Bulletin
de la Banque de France
247/2 - JULY-AUGUST 2023

A specific regulatory framework for global systemically important banks

Systemically important banks are those whose "disorderly failure, because of their size, complexity and systemic interconnectedness, would cause significant disruption to the wider financial system and economic activity" (Financial Stability Board – FSB, 2011). This issue of banks that are "too big (or too interconnected) to fail" has become a priority over the last decade, particularly in the wake of the 2008 financial crisis and the collapse of Lehman Brothers. Since 2011, the FSB has published an annual list of global systemically important banks (G-SIBs) that are subject to stricter regulations and additional capital requirements. In 2022 (the 2023 list will be published in November), 30 institutions in 11 countries were designated as systemic (4 groups in France): although this number is stable over time, the methodological framework is developing in line with institutional progress.

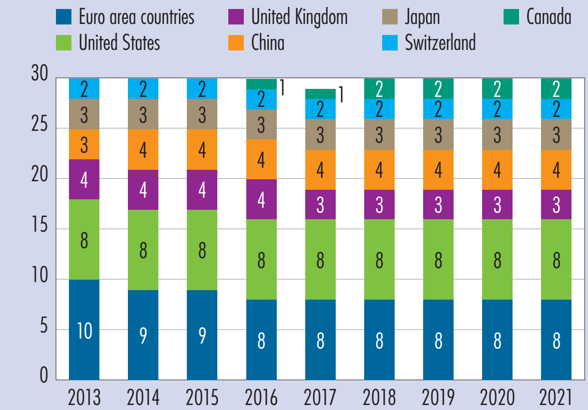
Amandine Araujo, Jérôme Coffinet, Karim El Fathi
General Secretariat of the *Autorité de contrôle prudentiel et de résolution*
Research Directorate

JEL code
G21

EUR **63,686** billion
total exposure of G-SIBs at end-2021

30 G-SIBs
in 11 countries identified in 2022 on the basis of data at end-2021, including 4 French banks (BNP Paribas, Crédit Agricole group, Société Générale, BPCE group)

Number of G-SIBs from end-2013 to end-2021 by institution's country of origin



Source: Basel Committee on Banking Supervision (BCBS).
Note: 30 banks in total each year except in 2017 (29).

1 The introduction of a specific framework for globally systemically important banks (G-SIBs)

One objective: mitigating moral hazard

The concepts of "too big to fail" and "too connected to fail" relate to financial institutions that, because of their size or interconnectedness in the financial ecosystem, are considered to be of systemic importance because their failure could have disastrous consequences for the wider financial and economic system. Implicit guarantees of government and central bank support in the event of these institutions encountering difficulties could encourage them to take greater risks. This mechanism constitutes moral hazard,[1] with adverse consequences for financial stability, such as increased risk-taking by these institutions, reduced market discipline and distortion of competition.

The failure of a global systemically important bank (G-SIB) is not just a problem for the national authority, given the potential repercussions beyond national borders. This is why the issue of systemic institutions was placed on the agenda of international financial supervisors by the G20 at the Pittsburgh summit in September 2009, following the financial crisis in the wake of the collapse of Lehman Brothers. These authorities drew up specific standards to reflect the cost of a potential failure of a systemic institution. The new Basel III prudential rules incorporate a macroprudential dimension by tackling the sources of systemic risk, with two main objectives: (1) reducing the probability of failure of a G-SIB by assigning it a capital surcharge based on its systemic footprint and (2) reducing the impact of a G-SIB failure by improving the resolution and recovery frameworks. Under the Basel framework for identifying global systemically important banks (G-SIB framework), institutions designated as systemic are subject to enhanced supervisory measures, including a capital surcharge, which came into force in 2016 for the banking sector. These measures have been fully effective since 2019.

