

Basel Committee on Banking Supervision

SCO

Scope and definitions

SCO40

Global systemically important
banks

**Version effective as of
15 Dec 2019**

First version in the format of the consolidated
framework.



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Introduction

- 40.1** The negative externalities associated with institutions that are perceived as not being allowed to fail due to their size, interconnectedness, complexity, lack of substitutability or global scope are well recognised. In maximising their private benefits, individual financial institutions may rationally choose outcomes that, on a system-wide level, are suboptimal because they do not take into account these externalities. Moreover, the moral hazard costs associated with implicit guarantees derived from the perceived expectation of government support may amplify risk-taking, reduce market discipline and create competitive distortions, and further increase the probability of distress in the future. As a result, the costs associated with moral hazard add to any direct costs of support that may be borne by taxpayers.
- 40.2** In addition, given the potential cross-border repercussions of a problem in any of the global systemically important banks (G-SIBs) on the financial institutions in many countries and on the global economy at large, this is not uniquely a problem for national authorities, and therefore requires a global minimum agreement.
- 40.3** Because there is no single solution to the externalities posed by G-SIBs, the official community is addressing these issues through a multipronged approach. The broad aim of the policies is to:
- (1) reduce the probability of failure of G-SIBs by increasing their going-concern loss-absorbency (addressed by the measures in this chapter, [RBC40](#) and other G-SIB-specific measures in the Basel framework); and
 - (2) reduce the extent or impact of failure of G-SIBs, by improving global recovery and resolution measures (where work is led by the Financial Stability Board, or FSB).

Assessing systemic importance

- 40.4** The Basel Committee's methodology for assessing the systemic importance of G-SIBs relies on an indicator-based measurement approach. The selected indicators are chosen to reflect the different aspects of what generates negative externalities and makes a bank critical for the stability of the financial system.¹ The advantage of the multiple indicator-based measurement approach is that it encompasses many dimensions of systemic importance, is relatively simple and is more robust than currently available model-based measurement approaches and methodologies that rely on only a small set of indicators or market variables.

Footnotes

1 *Another option would be to develop a model-based approach which uses quantitative models to estimate individual banks' contributions to systemic risk. However, models for measuring systemic importance of banks are at a very early stage of development and concerns remain about the robustness of the results. The models may not capture all the ways that a bank is systemically important (both quantitative and qualitative).*

- 40.5** Given the focus of the framework on cross-border spillovers and negative global externalities that arise from the failure of a globally active bank, the reference system for assessing systemic impact is the global economy. Consequently, systemic importance is assessed based on data that relate to the consolidated group (ie the unit of analysis is the consolidated group). To be consistent with this approach, the higher loss absorbency requirement applies to the consolidated group. However, as with the minimum requirement and the capital conservation and countercyclical buffers, application at the consolidated level does not rule out the option for the host jurisdictions of subsidiaries of the group also to apply the requirement at the individual legal entity or consolidated level within their jurisdiction.
- 40.6** The Committee is of the view that global systemic importance should be measured in terms of the impact that a bank's failure can have on the global financial system and wider economy, rather than the risk that a failure could occur. This can be thought of as a global, system-wide, loss-given-default (LGD) concept rather than a probability of default (PD) concept.
- 40.7** The methodology gives an equal weight of 20% to each of five categories of systemic importance, which are: size, cross-jurisdictional activity, interconnectedness, substitutability/financial institution infrastructure and complexity. With the exception of the size category, the Committee has identified multiple indicators in each of the categories, with each indicator equally weighted within its category. That is, where there are two indicators in a category, each indicator is given a 10% overall weight; where there are three, the indicators are each weighted 6.67% (ie 20/3).

Indicator-based measurement approach		Table 1
Category (and weighting)	Individual indicator	Indicator weighting
Cross-jurisdictional activity (20%)	Cross-jurisdictional claims	10%
	Cross-jurisdictional liabilities	10%
Size (20%)	Total exposures as defined for use in the Basel III leverage ratio	20%
Interconnectedness (20%)	Intra-financial system assets	6.67%
	Intra-financial system liabilities	6.67%
	Securities outstanding	6.67%
Substitutability/financial institution infrastructure (20%)	Assets under custody	6.67%
	Payments activity	6.67%
	Underwritten transactions in debt and equity markets	6.67%
Complexity (20%)	Notional amount of over-the-counter (OTC) derivatives	6.67%
	Level 3 assets	6.67%
	Trading and available-for-sale securities	6.67%

40.8 For each bank, the score for a particular indicator is calculated by dividing the individual bank amount (expressed in EUR) by the aggregate amount for the indicator summed across all banks in the sample.² This amount is then multiplied by 10,000 to express the indicator score in terms of basis points. For example, if a bank's size divided by the total size of all banks in the sample is 0.03 (ie the bank makes up 3% of the sample total) its score will be expressed as 300 basis points. Table 2 provides an example score calculation, using hypothetical data.

