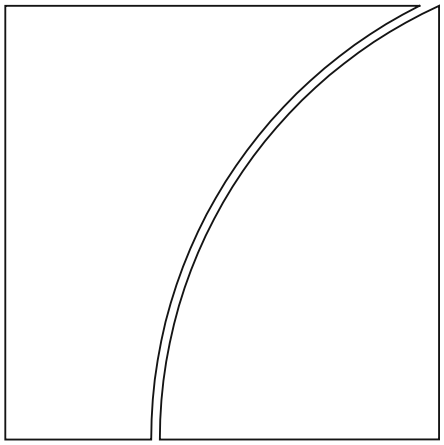
Basel Committee
on Banking Supervision



Basel III
Monitoring Report

March 2024

BIS

Queries regarding this document should be addressed to the Secretariat of the Basel Committee on Banking Supervision (e-mail: qis@bis.org).

Since the report published in September 2021, the monitoring reports no longer include a statistical annex. However, the data underlying the graphs are available for download as a separate Excel file. This presents the same data as the Annex in previous reports but in a format that is easier to use for readers' own analyses. Some analyses that were previously presented in the leverage ratio, liquidity and credit risk sections of the report have been published as Tableau dashboards. Additional analyses presented in the report will be made available in this innovative format in the coming months. The Committee welcomes any feedback on these new formats at qis@bis.org.

This publication is available on the BIS website (www.bis.org/bcbs/qis/).

Grey underlined text in this publication shows where hyperlinks are available in the electronic version.

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Basel III Monitoring Report

March 2024

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Conventions used in this report

billion thousand million
trillion thousand billion
lhs, rhs left-hand scale, right-hand scale

Group 1 banks are those that have Tier 1 capital of more than €3 billion and are internationally active. All other banks are considered Group 2 banks.

Components may not sum to totals because of rounding.

The term "country" as used in this publication also covers territorial entities that are not states as understood by international law and practice but for which data are separately and independently maintained.

All data, including for previous reporting dates, reflect revisions received up to 12 January 2024.

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Highlights of the Basel III monitoring exercise as of 30 June 2023

Initial Basel III capital ratios were largely stable and above pre-pandemic levels

Liquidity Coverage Ratio increases for large internationally active banks

To assess the impact of the Basel III framework on banks, the Basel Committee on Banking Supervision monitors the effects and dynamics of the reforms. For this purpose, a semi-annual monitoring framework has been set up for the risk-based capital ratio, the leverage ratio and liquidity metrics, using data collected by national supervisors on a representative sample of institutions in each country. Since the end-2017 reporting date, this report has also captured the effects of the Committee's finalisation of the Basel III reforms.[1] This report summarises the aggregate results using data as of 30 June 2023.[2] The Committee believes that the information contained in the report will provide relevant stakeholders with a useful benchmark for analysis.

Information considered for this report was obtained from voluntary and confidential submissions of data from individual banks and their national supervisors. At the jurisdictional level, there may be ongoing mandatory data collection, which also feeds into this report. Data were included for 177 banks, including 112 large internationally active ("Group 1") banks, among them 29 global systemically important banks (G-SIBs), and 65 other ("Group 2") banks.[3] Members' coverage of their banking sector is very high for Group 1 banks, reaching 100% coverage for some countries, while coverage is lower for Group 2 banks and varies by country.

In general, this report does not consider any transitional arrangements such as grandfathering arrangements. Rather, the estimates presented assume full implementation of the Basel III requirements based on data as of 30 June 2023. No assumptions have been made about banks' profitability or behavioural responses, such as changes in bank capital or balance sheet composition, since this date or in the future. Furthermore, the report does not reflect any additional capital requirements under Pillar 2 of the Basel III framework or any higher loss absorbency requirements for domestic systemically important banks. Nor does it reflect any countercyclical capital buffer requirements.

[1] See Basel Committee on Banking Supervision, *High-level summary of Basel III reforms*, December 2017, www.bis.org/bcbs/publ/d424_hlsummary.pdf; Basel Committee on Banking Supervision, *Basel III: Finalising post-crisis reforms*, December 2017, www.bis.org/bcbs/publ/d424.htm.

[2] A list of previous publications is included in the Annex.

[3] Group 1 banks are those that have Tier 1 capital of more than €3 billion and are internationally active. All other banks are considered Group 2 banks. Not all banks provided data relating to all parts of the Basel III framework.

Overview of results (unbalanced sample) Table 1

	31 December 2022[1]			30 June 2023		
	Group 1	Of which: G-SIBs	Group 2	Group 1	Of which: G-SIBs	Group 2
Initial Basel III framework						
CET1 ratio (%)	13.1	13.0	16.7	12.9	12.7	17.7
Target total capital shortfalls (€ bn)[2]	0.0	0.0	0.0	0.0	0.0	0.0
TLAC shortfall 2022 minimum (€ bn)	34.4	34.4		13.9	13.9	
Total accounting assets (€ bn)	78,632	52,962	4,179	83,639	58,812	2,656
Leverage ratio (%)[3]	5.9	5.7	6.2	6.1	6.0	6.4
LCR (%)	137.3	134.4	188.1	138.6	137.0	191.3
NSFR (%)	124.4	126.6	132.1	124.1	124.0	135.0
Fully phased-in final Basel III framework (2028)						
Change in Tier 1 MRC at the target level (%)	3.1	2.8	6.8	4.9	6.0	–0.6
CET1 ratio (%)	12.7	12.8	14.6	13.7	13.9	17.3
Target capital shortfalls (€ bn); of which:	3.0	3.0	1.1	4.0	4.0	0.0
CET1	0.0	0.0	0.1	0.0	0.0	0.0
Additional Tier 1	0.0	0.0	0.4	0.0	0.0	0.0
Tier 2	3.0	3.0	0.6	4.0	4.0	0.0
TLAC shortfall 2022 minimum (€ bn)	37.4	37.4		13.9	13.9	
Leverage ratio (%)[3]	6.0	5.9	6.2	6.1	6.0	6.6

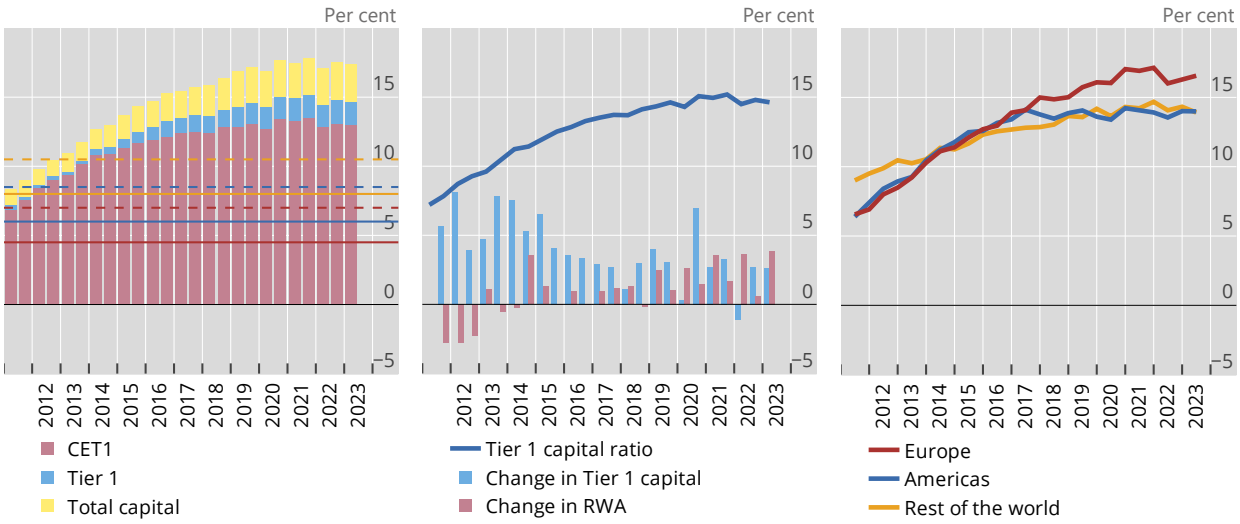
See Table A.4 for the target level capital requirements. [1] The values for the previous period may differ slightly from those published in the previous report. This is caused by data resubmissions for previous periods to improve the underlying data quality and enlarge the time series sample. [2] These use the 2017 definition of the leverage ratio exposure measure. [3] The leverage ratios reflect temporary exclusions from leverage exposures introduced in some jurisdictions.

Source: Basel Committee on Banking Supervision.

- Compared with the end-December 2022 reporting period, the average Common Equity Tier 1 (CET1) capital ratio under the initial Basel III framework decreased from 13.1% to 12.9% for Group 1 banks in H1 2023.
- The average impact of the Basel III framework on the Tier 1 minimum required capital (MRC) of Group 1 banks is higher (+4.9%) when compared with the 3.1% increase at end-December 2022. The average increase for G-SIBs is 6.0%.
- Capital shortfalls under the final Basel III framework increased slightly in H1 2023 to €4.0 billion for Group 1 banks.
- Applying the 2022 minimum total loss-absorbing capacity (TLAC) requirements and the initial Basel III framework, only one of the 22 G-SIBs reporting TLAC data reported an aggregate incremental shortfall of €13.9 billion.
- The average Liquidity Coverage Ratio (LCR) of Group 1 banks rose from 137.3% to 138.6%, while the average Net Stable Funding Ratio (NSFR) decreased from 124.4% to 124.1%.
- Group 2 banks' results based on the unbalanced sample should not be compared with the previous period due to significant changes in the sample.

Initial Basel III capital ratios remained largely stable

Group 1 banks, balanced data set — Graph 1



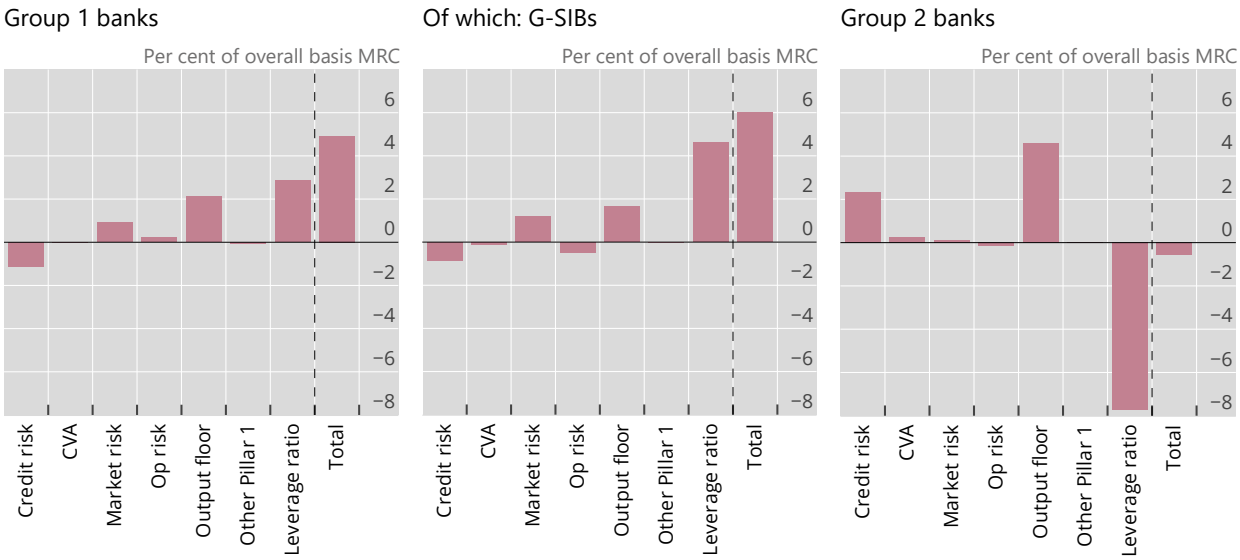
[1] The solid lines depict the relevant minimums, the dotted lines the minimums plus the capital conservation buffer. See Table A.4 for the relevant levels. [2] Exchange rates as at the current reporting date. [3] See Table B.1 for the composition of the regions.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

- The balanced data set for Group 1 banks showed a reduction in initial Basel III capital ratios in H1 2023, driven by an increase in risk-weighted assets (RWA) of a larger magnitude than the increase in Tier 1 capital. The overall CET1 capital ratios for Group 1 banks in the balanced data set were 13.0% in June 2023.
- Currently, the Tier 1 capital ratios are higher in Europe than in the Americas and the rest of the world region. However, this relationship was the reverse from 2011 to 2014.

The impact of final Basel III standards for Group 1 banks is slightly higher than in the previous exercise

Change in Tier 1 MRC at the target level due to the final Basel III standards — Graph 2



Credit risk shows the change in minimum required capital (MRC) due to revised standardised and internal ratings-based approaches, including securitisation. Operational risk figures may not show supervisor-imposed capital add-ons under Pillar 2. Therefore, changes in MRC may be overestimated. Output floor results are net of the existing Basel I-based floor according to national implementation of the Basel II framework. The target level accounts for Tier 1 minimum capital requirements and the capital conservation buffer (ie resulting in an 8.5% Tier 1 capital requirement) as well as any applicable G-SIB surcharge.

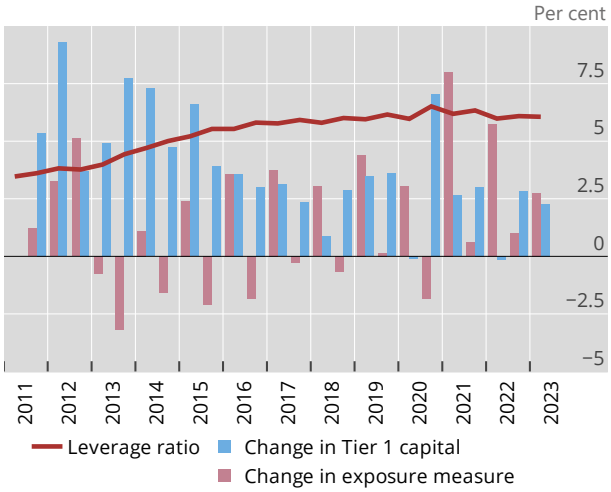
Source: Basel Committee on Banking Supervision. See also Table 4.

