

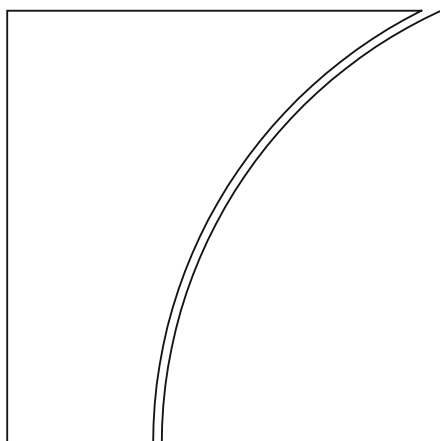
Basel Committee on Banking Supervision

Discussion paper

The regulatory treatment of sovereign exposures

Issued for comment by 9 March 2018

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Executive summary

In January 2015, the Basel Committee on Banking Supervision initiated a review of the existing regulatory treatment of sovereign risk. The Basel Committee set up a high-level Task Force on Sovereign Exposures to review the regulatory treatment of sovereign exposures and to recommend potential policy options. The Task Force submitted a report to the Committee that analysed various issues concerning the regulatory treatment of sovereign exposures in the Basel framework. The Committee has now completed its review. This discussion paper has been derived from the Task Force's report.

The Committee's view is that the issues raised by the Task Force and the potential ideas outlined in this paper are important, and could benefit from a broader discussion. At this stage, the Committee has not reached a consensus to make any changes to the treatment of sovereign exposures, and has therefore decided not to consult on the ideas presented in this paper. The views of interested stakeholders will nevertheless be highly useful in informing the Committee's longer-term thinking on this issue.

The remainder of this paper is organised as follows. Chapter 1 provides some background about the Committee's review of sovereign exposures. The Committee is of the view that all sovereign exposures entail risks but notes that they also play an important role in the banking system, financial markets and the broader economy. The ideas set out in this discussion paper therefore seek to balance prudential risk with other holistic considerations that are relevant to the Committee's mandate of enhancing financial stability.

Chapter 2 reviews the main sources and channels of sovereign risk in the banking system. Sovereign risk has various dimensions. Historically, banking crises have preceded, accompanied and followed sovereign crises. The "sovereign-bank nexus" is multifaceted, potentially serving as an amplifier and/or absorber of shocks in times of stress.

Sovereign exposures play an important and heterogeneous role across different markets and jurisdictions. As discussed in Chapter 3, sovereign exposures are used by banks for liquidity management, credit risk mitigation, asset pricing, financial intermediation and investment purposes. Banks' holdings of sovereign exposures also play an important role as part of monetary policy operationalisation. As banks are generally one of the main investors in government debt, they also play a role in the operationalisation of fiscal policy. The current regulatory treatment could potentially exacerbate the negative aspects of the sovereign-bank nexus.

The existing regulatory treatment of sovereign exposures is considered in Chapter 4. In most cases, the existing treatment of sovereign exposures is more favourable than other asset classes. Most notably, the risk-weighted framework includes a national discretion that allows jurisdictions to apply a 0% risk weight for sovereign exposures denominated and funded in domestic currency, regardless of their inherent risk. This discretion is currently exercised by all members of the Committee. Sovereign exposures are also currently exempted from the large exposures framework. Moreover, no limits or haircuts are applied to domestic sovereign exposures that are eligible as high-quality liquid assets in meeting the liquidity standards. In contrast, sovereign exposures are included as part of the leverage ratio framework.

Chapter 5 sets out some ideas regarding the regulatory treatment of sovereign exposures. It starts by reviewing the existing perimeter and segmentation of sovereign exposures and presents the Committee's discussions on possible revisions to the definition of sovereign entities to ensure greater consistency across jurisdictions. It then outlines ideas related to revising the regulatory treatment of sovereign exposures. These can be grouped into three broad categories. The first set of ideas relates to: (i) the removal of the internal ratings-based (IRB) approach framework for sovereign exposures; (ii) revised standardised risk weights for sovereign exposures held in both the banking and trading book, including the removal of the national discretion to apply a preferential risk weight for certain sovereign exposures; and (iii) adjustments to the existing credit risk mitigation framework, including the removal of the national

discretion to set a zero haircut for certain sovereign repo-style transactions. The calibrations in this discussion paper are presented only for illustrative purposes.

The second set of ideas relate to mitigating the potential risks of excessive holdings of sovereign exposures, which, for instance, could take the form of marginal risk weight add-ons that would vary based on the degree of a bank's concentration to a sovereign (defined as the proportion of sovereign exposures relative to Tier 1 capital).

The third set of ideas is related to the Pillar 2 (supervisory review process) and Pillar 3 (disclosure) treatment of sovereign exposures. Regarding the former, these include ideas related to guidance on: (i) monitoring sovereign risk; (ii) stress testing for sovereign risk; and (iii) supervisory responses to mitigating sovereign risk. Regarding the Pillar 3 framework, this paper includes ideas related to disclosure requirements related to banks' exposures and risk-weighted assets of different sovereign entities by jurisdictional breakdown, currency breakdown and accounting classification.

The Basel framework applies to all internationally active banks on a fully consolidated basis or at every tier within a group. To mitigate potential concerns related to different prudential treatments applied at a subsidiary and consolidated level, the Committee encourages home authorities of internationally active banks to recognise the prudential treatment applied by host authorities for subsidiaries, to the extent that the latter is compliant with the Basel framework. The Committee notes that home authorities retain the option to apply higher risk weights at a consolidated level if necessary. In addition, some of the ideas in this discussion paper are related to removing the existing national discretions related to the regulatory treatment of sovereign exposures, which would contribute towards a consistent minimum prudential treatment at the consolidated and sub-consolidated levels within and across different jurisdictions.

As noted above, the Committee welcomes comments on the analyses and ideas set out in this discussion paper from all stakeholders, including academics, analysts, debt management agencies, finance ministries, market participants and the general public.

Comments on any elements of this discussion paper should be submitted by 9 March 2018 using the following link: www.bis.org/bcbs/commentupload.htm. All comments may be published on the website of the Bank for International Settlements unless a respondent specifically requests confidential treatment.

Chapter 1: Introduction

The Committee's post-crisis reforms have been extensive and far-reaching, addressing some of the main fault lines with the pre-crisis regulatory framework.¹ Yet these reforms have kept the regulatory treatment of sovereign exposures broadly unchanged from the Basel II framework, and, in some cases, from the Basel I framework. The recent post-crisis episodes of sovereign distress across different regions and jurisdictions have served as a reminder that sovereign exposures entail risks.

In January 2015, the Basel Committee on Banking Supervision initiated a review of the existing regulatory treatment of sovereign risk.² It set up a high-level Task Force on Sovereign Exposures to review the regulatory treatment of sovereign exposures and to recommend potential policy options. The Task Force submitted a report to the Committee that analysed various issues concerning the regulatory treatment of sovereign exposures in the Basel framework. The Committee has now completed its review. This discussion paper has been derived from the Task Force's report.

The Committee recognises that sovereign exposures entail multidimensional risks, and that sovereign exposures play an important role in the banking system, financial markets and the broader economy. The Committee's view is that the issues raised by the Task Force and the potential ideas outlined in this paper are important, and could benefit from a broader discussion. At this stage, the Committee has not reached a consensus to make any changes to the treatment of sovereign exposures, and has therefore decided not to consult on the ideas presented in this paper. The views of interested stakeholders will nevertheless be highly useful in informing the Committee's longer-term thinking on this issue.

This discussion paper sets out the Committee's analysis on the sources and channels of sovereign risk in the banking system, and includes ideas related to the regulatory treatment of sovereign exposures.

¹ See the Committee's report to G20 Leaders in November 2015 for a summary of its post-crisis reforms, available at www.bis.org/bcbs/publ/d344.pdf.

² As discussed in the Basel Committee's work programme for 2015 and 2016, available at www.bis.org/bcbs/about/work_programme.htm.

Chapter 2: Sources and channels of sovereign risk in the banking system

This chapter briefly reviews the sources and channels of sovereign risk in the banking system. It builds on the vast theoretical and empirical literature on sovereign risk.

Sovereign risk and the banking system

Sovereign exposures can generate a range of risks for banks. These risks are multidimensional, and include credit, interest rate, market and refinancing risk. They can arise from myriad actual or expected events, including: (i) missed payments; (ii) debt restructuring or outright defaults; (iii) currency redenomination; (iii) currency devaluations; (iv) losses from unanticipated, higher inflation; and (v) fluctuations in the value of sovereign exposures.³

These risks can affect the banking system through various channels.⁴ These include:

- (i) a direct exposures channel, whereby increased sovereign risk can inflict losses on banks' sovereign exposures, weakening their balance sheets;
- (ii) a collateral channel, where an increase in sovereign risk can reduce the value of sovereign collateral used by banks, raising funding costs and liquidity needs;
- (iii) sovereign credit rating downgrades, which generate cliff effects and may precipitate downgrades to the ratings of other entities in the economy given that sovereign ratings set a "ceiling" on other credit ratings;
- (iv) a government support channel, where a weakening of the sovereign could reduce the funding benefits that banks derive from implicit and/or explicit government guarantees. A number of post-crisis reforms (eg resolution regimes) seek to weaken this channel; and
- (v) a macroeconomic channel, whereby the crystallisation of sovereign risk could trigger a recession, which in turn could increase borrowers' riskiness and banks' fragility and funding costs, resulting in a spiral of credit tightening that deepens the recession, independently of banks' direct exposures to the sovereign.

These channels, in isolation or in combination, can make banks more susceptible to distress or failure, increasing the risk of contagion to the rest of the banking system.

The causality can also run in the opposite direction: a banking crisis can increase sovereign risk.⁵ For example, if a government is expected to support the banks in a banking crisis, a strained banking system could erode the sovereign's own creditworthiness. More generally, a banking crisis resulting in a reduction in lending and worse economic conditions could stretch the sovereign's fiscal position.

This interconnectedness of banks and sovereigns is often referred to as the sovereign-bank "nexus", whereby problems originating in one of the two sectors may cause a negative "feedback loop" that further amplifies the effects in each sector.⁶

³ See, for example, IMF (2011), Dudley (2013), and Pericoli and Taboga (2015).

⁴ See, for example, CGFS (2011), Acharya et al (2012), and Correa and Sapriza (2014).

⁵ See, for example, Panetta et al (2009) and Gartner et al (2013).

⁶ Van Rixtel and Gasperini (2013).

On the other hand, banks can also act as shock absorbers in times of distress when they act as stable and willing investors in sovereign debt. The recent financial crisis has provided several instances of this role.⁷ Furthermore, sovereign defaults may be less likely to occur in countries where domestic agents/banks hold more domestic sovereign debt, as this concentrates the costs of a government default on resident citizens and banks, thus creating a commitment device for the sovereign.⁸ In addition, a high proportion of sovereign debt held domestically reduces the dependence on external investors, who are typically more prone to taking flight in the presence of shocks, thus potentially subjecting governments to refinancing risk.⁹

The impact of the bank-sovereign nexus depends on a number of factors, including jurisdiction-specific factors, the size of the existing dependence between banks and the sovereign, and the magnitude of the crisis. For example, in a moderate stress event and when the degree of dependence is relatively low before the stress event, banks may be better positioned to act as shock absorbers. However, in a more severe stress event, or where banks' holdings of sovereign exposures are relatively high before the stress event, the bank-sovereign nexus could aggravate the crisis.

Empirical evidence on sovereign risk

There is a long history of sovereign distress episodes, as evidenced by the events following the global financial crisis across different regions and jurisdictions. This record suggests that banking crises have preceded, accompanied and followed sovereign crises.¹⁰

Sovereign distress can take many forms, ranging from outright default to non-default events, including:

- (i) sovereign default or debt restructuring for fundamental reasons: the sovereign is unable to meet its debt obligations or is required to restructure its debt obligations in order to be able to continue to meet them because its current fiscal position is unsustainable. Examples include Pakistan (1999), Ukraine (2000), Ecuador (2009) and Greece (2012);
- (ii) a technical default by a sovereign for non-fundamental reasons. a temporary disruption to coupon payments even though there are no fundamental problems or concerns about fiscal sustainability. Examples include the United States (1979);
- (iii) currency redenomination or the risk of one ("real default"): a change in the currency in which sovereign debt is denominated or a change in the exchange rate policy that leads to a revaluation by creditors of the sovereign debt. Examples include the Czech-Slovak monetary union collapse (1993) or the perceived risk during the euro area debt crisis (2012);¹¹
- (iv) monetary policy geared towards inflating debt away (another type of "real default"): whereby intentional inflationary policies reduce the real value of the sovereign's debt. Examples include Germany (1923), Argentina (1989), Brazil (1987, 1990), and Turkey (1990, 1994);¹²

⁷ See, for example, Lanotte et al (2016).