Example indicator score calculations (EUR billions)						Table 2
Category	Indicator	Bank value		Sample total		Indicator score (bps)
Size	Total exposures	2,000	÷	80,000	* 10,000 =	250
Interconnectedness	Intra-financial system assets	300	÷	10,000	* 10,000 =	300
	Intra-financial system liabilities	100	÷	8,000	* 10,000 =	125
	Securities outstanding	200	÷	10,000	* 10,000 =	200
Substitutability /financial institution infrastructure	Payments activity	100,000	÷	2,000,000	* 10,000 =	500
	Assets under custody	20,000	÷	100,000	* 10,000 =	2,000
	Underwritten transactions in debt and equity markets	5	÷	5,000	* 10,000 =	10
Complexity	Notional amount of OTC derivatives	30,000	÷	800,000	* 10,000 =	375
	Trading and available-for-sale securities	200	÷	5,000	* 10,000 =	400
	Level 3 assets	40	÷	1,000	* 10,000 =	400
Cross-jurisdictional activity	Cross-jurisdictional claims	150	÷	20,000	* 10,000 =	75

Cross-jurisdictional liabilities	100	÷	20,000	*	50
				10,000	
				=	

Notes: all data hypothetical and for illustrative purposes only. The sample totals should not be used to calculate actual bank scores; refer instead to the sample totals posted annually on the website of the Bank for International Settlements. All values provided billions of euros, so no unit or currency conversion required.

Footnotes

² See [SCO40.15](#) for a description of how the sample of banks is determined.

40.9 Each category score for each bank is determined by taking a simple average of the indicator scores in that category. The overall score for each bank is then calculated by taking a simple average of its five category scores and then rounding to the nearest whole basis point.³ The maximum total score, ie the score that a bank would have if it were the only bank in the sample, is 10,000 basis points (ie 100%).⁴ Table 3 demonstrates these calculations.

Example category and final score calculations (basis points)					Table 3
Category	Average indicator score =	Raw score	Category cap	Final category score	
Size	$250 \div 1 =$	250	-	250	
Interconnectedness	$(300 + 125 + 200) \div 3 =$	208.3	-	208.3	
Substitutability	$(500 + 2,000 + 10) \div 3 =$	836.6	500	500	
Complexity	$(375 + 400 + 400) \div 3 =$	391.6	-	391.6	
Cross-jurisdictional activity	$(75 + 50) \div 2 =$	62.5	-	62.5	
Final score	$(250 + 208.3 + 500 + 391.6 + 62.5) \div 5 =$			282.5	
				Rounded to 283	

Notes: all data hypothetical and for illustrative purposes only. The final score corresponds to a higher loss absorbency requirement of 1.5% (see [RBC40.4](#)).

Footnotes

³ Fractional values between 0 and 0.5 are rounded down, while values from 0.5 to 1 are rounded up.

⁴ This ignores the impact of the cap on the substitutability category. The impact of the cap is such that the actual maximum score if there were only one bank in the sample is 8,000 basis points plus one fifth of the maximum substitutability score.

40.10 When calculating a bank's indicators, the data must be converted from the reporting currency to euros using the exchange rates published on the Basel Committee website. These rates should not be rounded in performing the conversions, as this may lead to inaccurate results.

- 40.11** There are different sets of currency conversions on the website, each corresponding to a different fiscal year-end. Within each set, there are two conversion tables. The first is a point-in-time, or spot, conversion rate corresponding to the following fiscal year-ends: 30 September, 30 October, 31 December, and 31 March (of the following year). The second set is an average of the exchange rates over the relevant fiscal year. Unless the bank decides to collect the daily flow data in the reporting currency directly and convert the data using a consistent set of daily exchange rate quotations, the average rates over the bank's fiscal year should be used to convert the individual payments data into the bank's reporting currency. The 31 December spot rate should be used to convert each of the 12 indicator values (including total payments activity) to the G-SIB assessment methodology reporting currency (ie euros).
- 40.12** The Committee has analysed the application of the scoring methodology described above to three years of data supplied by banks. It has found that, relative to the other categories that make up the G-SIB framework, the substitutability category has a greater impact on the assessment of systemic importance than the Committee intended for banks that are dominant in the provision of payment, underwriting and asset custody services. Therefore, the Committee has decided to apply a cap of 500 basis points to the substitutability category score.