- For Group 1 banks, the Tier 1 minimum required capital (MRC) would increase by 4.9%, following the full phase-in of the final Basel III standards. The marginal increase in the MRC is underpinned by the incremental impact of leverage ratio requirements of 2.9% and an increase of 2.1% in risk-based components. The increase in risk-based components is mainly driven by the output floor (+2.1%) and market risk (+0.9%), partially compensated by credit risk (-1.2%).
- The impact on MRC across regions varies considerably for Group 1 banks, with a moderate increase in the Americas (+1.3%), a reduction in the rest of the world region (-0.8%) and, in contrast, a strong increase in MRC for European banks (+18.3%).
- For Group 2 banks, the overall 0.6% reduction in Tier 1 MRC is driven by a reduction in leverage ratio MRC (–7.7%), partially offset by an increase in the risk-based measure of 7.2%, stemming mainly from credit risk (+2.4%) and the output floor (+4.6%).
- The average impact of the final Basel III framework on Group 1 banks, at +4.9%, is 180 basis points higher than at end-2022 (+3.1%).

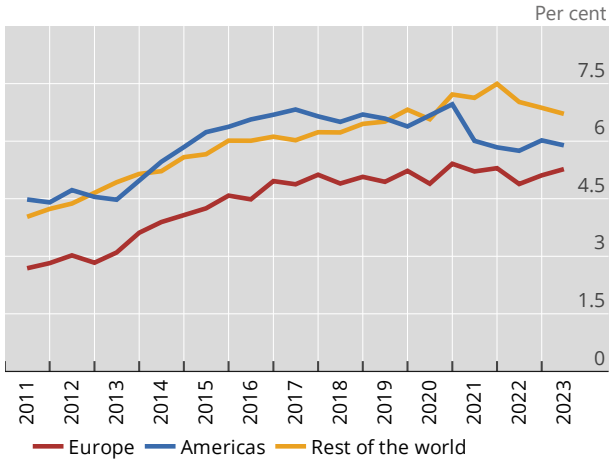
Fully phased-in Basel III leverage ratios[1] of large internationally active banks were stable in H1 2023

Group 1 banks, balanced data set, exchange rates as at the current reporting date — Graph 3

Leverage ratios and their determinants



Leverage ratios by region



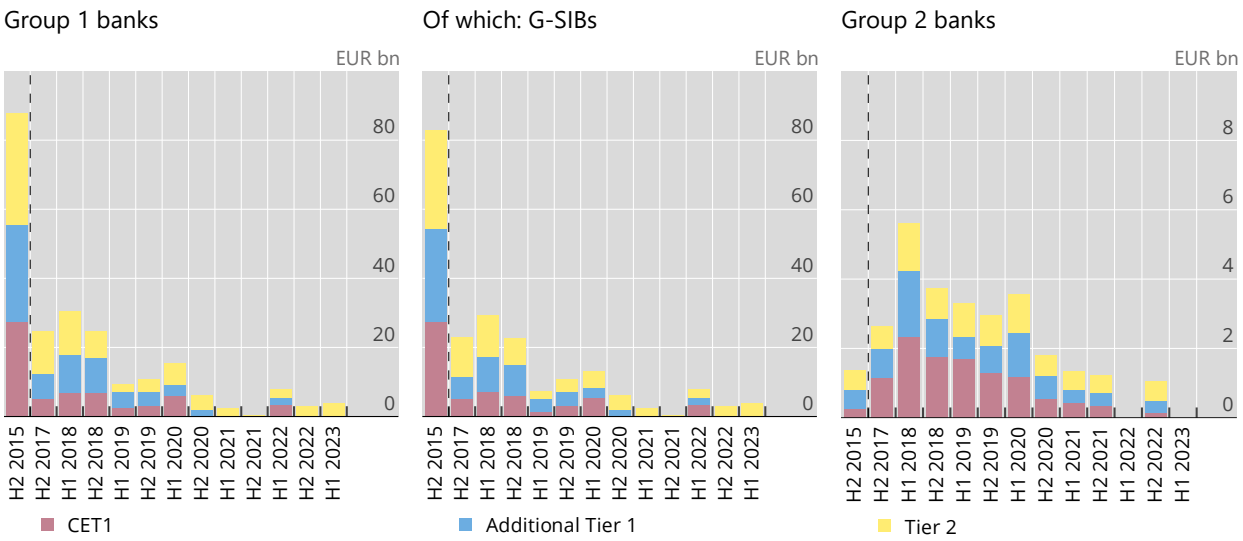
[1] Data points from H1 2011 to H2 2012 use the original definition of the leverage ratio. Data points from H1 2013 to H1 2017 use the definition of the leverage ratio set out in the 2014 version of the framework. Note that the data points for H1 2013 use an approximation for the initial definition of the Basel III leverage ratio exposure where gross instead of adjusted gross securities financing transaction values are used. Data points from H2 2017 onwards use the final definition of the leverage ratio to the extent data are available. Temporary exclusions from the leverage ratio exposure measure in the context of Covid-19 have not been added back.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

- For the unbalanced data set at the end-June 2023 reporting date, the average fully phased-in final Basel III Tier 1 leverage ratios are 6.1% for Group 1 banks, 6.0% for G-SIBs and 6.6% for Group 2 banks.
- For the balanced data set of Group 1 banks, the leverage ratio was stable compared with the previous period. This contrasts with the sharp decrease that started at end-June 2021, particularly for the Americas.
- Leverage ratios are still lower in Europe (5.3%) than in the Americas (5.9%) and the rest of the world (6.7%).

Combined capital shortfalls at the target level under the final Basel III standards increased slightly for large internationally active banks

Fully phased-in final Basel III standards,[1] sample and exchange rates as at the reporting dates — Graph 4



[1] Results for H2 2015 are based on the Committee's cumulative Quantitative Impact Study and are not fully comparable from a methodological point of view. Compared with H2 2017 and H1 2018, the results since H2 2018 include the revised market risk framework as finalised in January 2019.

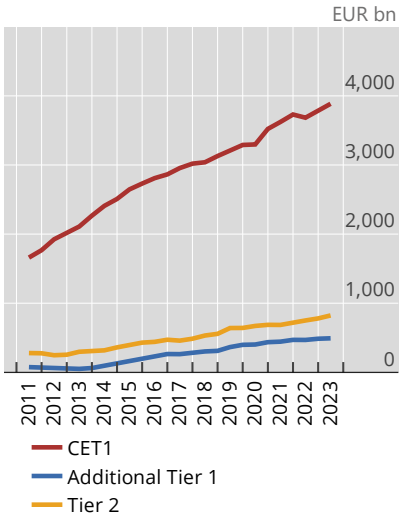
Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

- For this reporting date, Group 1 banks registered total regulatory capital shortfalls amounting to €4.0 billion, compared with €3.0 billion at end-December 2022.
- For Group 2 banks, the aggregate total capital shortfall was zero as at end-June 2023. However, this sample was significantly smaller than that reporting in December 2022, when the total amount of capital shortfalls of Group 2 banks was €1.1 billion.

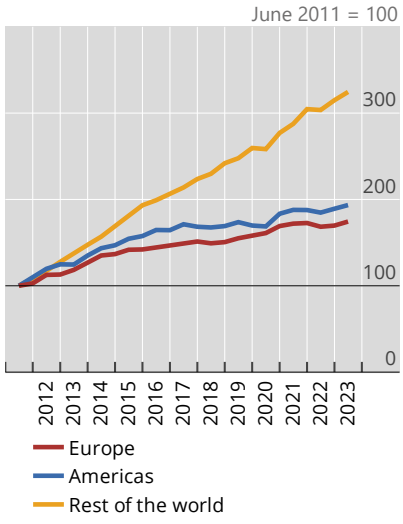
Profits for large internationally active banks reached a new record high, while the dividend payout ratio remained at pre-pandemic levels

Group 1 banks, balanced data set, exchange rates as at the current reporting date — Graph 5

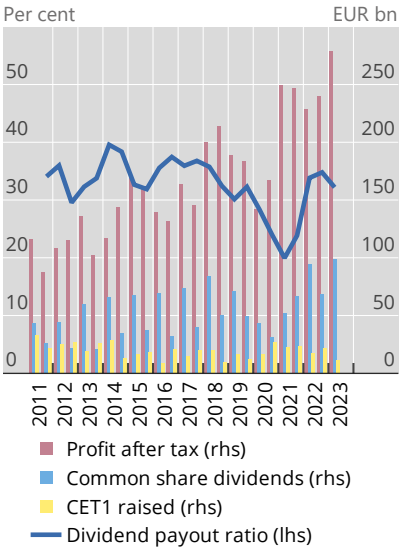
Level of capital



Change in CET1 by region



Profits, dividends and CET1 capital raised externally[1]



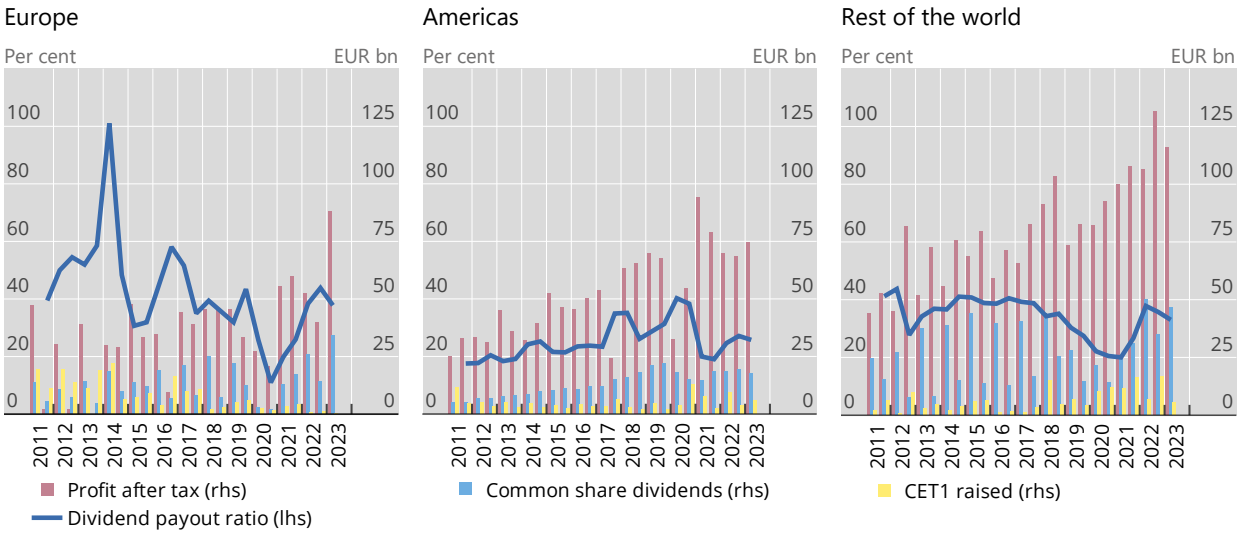
[1] The dividend payout ratio is calculated as common share dividends divided by profits after tax by using a rolling 12-month window.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size. Worksheets "Graph 32a", and "Graph 35" provide an additional regional breakdown for Group 1 banks.

- From end-December 2011 to end-December 2022, the level of Group 1 banks' CET1 capital increased by 134% from €1,660 billion to €3,886 billion. Since end-December 2022, Group 1 CET1 capital has increased by €106 billion (or 2.8%).
- Over H1 2023, CET1 capital increased slightly in all regions. While CET1 capital in the rest of the world is now more than three times its 2011 value, the increases in Europe and the Americas have been more limited, at 74% and 94% respectively.
- Overall, profits after tax increased for the Group 1 banks in the sample and stood at €278.9 billion in H1 2023, marking a new record high. The dividend payout ratio stood at 32.2%, slightly lower than in the previous year but in line with pre-pandemic levels.

Profits varied across regions

Group 1 banks, balanced data set, exchange rates as at the current reporting date — Graph 6



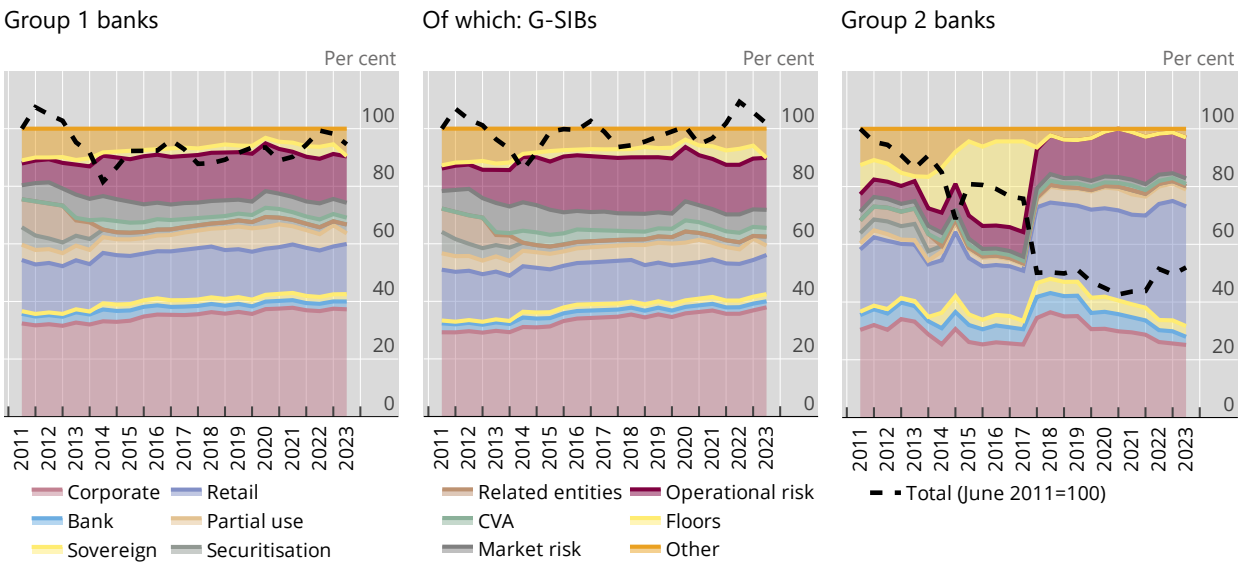
The dividend payout ratio is calculated as the common share dividends divided by profits after tax by using a rolling 12-month window.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

- Annual after-tax profits for the Group 1 banks (ie summed up over two consecutive reporting dates) increased significantly in Europe and the rest of the world (+13.9% and +15.6%, respectively), while they decreased in the Americas (–4.0%) compared with the 12-month period ending June 2022. The significant spike in Europe in H1 2023 is driven by a merger between two banks.
- Since the previous reporting date, the annual dividend payout ratios have decreased in all regions. They are significantly below the record-high ratios observed in 2019 and 2020 in the Americas, while they are at pre-pandemic levels in Europe and the rest of the world.