⁸ See, for example, Ichiue and Shimizu (2012), and Gennaioli et al (2014).

⁹ See, for example, Arslanalp and Tsuda (2012).

¹⁰ See, for example, Reinhart and Rogoff (2011), and Schularick and Taylor (2012).

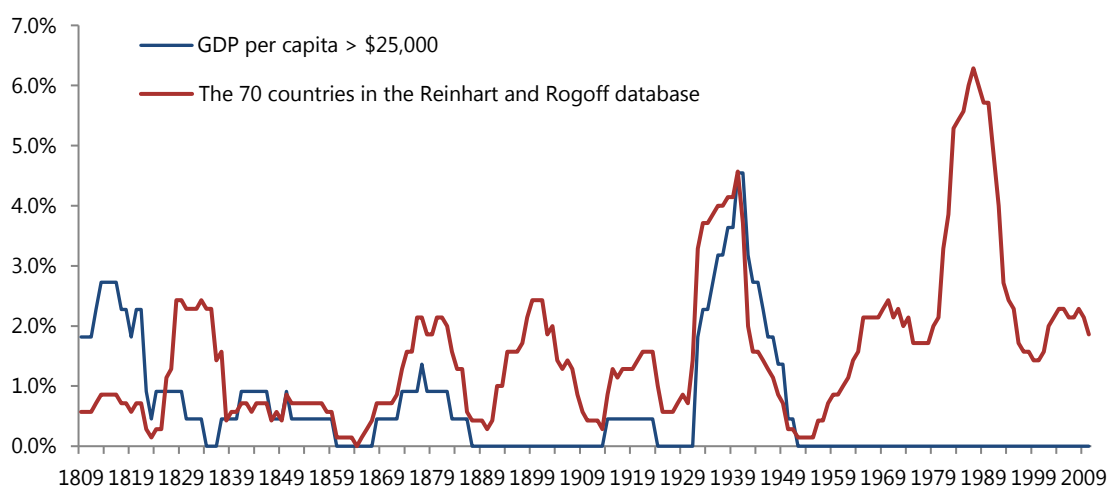
¹¹ See, for example, De Santis (2015).

¹² See Reinhart and Rogoff (2009) for additional examples.

- (v) default by a quasi-sovereign entity: an issuer that is fully or partially owned by a sovereign defaults on its debt. Examples include Naftogaz (2009), Dubai World (2009–10) and Ukreximbank (2015) and
- (vi) sovereign downgrades and/or market stress (non-default) events: a sovereign’s credit rating is downgraded and/or the risk premium attached to the sovereign’s debt or related instruments (eg credit default swaps) is increased without necessarily a preceding sovereign default. Examples include Sweden and Finland (1990s), Korea (1997–98) and the recent euro area debt crisis.

The frequency of defaults or debt restructurings has fluctuated over time, with such events often coming in waves associated with conflict or regional instability (Graph 1). The frequency of such episodes in the sovereigns of higher-income regions has tended to be lower than for other sovereigns over much of the past two centuries. In developing economies, outright defaults have historically been more frequent than in advanced economies (although they are now less frequent than in the 1980s and 1990s).

Graph 1: Frequency of sovereign defaults^(a)



Sources: Reinhart and Rogoff (2010); Basel Committee calculations.

^(a) The frequency of default is defined as the ratio of the number of new defaults in a given year over the total number of countries in the sample. The graph shows the average frequency of default over 10-year moving windows. The definition of default includes episodes in which debt is ultimately extinguished in terms less favourable than the original obligation. The data end in 2010, which means, for instance, that the recent Greek sovereign distress episode is not included.

Focusing on higher income economies, the frequency of external sovereign debt crises is higher than the frequency of domestic sovereign debt crises (Table 1). This may be because it is harder for a sovereign to meet obligations that are denominated in a currency that is not its own, and because the costs of external defaults tend to be borne by non-residents. The frequencies of both domestic and external crises have fallen over time. Moreover, the historical frequency of sovereign debt crises is lower than that of other types of economic crisis.

Outright defaults by central banks on local currency liabilities have historically been very rare. But some have still occurred, although they were generally associated with monetary reforms or currency conversions.¹³

Table 1 shows the number of actual distress events from 1800 to 2010 (it does not include events after 2010 due to data limitations), but it omits other instances in which a default or restructuring event was averted by public sector intervention, such as an IMF programme. Historically, a large number of

¹³ Buiters (2008).

countries have been recipients of such programmes. In recent years, two high-income countries were the recipients of IMF programmes that did not coincide with a sovereign debt default or restructuring (Cyprus in 1980 and Ireland in 2010).

Table 1: Frequency of sovereign default crises and other economic crises in OECD and advanced economies (percentage)

		Type of economic crisis ^{(b)(c)(d)}					
		Sovereign (domestic)	Sovereign (external)	Currency	Inflation	Banking	Equity market
Current OECD countries	1800–2010	1.3	6.7	7.7	6.9	6.5	13.8
	1870–2010	1.3	5.6	10.2	6.3	7.9	20.3
	1946–2010	0.6	4.9	13.3	6.8	9.2	27.1
	1950–2010	0.1	3.7	11.9	5.8	9.8	26.2
GDP per capita > \$25,000 ^(a)	1800–2010	1.1	3.6	6.5	4.8	7.0	13.9
	1870–2010	0.9	2.6	8.3	4.0	8.2	20.4
	1946–2010	0.3	1.8	9.4	3.4	9.0	26.2
	1950–2010	0.0	0.8	8.0	2.4	9.6	25.2

Sources: Reinhart and Rogoff (2010); Basel Committee calculations.

(a) Average GDP per capital in the period 2003–13.

(b) Sovereign crises, which are divided into domestic and external, are defined as the failure to meet a principal or interest payment on the due date (or within the specified grace period). The episodes also include instances where rescheduled debt is ultimately extinguished in terms less favourable than the original obligation. External debt crises involve default on a government's external debt, ie a default on a payment to creditors of a loan issued under another country's jurisdiction (and typically, but not always, denominated in foreign currency and mostly held by foreign investors). A domestic debt crisis involves public debt issued under a country's own legal jurisdiction. In most countries, domestic debt has been denominated in the local currency, and held mainly by residents. In addition, domestic debt crises may involve the freezing of bank deposits and or forcible conversions of such deposits from dollars to local currency.

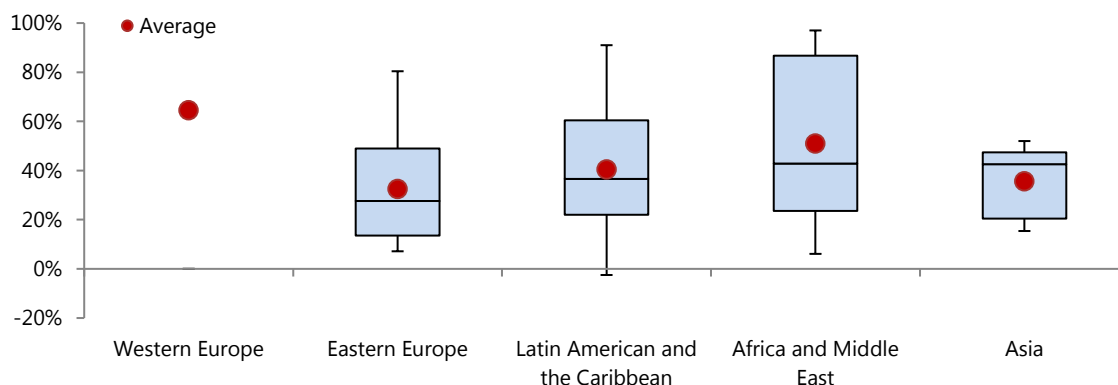
(c) A currency crisis is defined as an annual depreciation versus the relevant anchor currency (eg the US dollar) of 15% or more. An inflation crisis is defined as an annual rate of inflation of 20% or more. A banking crisis is where there are bank runs that led to the closure, merging or takeover by the public sector of one or more financial institutions or, in the absence of runs, there was a closure, merger or public sector takeover of an important financial institution or group of institutions that marked the beginning of series of similar events for other financial institutions. An equity market crisis is defined as a cumulative decline of 25% or more in real equity prices from a peak to trough in equity prices.

(d) The frequency of default or other crises is defined as the ratio of the number of new defaults/crises in a given year over the total number of countries in the relevant sample averaged over the specific time period.

Sovereign debt crises have generally been associated with significant financial and macroeconomic impacts. Direct loss-given-default rates for sovereign debt holders have varied widely but on average since the 1970s have been around 40% (Graphs 2 and 3).¹⁴

¹⁴ Cruces and Trebesch (2013).

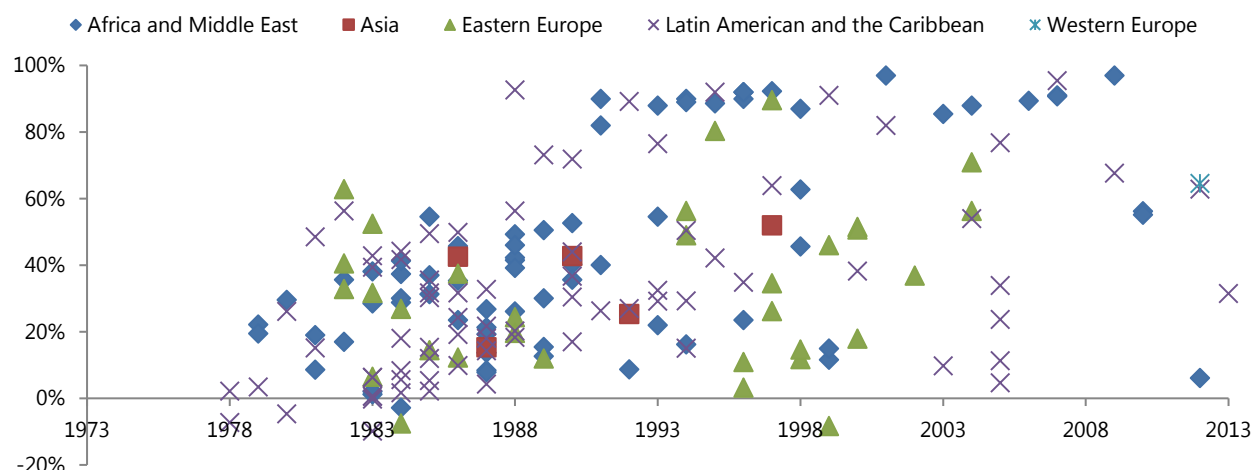
Graph 2: Quartile distribution of sovereign default haircuts to private creditors (1978–2013)^(a)



Sources: Cruces and Trebesch (2013); Basel Committee calculations.

^(a) Boxplots shows the 25th quartile, the median, and the 75th quartile over the period considered. Haircuts are estimated by comparing the present value of the new and the old debt in a hypothetical scenario in which the sovereign kept servicing old bonds that are not tendered in the exchange on a *pari passu* basis with the new bonds.

Graph 3: Sovereign default haircuts by region (to private creditors)



Sources: Cruces and Trebesch (2013); Basel Committee calculations.

While studies on the broader economic impact of sovereign distress vary, some suggest that output growth falls on average by around 6 percentage points, with effects that persist long after the crisis.¹⁵ Sovereign crises often coincide with banking and/or currency crises, which tends to increase the duration and size of output losses associated with the crisis (Table 2). Therefore, losses on sovereign exposures may represent a macroprudential risk to banks. At the same time, the major risk from a sovereign crisis for banks stems from the various indirect transmission channels outlined above.

¹⁵ De Paoli et al (2009), Furceri and Zdzienicka (2012).

Table 2: Duration and output losses per year conditional on different types of financial crisis^{(a)(b)}

Type of crisis	Number of crisis	Average duration (years)	Average GDP loss (% relative to counterfactual on a per annum basis)	Median duration (years)	Median GDP loss (% relative to counterfactual on a per annum basis)
Sovereign crisis only	1	4.0	2.5	4.0	2.5
Sovereign and banking crises	4	11.0	4.9	10.5	7.6
Sovereign and currency crises	10	8.9	13.7	9.5	14.3
Triple crises	17	12.5	12.7	14.0	11.1
All	32	10.9	11.8	11.5	10.6

Source: De Paoli et al (2009).

(a) A sovereign debt crisis is defined as an episode when there is either an actual default (defined as when the arrears on principal on external obligations towards private creditors reach at least 15% of total commercial debt outstanding or the arrears on interest on external obligations towards private creditors reach at least 5% of total commercial debt outstanding) and/or there is a rescheduling with private creditors as listed in the World Bank's *Global Development Finance*.