A G-SIB score based on a multi-indicator approach

G-SIBs are identified[2] at the global level using a quantitative methodology, based on a relative individual score from a main sample of 76 institutions (see Part 2). This is an annual exercise, covering data through 31 December of the previous year. The score represents the simple average of five sub-scores (each with a 20% weighting): size of balance sheet and off-balance sheet exposures, interconnectedness with the financial system (measured by outstanding securities issues, loans and borrowings from financial institutions), substitutability of the services or financial infrastructure provided (measured in particular by annual payment and securities purchase/sale volumes), complexity of activities (measured in particular by outstanding notional amounts of derivatives and level 3 assets) and the scale of the Group's cross-jurisdictional activity (measured by outstanding cross-jurisdictional assets and liabilities). Individual sub-scores are calculated as the ratio of the value of the individual indicator (numerator) to the sum of the indicators in the main sample as a whole (denominator). These sub-scores represent the relative weight of each institution within the main sample. For example, a size score of 277 basis points for BNP Paribas at the end of 2021 indicates that the size of BNP Paribas represents 2.77% of the sum of the sizes of the 76 groups in the main sample (see Table 1).

1 Adam Smith defined moral hazard as "the maximisation of self-interest without taking into account the adverse consequences of the decision on collective utility".

2 The exercise is coordinated by the Basel Committee. For France, the ACPR is the competent authority, and subsequent coordination is carried out with the ECB for the eventual implementation of the supervisor's judgement, which aim in particular to marginally adjust a bank's position in the range determining any additional capital requirements.

T1 2022 scores for French global systemically important banks based on data at end-2021

(basis points)

	Size	Interconnectedness	Substitutability	Complexity	Cross-jurisdictional activities	Overall score
BNP Paribas	277	301	226	317	603	**345**
Crédit Agricole	245	267	144	258	201	**223**
Société Générale	150	222	123	275	238	**201**
BPCE	161	142	45	237	107	**138**

Source: Basel Committee on Banking Supervision (BCBS).
Notes: Latest available data. 2023 scores based on data to end-2022 will be published in November 2023.
A definition of the indicators used is available here: *https://www.bis.org/basel_framework/chapter/SCO/40.htm*

If a bank's overall score exceeds a threshold, set at 130 basis points, it is considered systemically important and must meet additional capital requirements (see Table 2). This score is attached to a bucket whose ranges are predefined. Each bucket corresponds to a capital surcharge (or G-SIB buffer) that reflects its systemic footprint. The buffer rates are expressed as a percentage of their total risk-weighted assets (RWA).

In addition to this quantitative approach, allocation to a bucket may be adjusted (upwards or downwards) by means of "supervisory judgement", which must remain exceptional and be based on additional qualitative and quantitative factors (see Part 3). At 1 January 2023, the scores obtained by French banks place them in the following capital surcharge buckets: 1% for BPCE, Crédit Agricole and Société Générale and 1.5% for BNP Paribas (after application of a supervisory judgement, see Box 1).

T2 Buffers applicable to systemically important banks and associated capital surcharges

Buckets	Ranges (basis points)	Capital surcharges (CET1 % of RWA)
5	530-629	+3.5
4	430-529	+2.5
3	330-429	+2.0
2	230-329	+1.5
1	130-229	+1.0

Source: Basel Committee on Banking Supervision (BCBS).
Key: A bank with a G-SIB systemic score of between 230 and 329 basis points is allocated to Bucket 2, which corresponds to a capital surcharge of 1.5% of risk-weighted assets.
Note: CET1 (Common Equity Tier 1), bank solvency ratio.
RWA (risk weighted assets)

2 A decline in the scores of the most systemically important institutions since 2013

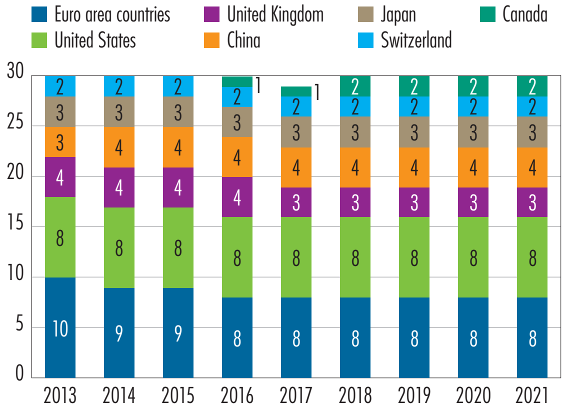
Relative stability among participating institutions