Analysis of the share of MRC by asset class[1] according to current rules shows an increase in credit risk MRC driven by corporates and a decrease in securitisation

Balanced data set — Graph 7



[1] Exposures subject to partial use of the standardised approach for credit risk that cannot be assigned to a specific portfolio, as well as past-due items under the standardised approach, are listed separately as "partial use". "Related entities" includes capital requirements specified in Part 1 of the Basel II framework. The category "other" includes capital requirements for other assets, the current Basel I-based output floor, Pillar 1 capital requirements in member countries for risks not covered by the Basel framework, reconciliation differences, and additional capital requirements due to regulatory calculation differences and general provisions. The latter item can lead to negative capital requirements in cases where there is an excess in provisions, which can be recognised in a bank's Tier 2 capital. Furthermore, for banks that apply the standardised approach, general provisions may be recognised to some extent as Tier 2 capital; consequently, MRC is reduced by this amount. The term "reconciliation differences" refers to the difference between MRC reported at the entire bank level and the sum of MRC reported for the individual portfolios.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

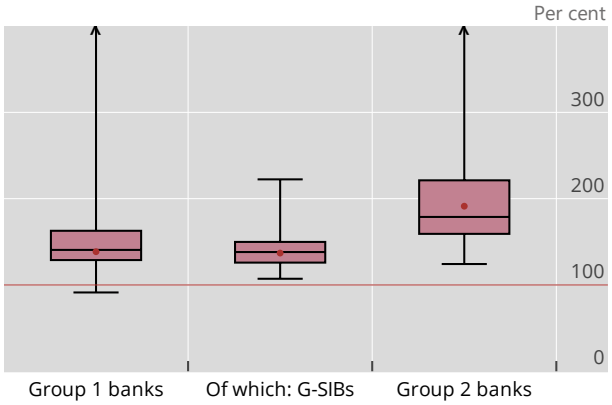
- As of June 2023 and for a balanced data set of Group 1 banks, credit risk[4] continues to be the dominant portion of overall MRC, on average covering 66.7% of total MRC. However, credit risk's share has declined significantly from 75.6% at end-June 2011.
- The share of operational risk in MRC increased sharply from 7.6% at the end of June 2011 to 16.9% at the end of 2018 and then decreased slightly to reach 16.1% at the current reporting date. The increase in the early 2010s was attributed in large part to the surge in the number and severity of operational risk events during and after the financial crises, which are factored into the calculation of MRC for operational risk under the advanced measurement approach. More recently, there has been some "fading out" of the financial crisis losses so that in 2020, the lowest loss level of the previous 10 years is observed. This explains the latest decrease in capital requirements, especially for the banks heavily affected in the financial crisis. In contrast, losses triggered by the Covid-19 pandemic are not yet having a significant impact on the loss severity level, but this may change given that the pandemic is still ongoing.
- Among the credit risk asset classes, the share of MRC for corporate exposures increased over the observed period, from 32.5% at end-June 2011 to 37.3% at the current reporting date. The share of MRC for securitisation exposures declined from 5.8% to 3.1% between June 2011 and June 2023.

[4] Here, overall credit risk is defined as the sum of corporate, bank, retail, sovereign, partial-use, securitisation and related entities as illustrated in the graph.

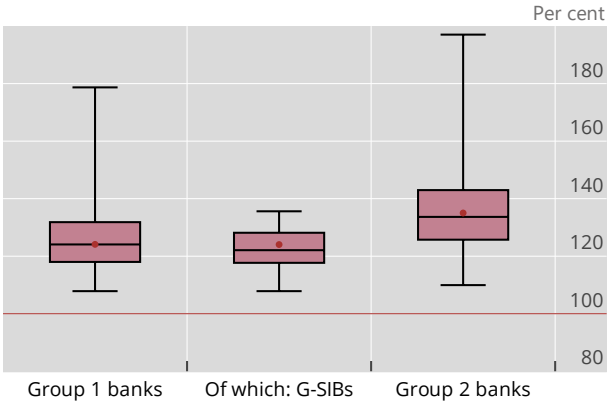
All banks exceeded the 100% threshold for NSFR, while three banks reported an LCR below 100%[1]

Overall distribution — Graph 8

Liquidity Coverage Ratio[2]



Net Stable Funding Ratio



[1] The median value is represented by a horizontal line, with 50% of the values falling in the 25th to 75th percentile range shown by the box. The upper and lower end points of the thin vertical lines show the range of the entire sample. In some cases, arrows at the top of the vertical line indicate banks with ratios outside the range shown in the graph. The dots represent weighted averages. The horizontal red lines represent the 100% minimums. [2] The sample is capped at 400%, meaning that all banks with an LCR above 400% were set to 400%.

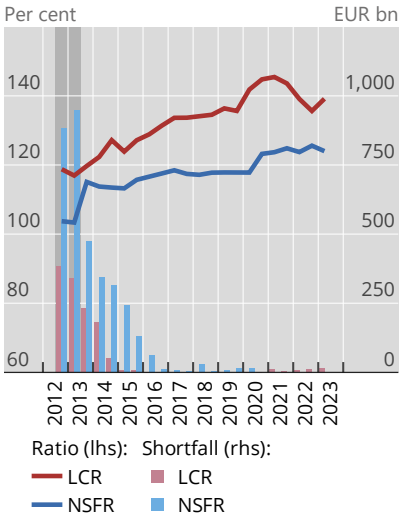
Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

- The weighted average LCR at end-June 2023 is 138.6% for Group 1 banks and 191.3% for Group 2 banks.
- In the current reporting period three Group 1 banks had an LCR below 100% and hence a shortfall (ie the difference between high-quality liquid assets and net cash outflows), which amounts to €19.6 billion.
- The weighted average NSFR was 124.1% for Group 1 banks and 135.0% for Group 2 banks at end-June 2023.
- All banks reported an NSFR that exceeded 100%.

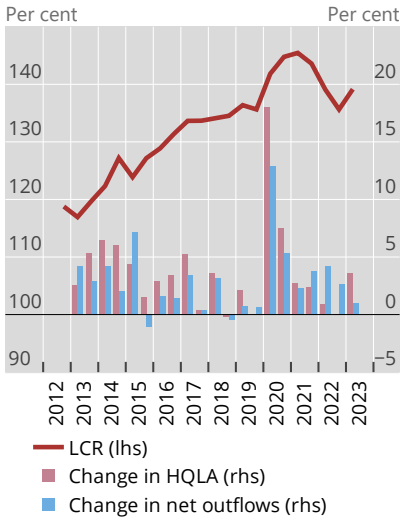
For Group 1 banks, LCRs increased and NSFRs decreased; both were above pre-pandemic levels

Group 1 banks, balanced data set[1] Graph 9

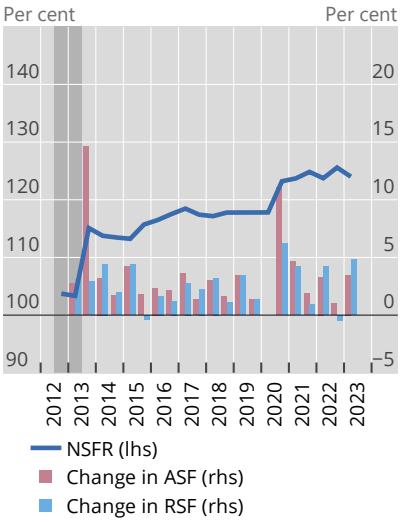
LCR, NSFR and related shortfalls[2]



LCR and change in its determinants[3]



NSFR and change in its determinants[3]



[1] This graph depicts the NSFR as calculated under different versions of the NSFR framework released in December 2010, January 2014 and October 2014. Calculations performed according to the final standard approved by the Committee in October 2014 start with the end-December 2014 reporting period. See Basel Committee on Banking Supervision, *Basel III: the net stable funding ratio*, October 2014, www.bis.org/bcbs/publ/d295.htm. Since the Committee did not collect NSFR data through its Basel III monitoring exercise for the end-June 2020 reporting date, the relevant data points show the same values as for end-December 2019. [2] Exchange rates as at the reporting dates. [3] Exchange rates as at the current reporting date.

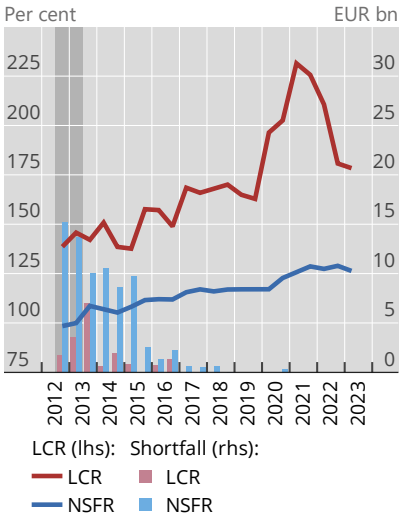
Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size. The worksheets "Graph 11d", "Graph 11g" and "Graph 11k" provide additional regional breakdowns for Group 1 banks. The liquidity dashboards on the Committee's website also provide the same breakdowns for G-SIBs.

- For a balanced data set of Group 1 banks, all but three banks meet a 100% LCR at end-June 2023, resulting in an aggregate shortfall of €16.4 billion. The shortfall increased by €5.4 billion since December 2022. The average LCR for this sample increased to 139.2% at end-June 2023 compared with 135.6% in the previous reporting period. Banks in the sample did not experience drops in the LCR during the turmoil that some banks outside the monitoring sample experienced.
- There was again no agreggate NSFR shortfall for the balanced data set of Group 1 banks. The average NSFR for the same sample of banks decreased from 125.6% to 124.0% in June 2023.
- Both LCR and NSFR were above pre-pandemic levels at the reporting date.

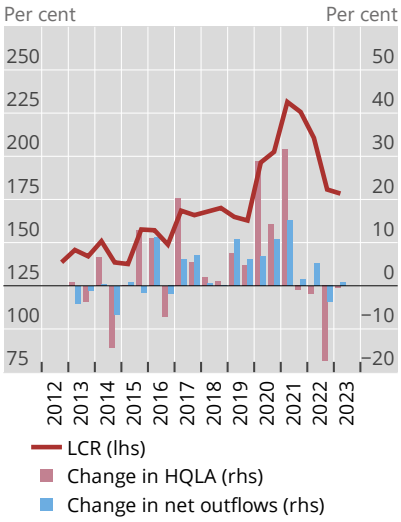
Group 2 banks showed a decrease in both LCR and NSFR with no shortfalls; both liquidity ratios remained significantly above pre-pandemic levels

Group 2 banks, balanced data set[1] Graph 10

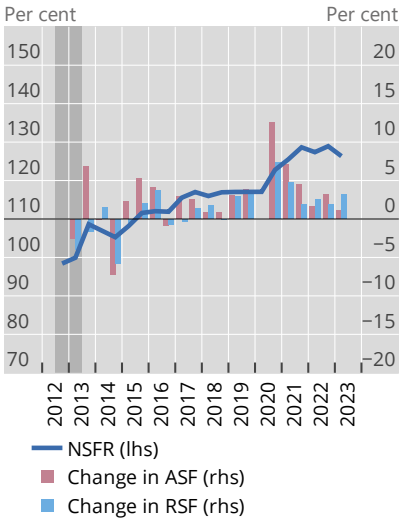
LCR, NSFR and related shortfalls[2]



LCR and change in its determinants[3]



NSFR and change in its determinants[3]



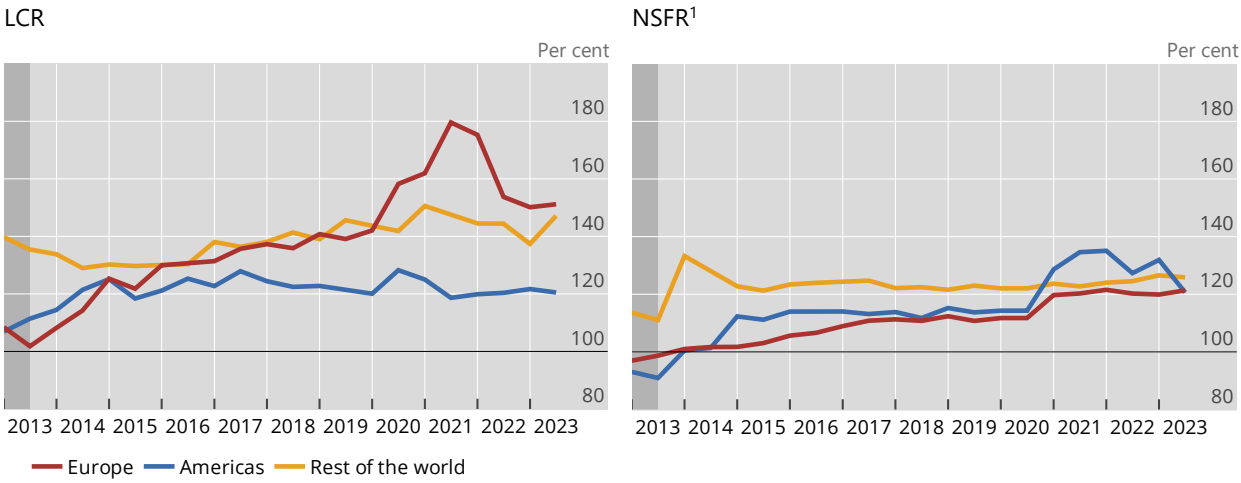
[1] As described in footnote 1 to Graph 9, the NSFR time series depicts data reflecting NSFR standards released in December 2010, January 2014 and October 2014. [2] Exchange rates as at the reporting dates. [3] Exchange rates as at the current reporting date.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

- For a balanced data set of Group 2 banks, the LCR shortfall has remained at zero since June 2017. The average LCR for the same sample of banks decreased by 2.4 percentage points to 178.4% in June 2023.
- The aggregate NSFR shortfall remained at zero for the balanced data set of Group 2 banks. The average NSFR for the same sample of banks decreased by 2.6 percentage points to reach 126.3% in June 2023.
- Both LCR and NSFR remain above pre-pandemic levels. At end-2019, the LCR of the same sample of Group 2 banks stood at 162.8%, the NSFR at 117.1%.