(b) Output losses are measured by comparing realised output with a counterfactual output estimated using a model that, aside from the debt crisis itself, explains output growth (per head) by the ratio of investment to GDP, the ratio of government consumption to GDP, inflation, the degree of trade openness and a measure of political instability.

Sovereign stress can also affect banks without there being either an outright default or debt restructuring. For example, changes in the prospects for the economy or the fiscal position can affect the market value of sovereign exposures, with or without changes in the ratings of sovereign debt (Graph 4). This in turn could change the value of government debt as collateral, and in turn affecting banks' funding costs.

Graph 4: Change in valuation of government bonds^(a)

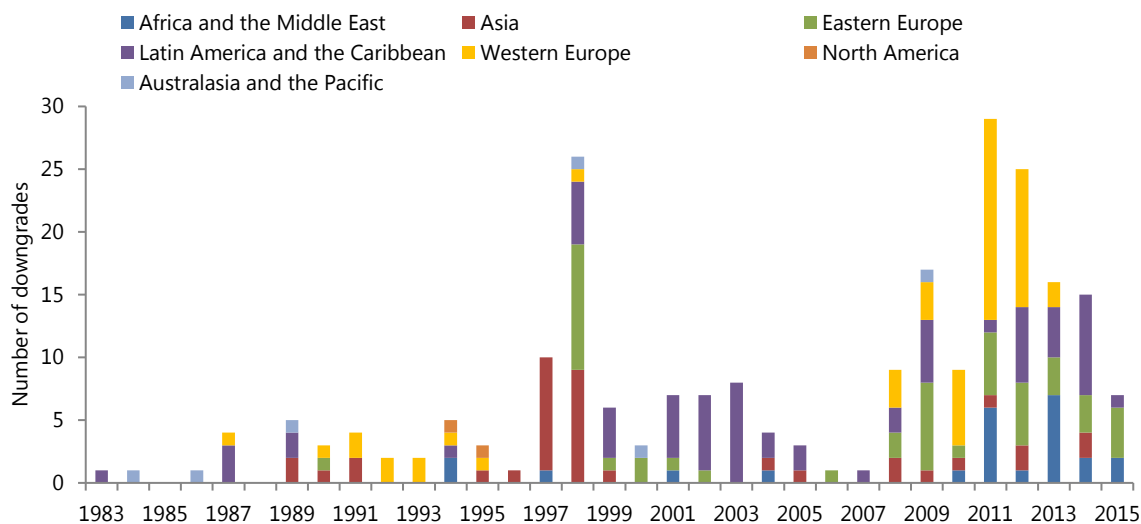


Sources: JPMorgan; Basel Committee calculations.

(a) Graph shows the index level of the JPMorgan Global Government Bond Index, which consists of an index of government bonds issued from 13 developed international bond markets. The index base is set at 100 based on the index level in February 2015.

In this context, it can be noted that the pattern of rating downgrades is different from the pattern of defaults/restructuring, reflecting in part how sovereign debt in earlier periods (eg the 1980s) may have consisted more of bank loans than marketable debt (Graph 5). In the recent period, there have been numerous sovereign downgrades.

Graph 5: Sovereign downgrades by Moody's



Sources: Moody's; Basel Committee calculations.

More generally, the value of sovereign assets can change because of prospects for inflation. Historically, sovereign stress has been associated with increased inflationary pressures, perhaps reflecting governments choosing to reduce the real burden of domestic debt by increasing inflation. More recently, the global move towards central bank operational independence may have reduced the risk of this happening. Historical data show that high inflation (defined as an inflation rate of 20% or more) was present in around one in five years in which there was an external sovereign debt crisis in a country, with this figure rising to one in three for domestic sovereign debt crises.¹⁶

Post-crisis reforms and macroeconomic trends related to sovereign risk

The nature of sovereign risk could change as a result of post-crisis reforms (directly or indirectly) related to sovereign risk. For example, there have been institutional changes in the approaches to crisis resolution. The IMF has recently removed its systemic risk exemption to promote more efficient resolution of sovereign debt problems, which might mean that large-scale official sector financing will not be provided without debt reduction, including via restructuring.¹⁷ These reforms could result in a greater possibility of banks incurring losses on their sovereign exposures.

Meanwhile, arrangements for bank resolution have received greater attention in the recent past, aiming to put an end to "too big to fail" and to mitigate the risk of banking sector problems that impair the sovereign's creditworthiness. For example, the Financial Stability Board has adopted the Key Attributes

¹⁶ This is based on the data in Reinhart and Rogoff (2010).

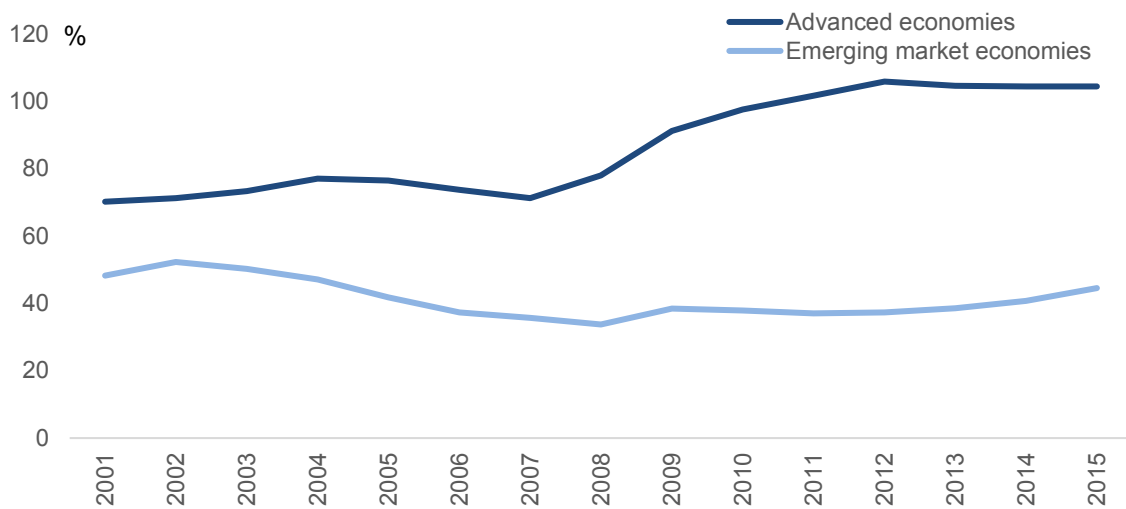
¹⁷ See www.imf.org/en/News/Articles/2015/09/28/04/53/sopol012916a.

of Effective Resolution Regimes for Financial Institutions, and agreed to total loss-absorbing capacity requirements (TLAC) for global systemically important banks.¹⁸ The adoption of bail-in regimes could substantially reduce the risk that a banking crisis is transmitted directly to the domestic sovereign via the government support channel.

As such, there is a greater possibility of banks continuing as going concerns after a period of stress, with bank creditors potentially incurring greater losses.

Another factor that could change the dynamics of sovereign risk in the future is structurally higher sovereign indebtedness. Levels of public debt in some economies have been increasing over the past decade (Graph 6), and are now around twice their average level over the historical period generally covered in the literature. In addition, any changes to the current low interest rate environment in many jurisdictions could have an impact on the valuation of sovereign exposures.

Graph 6: Evolution of government debt (% of GDP)^(a)



Sources: IMF; Basel Committee calculations

(a) Graph shows the general government gross debt as a percent of GDP for advanced economies and emerging market economies, as defined by the IMF.

Q1. Are there any additional sources and channels of sovereign risk in the banking system that are relevant to, and that should be captured in, the prudential regulatory treatment of sovereign exposures?

¹⁸ The Key Attributes are available at www.fsb.org/what-we-do/policy-development/effective-resolution-regimes-and-policies/key-attributes-of-effective-resolution-regimes-for-financial-institutions, and the TLAC standard is available at www.fsb.org/wp-content/uploads/TLAC-Principles-and-Term-Sheet-for-publication-final.pdf.

Chapter 3: The holistic role of sovereign exposures

Chapter 2 reviewed the sources and channels of sovereign risk in the banking system. From a holistic perspective, sovereign exposures play an important role in financial markets and the broader economy, including in monetary policy implementation. Banks use their sovereign holdings for a variety of reasons, including for liquidity management, credit risk mitigation, asset pricing as well as a profit-generating investment. This chapter considers these roles in more detail.

Determinants of banks' holdings of sovereign exposures

Banks hold sovereign exposures for a host of reasons, including the following:

- balance sheet management: sovereign securities can be useful for banks' balance sheet management. This includes liquidity management, where sovereign exposures are used as collateral.¹⁹ In many jurisdictions, sovereign securities are usually the most liquid assets.²⁰ Sovereign securities are also used as part of banks' role in payment systems and in the operationalisation of monetary policy (see below);
- role in market-making: some banks hold sovereign debt as part of their role as primary dealers or market-makers for such exposures;
- legislation and regulation: as discussed in Chapter 4, the existing regulatory framework provides a more favourable capital treatment for sovereign exposures than for other exposures, which may incentivise banks to hold such debt. In addition, the liquidity standards require banks to hold a buffer of liquid assets, which include sovereign debt. Some jurisdictions also rule that a certain percentage of banks' assets should be held in sovereign securities;
- fragmentation: banks may increase their domestic sovereign holdings in times of stress in response to a fragmentation of financial markets associated with a pullback by foreign investors;²¹
- investment opportunities: sovereign exposures may at times be perceived as the most attractive risk-return investment. For example, banks may rebalance their portfolios during downturns and favour sovereign exposures relative to other investments (eg a "flight to safety" effect and as a result of a lack of other sustainable alternative investment options).²² In exceptional circumstances, banks may engage in carry trade or "gambling for resurrection" behaviour.

These reasons interact in different ways with sovereign risk and the transmission of these risks to banks. Some of the reasons may play a role only during crisis times, while other reasons also affect bank holdings in normal times. There is empirical evidence for some of these reasons, but empirically, it is not straightforward to clearly distinguish between the different factors, and banks may hold parts of their portfolio for different reasons.

More generally, to the extent that the regulatory treatment of sovereign exposures incentivises banks' holdings of sovereign exposures relative to other asset classes, there could also be an impact on the allocation of resources in the economy (eg holdings of sovereign exposures could potentially "crowd out" the provision of lending to the private sector).

¹⁹ Gennaioli et al (2012).

²⁰ Correa and Sapriza (2014).

²¹ European Systemic Risk Board (2015) and Battistini et al (2013).

²² Castro and Mencia (2014).

Overall, public debt levels and associated bank holdings vary widely between countries. This reflects many factors including government finances, the size and development of the financial system (including the size of banks), cyclical factors, regulatory requirements, and the impact of the global financial crisis. Virtually all public debt in advanced economies, and in most emerging market economies, is denominated in local currency.

Role of central government bonds in financial markets

Central government bonds play an important role in financial markets as collateral, liquid assets and as a reference rate for other securities.

Some government bonds are extensively used in securities financing transactions and as collateral in derivatives transactions. In many jurisdictions, central government debt markets are the deepest and most liquid markets.²³ As such, sovereign exposures can be an important element in the collateral management of financial institutions. Given their collateral function, sovereign bonds are a means of transaction in financial markets. The ease with which sovereign exposures can be liquidated and collateralised promotes their use as liquid assets. Sovereign exposures thus play an important role in liquidity management.

Central government debt is also used to price financial assets. In financial theory, the concept of a “risk-free interest rate” – the return on a perfectly liquid bond carrying no credit risk – plays an important role in the valuation of securities. Central government bonds are often viewed as a proxy for “risk-free rates” because they carry less idiosyncratic risk than other assets in the domestic economy. The theoretical notion of the risk-free rate is therefore typically measured by the yield on (high-rated) central government bonds, and these bonds serve as an anchor for the pricing of other assets in the domestic economy.

Role of sovereign exposures for monetary policy

Sovereign exposures matter for the conduct of monetary policy in two main ways. First, they play a role in monetary policy implementation, which typically involves transactions in government debt and central bank liabilities. Second, sovereign debt typically plays a role in the transmission of monetary policy through financial markets, for instance, by serving as collateral in repo markets or through the pricing of financial assets against government debt (as discussed above).

Changes in monetary policy are often implemented through open market operations, which can include central bank reserves or the issuance of central bank bills as well as securities against which reserves are exchanged.

Central bank reserves typically increase with liquidity-providing operations and decline with liquidity-absorbing operations. Similarly, central banks may issue bills or sell foreign currency to absorb liquidity and vice versa.