The total population participating in the G-SIB exercise comprises the world's largest banking groups (at the highest level of consolidation) with total risk exposures in excess of EUR 200 billion. The scores are calculated annually using a main sample comprising the world's 75 largest banks (ranked by balance sheet total), plus any institutions designated as systemically important in the previous year that were not included in this sample, and any banks added by national supervisors. In practice, the main sample differs little from one year to the next with size being the principal criterion. In 2022, 76 groups were included in the main sample, including six French groups (BNP Paribas, Crédit Agricole group, BPCE group, Société Générale, Crédit Mutuel group and La Banque Postale).

Since the end of 2013, the size of the aggregated balance sheet of the institutions in the main sample has continued to increase, except in the euro area, where the decline observed has been more than offset by the growth of Chinese banks. The increase in the size of the sample's balance sheet was particularly marked in 2021 (15%), due to the inclusion of insurance activities in the score calculation scope.

Within this sample, only institutions with a score greater than or equal to the 130 basis point threshold are automatically designated as "G-SIBs". Furthermore,

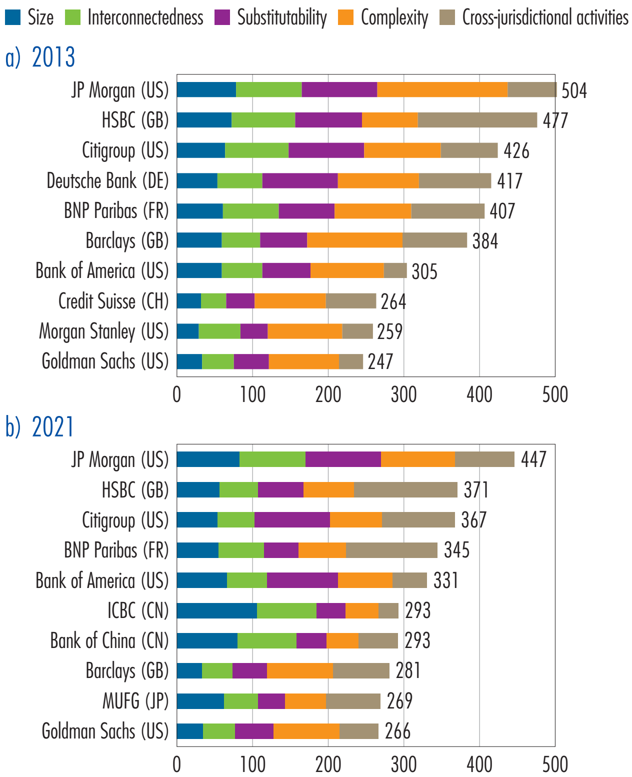
C1 Number of G-SIBs from end-2013 to end-2021 by bank's country of origin



Source: Basel Committee on Banking Supervision (BCBS).
Note: 30 banks in total each year except in 2017 (29).

C2 Comparison of scores of top ten G-SIBs between end-2013 and end-2021

(basis points)



Source: Basel Committee on Banking Supervision (BCBS).

institutions designated by supervisory judgement may be added. In 2022, 30 banks figured in the list published by the Financial Stability Board. The 2023 scores based on data through end-2022 will be published in November 2023. Since its creation, this number has changed little, fluctuating between 29 and 30 (see Chart 1).

A comparison of the scores at the end of 2013 and the end of 2021 shows that the three largest G-SIBs are still the same (JP Morgan, HSBC and Citigroup). The "size" indicator for Chinese banks has risen sharply, driven by the growth of their domestic market. For example, the International Commercial Bank of China (ICBC) and the Bank of China were first included in the list of the world's top ten systemic banks at the end of 2015 and 2017 respectively. Generally speaking, since the introduction of the G-SIB framework, institutions have reduced their systemic footprint, as reflected by the decline in the scores of the largest G-SIBs (see Chart 2).