For Group 1 banks, LCRs increased in the rest of the world during H1 2023, while NSFRs dropped significantly in the Americas

Group 1 banks, balanced data set — Graph 11



[1] As described in Section 6.3, the NSFR time series depicts data reflecting NSFR standards released in December 2010, January 2014 and October 2014.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

- Since 2019, the weighted average LCR for both Europe and the rest of the world has largely been above 140%, while the average LCR for the Americas is around 121%. While Europe and the Americas initially had lower average LCRs compared with the rest of the world, the average LCRs of Europe and the rest of the world tended to gradually converge before the onset of the pandemic. The regions with lower end-2012 average ratios saw significant increases, in particular between end-2012 and June 2014, and Europe has seen such increases again since the start of the pandemic. The increase in Europe is now reversing, although the LCR of European banks is still above end-2019 levels.
- The weighted average NSFR at end-June 2021 for Group 1 banks in each of the three regions was well in excess of 100%. The average NSFR in Europe increased from 119.9% at end-December 2022 to 121.4% at end-June 2023. After a significant drop during H1 2022 and a subsequent rise, the NSFR of banks in the Americas dropped significantly again, to 120.6% at end-June 2023.

Detailed results of the Basel III monitoring exercise as of 30 June 2023

1. General remarks

At its 12 September 2010 meeting, the Group of Governors and Heads of Supervision (GHOS), the oversight body of the Basel Committee on Banking Supervision, announced a substantial strengthening of existing capital requirements and fully endorsed the agreements it had reached on 26 July 2010.[5] These capital reforms, together with the introduction of two international liquidity standards, are collectively referred to as "initial phase of Basel III reforms" or in short "initial Basel III" within this report. On 7 December 2017, the GHOS finalised the Basel III reforms[6] with a number of revisions that seek to restore credibility in the calculation of risk-weighted assets (RWA) and capital ratios of banks (referred to as "final Basel III" in this report). The Committee monitors and evaluates the impact of these capital, leverage and liquidity requirements on a semiannual basis.[7] This report summarises the results of the latest Basel III monitoring exercise using data as of 30 June 2023.[8] The Committee believes that the information contained in the report will provide relevant stakeholders with a useful benchmark for analysis.

Since the report published in September 2021, the monitoring reports no longer include a statistical annex. However, the data underlying the graphs are available for download as a separate Excel file. This presents the same data as the Annex in previous reports but in a format that is easier to use for readers' own analyses. Furthermore, most analyses have also been published as Tableau dashboards.[9] The Committee welcomes any feedback on these new formats at qis@bis.org.

1.1 Scope of the monitoring exercise

Almost all Committee member countries participated in the Basel III monitoring exercise as of 30 June 2023. The estimates presented are based on data submitted by the participating banks and their national

[5] See the 26 July 2010 press release "The Group of Governors and Heads of Supervision reach broad agreement on Basel Committee capital and liquidity reform package", www.bis.org/press/p100726.htm, and the 12 September 2010 press release "Group of Governors and Heads of Supervision announces higher global minimum capital standards", www.bis.org/press/p100912.htm.

[6] Basel Committee on Banking Supervision, *High-level summary of Basel III reforms*, December 2017, www.bis.org/bcbs/publ/d424_hlsummary.pdf; Basel Committee on Banking Supervision, *Basel III: Finalising post-crisis reforms*, December 2017, www.bis.org/bcbs/publ/d424.htm.

[7] A list of previous publications is included in the Annex.

[8] The data for Japan are as of the end of March 2023, as banks in that country report on a biannual basis as of the end of March and the end of September to correspond to the fiscal year-end period. Further, the data for Canada reflect a reporting date of 30 April 2023, which corresponds to Canadian banks' mid-year.

[9] Given the reporting format for cryptoasset exposures has changed substantially following the Committee's publication of the final prudential standard on 16 December 2022 (www.bis.org/bcbs/publ/d545.htm), related analyses are only available as dashboards.

supervisors in reporting questionnaires and in accordance with the instructions prepared by the Committee.[10] The questionnaire covered components of eligible capital, the calculation of all aspects of RWA, the calculation of a leverage ratio and components of the liquidity metrics. Table A.3 in Annex A shows which standards are relevant for the relevant Basel III regime (initial Basel III, transitional Basel III and the fully phased-in Basel III framework). Technically, the remaining difference between the transitional and the fully phased-in Basel III frameworks is the level of the output floor which is 50% in 2023 (transitional final Basel III framework) and 72.5% in 2028 (fully phased-in final Basel III framework). This report reflects the finalisation of the market risk framework published in January 2019.[11]

The final data were submitted to the Secretariat of the Committee by 12 January 2024. The purpose of the exercise is to provide the Committee and the public with an ongoing assessment of the impact on participating banks of the capital and liquidity standards set out in the Basel standards.

The Committee appreciates the significant efforts contributed by both banks and national supervisors to this ongoing data collection exercise.

1.2 Sample of participating banks

Data on the initial Basel III framework were included for 178 banks, including 112 Group 1 banks and 65 Group 2 banks.[12] Group 1 banks are those that have Tier 1 capital of more than €3 billion and are internationally active. All other banks are considered Group 2 banks. Compared with end-December 2021 with 111 Group 1, 67 Group 2 banks and 178 banks overall, the sample increased by one bank for Group 1 and decreased by two banks for Group 2. However, while data availability from supervisory reporting was rather stable, the number of banks providing data on the final Basel III framework declined significantly. The impact of the final Basel III framework could only be assessed for a sample of 127 banks, among which 91 Group 1 banks and 37 Group 2 banks, which is a decrease by one Group 1 bank and 21 Group 2 banks compared with the previous report.[13]

Banks were asked to provide data at the consolidated level as of 30 June 2023. Subsidiaries are not included in the analyses to avoid double-counting. For Group 1 banks, members' coverage of their banking sector was very high, reaching 100% coverage for some countries. Coverage for Group 2 banks was lower and varied across countries.

For a number of banks data relating to some parts of the Basel III framework were unavailable. Accordingly, these banks are excluded from individual sections of the Basel III monitoring analysis due to incomplete data. In certain sections, data are based on a balanced data set. This data set represents only those banks that reported necessary data at the June 2011 (labelled "H1 2011") through June 2023 ("H1 2023") reporting dates, to make more meaningful period-to-period comparisons. The balanced data set differs for the various analyses; typically, it includes around 75 Group 1 banks, of which 24 are G-SIBs, and around 19 Group 2 banks. The G-SIBs in the time series analyses are among those banks that have been classified as G-SIBs as of November 2023, irrespective of whether they have also been classified as G-SIBs previously.

[10] See Basel Committee on Banking Supervision, *Instructions for Basel III monitoring*, January 2021, www.bis.org/bcbs/qis/.

[11] Basel Committee on Banking Supervision, *Minimum capital requirements for market risk*, January 2019 (rev February 2019), www.bis.org/bcbs/publ/d457.htm.

[12] See Table B.1 in the Statistical Annex for details on the sample. Also note that this table shows banks for which data were generally included for the specific topics, but not necessarily sufficiently complete to be used in all analyses.

[13] See Table B.3 in the Statistical Annex for details on the sample for the assessment of the final Basel III framework. Also note that while all these banks provided data on the final Basel III credit and operational risk standards, some of them were unable to provide data on some other aspects of the final framework. To that extent, it was assumed that capital requirements would remain unchanged compared with the initial Basel III framework.

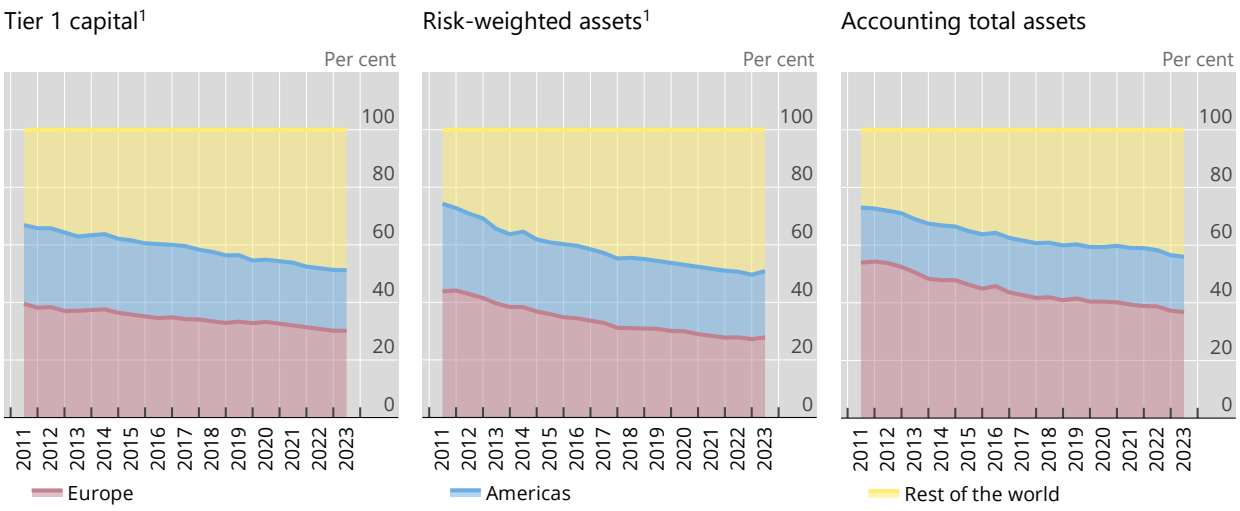
This report shows some of the results for three regional groupings – Europe, the Americas and the rest of the world. Table B.1 in the Statistical Annex provides detail on the composition of these country groupings. Table B.2 provides some additional sample statistics for the banks included in the exercise at the reporting date both overall and by region for Group 1 banks.

For a balanced data set of Group 1 banks participating in this exercise, Graph 12 shows the share of the three regions distinguished in this report in three key indicators: Tier 1 capital, risk-weighted assets and accounting total assets, using exchange rates as at the current reporting date. Since end-June 2011, the share of the Americas in Tier 1 capital has declined by 6.3 percentage points to 21.0%, while the share in RWA decreased by 7.4 percentage points to 23.0%. The Americas' share in accounting total assets remained almost stable at 19.2%. The share of European banks decreased by 9.4 percentage points to 30.1% in terms of Tier 1 capital, by 16.0 percentage points to 27.8% in terms of RWA and by 17.1 percentage points to 36.8% in terms of accounting total assets. Conversely, the share of banks in the rest of the world increased by 15.7 percentage points to 48.8% in terms of Tier 1 capital, by 23.4 percentage points to 49.1% in terms of RWA and by 17.1 percentage points to 44.1% in terms of accounting total assets.

Regional share of Tier 1 capital, total RWA and accounting total assets over time

Fully phased-in initial Basel III standards[1], Group 1 banks, balanced data set, exchange rates as at the current reporting date

Graph 12



[1] The graph shows the fully phased-in initial Basel III framework for the data points up to and including the end of 2018 and the actual framework in place at the reporting date for all data points thereafter.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

1.3 Methodology

1.3.1 Aggregation

Reported average amounts in this report have been calculated by creating a composite bank at a total sample level, which effectively means that the total sample averages are weighted. For example, the average common equity Tier 1 capital ratio is the sum of all banks' common equity Tier 1 (CET1) capital for the total sample divided by the sum of all banks' RWA for the total sample. Similarly, the average fully phased-in Basel III Tier 1 leverage ratio is the sum of all banks' fully phased-in Tier 1 capital for the total sample divided by the sum of all banks' Basel III leverage ratio exposures for the total sample.

1.3.2 Impact metrics

Throughout the report, effects of the reforms are frequently shown in terms of: (i) changes in minimum required capital (MRC); (ii) impact on capital ratios; and (iii) estimated capital shortfalls. MRC and shortfalls can be computed based on banks' minimum and target requirement levels. While the *minimum* levels reflect a risk-based 4.5% CET1, a 6% Tier 1 and an 8% total capital requirement as well as a 3% requirement for the Basel III leverage ratio, the *target* level also accounts for the capital conservation buffer (ie resulting in a 7% CET1, an 8.5% Tier 1 and a 10.5% total capital requirement), as well as any applicable G-SIB surcharge. Under the final Basel III framework, the target capital requirements also include the G-SIB buffer on the leverage ratio. Consistent with previous reports, this report does not reflect any additional capital requirements under Pillar 2 of the Basel framework, any higher loss absorbency requirements for domestic systemically important banks, nor does it reflect any countercyclical capital buffer requirements. However, it reflects any additional Pillar 1 RWA as reported by banks and their supervisors.

Reference points

Unless otherwise noted, the assessment of the final Basel III framework compares the fully phased-in final Basel III framework with the fully phased-in initial Basel III framework as implemented by the national supervisor.

Minimum required capital

Because the suite of post-crisis reforms includes revisions to RWA, expected loss (EL) amounts and the Basel III leverage ratio framework, the analysis of the final Basel III framework mainly focuses on MRC as a broad and integrated capital impact measure to aggregate the results. At the bank level, MRC is defined in this report as the sum of:

- the relevant target capital ratio level based on the Basel requirements times RWA, after consideration of all relevant floors;
- any capital effects from the treatment of EL amounts for credit risk and provisions at the relevant tier of capital, taking into account the split between defaulted and non-defaulted assets for those jurisdictions that require such a split;
- any capital effects from deductions which are an alternative to a 1,250% risk weighting treatment in certain national implementations of the Basel framework; and
- any incremental capital requirement (over and above the risk-based requirements including any floors) resulting from the Basel III leverage ratio.

This calculation is conducted for both the current *basis* and the *revised* regimes. Changes in MRC are hence calculated as follows:

$$\%\Delta MRC = \frac{MRC_{revised} - MRC_{basis}}{MRC_{basis}}.$$

Therefore, this formula reflects, among other elements:

- changes to the calculation of RWA (at the portfolio or risk type level RWA before output floors);
- changes to capital resulting from changes in the calculation of EL amounts for credit risk and the treatment of provisions;
- changes resulting from the move from the national implementation of the transitional Basel I-based floor (as collected through supervisory reported systems) to the aggregate output floor under the final Basel III framework; and
- changes to the definition of the Basel III leverage ratio exposure measure for all banks and to its level for G-SIBs (see below for the treatment of Covid-19-related exclusions).