Central government bonds are often used as collateral by eligible counterparties to obtain central bank funding. In addition, central bank outright purchases of assets, by and large, involve mainly sovereign debt. While central banks could use different financial assets to steer the amount of commercial banks’ reserves held at the central bank, using sovereign securities has advantages over other alternatives for the implementation of monetary policy. Given the relatively large size and high liquidity of sovereign debt

²³ Committee on the Global Financial System (1999).

markets, central banks can carry out large transactions without disrupting markets and liquidity.²⁴ Furthermore, by using sovereign securities rather than a few private publicly traded assets to implement open market operations, central banks do not distort the allocation of private capital within the economy.²⁵ In many jurisdictions, government bonds are therefore important in the implementation of monetary policy and in the early stages of the transmission process.

Central government bonds are also important in the transmission of monetary policy to the real economy. In calculating the present value of investment projects or the value of future financial payments, investors generally draw on government bond yields as a proxy for the “risk-free interest rates”. Furthermore, given their benchmark status, government bond yields directly impact the market-based funding costs of firms. Government bonds also play an important role in the bank intermediation process, influencing the supply and cost of bank credit. As noted above, in many jurisdictions banks hold sovereign bonds for liquidity management purposes. These bonds are widely used to obtain funding in repo markets, facilitating maturity transformation and the flow of credit to the real economy.

Role of sovereign exposures for fiscal policy

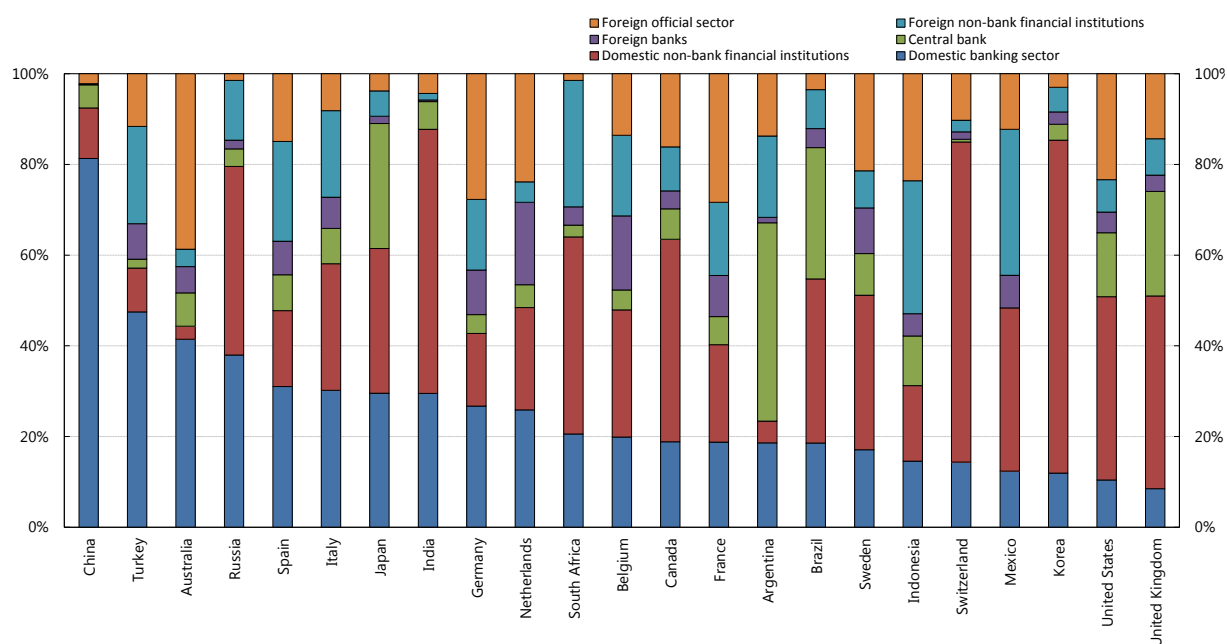
By definition, fiscal policy strategies based on deficit-financed spending rely on the issuance of sovereign bonds. The “automatic stabiliser” features of fiscal policy could also result in a reliance on debt financing at certain points of the economic cycle. In principle, well developed domestic government bond markets are a prerequisite for some forms of fiscal policy. In particular, deep and liquid sovereign bond markets allow governments to finance part of their expenditure through debt issuance at a minimum cost.

To facilitate the issuance of government debt, fiscal authorities aim to ensure a sufficiently liquid sovereign bond market, with a deep and diversified investor base. While the current composition of the investor base of government debt markets varies across countries (Graph 7), banks are an important part of the government debt investor base in many countries, either as outright investors or as market-makers and primary dealers in government debt markets. Other key investors in jurisdictions where banks only hold a small share of government debt include domestic and foreign non-bank financial institutions (eg insurance companies, pension and investment funds), foreign governments (eg as part of those governments’ foreign exchange reserves) and central banks.

²⁴ Some central banks avoid using their own securities to prevent domestic market fragmentation and any consequent reduction in market liquidity.

²⁵ See Greenspan (2001).

Graph 7: Investor base of government debt (% of outstanding government debt)^{(a)(b)}



Sources: IMF; Basel Committee calculations.

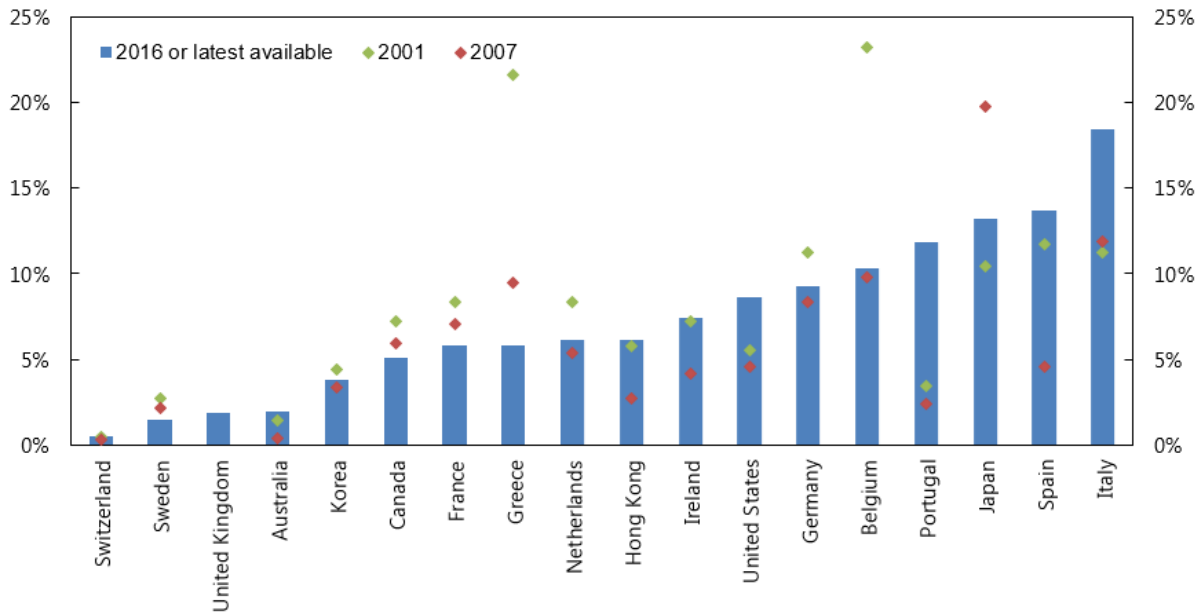
(a) As at Q4 2015.

(b) Claims on domestic government following IMF definition for general government debt, which includes central, state and local governments.

Heterogeneity and global standards

The Committee recognises that the specific roles of sovereign exposures may vary across jurisdictions due to the heterogeneity in banks' business models, market structures and macro-financial balances. For example, while banks' current holdings of sovereign exposures are generally lower than before (Graphs 8 and 9), the relative holdings across jurisdictions can differ significantly.

Graph 8: Bank claims on domestic government debt – advanced economies (% of assets)^{(a)(b)}

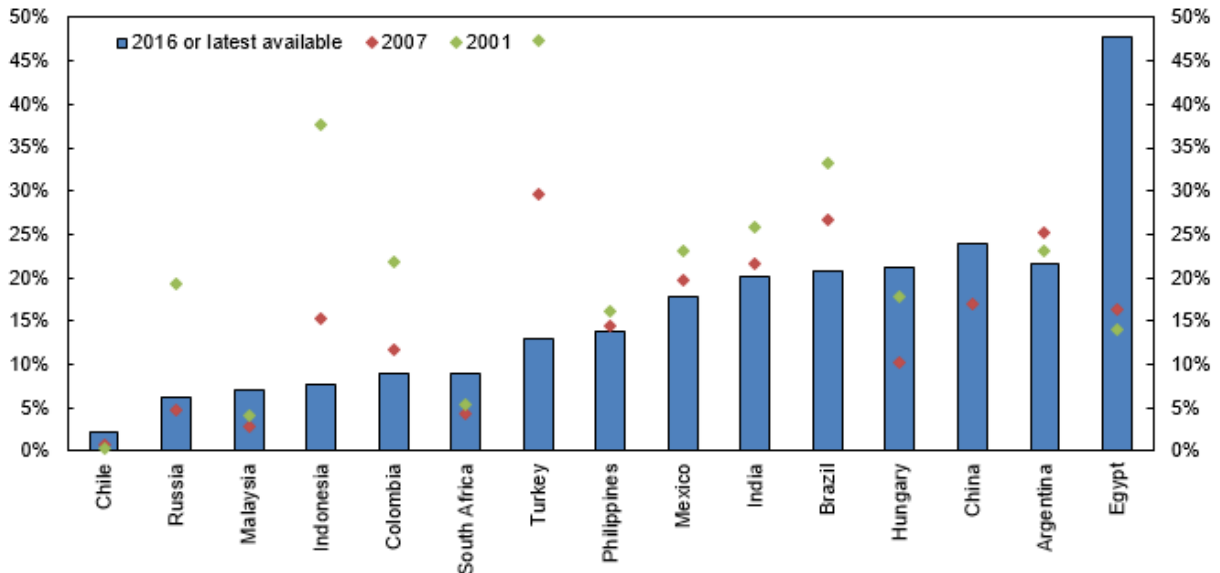


Sources: IMF, national sources; Basel Committee estimates.

(a) Based on the IMF's International Financial Statistics surveys on non-standardised reporting forms. The graph shows banks' claims on central/general government debt and state, local and official entities debt, except for Canada, Japan, Singapore, Switzerland and the United Kingdom, where national definitions are used.

(b) Data for United Kingdom are missing for 2001 and 2007.

Graph 9: Bank claims on domestic government debt – emerging market economies (% of assets)^(a)



Sources: IMF, national sources; Basel Committee estimates.

(a) Based on the IMF's International Financial Statistics surveys on non-standardised reporting forms. The graph shows banks' claims on central/general government debt and state, local and official entities debt, except for Argentina, China, India and Mexico, where national definitions are used.

The Committee's discussion on the regulatory treatment of sovereign exposures aimed to balance the benefits of globally harmonised minimum prudential standards with jurisdiction-specific characteristics in considering the regulatory treatment of sovereign exposures.

Q2. Are there additional roles of sovereign exposures in financial markets and the broader economy that are of relevance to the prudential regulatory treatment of sovereign exposures?

Chapter 4: The existing regulatory treatment of sovereign exposures

This chapter summarises the existing Basel regulatory treatment of sovereign exposures. It covers the treatment of sovereign exposures under the risk-weighted framework (including credit and market risk), large exposures framework, leverage ratio framework and liquidity standards.²⁶

In most cases, the existing treatment of sovereign exposures is more favourable than other asset classes (Table 3). Most notably, the risk-weighted framework includes a national discretion for jurisdictions to apply a preferential risk weight for sovereign exposures denominated and funded in domestic currency. In addition, sovereign exposures are currently not included in the large exposures framework. Finally, no limits or haircuts are applied to domestic sovereign exposures that are eligible as high-quality liquid assets (HQLA) as part of the liquidity standards. In contrast, sovereign exposures are included as part of the leverage ratio framework.

Table 3: Summary of current regulatory treatment of sovereign exposures

Credit risk: standardised approach
<ul style="list-style-type: none">• Ratings-based look-up table.• National discretion to apply a preferential default risk weight for sovereign exposures denominated and funded in domestic currency.
Credit risk: internal ratings-based (IRB) approach
<ul style="list-style-type: none">• Exemption of 0.03% PD floor for sovereign exposures.
Credit risk: credit risk mitigation framework
<ul style="list-style-type: none">• National discretion to apply a zero haircut for repo-style sovereign transactions with core market participants.
Revised market risk framework
<ul style="list-style-type: none">• Standardised approach: national discretion to apply a preferential default risk charge for sovereign exposures denominated and funded in domestic currency.• Internal models approach: sovereign exposures included in models, including default risk models.
Large exposures framework
<ul style="list-style-type: none">• Exemption of sovereign exposures.
Leverage ratio framework
<ul style="list-style-type: none">• Inclusion of sovereign exposures.
Liquidity standards
<ul style="list-style-type: none">• No limits on amount of domestic sovereign debt eligible as high-quality liquid assets, with no haircuts applied.