Systemic scores highlight regional differences

A bank's G-SIB score is based on 13 indicators[3] broken down into five sub-scores, each of which assesses the systemic nature of a bank in terms of size, substitutability, interconnectedness, complexity and cross-jurisdictional activities. Although the five sub-scores are strongly correlated with the overall score, which is an average of these categories, the relationship does not always appear to be linear. For example, the relationship between the size sub-score and the overall score exhibits a bell-shaped profile, mainly due to the Chinese banks, which are large in size but have relatively low G-SIB scores. In addition, the substitutability sub-score is capped at 500 basis points,[4] which makes it impossible to assess the linearity of the relationship over the entire scale. These two non-linear relationships should be considered in relation to the high correlation of the overall interconnectedness and complexity score, and to

3 Until 2021, the score was based on 12 indicators: one size indicator (total exposures), three interconnectedness indicators (intra-financial assets and liabilities and total securities outstanding), three substitutability indicators, which measure the relative weight of institutions in the provision of services essential to the smooth execution of transactions (market activities (underwriting or custody) and payment services). There are also three complexity indicators (notional amount of OTC derivatives, HFT and AFS securities, and assets measured at fair value by model (level 3 assets)) and two cross-jurisdictional indicators (cross-jurisdictional claims and liabilities). In 2022, a new securities trading volume indicator was introduced in the substitutability category.

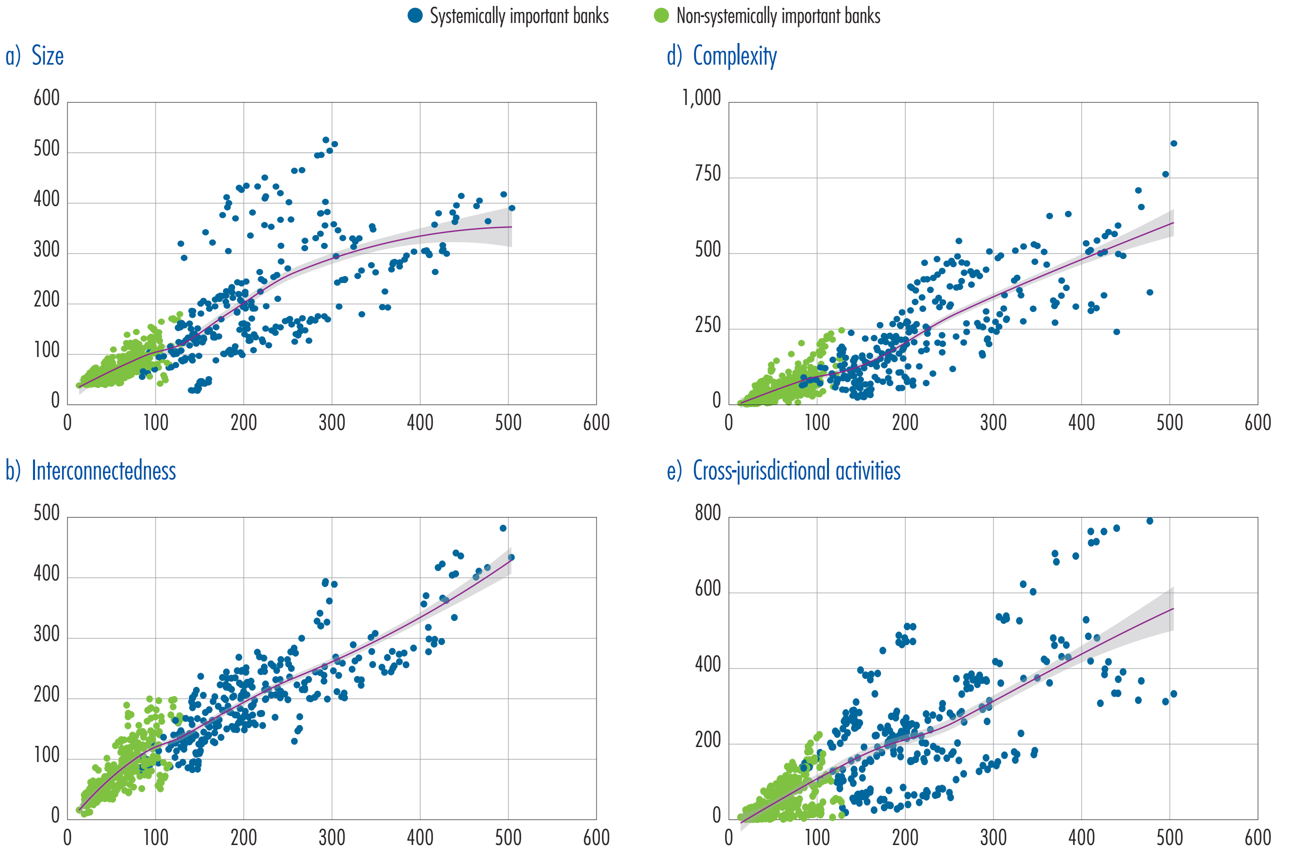
4 This provision was introduced back in 2013 so as not to penalise banks that hold a dominant position in the provision of payment services, asset underwriting, payment services, underwriting and custody (*https://www.bis.org/publ/bcbs255.pdf*), and in particular those operating on the dollar market.