Capital ratios

The impact of the reforms is also expressed in terms of its impact on capital ratios reflecting changes due to the reforms in both the numerator (through any effects on the treatment of EL amounts and provisions) and the denominator (through changes in RWA).

Leverage ratio

Temporary exclusions from the leverage ratio exposure measure in the context of Covid-19 have been added back to both the current and the fully phased-in leverage ratio exposure measures for the calculation of changes in MRC from the final Basel III framework. This separates the impact of the implementation of the final framework from the impact of the exclusions expiring. The exclusions have also been added back for the analysis of the combined shortfalls in Section 2.4 and for the analysis of the interactions between the regulatory measures in Section 5.2. The standalone analysis of the leverage ratio in Section 2.3 consistently reflects exclusions as applicable at the reporting date.

Combined shortfall analysis

In addition, a combined shortfall analysis at the three tiers of the Basel III capital ratios is conducted at the target level. The combined net shortfall at any capital tier is calculated as the difference (where positive) between the total required capital (accounting for both the risk-based requirements and the Basel III leverage ratio) at a given capital tier and the actual capital of the same tier held, net of any shortfall stemming from higher capital tiers. The last term is included since any higher tier capital (eg CET1) raised to meet a specific higher tier capital shortfall (eg CET1 shortfall) can also be used to meet any possible specific shortfall of a lower tier capital (eg any *additional* Tier 1 shortfall caused by risk-based and/or Basel III leverage ratio Tier 1 capital requirements).

1.3.3 Presentation

To preserve confidentiality, some of the results shown in this report are presented using box plot charts. The median value is represented by a horizontal line, with 50% of the values falling in the 25th to 75th percentile range shown by the box. The upper and lower end points of the thin vertical lines generally show the range of the entire sample; in some cases, arrows at the top of the vertical line indicate banks with changes outside the range shown in the graph. Finally, weighted averages are represented by dots.

Since most of the transitional arrangements for the initial Basel III framework expired at the end of 2018 (see Box A), this report no longer distinguishes the transitional and fully phased-in initial Basel III framework in the body of the text. Rather, relevant time series show the fully phased-in initial Basel III framework for the data points up to and including the end of 2018 and the actual framework in place at the reporting date for all data points thereafter. Interested readers will find a selection of tables showing time series for the transitional initial Basel III framework in the Excel files accompanying this report; these are in line with the presentation in previous reports. Furthermore, to the extent data are available, all data for the initial Basel III framework consistently reflect the impact of the output floor in the Basel II framework and any national floors in place.

1.3.4 Time series analysis and comparisons

To provide additional operational capacity for banks and supervisors to respond to the immediate financial stability priorities resulting from the impact of Covid-19, the Committee decided not to collect Basel III monitoring data for the end-June 2020 reporting date. Therefore, only data from supervisory reporting were collected. Graphs and tables that fully or partially use data from the monitoring exercise use banks' end-December 2019 data points also for the end-June 2020 reporting date. Where this is the case, it is mentioned in a footnote. Such graphs show no change between end-December 2019 and end-June 2020, and the change for the full year 2020 is shown between the end-June 2020 and end-December 2020 data points.

Box A

Phase-in provisions for risk-based capital requirements

The initial Basel III framework includes the following phase-in provisions for capital ratios:

- Regulatory adjustments (ie possibly stricter sets of deductions that apply under Basel III) were fully phased in by 1 January 2018;
- Capital instruments that no longer qualify as non-common equity Tier 1 or Tier 2 capital were phased out beginning 1 January 2013. Fixing the base at the nominal amount of such instruments outstanding on 1 January 2013, their recognition is capped at 90% from 1 January 2013, with the cap reducing by 10 percentage points in each subsequent year;
- An additional 2.5% capital conservation buffer above the regulatory minimum capital ratios, which must be met with CET1 capital, was phased in by 1 January 2019; and
- The additional loss absorbency requirement for G-SIBs, which ranges from 1.0% to 2.5%, was fully phased in by 1 January 2019. It is applied as an extension of the capital conservation buffer and must be met with CET1.

The final Basel III framework as amended by the 27 March 2020 press release includes phase-in provisions for the output floor, which will start at 50% on 1 January 2023, rise in annual steps of 5% and be fully phased in at the 72.5% level from 1 January 2028. Furthermore, the increase in RWA can be capped at 25% during the phase-in period at national discretion.

Table A.4 in Annex A includes a detailed overview of the Basel Committee's phase-in arrangements.

1.4 Data quality

For this monitoring exercise, participating banks submitted comprehensive and detailed non-public data on a voluntary and best-efforts basis. On jurisdictional level, there may be ongoing mandatory data collection, which also feeds into this report. As with the previous studies, national supervisors worked extensively with banks to ensure data quality, completeness and consistency with the published reporting instructions. In addition, particular attention has been paid on the reconciliation of reported data with existing data from supervisory reporting systems. Banks are included in the various analyses below only to the extent that they were able to provide data of sufficient quality to complete the analyses.

1.5 Interpretation of results

The following caveats apply to the interpretation of results shown in this report:

- When comparing results to previous reports, sample differences as well as minor revisions to data from previous periods need to be taken into account. Sample differences also explain why results presented for the December 2022 reporting date in this report or the unbalanced time series presented in the dashboards may differ from the relevant data points in graphs and tables showing the time series for the balanced data set as described above.
- The actual impact of those new requirements that are covered in this analysis will almost certainly be less than shown in this report given banks' difficulty to assess the exact impact of the framework before its full implementation and interim adjustments made by the banking sector to changing economic conditions and the regulatory environment. Banks may use approximations when the implementation of an accurate impact assessment would be too costly. For example, the results do not consider bank profitability, changes in capital or portfolio composition or other management responses to the policy changes since 30 June 2023 or in the future. For this reason, the results are not comparable to industry estimates, which tend to be

based on forecasts and consider management actions to mitigate the impact, as well as incorporate approximations where information is not publicly available.

- For banks that could not provide data on the impact of the revised standards for securitisation, credit valuation adjustment (CVA) or market risk, it was assumed that the respective capital requirements would remain unchanged in the assessment of the overall impact. Such banks were however excluded from the analysis of the relevant policy topic.
- Given the output floor of the final Basel III framework only applies to overall capital requirements, it is not applied to individual risk types or asset classes in this report. To this extent, the results are not comparable to analyses in other reports, which may apply the output floor at more granular levels than required by the final Basel III framework.
- This report disregards any effects stemming from changes in accounting frameworks that may influence capital requirements and eligible capital.
- Several G-SIBs report conservative assumptions under the revised market risk framework.[14] Therefore, the results for market risk since the end-2020 reporting date only reflect 20%[15] of the contribution from equity investments in funds subject to the "other sector bucket" treatment, while all other changes from the revised market risk framework are included in the calculations as reported. This also impacts the results of several G-SIBs in particular and also of a number of other banks, albeit to a significantly smaller extent. Please refer to the previous reports for the treatment in previous reporting dates.
- Some capital requirements, such as D-SIB buffer and Pillar 2 requirements, are not considered in the analysis. This tends to give more importance to leverage ratio requirements relative to risk-based requirements, compared with the actual situation where those additional requirements would be considered.

2. Regulatory capital requirements and TLAC

Table 2 shows the aggregate capital ratios under the current (or transitional initial), transitional final and fully phased-in final Basel III frameworks, as well as the related capital shortfalls. Table 3 shows CET1 capital ratios by regions. Details of capital ratios and capital shortfalls are provided in Section 2.1 and Section 2.4.

[14] Specifically, the banks are treating all trading book positions in equity investment in funds that may no longer be allowed to be modelled, using the most conservative standardised approach, ie the "other bucket" treatment subject to the highest applicable risk weights. They assumed that they are unable to use other treatments such as the index treatment or the mandate-based approach as set out in MAR21.36.

[15] This assumption is based on moving some equity investments in funds subject to the "other sector bucket" treatment to the "look-through" treatment, which would result in lower delta, vega and curvature requirements and higher diversification benefits.

Aggregate capital ratios and (incremental) combined capital shortfalls at the target level[1]

Table 2

	Basel III capital ratios, in per cent			Combined risk-based capital and leverage ratio shortfalls at the target level, in billions of euros[2]		
	Initial	Final		Initial	Final	
	Current	Transitional	Fully phased-in	Current	Transitional	Fully phased-in
Group 1 banks						
CET1 capital	12.8	14.2	13.7	0.0	0.0	0.0
Tier 1 capital[3]	14.5	16.1	15.4	0.0	0.0	0.0
Total capital[4]	17.1	18.9	18.2	0.0	0.0	4.0
Sum				0.0	0.0	4.0
Of which: G-SIBs						
CET1 capital	12.7	14.4	13.9	0.0	0.0	0.0
Tier 1 capital[3]	14.4	16.3	15.7	0.0	0.0	0.0
Total capital[4]	17.1	19.5	18.8	0.0	0.0	4.0
Sum				0.0	0.0	4.0
Group 2 banks						
CET1 capital	18.0	18.0	17.3	0.0	0.0	0.0
Tier 1 capital[3]	19.0	19.0	18.2	0.0	0.0	0.0
Total capital[4]	21.3	21.0	20.1	0.0	0.0	0.0
Sum				0.0	0.0	0.0

[1] The target level includes the capital conservation buffer and the capital surcharges for 28 G-SIBs as applicable but does not include any countercyclical capital buffers. Samples for the initial and final Basel III frameworks are not consistent. [2] The shortfall is calculated as the sum across individual banks where a shortfall is observed. The calculation includes all changes to RWA (eg definition of capital, counterparty credit risk, trading book and securitisation in the banking book). The Tier 1 and total capital shortfalls are incremental assuming that the higher-tier capital requirements are fully met. All columns use the 2017 definition of the leverage ratio exposure measure. [3] The shortfalls presented in the Tier 1 capital row are *additional* Tier 1 capital shortfalls. [4] The shortfalls presented in the total capital row are *Tier 2* capital shortfalls.

Source: Basel Committee on Banking Supervision.

CET1 capital ratios

In per cent — Table 3

	Initial Basel III standards		Final Basel III standards		
	Number of banks	Current	Number of banks	Transitional	Fully phased-in
Group 1 banks	111	12.9	86	14.2	13.7
Of which: Europe	39	14.8	31	13.7	13.0
Of which: Americas	22	12.4	20	12.9	12.8
Of which: RW	50	12.4	35	15.3	14.6
Of which: G-SIBs	28	12.7	28	14.4	13.9
Group 2 banks	65	17.7	41	18.0	17.3

Source: Basel Committee on Banking Supervision.

2.1 Risk-based capital ratios

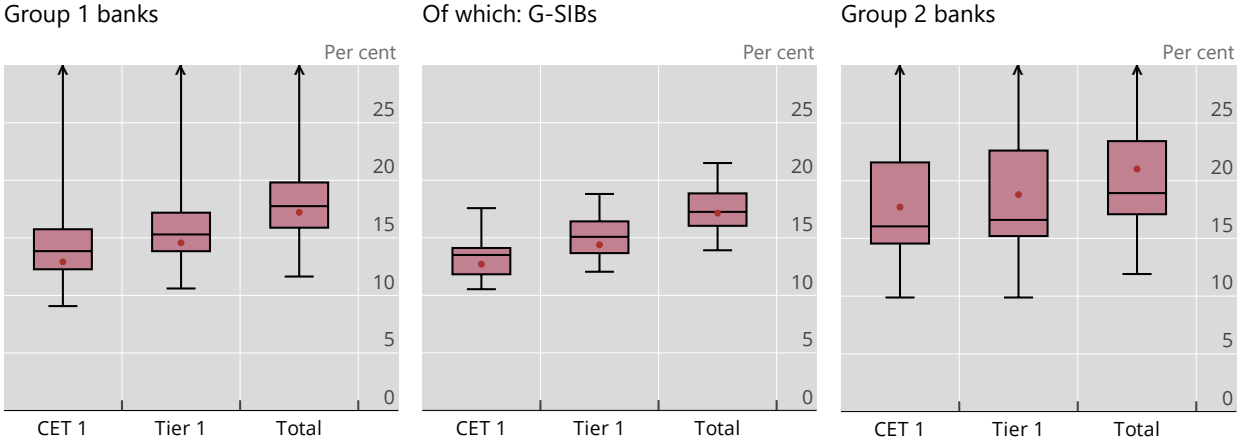
2.1.1 Initial Basel III standards

For Group 1 banks, the initial Basel III CET1 capital ratios range between 9.1% and 36.2%. The range is similar for initial Basel III Tier 1 and total capital ratios, even though lower and upper bounds are slightly higher. Only considering the participating G-SIBs, the range is narrower with 7.1 percentage points for CET1 and 7.6 percentage points for total capital. The lowest initial Basel III CET1 capital ratio for G-SIBs amounts to 10.5%, while the highest reported initial Basel III CET1 capital ratio amounts to 12.7%.

In contrast, Group 2 banks continue to show a relatively elevated dispersion. The initial Basel III CET1 capital ratios range between 9.9% and 82.4%. This range is largely consistent for Tier 1 and total capital.

Apart from that, more than 95% of Group 1 banks report initial Basel III CET1 capital ratios above 10%. More than 65% even exceed the 13% mark. For Group 2 banks, all participants report initial Basel III CET1 capital ratios above 10%, around 89% even show capital ratios above 13%.