Risk-weighted framework

The risk-weighted framework sets capital requirements for sovereign exposures to mitigate credit risk and market risk. In both cases, the framework currently applies a more favourable treatment for sovereign exposures relative to other asset classes.

²⁶ The Basel II risk-weighted framework is available at www.bis.org/publ/bcbs128.pdf. The large exposures framework is available at www.bis.org/publ/bcbs283.pdf. The leverage ratio framework is available at www.bis.org/publ/bcbs270.pdf. The liquidity standards are available at www.bis.org/publ/bcbs238.pdf and www.bis.org/bcbs/publ/d295.pdf.

The credit risk framework comprises the standardised approach and internal ratings-based (IRB) approach.

Standardised approach for credit risk

Under the existing standardised approach, sovereign exposures are defined as exposures to central governments, central banks, international organisations, certain multilateral development banks and, subject to national discretion, certain non-central government public sector entities (PSEs). Claims on other PSEs are treated as exposures to banks.

Exposures to sovereigns and central banks are risk-weighted based on a ratings-based look-up table (Table 4). Alternatively, supervisors may recognise the country risk scores assigned by qualifying export credit agencies.²⁷ This table applies to sovereign exposures denominated in the domestic currency of the issuer and in any foreign currency.

Table 4: Current standardised approach look-up table for exposures to sovereigns and central banks

Credit assessment	AAA to AA–	A+ to A–	BBB+ to BBB–	BB+ to B–	Below B–	Unrated
Risk weight	0%	20%	50%	100%	150%	100%

At national discretion, a lower risk weight may be applied to banks' exposures to their sovereign (or central bank) of incorporation denominated in domestic currency and funded in that currency.²⁸ Where this discretion is exercised, other national supervisory authorities may also permit their banks to apply the same risk weight to domestic currency exposures to this sovereign (or central bank) funded in that currency.²⁹ In practice, all Committee members currently exercise this discretion and set a 0% risk weight. On average, banks' risk weight for central government exposures (including both domestic and foreign-currency exposures) under the standardised approach is currently about 3%.³⁰

Claims on non-central government PSEs are risk weighted as exposures to banks. Subject to national discretion, claims on certain domestic PSEs may also be treated as claims on the sovereigns in whose jurisdictions the PSEs are established. Where this discretion is exercised, other national supervisors may allow their banks to risk-weight claims on such PSEs in the same manner.³¹

Claims on the Bank for International Settlements, the International Monetary Fund, the European Central Bank and the European Community may currently receive a 0% risk weight. In addition, a 0% risk weight is applied to claims on highly rated multilateral development banks (MDBs) that fulfil a set of criteria established by the Committee.³²

²⁷ See paragraphs 53 and 55 of the Basel II framework.

²⁸ This is to say that the bank would also have corresponding liabilities denominated in the domestic currency. The lower risk weight may also be extended to the risk-weighting of collateral and guarantees.

²⁹ See paragraph 54 of the Basel II framework.

³⁰ For a sample of 142 internationally active banks, as at end-June 2016.

³¹ See paragraphs 57–58 of the Basel II framework.

³² See paragraphs 56 and 59 of the Basel II framework.

When calculating the degree of credit risk mitigation (CRM) provided by collateralised transactions, supervisors may choose, under certain conditions, to apply a haircut of zero for repo-style transactions where the counterparty is a core market participant.³³

IRB approach for credit risk

Under the IRB approach, sovereign exposures are generally treated in a similar manner to exposures against corporates and banks. However, banks' estimates of the probability of default (PD) of sovereign exposures are not subject to the 0.03% floor, which applies to all other asset classes.³⁴ On average, banks' risk weights for central government exposures (including both domestic and foreign-currency exposures) under the internal ratings-based approach are currently about 6.5%.³⁵

Market risk framework

The revised market risk framework includes a standardised approach and an internal models approach.

The standardised approach capital requirement is the sum of three components: the default risk charge, the risk charges under the sensitivities-based method and the residual risk add-on charge. At national discretion, claims on sovereigns, PSEs and MDBs may be subject to a zero default risk weight. A preferential treatment is not applied for sovereign exposures when calculating the credit spread risk and general interest rate risk charges.

Under the internal models approach, banks are required to include trading book sovereign exposures as part of their models. This includes default risk models.³⁶

Large exposures framework

Under the large exposures framework, banks' exposures to sovereigns and central banks are exempted. This exemption also applies to PSEs treated as sovereigns according to the risk-weighted capital framework. Any portion of an exposure guaranteed by, or secured by financial instruments issued by, sovereigns are similarly excluded from the framework to the extent that the eligibility criteria for credit risk mitigation recognition are met.³⁷

Leverage ratio framework

Consistent with its nature, the leverage ratio includes all balance sheet assets in the exposure measure, including sovereign exposures.³⁸ As set out in the Committee's finalised Basel III standard, at national discretion, and to facilitate the implementation of monetary policies, a jurisdiction may temporarily exempt central bank reserves from the leverage ratio exposure measure in exceptional macroeconomic circumstances. To maintain the same level of resilience provided by the leverage ratio, a jurisdiction applying this discretion must also increase the calibration of the minimum leverage ratio requirement

³³ See paragraph 170 of the Basel II framework.

³⁴ See paragraph 285 of the Basel II framework.

³⁵ For a sample of 142 internationally active banks, as at end-June 2016.

³⁶ See paragraph 186(c) of the revised market risk framework.

³⁷ See paragraph 61 of the large exposures framework.

³⁸ See paragraph 15 of the leverage ratio framework.

commensurately to offset the impact of exempting central bank reserves. The role of the leverage ratio in mitigating sovereign risk depends on how far it is the constraining capital metric for banks.

Liquidity standards

The liquidity standards – comprising the Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) – ensure that a bank has a stable funding profile relative to the liquidity of its assets and an adequate stock of HQLA to meet a short-term liquidity stress event.

The stock of eligible HQLA consists of “Level 1” and “Level 2” assets. Level 1 assets consist of a range of sovereign securities and exposures.³⁹ Level 2 assets can also include some sovereign securities in addition to other asset classes.⁴⁰ While Level 2 assets are subject to haircuts and can comprise no more than 40% of the overall HQLA stock, no haircuts or restrictions are applied to Level 1 assets, as their liquidity-generating capacity would remain intact even in periods of severe idiosyncratic and market stress. In addition, while banks are required to diversify their HQLA within asset classes, this does not apply to the sovereign debt of the bank’s home jurisdiction or the jurisdiction in which the bank operates, central bank reserves and debt securities and cash.⁴¹

Pillar 2

While the current Pillar 2 framework does not include specific guidance related to sovereign risk, it requires banks and supervisors to focus on specific types of risks (as part of the broader supervisory review process), including interest rate risk in the banking book and credit concentration risk. In addition, the Committee’s *Principles for sound stress testing practices and supervision* aim to deepen and strengthen banks’ general stress testing practices and supervisory assessment of these practices.⁴²

Pillar 3

The revised Pillar 3 disclosure framework includes some sovereign-specific disclosure requirements.⁴³ For example, the current framework requires banks to disclose their sovereign exposure amounts and risk-weighted assets. Banks using the IRB approach are also required to disclose their average PD, LGD and maturity of their sovereign exposures. Similar requirements apply for sovereign exposures as part of the counterparty credit risk disclosure templates.

³⁹ See paragraph 50 of the LCR framework.

⁴⁰ See paragraph 52 of the LCR.

⁴¹ See paragraph 44 of the LCR.

⁴² Available at www.bis.org/publ/bcbs155.pdf.

⁴³ Available at www.bis.org/bcbs/publ/d309.pdf.

Chapter 5: Potential ideas related to the regulatory treatment of sovereign exposures

Following the above review of the existing regulatory treatment, this chapter discusses some ideas related to revising the regulatory treatment of sovereign exposures.

Table 5 summarises the ideas related to the regulatory treatment of sovereign exposures that have been discussed as part of the Committee's review. They comprise the complete removal of the IRB approach for sovereign exposures, positive standardised risk weights for most sovereign exposures (and therefore the removal of the existing national discretion to set a preferential risk weight for sovereign exposures denominated and funded in the domestic currency of the issuer), the introduction of marginal risk weight add-ons to mitigate concentration risk, and the removal of the national discretion to apply a haircut of zero for sovereign repo-style transactions. The Committee also discussed ideas related to introducing specific Pillar 2 guidance on monitoring, stress testing and responding to sovereign risk, and specific Pillar 3 disclosure requirements related to sovereign exposures.

Table 5: Summary of ideas related to the regulatory treatment of sovereign exposures

Definition of sovereigns
<ul style="list-style-type: none">• Sovereign exposures are divided into exposures to the central government, central banks, and other sovereign exposures.• Under certain conditions, exposures to other sovereign entities can be treated as an exposure to the central government.
Revisions to the risk-weighted framework
<ul style="list-style-type: none">• Removal of IRB approach for sovereign exposures.• Positive standardised risk weights for most sovereign exposures in the banking and trading book (except for exposures to central banks that are denominated in the domestic currency of the central bank and exposures to central banks in countries where the monetary policy is centred on the exchange rate); removal of national discretion to apply a preferential risk weight for domestic central government exposures.
Mitigating concentration risk
<ul style="list-style-type: none">• Introduction of marginal risk weight add-ons to mitigate concentration risk for most sovereign exposures (except for exposures to central banks that are denominated in the domestic currency of the central bank and exposures to central banks in countries where the monetary policy is centred on the exchange rate).• As per the existing large exposures framework, entities not equivalent to the central government are subject to a 25% Tier 1 capital large exposures limit.
Revisions to the credit risk mitigation framework
<ul style="list-style-type: none">• Removal of national discretion to apply zero haircut for sovereign repo-style transactions.
Additional Pillar 2 guidance
<ul style="list-style-type: none">• Guidance on monitoring, stress testing and supervisory responses to sovereign risk.
Additional Pillar 3 disclosures
<ul style="list-style-type: none">• Disclosures of sovereign exposures and risk weighted assets by jurisdiction, currency denomination and accounting classification.

Definition of sovereign entities

As noted in Chapter 4, the current regulatory framework applies a somewhat open-ended definition of sovereign exposures. For example, the current Basel II standardised approach for credit risk refers to claims on “sovereigns”, “central banks”, and “non-central government public sector entities (PSEs)” in a relatively high-level manner. Exposures to sovereigns and central banks receive a distinct treatment. In some cases, exposures to non-central government PSEs can be treated as an exposure to the sovereign instead of as a bank exposure.

The existing definition of sovereign exposures seeks to reflect differences in legal and institutional arrangements between different jurisdictions. But it can also result in varying degrees of interpretation across banks and jurisdictions, particularly with regard to the scope of non-central government PSEs which are included in the scope of sovereign exposures. These different interpretations have also been highlighted as part of the Committee’s regulatory consistency assessment programme related to the consistent implementation of the Basel framework.

To provide additional definitional clarity and consistency in implementation, the Committee discussed the idea of specifying further the definitions of different sovereign entities and the conditions under which non-central government entities could be treated as central government entities for the purpose of the regulatory framework.

More specifically, the Committee discussed the idea of defining the set of sovereign entities as follows:

- (i) Exposures to a **central bank** are defined as exposures to an entity which is responsible for overseeing and/or implementing the monetary policy of a state or a group of states.⁴⁴
- (ii) Exposures to a **central government** are defined as exposures to a government of a state which has the power to raise taxes, borrow money and issue currency by means of a central bank, either of that state or of a currency union to which that state belongs. It possesses autonomous powers that allow it to generate sufficient revenues from the economic output and resources of the jurisdiction. These powers, in turn, support the central government’s ability to service its financial obligations. Any constraints on the central government’s powers are self-imposed through treaties or other legal agreements, and cannot be unilaterally altered by another party. States governed by a central government are mutually exclusive, which means that each state can only be represented by one central government.
- (iii) Exposures to **other sovereign entities** are defined as exposures to one of the following entities:
 - a **subnational government**, defined as a government of a geographically defined part of a state and which has powers to raise taxes and borrow money. It possesses delegated autonomous powers that allow it to generate sufficient revenues from the economic output and resources of its area. These powers, in turn, support the subnational government’s ability to service its financial obligations;
 - a **public sector entity**, defined as an organisation that is: (i) created by a central or subnational government; (ii) owned in full or in part by a central or subnational government, or carries out functions of the government under law; (iii) supported by a central or subnational government; and (iv) is accountable to a government. Provided that these criteria are met, PSEs may include commercial and non-commercial undertakings and administrative bodies. Banks could treat exposures to bank PSEs as exposures to PSEs and not as exposures to banks.