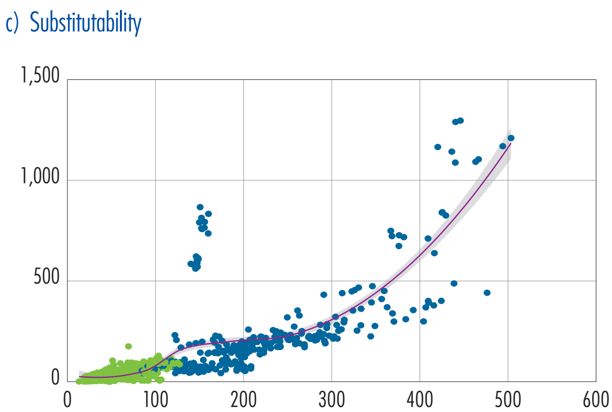
a lesser extent cross-jurisdictional activities (see Chart 3). As a result, the profile of systemically important banks is very diverse and cannot be reduced to a single criterion.

By analysing the distribution of scores by sub-score (size, interconnectedness, substitutability, complexity and cross-jurisdictional activities), it is possible to compare models between institutions, based in particular on the geographical location of the parent entity. Although there are features specific to each region (continental Europe,

C3 Correlation between sub-scores and overall score and correlation matrix

(basis points; x-axis: overall score; y-axis: sub-score)





f) Correlation matrix

	Size	Interconnectedness	Substitutability	Complexity	Cross-jurisdictional activities	Overall score
Size	1	0.86	0.45	0.63	0.46	0.80
Interconnectedness		1	0.58	0.73	0.59	0.89
Substitutability			1	0.58	0.43	0.71
Complexity				1	0.69	0.89
Cross-jurisdictional activities					1	0.81
Overall score						1

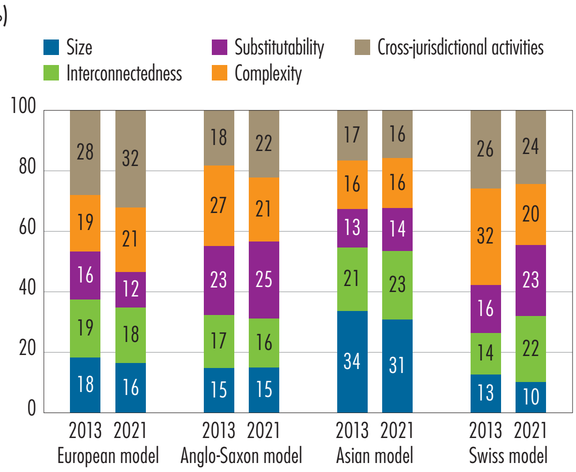
Sources: Basel Committee (BCBS), ACPR calculations.
Key: The strong correlation between the overall score and the interconnectedness sub-score is mainly explained by the fact that the interconnectedness sub-score captures part of the size sub-score: the larger a bank's balance sheet total, the more it lends to and borrows from other banks. The interconnectedness sub-score also captures part of the complexity sub-score.
Note: A principal component analysis was also performed, showing that the interconnectedness, complexity and size sub-scores are those most correlated with the first component, while the second component is strongly linked to the substitutability indicator.