Initial Basel III CET1, Tier 1 and total capital ratios[1] — Graph 13



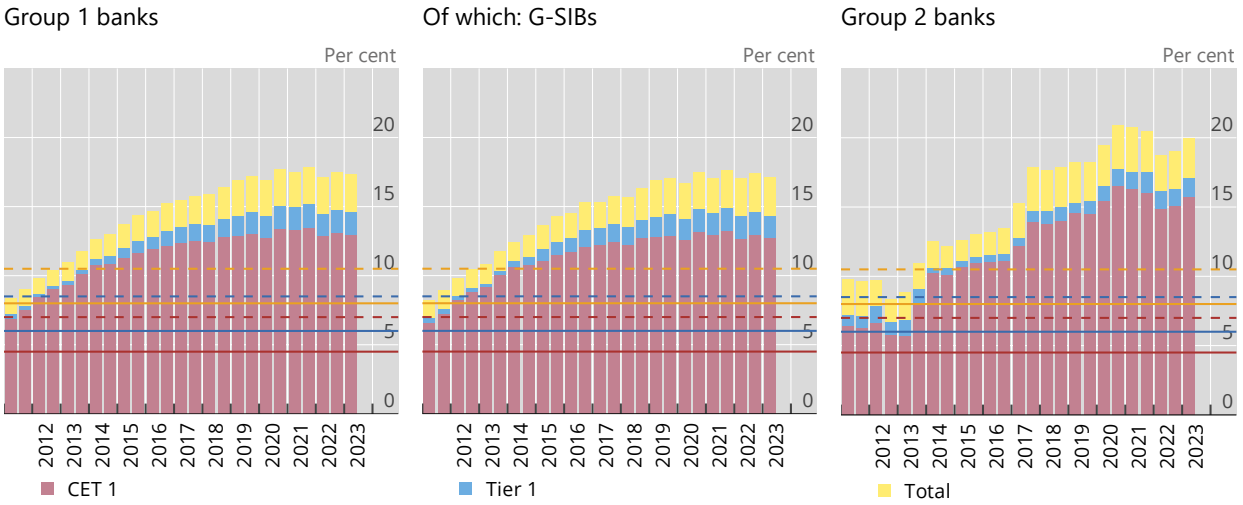
[1] See Section 1.3.3 for details on box plots.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size. Worksheet "Graph 13a" provides related information for the fully phased-in initial Basel III capital ratios.

Capital ratios remain modestly below their peak levels in 2020 and 2021 for Group 1 and Group 2 banks. Considering the current macroprudential situation banks face, this is in line with expectations. Despite this, capital levels remain high relative to the full historical reporting period that began in 2011. Compared with H2 2022, H1 2023 capital ratios declined marginally. For Group 1 banks, CET1 capital ratios declined by 0.1 percentage points, while Tier 1 and Tier 2 capital ratios remained stable.

Initial Basel III CET1, Tier 1 and total capital ratios[1]

Balanced data set — Graph 14



The graph shows the fully phased-in initial Basel III framework for the data points up to and including the end of 2018 and the actual framework in place at the reporting date for all data points thereafter.

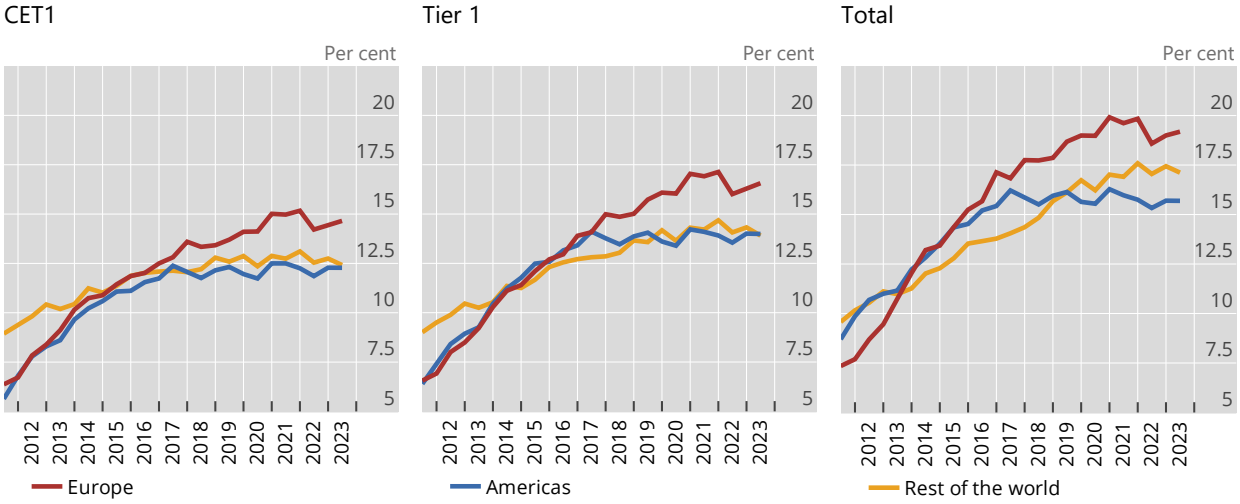
Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size. Note that the Excel file shows Tier 1 and total capital ratios as increments over the next lower Tier of capital.

In 2011, initial Tier 1 capital ratios were more than two percentage points lower in the Americas and in Europe than in the rest of the world region (Graph 15). However, for European banks and banks in the Americas the capital ratios rose remarkably stronger than in the rest of the world. Consequently, the original relationship reversed around 2014, when these banks started reporting higher average capital ratios than banks in the rest of the world. In 2017, capital ratios in the Americas started to decrease again, thus moving into line with the capital ratios in the rest of the world. Since then, the average initial Tier 1 capital ratio in the Americas is similar to the one in the rest of the world.

Over H1 2023, capital ratios showed mixed developments across all regions. During H1 2023, capital ratios increased modestly in Europe, declined marginally the rest of the world and remained flat for the Americas.

Initial Basel III CET1, Tier 1 and total capital ratios,[1] by region

Group 1 banks, balanced data set — Graph 15



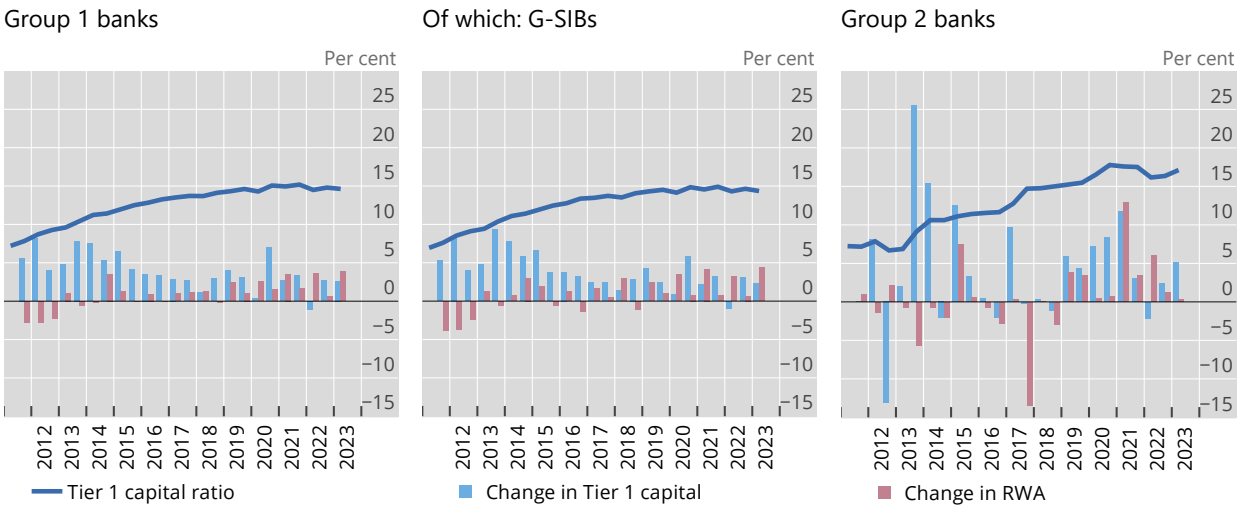
[1] The graph shows the fully phased-in initial Basel III framework for the data points up to and including the end of 2018 and the actual framework in place at the reporting date for all data points thereafter.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size. Worksheet "Graph 15a" provides the same breakdown for G-SIBs.

Across all regions and groups, the drivers of the change in capital ratios were mixed. Capital ratios in the Americas remained flat due to similar-size changes in Tier 1 capital and RWA. The rise in capital ratios in Europe was attributable to capital increasing at a greater pace than RWA, and the decline in capital ratios for the rest of the world was due to an increase in RWA.

Initial Basel III Tier 1 capital ratios and changes in RWA and Tier 1 capital[1]

Balanced data set, exchange rates as at the current reporting date — Graph 16

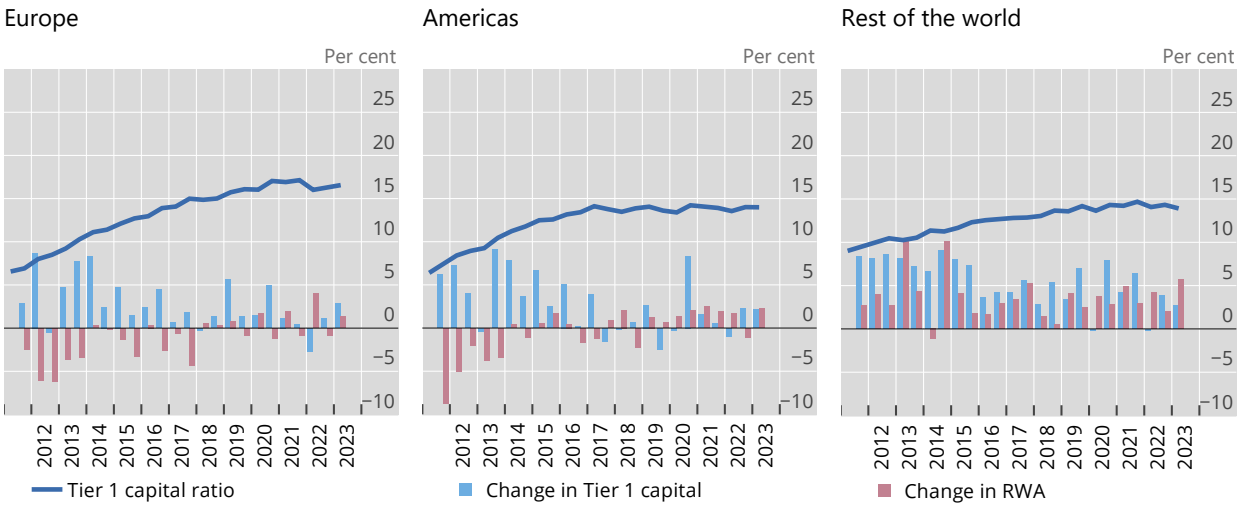


[1] The graph shows the fully phased-in initial Basel III framework for the data points up to and including the end of 2018 and the actual framework in place at the reporting date for all data points thereafter.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

Initial Basel III Tier 1 capital ratios and changes in RWA and Tier 1 capital,[1] by region

Group 1 banks, balanced data set, exchange rates as at the current reporting date — Graph 17



[1] The graph shows the fully phased-in initial Basel III framework for the data points up to and including the end of 2018 and the actual framework in place at the reporting date for all data points thereafter.

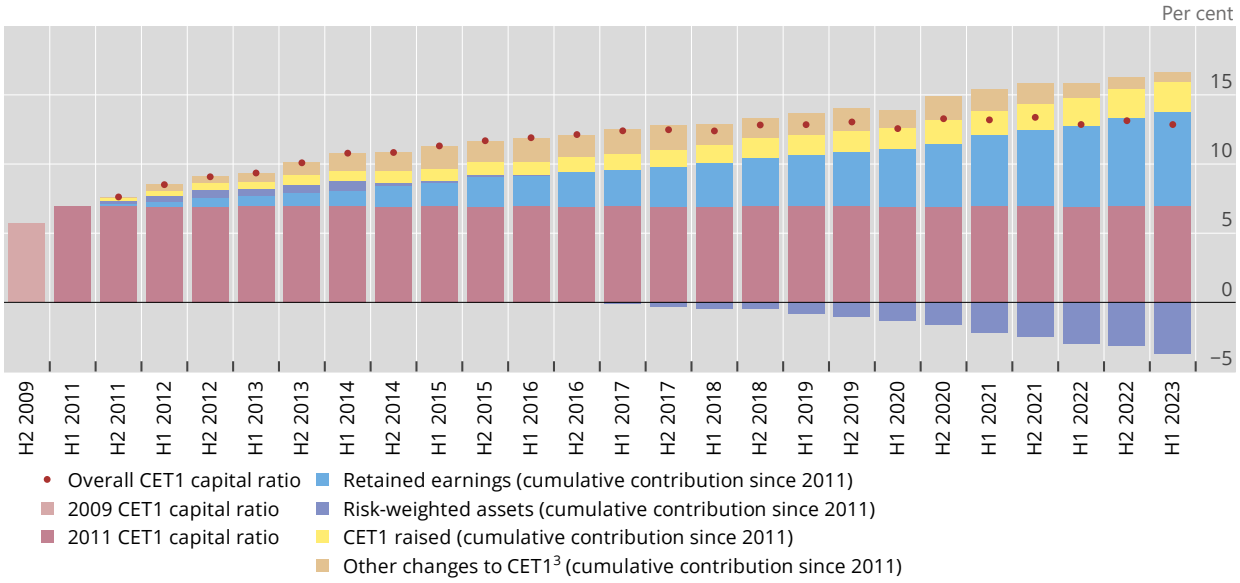
Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

Graph 18 and Graph 19 below show the evolution of initial Basel III CET1 capital ratios and their drivers. Starting with the June 2011 CET1 capital ratio, the cumulative effect on the ratio of CET1 capital raised, retained earnings and other increases in CET1 capital (such as any reduction in regulatory adjustments) is added to the capital ratio. Furthermore, the impact of cumulative reductions in RWA has a positive impact on capital ratios, while the impact of cumulative increases in RWA is subtracted from the baseline capital ratio.

Overall, Graph 18 suggests that retained earnings were the by far most significant contributor to the improvements in CET1 capital ratios since 2011. A more detailed observation shows that the development and the main contributors are very heterogeneous across regions. Indeed, in Europe, the improvement of CET1 capital ratios stems mainly from a reduction in total RWA, whereas in the Americas, the main driver of strengthening the CET1 ratio is the category "Other changes to CET1". In contrast, in the rest of the world the different contributors to the CET1 capital ratio development counteract. While the negative cumulative impact of RWA continues to increase, the positive cumulative impact of retained earnings rose as well. In aggregate, CET1 capital ratios continued to modestly increase.