⁴⁴ This includes the European Central Bank and the central banks of the euro area jurisdictions.

In addition, the Committee discussed the idea of defining **domestic-currency sovereign exposures** as exposures to a sovereign entity (as defined above) which are denominated and funded in the currency of the sovereign entity. Exposures which do not meet this requirement would be defined as **foreign-currency sovereign exposures**.

In considering the role of currency denomination in the treatment of sovereign exposures, the Committee discussed the idea that sovereign exposures denominated in a currency other than that of the sovereign in question are relatively riskier than those that are denominated in the sovereign's own currency. Central government exposures denominated in the currency of the sovereign also tend to play an important role in financial markets. Historically, the requirement to fund domestic-currency sovereign exposures in the same currency as the exposure in order to qualify for a preferential risk weight was aimed at mitigating foreign exchange risk. In practice, the Committee noted that funding sources are somewhat fungible and not necessarily linked to specific assets. The Committee also discussed whether the market risk framework adequately capitalises foreign exchange risks, even when they arise from banking book exposures. The Committee noted that there may be holistic considerations that could justify a different risk-weighted treatment for sovereign exposures that are both denominated and funded in the currency of the issuer.

Under this definition of sovereign entities, supervisors would be allowed to treat banks' exposures to other sovereign entities as exposures to a central government if either the risk equivalence criteria A or B below are met:

Criteria A: autonomy criteria (for subnational governments only)

Both of the following criteria would need to be fulfilled:

- (i) the other sovereign entity has legislative or constitutional significance within the state, and possesses legislative or constitutional powers to support its autonomous ability to generate sufficient taxes and revenue solely from the economic output and resources of the subnational government to meet its financial obligations, and mitigate the probability of default. This can include independent powers to levy taxes and increase revenue, expropriate property or generate revenue from its priority claim on national wealth; and
- (ii) the powers of the other sovereign entity are independent of other levels of government: there must be a clear delegation of these powers enshrined in legislative or constitutional arrangements. Other levels of government must not be able to unilaterally impair or take away these delegated powers, subject to the law or constitutional arrangements of its central government.

Criteria B: support criteria (for subnational governments and PSEs)

Supervisors may allow banks to treat exposures to other sovereign entities as exposures to a central or autonomous subnational government if there are sufficient legislative, constitutional or other arrangements to facilitate the transfer of financial resources or other means directly from a particular central or autonomous subnational government to the other sovereign entity. These arrangements must be sufficient to ensure that the other sovereign entity has a revenue stream that allows it to meet its financial obligations and mitigate the probability of default. Such arrangements could take the form of full, irrevocable and unconditional support directly from that central or autonomous subnational government.

- Q3. What are your views on the ideas set out above related to the definition of sovereign exposures?
- Q4. Do you agree that the definition of domestic sovereign exposures should be based on both the currency denomination of the exposure and the currency denomination of the funding? How would such a definition be operationalised in practice?

Q5. Do you agree with the potential relative rank ordering of different sovereign entities and with the principle of a potential risk equivalence criterion for treating certain non-central government exposures as central government exposures? Do you have any comments on the criterion?

Removal of the IRB approach for sovereign exposures

The Committee's recently-finalised Basel III reforms were the result of a strategic review by the Committee of the risk-weighted capital framework and the extent to which it strikes the right balance in terms of simplicity, comparability and risk sensitivity. The Committee's analysis, coupled with the views of a wide range of stakeholders, highlighted concerns with the extent to which certain asset classes can be modelled robustly enough for the calculation of regulatory capital requirements.

These asset classes share similar characteristics, including insufficient data for the estimation of key risk inputs (eg PD and LGD), a lack of information possessed by banks, insufficient comparative advantage in assessing the risk of such asset classes, and/or the lack of robust and generally accepted and validated modelling techniques. In 2016 the Committee consulted on the treatment of some of these asset classes, and noted that the Committee was continuing its review of the treatment of sovereign exposures.⁴⁵

The Committee discussed possible concerns about the ability for banks to robustly model risk parameters for sovereign exposures. To align the treatment of sovereign exposures with other low-default portfolios, it discussed the idea of removing the IRB approach for sovereign exposures. As discussed in Chapter 2 of this paper, there have been instances of sovereign defaults. But the frequency of such defaults relative to other asset classes may make it difficult to prudently model risk parameters. The Committee discussed the idea that, if the IRB approach is removed completely for sovereign exposures, all banks would have to apply a suitable alternative standardised approach. In assessing the merits of the removal of the IRB approach for sovereign exposures, the Committee noted that an important consideration would be the impact this would have on current capital requirements for sovereign exposures.

The Committee also discussed an alternative idea of removing only the advanced IRB approach and retaining the foundation IRB approach for sovereign exposures.

Q6. Do you agree that capital requirements for sovereign exposures cannot be modelled robustly, and that such exposures should be subject to a standardised approach treatment as a result?

Standardised approach treatment for sovereign exposures

The Committee discussed ideas for revising the existing standardised approach treatment for banks' sovereign exposures. A revised approach would be used by all banks when calculating their capital requirements for sovereign exposures held in both the banking book and the trading book (the latter as part of the default risk charge component for sovereign exposures under the standardised approach of the revised market risk framework).

The discussions on these ideas sought to balance prudential risk considerations – most notably, the fact that sovereign exposures entail risks (as discussed in Chapter 2) – with other holistic considerations. Accordingly, the Committee considered the following potential standardised treatments:

- Exposures to central banks that are denominated in the domestic currency of the central bank could be subject to a 0% risk weight. In addition, exposures to central banks in jurisdictions where

⁴⁵ The consultation paper is available at www.bis.org/bcbs/publ/d362.pdf.

monetary policy tools are centred on the exchange rate would also receive a 0% risk weight. The Committee believes that applying positive risk weights to such exposures could hinder the operationalisation and transmission of monetary policy.

- The existing national discretion to apply a lower risk weight for sovereign exposures denominated and funded in the domestic currency of the sovereign entity (see Chapter 4), both in the banking and trading book, would be removed. This would reflect the fact that sovereign exposures entail risks. More generally, the removal of this discretion is consistent with the Committee's approach to gradually removing national discretions from the capital framework, with a view to enhancing comparability across jurisdictions.⁴⁶ The Committee also discussed whether central government exposures should receive a differentiated treatment from central bank exposures.
- Domestic-currency central government exposures could be subject to lower risk weights than foreign-currency central government exposures. This reflects the Committee's view that such exposures are relatively less risky and that they play an important role in financial markets (eg for liquidity management purposes). These risk weights could also apply to all exposures to MDBs that are currently subject to a 0% risk weight treatment.⁴⁷
- Foreign-currency central government exposures could be subject to higher risk weights than domestic-currency central government exposures, but lower than other sovereign exposures for a given credit rating.
- Exposures to other sovereign entities which meet the risk equivalence criteria would be treated as exposures to the central government. For an entity which meets the "autonomy" criteria, the risk weight could be determined by the credit rating of that entity. In contrast, for an entity which meets the "support" criteria, the risk weight could be determined by the credit rating of the central government or autonomous sub-national government. Exposures to other sovereign entities which do not meet the equivalence criteria could be treated in a broadly similar manner to bank exposures (consistent with the existing regulatory framework).

Table 6 illustrates an example of a potential standardised approach treatment for sovereign exposures. This takes the form of a look-up table, where risk weights for exposures to a particular sovereign entity vary based on the external credit rating of the sovereign entity, or in jurisdictions where the use of external credit ratings in regulation is not permitted, the Country Risk Classification (CRC) score determined by the Organisation for Economic Co-operation and Development (OECD). This table would be used to determine sovereign exposures risk weights in the banking book and to determine the default risk charge component for sovereign exposures in the trading book. The calibration of the risk weights in this table are for illustrative purposes.

To reduce mechanistic reliance on external credit ratings, the Committee considered two additional measures. First, banks could be required to perform due diligence on their sovereign exposures to ensure that they have appropriately considered all available information regarding the risk profile and characteristics of their sovereign counterparties. Banks would need to demonstrate to their supervisors that their due diligence analyses of sovereign exposures were appropriate. Such analyses could result in the application of a higher risk weight than that determined by the external rating/CRC. Supervisors must ensure that banks have appropriately performed their due diligence analysis, and must take supervisory action where this had not been done.

Second, the Committee discussed the role of additional (non-rating) indicators to assess the creditworthiness of sovereign exposures. In principle, such indicators could include macroeconomic

⁴⁶ See, for example, the Committee's recent survey on the use of national discretions in the regulatory framework, available at www.bis.org/bcbs/publ/d297.pdf.

⁴⁷ The risk-weighted treatment for exposures to other MDBs is set out in the revised standardised approach for credit risk.

variables, fiscal variables and/or credit aggregates. Such indicators could complement the use of external ratings and banks' due diligence in determining risk weights for sovereign exposures, and/or could be used as indicators for unrated sovereign exposures, or could replace ratings altogether.

Table 6: Example of standardised risk weights for sovereign exposures

External rating	AAA to A–	BBB+ to BBB–	Below BBB– and unrated
OECD CRC	0–2	3	4–7 and no classification
Central bank exposures ^(a)	0%		
Domestic-currency central government exposures ^(b)	[0–3]%	[4–6]%	[7–9]%
Foreign-currency central government exposures ^(c)	10%	50%	100%
Other sovereign entities ^(d)	25%	50%	100%

(a) Defined as exposures to central banks denominated and funded in domestic currency and exposures to central banks in jurisdictions where monetary policy is centred on the exchange rate. Other central bank exposures (eg equity exposures to a central bank) should be treated as domestic- or foreign-currency central government exposures, depending on the denomination and funding of the currency.

(b) Domestic-currency exposures defined as exposures that are denominated and funded in the currency of the sovereign entity. Includes domestic-currency other sovereign exposures which meet the equivalence criteria (autonomy or support) and international organisations and MDBs that are currently subject to a 0% risk weight. Banks should use the rating of the other sovereign entity if the "autonomy" criteria are met. Banks should use the rating of the central government or autonomous subnational government if the "support" criteria are met.

(c) Includes foreign-currency other sovereign exposures which meet the equivalence criteria (autonomy or support). Banks should use the rating of the other sovereign entity if the "autonomy" criteria are met. Banks should use the rating of the central government if the "support" criteria are met.

(d) When rated, based on the rating of the sovereign entity or its central government (whichever results in the higher risk weight).

This example of a standardised approach treatment for sovereign exposures seeks to balance simplicity with comparability and risk sensitivity, in addition to other holistic considerations. It provides a degree of risk sensitivity and differentiation within a relatively simple look-up table with standardised risk weights. This would facilitate comparability and also recognise that sovereign exposures entail risk, by applying different risk weights across and within different sovereign entities – while retaining the possibility of applying a 0% risk weight for certain sovereign exposures (eg central bank exposures) for holistic considerations.

But there are other possible ways to design a standardised approach treatment for sovereign exposures. For instance, a more risk-sensitive approach taking the form of a more granular look-up table (eg more rating buckets). For example, this could be based on the six-bucket taxonomy currently used for sovereign exposures in the standardised approach (Table 4), which could be extended to apply to domestic-currency central government exposures, foreign-currency central government exposures and other sovereign entities. In addition, exposures to "other sovereign entities" could be further broken down to exposures to subnational governments, non-commercial PSEs and commercial PSEs. A differentiation could also be made between exposures to central governments and exposures to sovereign entities that meet the risk equivalence criteria (ie the latter would not receive the same risk weights as the former). Such approaches would have the benefit of allowing for a greater risk differentiation across sovereign entities, but could result in a more complex regulatory treatment of sovereign exposures.

Another alternative could take the form of a single flat positive risk weight for all sovereign entities (except for central bank exposures). Such an approach would be simpler and would avoid the use of external credit ratings in determining risk weights. But it would also be less risk-sensitive and would not differentiate the risk of various sovereign entities.