the Anglo-Saxon sphere and the Asian continent), there are a number of features that are common to institutions in the same region. For example, the scores of European and Swiss institutions are heavily dependent on their cross-jurisdictional activities, unlike institutions from other regions that have a larger domestic market and whose scores are driven by size (Asian banks). Consequently, we can identify three "models":

- The European model (euro area countries): the score is based primarily on cross-jurisdictional activities, followed by complexity;
- The Anglo-Saxon model (United States, United Kingdom and Canada): the systemic aspect arises from complexity and non-substitutability, associated in particular with broker-dealer and custody activities;
- The Asian model (China and Japan): the systemic nature is essentially dependent on size and interconnectedness (the unsecured interbank market is buoyant, as is the placement of excess liquidity on the interbank market).

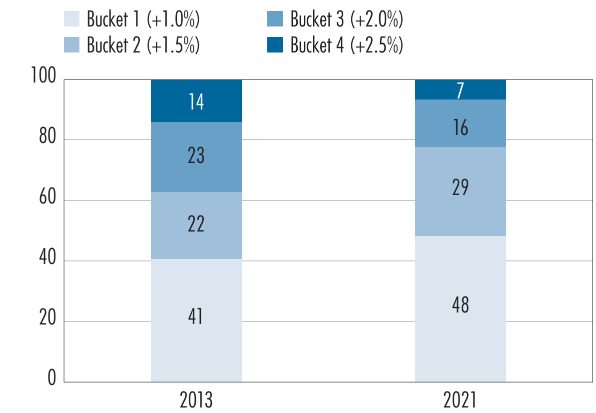
The Swiss banks' score puts them halfway between the European and Anglo-Saxon models (see Chart 4).

C4 Breakdown of overall score by sub-score using the G-SIB model at end-2013 and end-2021



Sources: Basel Committee (BCBS), ACPR.
Key: At end-2021, the G-SIB score for European banks was largely attributable (32%) to the "cross-jurisdictional activities" sub-score.
Note: The European model includes systemically important institutions in the euro area (France, Germany, Italy, Netherlands and Spain); the Anglo-Saxon model includes institutions in Canada, the United Kingdom and the United States; the Asian model includes China and Japan.

C5 Share of overall G-SIB score at end-2013 and end-2021, by capital surcharge bucket



Sources: Basel Committee (BCBS), ACPR calculations.
Note: See Table 2 for further information on buckets.

As the calculation of individual scores is relative within a pre-defined population, the total of individual scores is fixed and equal to 100%, i.e. 10,000 basis points. Since the introduction of the G-SIB framework, institutions with the highest capital requirements (i.e. buckets 3 and 4) have reduced their systemic score. At the end of 2013, these institutions accounted for 37% of the total population score (10,000 basis points), compared with 23% at the end of 2021 (see Chart 5). This drop in score illustrates the effectiveness of the G-SIB framework, but may also reflect opportunistic behaviour by banks seeking to lower the score and the related capital surcharge.

3 Capital surcharges for systemically important banks: a balance between international bodies and national authorities

National authorities remain responsible for determining capital requirements

Designation of G-SIBs and calibration of buffers can be adjusted through a supervisory judgement. Thus, when the list of G-SIBs is finalised at international level (Basel Committee), the competent national authorities ("CNAs") may exercise supervisory judgement. This expert judgement must be approved by the Financial Stability Board (FSB).[5] It may relate to (1) the designation of an institution as systemically important and (2) the upward or downward revision of its capital surcharge. This does not involve a change in methodology, but an additional analysis to support a new designation or a readjustment of an institution's capital requirements. This judgement must remain exceptional and be based on additional qualitative and quantitative information.

For French institutions, the *Autorité de contrôle prudentiel et de résolution* (ACPR) is responsible for designating and calibrating capital surcharges jointly with the European Central Bank. The latter, which is the designated supervisor of the largest European banks, including systemically important banks, also has so-called "top-up" powers, enabling it to impose a higher surcharge in the event of disagreement with the national authority.