Evolution of initial Basel III CET1 capital ratios and their drivers[1]

Group 1 banks, balanced data set[2] Graph 18

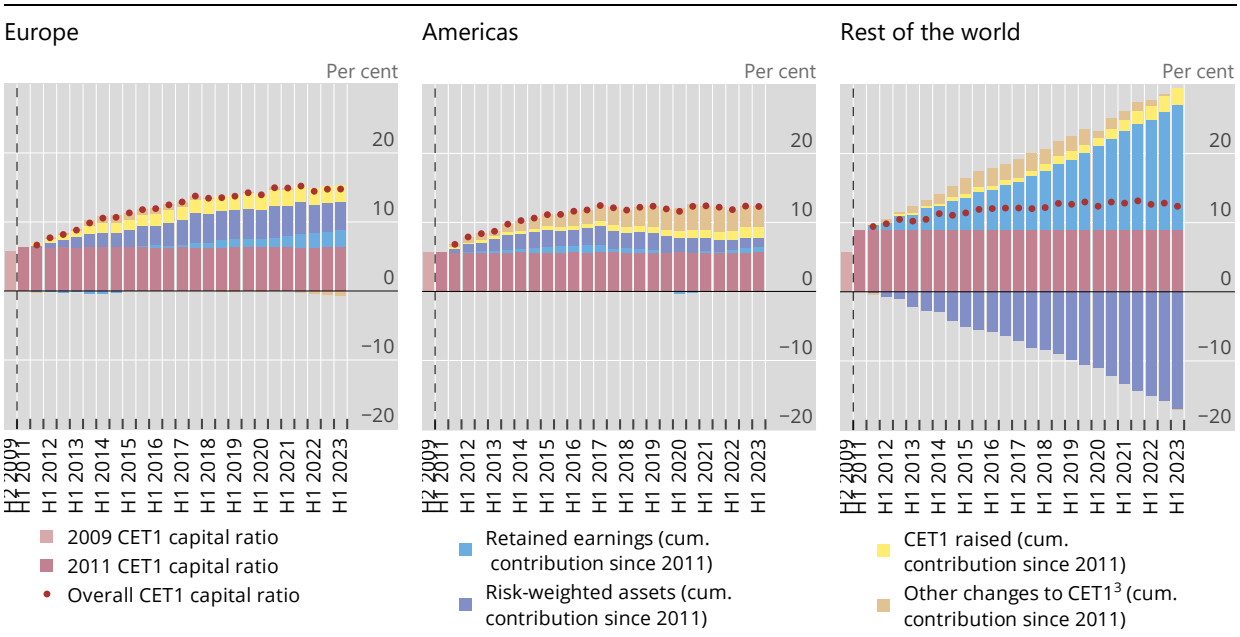


[1] The graph shows the fully phased-in initial Basel III framework for the data points up to and including the end of 2018 and the actual framework in place at the reporting date for all data points thereafter. [2] Except the ratio for H2 2009, which is based on the different sample of the Committee's comprehensive Quantitative Impact Study and therefore not fully comparable. [3] Other changes include changes in regulatory adjustments to CET1 capital and any other changes in CET1 capital between two reporting dates that are not reported separately.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

Evolution of initial Basel III CET1 capital ratios and their drivers,[1] by region

Group 1 banks, balanced data set[2] Graph 19



[1] The graph shows the fully phased-in initial Basel III framework for the data points up to and including the end of 2018 and the actual framework in place at the reporting date for all data points thereafter. [2] Except the ratio for H2 2009, which is based on the different sample of the Committee's comprehensive Quantitative Impact Study and therefore not fully comparable. [3] Other changes include changes in regulatory adjustments to CET1 capital and any other changes in CET1 capital between two reporting dates that are not reported separately.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

2.1.2 Final Basel III standards

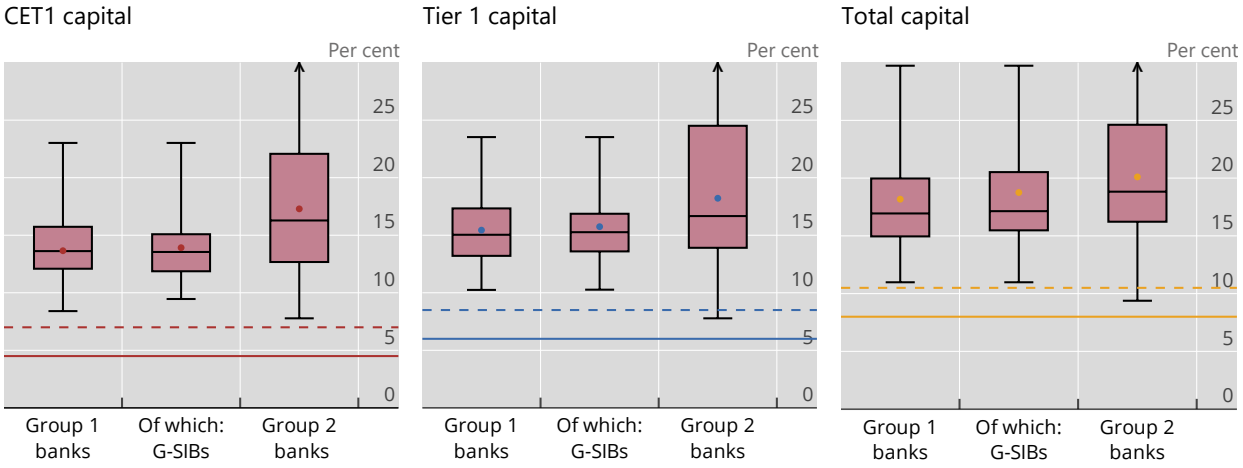
On average, when moving from the initial Basel III framework to the fully phased-in final Basel III framework, Group 1 banks' CET1 capital ratios (Table 2) would increase by about 90 basis points from 12.8% to 13.7%. The difference for G-SIBs is similar, with the CET1 ratio increasing from 12.7% to 13.9%. Apart from that, Group 2 banks show a CET1 capital ratio decline by 70 basis points from 18.0% to 17.3%.

Similar to CET1 capital ratios, Tier 1 and total capital ratios would also increase for Group 1 banks and G-SIBs and decline for Group 2 banks. For Group 1 banks and G-SIBs, the increase in the Tier 1 and total capital ratios is 10 to 50 basis points larger than the increase in the CET1 capital ratio. Group 2 banks continue to show a larger impact due to the fully phased-in final Basel III framework. The Tier 1 and the total capital ratios reduce by 80 and 120 basis points, respectively.

All Group 1 banks in the sample meet the 4.5% CET1 minimum ratio as well as the 7.0% target ratio under fully phased-in final Basel III standards. Moreover, roughly 90% of Group 1 banks have a CET1 ratio amounting to more than 10%. All Group 2 banks have a CET1 capital ratio that is higher than 10%.[16]

Fully phased-in CET1, Tier 1 and total capital ratios under the final Basel III standards[1]

Graph 20



[1] See Section 1.3.3 for details on box plots. The solid horizontal line represents the relevant minimum requirement and the dotted horizontal line represents the relevant target (excluding any bank-specific G-SIB surcharges).

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size. The worksheet "Graph 20b" provides the same information for the transitional final Basel III standards.

2.2 Impact of the final Basel III framework on minimum required capital

On average, Group 1 banks report a total change in Tier 1 MRC at the target level due to the final Basel III framework of 4.9%. The average Tier 1 MRC change for G-SIBs is slightly higher (+6.0%). Compared with that, Group 2 banks show a modest overall decrease in Tier 1 MRC with -0.6% (see Table 4). In contrast to the results of the cumulative Quantitative Impact Study (CQIS),[17] these numbers include the impact of the amended minimum capital requirements for market risk published in January 2019 and the targeted revisions to the CVA framework in July 2020.

[16] Worksheet "Graph 20a" in the Excel data file provides additional information.

[17] In the cumulative QIS, all changes from the revised market risk framework were already added to MRC under the current rules such that they were not reflected in the *change* in MRC.

In more detail, Graph 21 depicts the dispersion of the MRC changes across Group 1 banks, G-SIBs and Group 2 banks in the sample. The change in MRC (including market risk and CVA) for the current period varies greatly and ranges between -0.2% and 11.5% for half of the Group 1 banks with a median of 2.2%. The distribution for half of G-SIBs ranges from 1.4% to 22.4% with a higher median of 13.3%. Meanwhile for this exercise, dispersion for Group 2 banks is lower with the impact ranging from -5.3% to +2.1% for half of the banks.

Total change in Tier 1 MRC at the target level[1,2]

Unbalanced data set — Graph 21

[1] See Section 1.3.3 for details on box plots. [2] Results for H2 2015 are based on the Committee's cumulative Quantitative Impact Study and are not fully comparable from a methodological point of view, in particular since all changes from the revised market risk framework were already added to MRC under the current rules such that they were not reflected in the *change* in MRC. [3] Since the Committee did not collect the relevant data through its Basel III monitoring exercise for the end-June 2020 reporting date, results for H1 2020 use data from banks as of end-2019 and supervisory data for June 2020. Consequently, the change in MRC for the various risk types is kept constant from end-2019 to June 2020, but the basis on which these changes are calculated is updated for end-June 2020 based on supervisory data.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

The results are summarised in Table 4 and Graph 22 that include the following columns that provide an additional breakdown of the total change in MRC:

- *Total* shows overall changes in Tier 1 MRC, including the risk-based requirements (ie including output floors) and the Basel III leverage ratio.
- *Total: risk-based capital requirements* shows changes to the risk-based Tier 1 MRC (ie excluding the Basel III leverage ratio).
- *Credit risk* shows the change in Tier 1 MRC due to the revisions to the standardised and internal ratings-based (IRB) approaches for credit risk,[18] including the effect from migration of approaches[19] and changes to the securitisation framework.

[18] The credit risk MRC impact since the end-December 2019 reporting date reflects the split between defaulted and non-defaulted assets in the treatment of EL amounts and provisions for those jurisdictions that require such a split. Because of this methodological change banks in these jurisdictions may show slightly increased credit risk MRC impacts. This is most pronounced for banks in the European regional breakdown since European Union rules require the aforementioned split.

[19] Migration of approaches refers to the application of a different approach for determining risk weights than the one currently used because of the revisions which remove certain modelling approaches for selected (sub-)asset classes.

- *CVA* shows the change in Tier 1 MRC due to the revisions to the CVA framework.[20]
- *Market risk* shows the change in Tier 1 MRC due to the revisions to the market risk framework.
- *Operational risk* shows the change in Tier 1 MRC due to the revisions to the operational risk standards.
- *Output floor* presents the change in the level of Tier 1 MRC due to the aggregate output floor when the total RWA fall below the threshold level of 72.5%. The impact is measured relative to the current national implementation of the Basel I-based transitional floor set out in the Basel II framework, as reported by member countries.
- *Other Pillar 1* presents the change in Tier 1 MRC due to changes to Pillar 1 requirements not specifically captured in the reporting template, including requirements by individual jurisdictions which are not based on a Basel Committee standard.
- *Leverage ratio* shows the change in Tier 1 MRC resulting from the changes to the Basel III leverage ratio framework. This captures the change in the definition of the Basel III leverage ratio exposure measure and the introduction of a G-SIB buffer on top of a 3% leverage ratio minimum which amounts to 50% of the surcharge on risk-based capital requirements. Note that increases to risk-based Tier 1 MRC and leverage ratio Tier 1 MRC do not add up, since the total MRC increases only to the extent the risk-based or leverage ratio requirement exceeds the other capital measure. Therefore, the leverage ratio column is adjusted to capture this effect (which can be positive or negative, even where the leverage ratio Tier 1 MRC remains unchanged). This results in an overall *incremental* leverage ratio change in MRC which can be either positive or negative. This mechanism is described in Box B.

For 91 Group 1 banks, the Tier 1 MRC would increase by 4.9%, applying a fully phased-in definition of the final Basel III standards. This increase is composed of a 2.1% rise in the risk-based components combined, driven by the positive contributions of the output floor (+2.1%), market risk (+0.9%),[21] operational risk (+0.2%) and a zero impact from CVA, partially offset by the reduction in credit risk (-1.2%). The rise of the combined risk-based components is accompanied by a positive effect of the leverage ratio Tier 1 MRC.

The impact on MRC is very heterogeneous across regions for Group 1 banks. European banks show the biggest increase in MRC (+18.3%), mostly driven by the output floor (+6.4). In comparison, banks in the Americas report a moderate increase in MRC amounting to 1.3%. This increase is mostly driven by the reduction in the output floor (-2.7%) and increases in market risk (+2.2%) and the leverage ratio (+3.2%). For the rest of the world, MRC decreased by -0.8% mostly due to credit risk (-5.4%), which was partially offset by an increase in output floor (+3.1%).

For Group 2 banks, the overall -0.6% reduction in Tier 1 MRC is driven by a decline in leverage ratio MRC (-7.7%), partially offset by positive contributions of 7.1% from risk-based measures. Main contributors of the risk-based increase are the output floor (4.6%) and credit risk (2.4%).

Note that Group 1 and Group 2 bank samples are not directly comparable due to different business models and different regional distribution of the samples.

[20] Targeted revisions to the revised CVA framework were published in July 2020. See Basel Committee on Banking Supervision, *Targeted revisions to the credit valuation adjustment risk framework, July 2020*, www.bis.org/bcbs/publ/d507.htm.

[21] Considering the retreatment of overly conservative treatment of investment in funds for several G-SIBs. For more details please see footnotes 14 and 15.

Changes in Tier 1 MRC at the target level due to the final Basel III standards

In per cent of overall basis MRC

Table 4

	Number of banks	Total	Risk-based requirements							Leverage ratio
			Total	Of which:						
				Credit risk[1]	CVA	Market risk	Op risk[2]	Output floor[3]	Other Pillar 1	
Group 1 banks	91	4.9	2.1	–1.2	0.0	0.9	0.2	2.1	–0.1	2.9
Of which: Europe	30	18.3	14.5	3.8	1.0	1.3	2.4	6.4	–0.3	3.8
Of which: AM	20	1.3	–1.9	0.3	–0.6	2.2	–1.1	–2.7	0.1	3.2
Of which: RW	41	–0.8	–2.8	–5.4	–0.1	–0.3	–0.1	3.1	0.0	2.0
Of which: G-SIBs	26	6.0	1.4	–0.9	–0.1	1.2	–0.5	1.6	0.0	4.6
Group 2 banks	37	–0.6	7.2	2.4	0.3	0.1	–0.2	4.6	0.0	–7.7

[1] Including securitisation. [2] Figures may not show supervisor-imposed capital add-ons under Pillar 2. Therefore, increases in MRC may be overstated and reductions may be understated. [3] Net of existing Basel I-based floor according to national implementation of the Basel II framework.