More generally, the Committee discussed the interactions between the ideas set out above and other aspects of the regulatory framework. For example, it discussed that certain potential non-substantive changes may be needed to the liquidity standards if they are to be consistent with the ideas set out in this

discussion paper. For example, the current LCR standard states that Level 1 assets include marketable securities of sovereigns that are (inter alia) assigned a 0% risk weight under the Basel II standardised approach for credit risk. In principle, this criterion would become invalid as a result of the potential revisions in this discussion paper, to the extent that fewer sovereign exposures are assigned a 0% risk weight. In practice, it is not the Committee's intention to change the existing set of eligible Level 1 sovereign assets, as the current LCR framework already recognises non-0% risk-weighted sovereign or central bank debt securities issued in domestic currencies as Level 1 assets.⁴⁸

- Q7. What are your views about how a standardised approach treatment for sovereign exposures should be designed and calibrated? How should such an approach balance simplicity, comparability and risk sensitivity? Are there any holistic considerations which could justify a differentiated treatment across different types of sovereign entities, including the relative treatment of central bank and central government exposures?
- Q8. What role could specific non-rating indicators play in determining sovereign exposure risk weights in the potential standardised approach?

Marginal risk weight add-ons to mitigate concentration risk

The current large exposures framework applies a limit of 25% of a bank's Tier 1 capital to any single counterparty or group of connected counterparties, as noted in Chapter 4. However, sovereign exposures are exempt from this treatment.⁴⁹ As a result, the existing regulatory framework does not include any explicit standardised measures to mitigate the risks associated with excessive holdings of sovereign exposures.

Due to holistic considerations, the Committee discussed whether to continue exempting from the large exposures framework all exposures to central governments, central banks and other sovereign exposures deemed risk-equivalent to central governments. PSEs that are not treated as central government exposures would continue to be subject to the large exposures framework.

The Committee also considered an idea to introduce instead a specific treatment to mitigate concentration risk associated with exposures to central governments and connected counterparties. Given the current level of banks' holdings of sovereign exposures, which in part reflect various roles performed by sovereign exposures in financial markets, there is a case that sovereign exposures should continue to be exempt from the large exposures framework, and alternative approaches to preventing banks from having heavily-concentrated exposures to individual sovereigns considered instead. For instance, the Committee discussed ideas related to the introduction of marginal risk weight add-ons, which would vary based on the amount of a bank's sovereign exposures relative to its Tier 1 capital.

Table 7 describes an example of the marginal risk weight add-on idea discussed by the Committee. The key features include the following:

- exposures to central banks that are denominated in the central bank's domestic currency and exposures to central banks in jurisdictions where monetary policy tools are centred on the exchange rate would not be included when calculating a bank's sovereign exposures;
- as a starting point, each sovereign entity would be treated as a single counterparty. Sovereign entities that met the "support" equivalence criteria set out above would be treated as a group of connected sovereign counterparties, as such support could be the result of the distress of one of

⁴⁸ See paragraph 50 of the LCR standard.

⁴⁹ PSEs that are not treated as sovereign exposures are currently subject to the large exposures framework.

these sovereign entities being transmitted to another of these entities. Sovereign entities that met the “autonomy” equivalence criteria would be treated as standalone entities;

- a bank would calculate the sum of all other exposures to a sovereign counterparty or to a group of connected sovereign counterparties (see below) and divide this figure by its Tier 1 capital resources;
- the bank would then apply the relevant marginal risk weight add-on(s) set out in Table 7 to its exposures to a counterparty or group of connected sovereign counterparties; and
- the scope of the sovereign counterparty/group of connected sovereign counterparties would be based on the definition of sovereign entities and the risk equivalence criteria discussed above. More specifically, a bank would calculate the sum of all of its (domestic- and foreign-currency) exposures to a central government entity and any other sovereign entity which meets the equivalence criteria and would treat these as a group of connected sovereign counterparties.

Table 7: Example of marginal risk weight add-on table for sovereign exposures

Exposure to group of connected sovereign counterparties (% of Tier 1 capital)	< 100%	100–150%	150–200%	200–250%	250–300%	>300%
Marginal risk weight add-on:	0%	5%	6%	9%	15%	30%

Table 8 provides an example of how marginal risk weight add-ons would be calculated in practice. As can be seen, the mechanics of the potential approach is broadly analogous to a marginal tax-rate system.

The marginal risk weight add-ons could alternatively be designed as a multiplicative scalar of the risk weight for the sovereign exposure or group of connected counterparties. In such a framework, the sovereign exposure risk weights would depend on both the degree of credit risk and the degree of concentration risk.

Table 8: Example of marginal risk weight add-on approach

Sovereign exposures	Units	Scope of sovereign counterparties	Sovereign exposures (% of Tier 1)	Marginal risk weight add-on
<i>Tier 1 capital resources</i>	100			
Central government A	120	✓	$(120+30)/100 = 150\%$	<ul style="list-style-type: none"> • 0% for first 100 units • 5% for subsequent 50 units • Effective average risk weight add-on of 1.67%
Sovereign A entities meet “support” equivalence criteria	30			
Sovereign A entities meet “autonomy” equivalence criteria	150	✓	$150/100 = 150\%$	<ul style="list-style-type: none"> • 0% for first 100 units • 5% for subsequent 50 units • Effective average risk weight add-on of 1.67%
Central government B	200	✓	$200/100 = 200\%$	<ul style="list-style-type: none"> • 0% for first 100 units • 5% for next 50 units • 6% for subsequent 50 units • Effective average risk weight add-on of 2.75%

In discussing the idea of marginal risk weight add-ons, the Committee sought to balance prudential risk considerations and other financial stability considerations in the design and calibration of marginal risk weight add-ons. For example, the illustrative risk weight add-ons in the tables above have been calibrated at a relatively low level but would rise at an increasing rate based on a bank's sovereign exposures concentration. Such an approach seeks to discourage the build-up of large sovereign holdings that could pose particular concentration risks. In addition, the illustrative initial sovereign exposures concentration threshold is set at 100%, which broadly represents the average requirement for bank's HQLA holdings to meet the liquidity standards. Holdings of exposures to central governments and connected counterparties below this threshold would not be subject to marginal risk weight add-ons. The illustrative initial threshold seeks to recognise the diverse roles of central government exposures in the financial system, such as meeting liquidity standards and collateral management needs, while also mitigating concentration risk.

Q9. What are your views regarding the potential marginal risk weight add-on approach for mitigating sovereign concentration risk? Do you have any views on the potential design, granularity and calibration of such an approach?

Credit risk mitigation framework

The CRM framework recognises certain techniques to mitigate the credit risk of exposures. For example, exposures may be collateralised or guaranteed by a third party. As noted in the previous chapter, the current CRM framework provides supervisors with the discretion to apply a haircut of zero for repo-style transactions with core market participants under certain conditions.⁵⁰ These conditions include a requirement for the collateral to qualify for a 0% risk weight under the standardised approach.

Given that the ideas discussed above related to potential revisions to the standardised approach generally apply positive risk weights to sovereign exposures, the Committee discussed the implications of these ideas for the existing CRM discretion for repo-style transactions, which would be mostly redundant.

For example, the Committee discussed the idea of removing the existing CRM discretion for repo-style transactions. To the extent that market participants already apply positive haircuts for such transactions, removing the discretion would bring the regulatory framework more into line with market practices. The Committee noted that, if the discretion to apply a 0% haircut were to be removed, banks would be required to apply one of the CRM approaches as set out in the revised standardised approach for credit risk framework for such transactions.

Q10. What are current market practices related to haircuts for sovereign repo-style transactions? Do you believe that the current repo-style discretion to apply a haircut of zero should be removed from the credit risk mitigation framework?

Example of Pillar 2 guidance

The Committee discussed ideas related to specific Pillar 2 guidance on sovereign exposures. This would include guidance on monitoring sovereign risk, stress testing for sovereign risk and supervisory responses to the crystallisation of sovereign risk. As part of these ideas, banks would be required to monitor and stress test their sovereign exposures in a manner that appropriately captures risks associated with

⁵⁰ See paragraph 170 of the Basel II framework.

sovereign exposures. The guidance below is an example of an idea to enhance the Pillar 2 treatment of sovereign exposures.

Monitoring of sovereign risk

Banks could be required to have in place effective internal policies, systems and controls to identify, measure, monitor and control risks arising from their sovereign exposures. Banks could be required to promptly identify possible deteriorations in the risk arising from sovereign exposures so as to manage such risks appropriately. Banks could be required to take necessary action, such as enhancing monitoring, increasing provisions or reducing positions in the sovereign exposures concerned, to the extent that such actions are warranted by the findings of their risk assessment.

Banks could be required to review their sovereign exposures for indications of heightened risks of sovereign distress. Banks could be required to maintain a set of sovereign exposure indicators and evaluate, on a regular basis, the sensitivity and reasonableness of key assumptions in their choice of material indicators used for their internal capital assessment. The identification and monitoring of risks arising from banks' sovereign exposures should be included in the banks' management information system so as to ensure that the board and senior management are provided with timely and relevant information to proactively manage risks relating to their banks' sovereign exposures. The monitoring of sovereign risk indicators would help banks to understand the fundamentals underlying the sovereign exposures.

A non-exhaustive list of monitoring indicators is provided in Table 9. Banks could be required to ensure that their sovereign risk assessment is not based on a mechanistic reliance on particular indicators and indicator levels, and is overlaid with an understanding of the characteristics associated with particular indicators and the factors driving particular indicator levels, as these may differ across jurisdictions. All pertinent specificities and factors relevant to a jurisdiction should be included in the analysis, where appropriate. Banks may use sovereign credit ratings, reports from analysts and from official sector bodies to supplement their internal credit assessments.

Banks could be required to also monitor, assess and mitigate the risks arising from concentrations in their holdings of sovereign exposures. Examples of measures to mitigate risks arising from risk concentrations include enhanced monitoring of higher-risk sovereign exposures and diversification of such holdings, where possible.

Table 9: Non-exhaustive list of monitoring indicators of sovereign risk

	Non-fiscal indicators	Examples
(i)	Market-based metrics: These provide information on credit risks, market risks and liquidity risks arising from sovereign exposures.	<ul style="list-style-type: none"> • Credit ratings • Credit default swap spreads • Bond yields and credit spreads • Price movements and bid-ask spreads of financial instruments or transactions with sovereign debt as exposure or underlying collateral
(ii)	Market depth: These provide information on the extent to which fragility in the broader functioning of capital markets could exacerbate risks arising from sovereign exposures.	Metrics reflecting the size and frequency of trades, such as: <ul style="list-style-type: none"> • Inventory turnover (eg number of buy and sell transactions involving a financial instrument over a time period) • Inventory velocity (eg average number of days/hours between each buy and sell transaction)
(iii)	Unconventional trigger events: These provide indications of possible adverse price impact on financial instruments and/or a credit rating downgrade arising from a trigger event, such as	Observable correlation between unconventional trigger event(s) and significant change in: <ul style="list-style-type: none"> • Size and frequency of large trades in sovereign-underlying instruments pre and post-event;

	a major monetary policy announcement or a regulatory policy or supervisory announcement/publication.	<ul style="list-style-type: none"> • Access to funding markets; • Securities warehousing capacity; or • Market-making capacity
	Fiscal indicators	
(iv)	Economic strength	<ul style="list-style-type: none"> • Economic indicators (eg GDP growth, GDP per capita)
(v)	Fiscal strength	<ul style="list-style-type: none"> • Fiscal finances (eg budget balance in % GDP, debt in % GDP, revenue in % GDP, current account balance) • Debt profile and sustainability (eg maturity, currency composition, investor base, information from debt sustainability reports)
(vi)	Institutional strength	<p>Effectiveness and predictability of public policy, eg:</p> <ul style="list-style-type: none"> • Strength of the legal system • Political risk

Stress testing for sovereign risk

Banks could be required to cover the risks of significant sovereign exposures in their stress tests. Banks could be required to consider simultaneous pressures in credit, market and liquidity risk metrics as part of their broader bank-wide stress tests.⁵¹ This would help to inform the banks' capital and liquidity planning processes.

Assumptions incorporated in stress scenarios to incorporate the effects of sovereign risk distress could include:

- (a) a deterioration of the sovereign's creditworthiness and its possible default; and
- (b) a deterioration of liquidity conditions in sovereign debt markets, affecting the prices of traded sovereign debt instruments and transactions with sovereign debt as underlying or collateral (eg repos).

Specific examples of stress-testing assumptions and methodology that should be applied by banks and supervisors to sovereign exposures held in both the banking and trading book include:

(a) *Credit risk/counterparty credit risk*

- Impact on capital adequacy from downward or upward ratings migration on sovereign exposures, including impact on counterparty credit risk capital charges arising from transactions with sovereign counterparties.
- Impact on capital adequacy from adjusting haircut for sovereign debt instruments used as collateral to offset credit risk and counterparty credit risk.
- Impact on net income and capital adequacy from increasing impairment provisions on sovereign exposures held in the banking book (including exposures held on an available-for-sale or held-to-maturity basis).

⁵¹ This is consistent with Principle 10 of the Committee's Principles for stress testing, available at www.bis.org/publ/bcbs155.pdf.