Implementing capital surcharges

The designation of systemically important institutions by the Financial Stability Board has no legal effect under either French or European law. The list of French institutions designated as G-SIBs is subject to a decision by the College of the ACPR. However, institutions are required to publish their G-SIB indicators. The G-SIB exercise is conducted annually, based on data as at 31 December of the previous year; capital surcharges apply two years after designation.[6] 2023 will therefore be based on data as at 31 December 2022, for capital surcharges applicable as from 1 January 2025. The indicators used to calculate the systemic score have already been published by the banks, for their own scope, on 30 April 2023.

BOX 1

Recognising the Banking Union when drawing up the list of G-SIBs and as part of supervisory judgement

As part of the Basel Committee's work on the recognition of the Banking Union as a single jurisdiction, in 2022 the European Central Bank proposed a simple and transparent methodology based on the Basel methodology, with specific consideration of cross-jurisdictional liabilities within the euro area (bank-specific Adjustment for STructural Regional Arrangements (ASTRA) methodology). The proposed approach recognises that the Banking Union reduces the systemic risks posed by banks operating in several countries in the euro area. The ASTRA methodology has been accepted by the Basel Committee as part of supervisory judgement, but not as a methodological change.

From a quantitative point of view, the ASTRA methodology treats 66% of cross-jurisdictional intra-Union banking exposures as national exposures for Banking Union banks. This results in a partial reduction in the sub-score of the "cross-jurisdictional activity" category of European banks and therefore a reduction in their G-SIB score (ASTRA score). This new score (ASTRA score) is then used to determine the bank's bucket allocation and capital surcharge (see Table 1).

The ASTRA score can be used to support supervisory judgement when considering a downward adjustment of buffers. In 2022, based on end-2021 data, BNP Paribas was the first bank to benefit from a downward adjustment by the supervisor, based on its ASTRA score.

5 *https://www.fsb.org/*
6 If the current financial year leads to a reduction in capital surcharges, this is applied immediately (i.e. on 1 January of the following year).

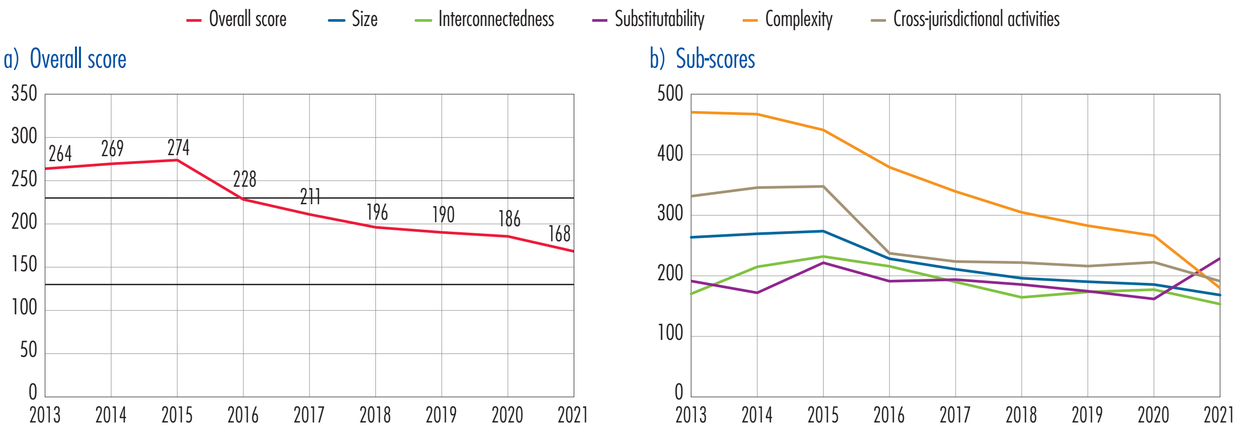
BOX 2

The takeover of Credit Suisse by UBS, the first merger between G-SIBs

With its difficulties compounded by rapidly declining deposits and growing investor mistrust, UBS's takeover of Credit Suisse in 2023 was the first merger between G-SIBs. However, the change in Credit Suisse's score reflected a very marked decline in its global systemic footprint since 2015, across all the components of its score. For instance, the score of 168 basis points obtained in 2022 on data to end-2021(see Chart a), ranked Credit Suisse just 23rd among G-SIBs, just above the designation threshold.