Cross-jurisdictional activity

- 40.13** Given the focus on G-SIBs, the objective of this indicator is to capture banks' global footprint. Two indicators in this category measure the importance of the bank's activities outside its home (headquarter) jurisdiction relative to overall activity of other banks in the sample: cross-jurisdictional claims and cross-jurisdictional liabilities. The idea is that the international impact of a bank's distress or failure would vary in line with its share of cross-jurisdictional assets and liabilities. The greater a bank's global reach, the more difficult it is to coordinate its resolution and the more widespread the spillover effects from its failure.

Size

40.14 A bank's distress or failure is more likely to damage the global economy or financial markets if its activities comprise a large share of global activity. The larger the bank, the more difficult it is for its activities to be quickly replaced by other banks and therefore the greater the chance that its distress or failure would cause disruption to the financial markets in which it operates. The distress or failure of a large bank is also more likely to damage confidence in the financial system as a whole. Size is therefore a key measure of systemic importance. One indicator is used to measure size: the measure of total exposures used in the Basel III leverage ratio.

Interconnectedness

40.15 Financial distress at one institution can materially increase the likelihood of distress at other institutions given the network of contractual obligations in which these firms operate. A bank's systemic impact is likely to be positively related to its interconnectedness vis-à-vis other financial institutions. Three indicators are used to measure interconnectedness:

- (1) intra-financial system assets;
- (2) intra-financial system liabilities; and
- (3) securities outstanding.

Substitutability / financial institution infrastructure

40.16 The systemic impact of a bank's distress or failure is expected to be negatively related to its degree of substitutability as both a market participant and client service provider, ie it is expected to be positively related to the extent to which the bank provides financial institution infrastructure. For example, the greater a bank's role in a particular business line, or as a service provider in underlying market infrastructure (eg payment systems), the larger the disruption will likely be following its failure, in terms of both service gaps and reduced flow of market and infrastructure liquidity. At the same time, the cost to the failed bank's customers in having to seek the same service from another institution is likely to be higher for a failed bank with relatively greater market share in providing the service. Three indicators are used to measure substitutability/financial institution infrastructure:

- (1) assets under custody;

- (2) payments activity; and
- (3) underwritten transactions in debt and equity markets.

Complexity

40.17 The systemic impact of a bank's distress or failure is expected to be positively related to its overall complexity – that is, its business, structural and operational complexity. The more complex a bank is, the greater are the costs and time needed to resolve the bank. Three indicators are used to measure complexity:

- (1) notional amount of OTC derivatives;
- (2) Level 3 assets; and
- (3) trading and available-for-sale securities.

Sample of banks

40.18 The indicator-based measurement approach uses a large sample of banks as its proxy for the global banking sector. Data supplied by this sample of banks is then used to calculate banks' scores. Banks fulfilling any of the following criteria will be included in the sample and will be required to submit the full set of data used in the assessment methodology to their supervisors:

- (1) Banks that the Committee identifies as the 75 largest global banks, based on the financial year-end Basel III leverage ratio exposure measure.
- (2) Banks that were designated as G-SIBs in the previous year (unless supervisors agree that there is compelling reason to exclude them).
- (3) Banks that have been added to the sample by national supervisors using supervisory judgment (subject to certain criteria).⁵

Footnotes

⁵ *The Committee will consider the criteria for adding banks to the sample by supervisory judgment. It will also consider whether the data supplied by such banks should be included in the calculation of the denominators used to calculate banks' scores, or whether the denominators should be based solely on the data supplied by the largest 75 global banks plus banks designated as G-SIBs in the previous year.*

Bucketing approach

- 40.19** Banks that have a score produced by the indicator-based measurement approach that exceeds a cutoff level set by the Committee will be classified as G-SIBs. Supervisory judgment may also be used to add banks with scores below the cutoff to the list of G-SIBs. This judgment will be exercised according to the principles set out in [SCO40.20](#) to [SCO40.26](#).
- 40.20** Each year, the Committee runs the assessment again and, if necessary, reallocates G-SIBs into different categories of systemic importance based on their scores and supervisory judgment. G-SIBs are allocated into equally sized buckets based on their scores of systemic importance, with varying levels of higher loss absorbency requirements applied to the different buckets as set out in [RBC40.4](#) and [SCO40.5](#).
- 40.21** The cutoff score for G-SIB designation is 130 basis points and the buckets corresponding to the different higher loss absorbency requirements each have a range of 100 basis points as outlined in [RBC40.4](#).⁶

Footnotes

⁶ *Cutoff scores and bucket thresholds are available at www.bis.org/bcbs/qsib/cutoff.htm.*

- 40.22** The number of G-SIBs, and their bucket allocations, will evolve over time as banks change their behaviour in response to the incentives of the G-SIB framework as well as other aspects of Basel III and country-specific regulations. Moreover, if a bank's score increases such that it exceeds the top threshold of the fourth bucket, new buckets will be added to accommodate the bank. New buckets will be equal in size in terms of scores to each of the existing buckets, and will have incremental higher loss absorbency requirements, as set out in [RBC40.4](#) and [SCO40.5](#), to provide incentives for banks to avoid becoming more systemically important.