(b) *Market and liquidity risk indicators*

- Impact on net trading income and capital adequacy from revaluation of positions based on shocks to sovereign credit spreads as well as changes in yields in other asset classes, driven by risk deterioration in the sovereign and jumps in liquidity premia. This includes the impact of revaluations on positions held in the banking book on an available-for-sale basis.
- Impact on capital adequacy from yield shock to a sovereign exposure with spillover effects to correlated exposures in other asset classes.
- Impact on ability to meet liquidity regulations due to credit rating migrations in sovereign debt, affecting their qualification as high-quality liquid assets.
- Impact on liquidity position based on changes to projected cash flows from sovereign exposures over various time horizons.

(c) *Funding costs and availability*

- Impact on funding costs, and hence net income and capital adequacy due to higher interest rates, arising from increase in sovereign bond yields of a sovereign under distress.
- Impact on funding availability via securities financing transactions due to higher market haircuts or non-acceptance of sovereign debt as collateral.

Supervisory review

Supervisors could be required to review the adequacy of the internal control and risk management systems of banks for monitoring and reporting material sovereign exposures. Supervisors could be required to also review the extent of a bank's sovereign risk exposures and concentrations, and the adequacy of the bank's internal assessment of capital adequacy for such exposures under Pillar 2. Such assessments should include reviews of a bank's stress tests.

Supervisors could be required to make regular and comprehensive assessments of a bank's stress-testing programme, covering material risk categories and scenarios. Supervisors could be required to ensure that stress testing forms an integral part of the bank's overall governance and risk management culture. Board and senior management involvement in setting sovereign stress-testing objectives, defining scenarios, discussing the results of stress tests, assessing potential actions and decision-making are critical in ensuring the appropriate use of stress testing in banks' risk governance and capital planning. Stress test results should contribute to strategic decision-making and foster internal debate regarding assumptions, such as the cost, risk and speed with which new capital could be raised or positions hedged or sold.

Supervisors could be required to review the range of remedial actions envisaged by a bank in response to the results of the stress-testing programme and understand the rationale for potential management decisions. Supervisors should challenge whether such actions would be feasible in a period of stress and whether the institution could realistically carry them out.

Supervisors could be required to take action if the risks arising from a bank's sovereign exposures are not adequately managed by the bank, if material deficiencies in the stress-testing programme are identified, or if the results of stress tests are not adequately taken into consideration in the bank's decision-making process. Supervisors may exercise judgment and proportionality in their assessment of appropriate supervisory measures, taking into account the heterogeneity of banks' holdings of sovereign exposures across jurisdictions. Examples of supervisory measures include:

- intensifying the monitoring of the bank;
- requiring the bank to prepare and implement a satisfactory capital adequacy restoration plan;
- requiring further provisions;

- requiring the bank to review limits and/or reduce exposures; and
- requiring the bank to raise the level of capital above minimum Pillar 1 requirements, so as to ensure that it continues to meet minimum capital requirements during a stress period.

Q11. Do you have any comments on the potential Pillar 2 guidance on sovereign exposures? Is there a need for additional guidance?

Pillar 3 disclosure requirements

The Committee recently revised its Pillar 3 disclosure framework to enhance the comparability of banks' disclosures of risk-weighted assets.⁵² The Committee noted that this framework would be revised to reflect ongoing revisions to the regulatory framework. In considering the optimal level of disclosure requirements, the Committee is guided by the principles that disclosures should be clear, comprehensive, meaningful to users, consistent over time and comparable across time.

The Committee discussed ideas related to additional Pillar 3 disclosure templates related to sovereign exposures. For example, additional disclosures could provide important and relevant information for market participants to better understand and assess the different elements of banks' sovereign risk.

Examples of potential disclosure templates are included in the annex of this discussion paper, for illustrative purposes. These would require banks to disclose their:

- (i) exposures and risk-weighted assets of different sovereign types by jurisdictional breakdown;
- (ii) exposures to and risk-weighted assets of different sovereign entities by currency breakdown; and
- (iii) exposures to sovereign entities by accounting classification.

In principle, the disclosure templates could be even more granular in nature. For example, they could require banks to disclose their exposures and risk-weighted assets on a jurisdictional and currency breakdown (ie for a given jurisdiction, a bank would disclose how much sovereign exposures it holds issued in the domestic currency and foreign currency of the jurisdiction).

Q12. Do you have any comments on the potential Pillar 3 disclosure requirements for sovereign exposures? Is there a need for additional disclosure requirements?

Home-host arrangements

The Basel framework applies to all internationally active banks on a fully consolidated basis or at every tier within a group. To mitigate potential concerns related to different prudential treatments under both the standardised and IRB approaches for sovereign exposures applied at the subsidiary and consolidated level of such banks, the Committee encourages home authorities of internationally-active banks to recognise, at the consolidated level, the prudential treatment applied by host authorities for subsidiaries, to the extent that the latter is compliant with the Basel framework. The Committee notes that home authorities retain the option to apply higher risk weights at a consolidated level.

⁵² The revised Pillar 3 framework is available at www.bis.org/bcbs/publ/d309.pdf.

Q13. Do you agree that home authorities of internationally active banks should be encouraged to recognise the prudential treatment of sovereign exposures applied by host authorities for subsidiaries?

Additional ideas

The ideas discussed above relate to the risk-weighted treatment of sovereign exposures and the large exposures framework. The Committee has not considered concrete ideas related to revising the leverage ratio framework and liquidity standards, as these have been recently finalised and are in the process of being implemented domestically.

The Committee also discussed potential risks with sovereign exposures held in the banking book that are eligible to meet the definition of HQLAs but that are potentially subject to valuation risks that are not currently capitalised. For assets held in the banking book on an available-for-sale basis, changes in valuation are reflected in the balance sheet as well as capital and reserves, although not in the profit and loss account. In contrast, there is no recognition of changes in value for assets held on a held-to-maturity basis unless they are sold or impaired. Thus, as part of future deliberations the Committee will consider the accounting and capital treatment of eligible high-quality liquid assets, including but not limited to sovereign exposures.

Q14. Are any further revisions to the regulatory treatment of sovereign exposures needed?

Chapter 6: Feedback on the discussion paper

The Committee welcomes comments from interested stakeholders – including academics, analysts, debt management agencies, finance ministries, market participants and the general public – on the different elements covered in this discussion paper by 9 March 2018.

The purpose of this paper is to elicit comments and feedback from a broad range of interested stakeholders. The Committee particularly welcomes feedback on the following questions:

- Q1. Are there any additional sources and channels of sovereign risk in the banking system that are relevant to, and that should be captured in, the prudential regulatory treatment of sovereign exposures?
- Q2. Are there additional roles of sovereign exposures in financial markets and the broader economy that are of relevance to the prudential regulatory treatment of sovereign exposures?
- Q3. What are your views on the potential definition of sovereign exposures?
- Q4. Do you agree that the definition of domestic sovereign exposures should be based on both the currency denomination of the exposure and the currency denomination of the funding? How would such a definition be operationalised in practice?
- Q5. Do you agree with the potential relative rank ordering of different sovereign entities and with the principle of a potential risk equivalence criteria for treating certain non-central government exposures as central government exposures? Do you have any comments on the criteria?
- Q6. Do you agree that capital requirements for sovereign exposures cannot be modelled robustly, and that such exposures should be subject to a standardised approach treatment as a result?
- Q7. What are your views about how a standardised approach treatment for sovereign exposures should be designed and calibrated? How should such an approach balance simplicity, comparability and risk sensitivity? Are there any holistic considerations which could justify a differentiated treatment across different types of sovereign entities, including the relative treatment of central bank and central government exposures?
- Q8. What role could specific non-rating indicators play in determining sovereign exposure risk weights in the potential standardised approach?
- Q9. What are your views regarding the potential marginal risk weight add-on approach for mitigating sovereign concentration risk? Do you have any views on the potential design, granularity and calibration of such an approach?
- Q10. What are current market practices related to haircuts for sovereign repo-style transactions? Do you believe that the current repo-style discretion to apply a haircut of zero should be removed from the credit risk mitigation framework?
- Q11. Do you have any comments on the potential Pillar 2 guidance on sovereign exposures? Is there a need for additional guidance?
- Q12. Do you have any comments on the potential Pillar 3 disclosure requirements for sovereign exposures? Is there a need for additional disclosure requirements?
- Q13. Do you agree that home authorities of internationally active banks should be encouraged to recognise the prudential treatment of sovereign exposures applied by host authorities for subsidiaries?
- Q14. Are any further revisions to the regulatory treatment of sovereign exposures needed?

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Annex: Potential Pillar 3 templates for sovereign exposures

Template 1: Exposures to sovereign entities – country breakdown

Purpose: To decompose banks' sovereign exposures and risk-weighted assets by significant jurisdictions.

Scope of application: The template is mandatory for all banks.

Content: Regulatory exposure amounts.

Frequency: Semiannual.

Format: Fixed. (The columns cannot be altered, the rows will vary based on each banks' country breakdown).

Accompanying narrative: Banks are expected to supplement the template with a narrative commentary to explain any significant changes in sovereign exposures across countries.

Central government exposures

		a	b	c	d	e	f	g
		Banking book sovereign exposures before CCF and CRM		Banking book sovereign exposures after CCF and CRM		Trading book sovereign exposures	Risk-weighted assets	Concentration of exposure (expressed as a percentage of Tier 1 capital)
	Significant jurisdiction (in descending order of exposure value) ^(a)	On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	Amount	Amount	Percentage
1	Jurisdiction 1							
2	Jurisdiction 2							
3	...							
4	Total							

(a) Defined as jurisdictions with non-negligible holdings of sovereign exposures. Banks choosing not to disclose exposures to specific jurisdictions are required to explain why they consider such information to not be meaningful to users, including a list of jurisdictions not disclosed separately, and the aggregate exposure amount (separately for banking and trading exposures) that these jurisdictions represent.

Central bank exposures

[idem]

Other sovereign exposures

Broken down by subcategories as set out in Chapter 5 of this discussion paper [idem]

Template 2: Exposures to sovereign entities – currency denomination breakdown

Purpose: To decompose banks' sovereign exposures and risk-weighted assets by currency denomination.

Scope of application: The template is mandatory for all banks.

Content: Regulatory exposure amounts.

Frequency: Semiannual.

Format: Fixed. (The columns cannot be altered, the rows will vary based on each banks' currency breakdown).

Accompanying narrative: Banks are expected to supplement the template with a narrative commentary to explain any significant changes in the currency denomination of sovereign exposures across countries.

Central government exposures

		a	b	c		d	e	f	g
		Banking book sovereign exposures before CCF and CRM		Banking book sovereign exposures after CCF and CRM		Trading book sovereign exposures	Risk-weighted assets	Concentration of exposure (expressed as a percentage of Tier 1 capital)	
	Significant currency denomination (in descending order of exposure value) ^(a)	On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	Amount	Amount	Percentage	
1	Currency 1								
2	Currency 2								
3	...								
4	Total								

(a) Defined as currencies with non-negligible holdings of sovereign exposures. Banks choosing not to disclose exposures to specific currencies are required to explain why they consider such information to not be meaningful to users, including a list of currencies not disclosed separately, and the aggregate exposure amount (separately for banking and trading exposures) that these currencies represent.

Central bank exposures

[idem]

Other sovereign exposures

Broken down by sub-categories as set out in Chapter 5 of this discussion paper [idem]

Template 3: Exposures to sovereign entities – accounting classification breakdown

Purpose: To decompose banks' sovereign exposures by accounting classification.

Scope of application: The template is mandatory for all banks.

Content: Regulatory exposure amounts.

Frequency: Semiannual.

Format: Fixed. (The columns and rows cannot be altered).

Accompanying narrative: Banks are expected to supplement the template with a narrative commentary to explain any significant changes in the classification of sovereign exposures across countries.

Central government exposures

		a	b	c	d	e				f				g	h	
		Debt instruments			Loans and receivables ^(a)	Direct sovereign exposures in derivatives				Indirect sovereign exposures in derivatives				Contingent liabilities and commitments	Total exposures	
		Fair value	Available-for-sale financial assets	Financial assets held at amortised cost		Positive fair value		Negative fair value		Positive fair value		Negative fair value		On and off-balance sheet	On-balance sheet	Off-balance sheet
						Notional value	Fair value	Notional value	Fair value	Notional value	Fair value	Notional value	Fair value			
1	Gross exposure amount															
2	Net exposure value^(b)															

(a) For sovereign exposures that are not in the form of debt securities as defined under accounting or regulatory frameworks.

(b) Net of provisions.

Central bank exposures

[idem]

Other sovereign exposures

Broken down by sub-categories as set out in Chapter 5 of this discussion paper [idem]