Ca Change in Credit Suisse's overall systemic score and its sub-scores between end-2013 and end-2021

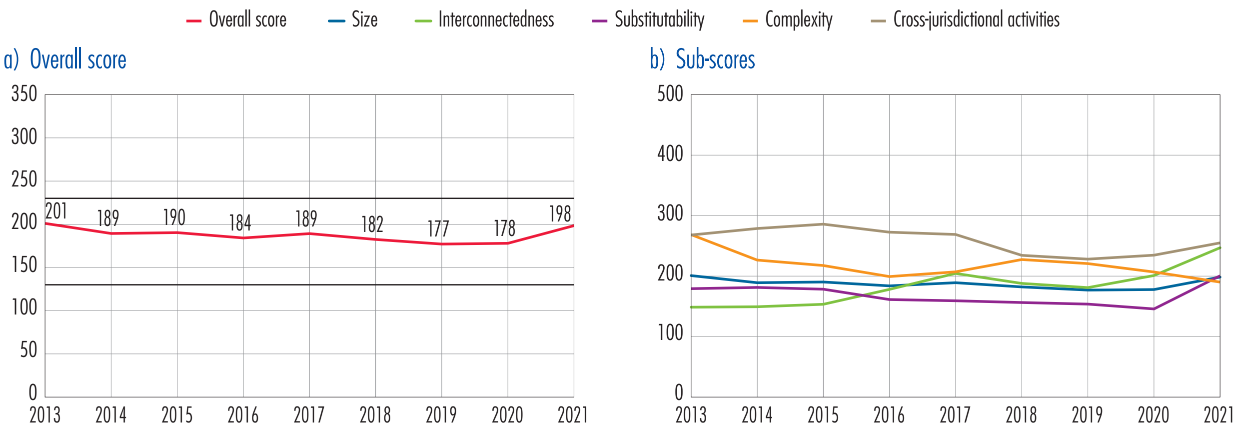
(basis points)



Sources: Basel Committee (BCBS), ACPR calculations.

Cb Change in UBS's overall score and its sub-scores between end-2013 and end-2021

(basis points)



Sources: Basel Committee (BCBS), ACPR calculations.

The Basel Committee continually reviews the methodology used in the G-SIB process. This review includes monitoring new techniques or indicators for assessing systemic risks, the efficiency of the methodology and structural changes. The last substantive revision in 2018 (whose application was postponed to 2022 because of the health crisis) included a number of methodological changes, such as the inclusion of the insurance activities of banking groups and the introduction of a trading volume indicator.

⁂

To address the danger to financial stability posed by systemic risk, international and national financial authorities have introduced proportionate, multi-criteria and flexible regulation. Its implementation involves identifying G-SIBs and defining capital surcharges, which are reassessed each year. Since the introduction of the G-SIB framework, the scores of the main global systemically important banks have fallen. The recent takeover of Credit Suisse by UBS was the first instance of a merger between G-SIBs (see Box 2).

In addition to the G-SIB framework (global framework), the regulations also provide for capital surcharges for banks that are systemically important at the national level (known as "other systemically important institutions" or O-SIIs), which fall under the purview of the authorities in each country. While the process and designation method are independent of the G-SIB framework, the resulting capital surcharges are linked: if a bank is designated as systemically important under both the G-SIB framework and the O-SII framework (national framework), the higher of the two capital surcharges applies. In the case of France, seven banks were designated as systemically important at the national level in 2022: BNP Paribas, Crédit Agricole Group, Société Générale, BPCE Group – all global systemically important institutions – as well as Crédit Mutuel Group, La Banque Postale and HSBC Continental Europe.

Published by
Banque de France

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Technical production
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ISSN 1952-4382

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