Criteria for supervisory judgment

- 40.23** Supervisory judgment can support the results derived from the indicator-based measurement approach of the assessment methodology. The Committee has developed four principles for supervisory judgment:

- (1) The bar for judgmental adjustment to the scores should be high: in particular, judgment should only be used to override the indicator-based measurement approach in exceptional cases. Those cases are expected to be rare.
- (2) The process should focus on factors pertaining to a bank's global systemic impact, ie the impact of the bank's distress/failure and not the probability of distress/failure (ie the riskiness) of the bank.
- (3) Views on the quality of the policy/resolution framework within a jurisdiction should not play a role in this G-SIB identification process.⁷
- (4) The judgmental overlay should comprise well documented and verifiable quantitative as well as qualitative information.

Footnotes

⁷ *However, this is not meant to preclude any other actions that the Committee, the FSB or national supervisors may wish to take for global systemically important financial institutions to address the quality of the policy/resolution framework. For example, national supervisors could impose higher capital surcharges beyond the higher loss absorbency requirements for G-SIBs that do not have an effective and credible recovery and resolution plan.*

Ancillary indicators

40.24 The Committee has identified a number of ancillary indicators relating to specific aspects of the systemic importance of an institution that may not be captured by the indicator-based measurement approach alone. These indicators can be used to support the judgment overlay.

40.25 The ancillary indicators are set out in the reporting template and related instructions, which are available on the Committee's website.⁸

Footnotes

⁸ www.bis.org/bcbs/gsib

Qualitative supervisory judgment

40.26 Supervisory judgment can also be based on qualitative information. This is intended to capture information that cannot be easily quantified in the form of an indicator, for example, a major restructuring of a bank's operation. Qualitative judgments should also be thoroughly explained and supported by verifiable arguments.

Process for incorporating supervisory judgment

40.27 The supervisory judgmental overlay can be incorporated using the following sequential steps to the score produced by the indicator-based measurement approach:

- (1) Collection of the data⁹ and supervisory commentary for all banks in the sample of banks
- (2) Mechanical application of the indicator-based measurement approach and corresponding bucketing
- (3) Relevant authorities¹⁰ propose adjustments to the score of individual banks on the basis of an agreed process.
- (4) The Committee develops recommendations for the FSB.
- (5) The FSB and national authorities, in consultation with the Basel Committee, make final decisions.

Footnotes

⁹ *The data collection can start in the second quarter and be finalised in third quarter each year, subject to consultation with national supervisors.*

¹⁰ *Relevant authorities mainly refer to home and host supervisors.*

40.28 The supervisory judgment input to the results of the indicator-based measurement approach should be conducted in an effective and transparent way and ensure that the final outcome is consistent with the views of the Committee as a group. Challenges to the results of the indicator-based measurement approach should only be made if they involve a material impact in the treatment of a specific bank (eg resulting in a different loss absorbency requirement). To limit the risk that resources are used ineffectively, when the authority is not the bank's home supervisor it would be required to take into account the views of the bank's home and major host supervisors. These could be, for instance, the members of the institution's college of supervisors.

40.29 In addition to the materiality and consultation requirements, proposals to challenge the indicator-based measurement approach will be subject to the following modalities. Proposals originating from the home supervisor that result in a lower loss absorbency requirement would be scrutinised and would require a stronger justification than those resulting in a higher loss absorbency requirement. The reverse would apply to proposals originating from other authorities: those recommending a higher loss-absorbency requirement would be subject to higher standards of proof and documentation. The rationale for this asymmetric treatment follows the general principle that the Committee is setting minimum standards.

Periodic review and refinement

40.30 The methodology, including the indicator-based measurement approach itself and the cutoff/threshold scores, will be reviewed every three years in order to capture developments in the banking sector and any progress in methods and approaches for measuring systemic importance. In future reviews, particular attention will be paid to branches. As regards the structural changes in regional arrangements – in particular, the European Union – they will be reviewed as actual changes are made. In addition, the size of the sample of banks will be reviewed every three years.

40.31 The Committee expects national jurisdictions to prepare a framework in which banks will be able to provide high-quality data for the indicators. The Committee will disclose the values of the cutoff score, the threshold scores for buckets, the denominators used to normalise the indicator values and the G-SIB indicators of all banks so banks, regulators and market participants can understand how actions that banks take could affect their systemic importance score and thereby the applicable magnitude of the higher loss absorbency requirement.