationalbank (2013), *Financial stability,* 2nd Half.

Danmarks Nationalbank (2014), *Financial stability,* 1st Half.

Mikkelsen, Uffe and Søren Vester Sørensen (2012), Write-down of Greek debt and new EU/IMF loan programme, Danmarks Nationalbank, *Monetary Review*, 1st Quarter, Part 1.

Reinhart, Carmen M. and Kenneth S. Rogoff (2009), This time is different: Eight centuries of financial folly, Princeton University Press.