Source: Basel Committee on Banking Supervision.

Box B

Aggregation of changes in risk-based and leverage ratio MRC

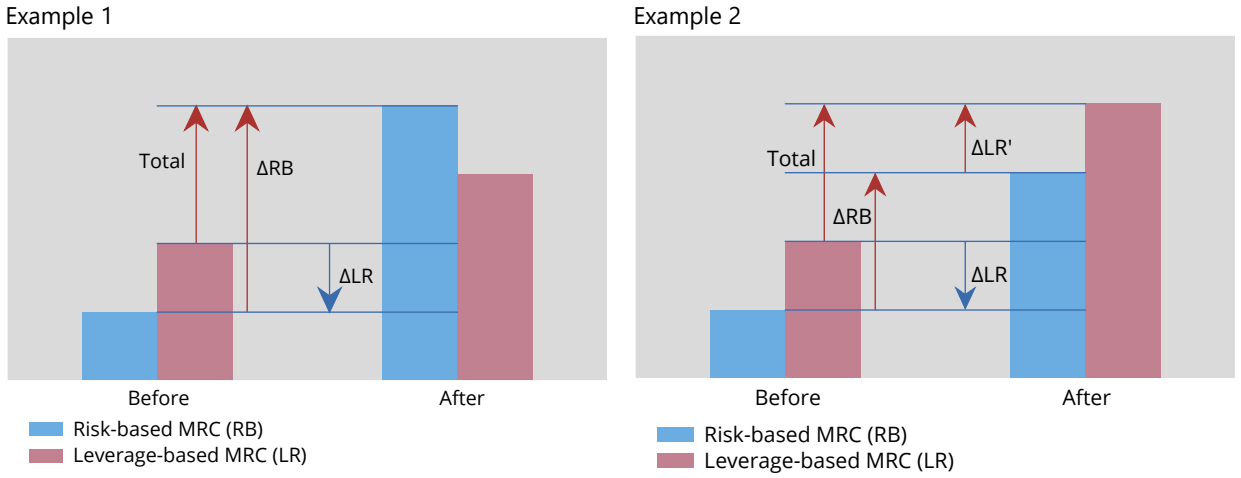
Example 1 shows an illustrative bank that is currently constrained① by the Basel III leverage ratio, resulting in an additional Tier 1 MRC. Under the revised framework, the additional requirement is instead "charged" by the risk-based Tier 1 MRC with the total change indicated by △RB. This replacement effect is represented as a negative effect in leverage ratio Tier 1 MRC to avoid double-counting, as shown by the blue arrow (△LR) in the diagram. Example 2 shows an alternative case where the bank is still constrained by the Basel III leverage ratio after the reforms. In this case, the contribution of the leverage ratio Tier 1 MRC is the net of (i) the additional leverage ratio Tier 1 MRC in the revised framework (△LR'); and (ii) the replacement effect captured by the risk-based Tier 1 MRC (△LR), which may be positive or negative.

Note that even for banks that already adopted the final leverage ratio standards (ie △LR'=0) there may be a non-zero contribution of the leverage ratio Tier 1 MRC, which is in this case equal to the replacement effect (△LR).

① A requirement is called constraining if it imposes the largest amount of MRC among the requirements under consideration (here risk-based and leverage ratio). A requirement is binding on a bank if the resulting MRC are higher than a bank's corresponding actual Basel III capital amounts.

Aggregation of changes in risk-based and leverage ratio MRC

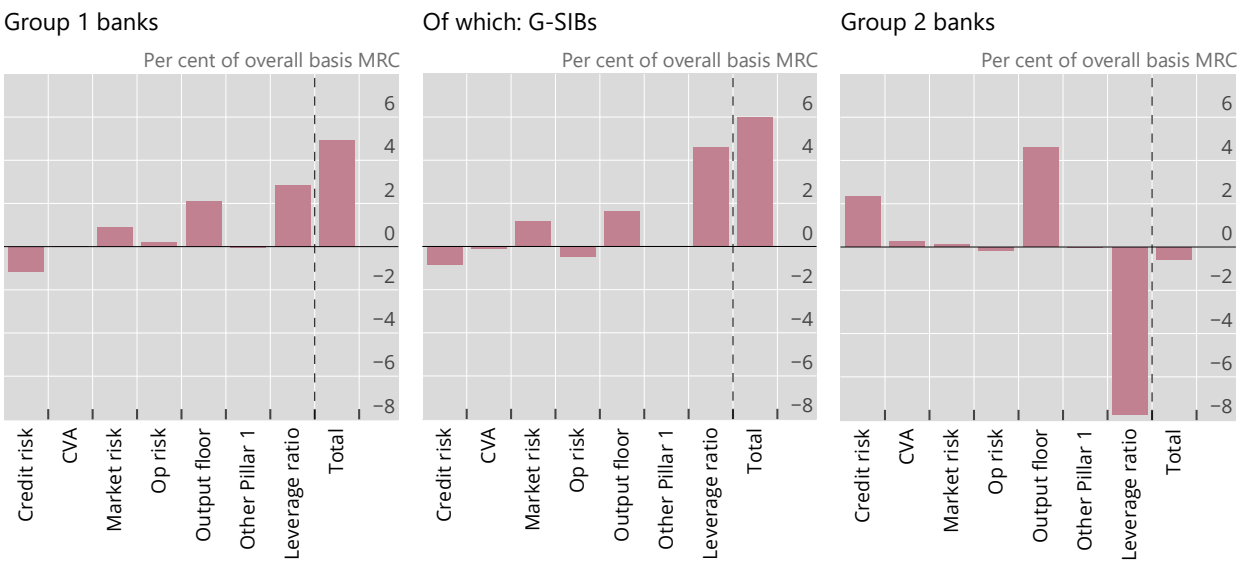
Graph A



Graph 22 displays the contributions of each MRC component relative to the current basis for Group 1 banks, G-SIBs and Group 2 banks, respectively. The bars above (below) the horizontal line highlight the positive (negative) contributions induced by the different parts of the final Basel III framework, except for the rightmost bar that represents the total MRC impact. Graph 23 provides the regional breakdown for Group 1 banks.

Changes in Tier 1 MRC at the target level due to the final Basel III standards

Graph 22

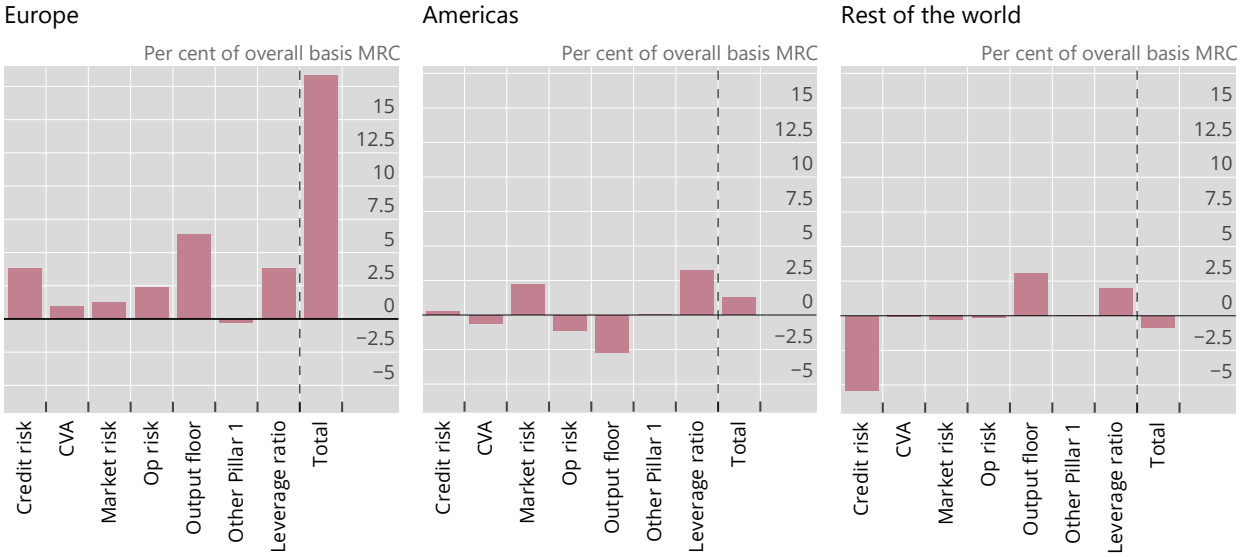


Credit risk includes securitisation. Operational risk figures may not show supervisor-imposed capital add-ons under Pillar 2. Therefore, increases in MRC may be overstated and reductions may be understated. Output floor results are net of the existing Basel I-based floor according to national implementation of the Basel II framework.

Source: Basel Committee on Banking Supervision.

Changes in Tier 1 MRC at the target level due to the final Basel III standards

Group 1 banks — Graph 23



Credit risk includes securitisation. Operational risk figures may not show supervisor-imposed capital add-ons under Pillar 2. Therefore, increases in MRC may be overstated and reductions may be understated. Output floor results are net of the existing Basel I-based floor according to national implementation of the Basel II framework.

Source: Basel Committee on Banking Supervision.

2.3 Leverage ratio

2.3.1 Overall results

The results regarding the Basel III leverage ratios are provided using the following measures for the numerator and the denominator:

- *numerator:* the numerator includes two alternative measures of Tier 1 capital:
  - *initial Basel III Tier 1,* which is the Tier 1 capital eligible under the national implementation of the Basel III framework in place in member countries at the reporting date, including any phase-in arrangements; and
  - *fully phased-in final Basel III Tier 1*, which is the fully phased-in Basel III definition of Tier 1 capital, since 2019 under the relevant national implementation, without considering any transitional arrangements set out in the in the Basel III framework.
- *denominator:* the Basel III leverage ratio exposure measure is calculated on the basis of the 2014 or 2017 (final) definition as applicable (see box C). Also note that, contrary to Sections 2.2, 2.4, 2.5 and Section 5.2, throughout Section 2.3 temporary exclusions from the leverage ratio exposure measure in the context of Covid-19 have not been added back.

Box C

Basel III leverage ratio framework

Under the January 2014 and December 2017 versions of the Basel III leverage ratio framework,① the Basel III leverage ratio exposure measure (the denominator of the Basel III leverage ratio) includes:

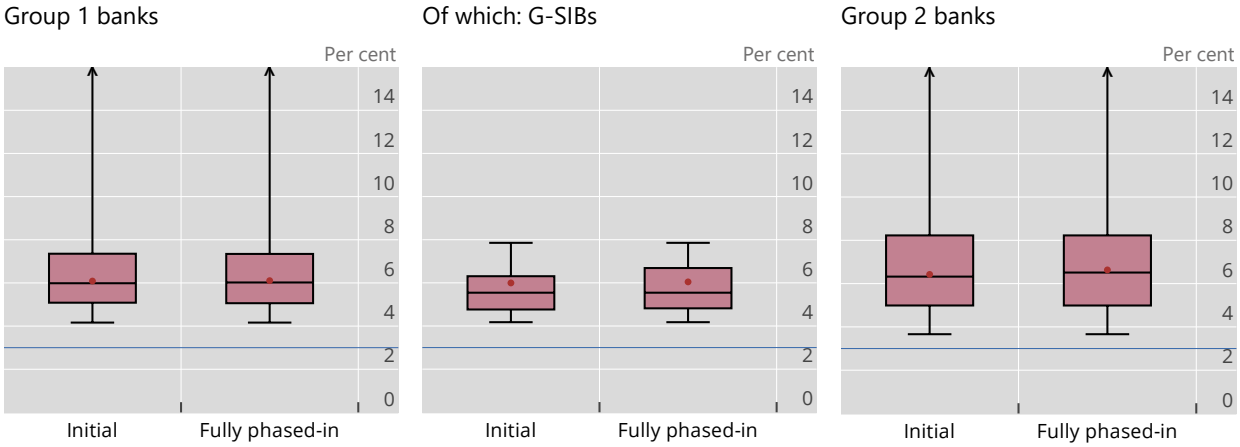
- on-balance sheet assets, excluding securities financing transactions (SFTs) and derivatives;
- SFTs, with limited recognition of netting of cash receivables and cash payables with the same counterparty under strict criteria;
- derivative exposures at replacement cost (net of cash variation margin meeting a set of strict eligibility criteria) plus an add-on for potential future exposure;
- written credit derivative exposures at their effective notional amount (net of negative changes in fair value that have been incorporated into the calculation of Tier 1 capital) reduced by the effective notional amount of purchased credit derivatives that meet offsetting criteria related to reference name, level of seniority and maturity;
- off-balance sheet exposures, obtained by multiplying notional amounts by the credit conversion factors in the standardised approach to credit risk, subject to a floor of 10%; and
- other exposures as specified in the Basel III leverage ratio framework.

① Basel Committee on Banking Supervision, *Basel III leverage ratio framework and disclosure requirements*, January 2014, www.bis.org/publ/bcbs270.htm. The Committee agreed revisions to the leverage ratio framework in December 2017, see Basel Committee on Banking Supervision, *Basel III: Finalising post-crisis reforms*, December 2017, www.bis.org/bcbs/publ/d424.htm. Please note that this report does not consider the treatment of client cleared derivatives exposures as revised by the Committee in June 2019.

Graph 24 presents summary statistics related to the distribution of Basel III leverage ratios based on initial and fully phased-in final Basel III Tier 1 capital for Group 1 banks, G-SIBs and Group 2 banks. The weighted average of the initial Basel III leverage ratios is 6.1% for Group 1 banks and for G-SIBs, while it equals 6.4% for Group 2 banks. The weighted average of the fully phased-in final Basel III leverage ratios is 6.1% for Group 1 banks, 6.0% for G-SIBs and 6.6% for Group 2 banks. When comparing across groups, Group 2 banks show a slightly larger interquartile dispersion compared with Group 1 banks, whereas G-SIBs' leverage ratios are more concentrated.

The median fully phased-in final Basel III leverage ratio is 6.0% for Group 1 banks, 5.4% for G-SIBs and 6.5% for Group 2 banks, with all banks well above the 3% minimum. The aggregate leverage incremental shortfall under the initial framework is again zero in this period.

Initial and fully phased-in final Basel III Tier 1 leverage ratios[1] Graph 24



[1] See Section 1.3.3 for details on box plots. The blue line is set at 3% (minimum leverage ratio level).

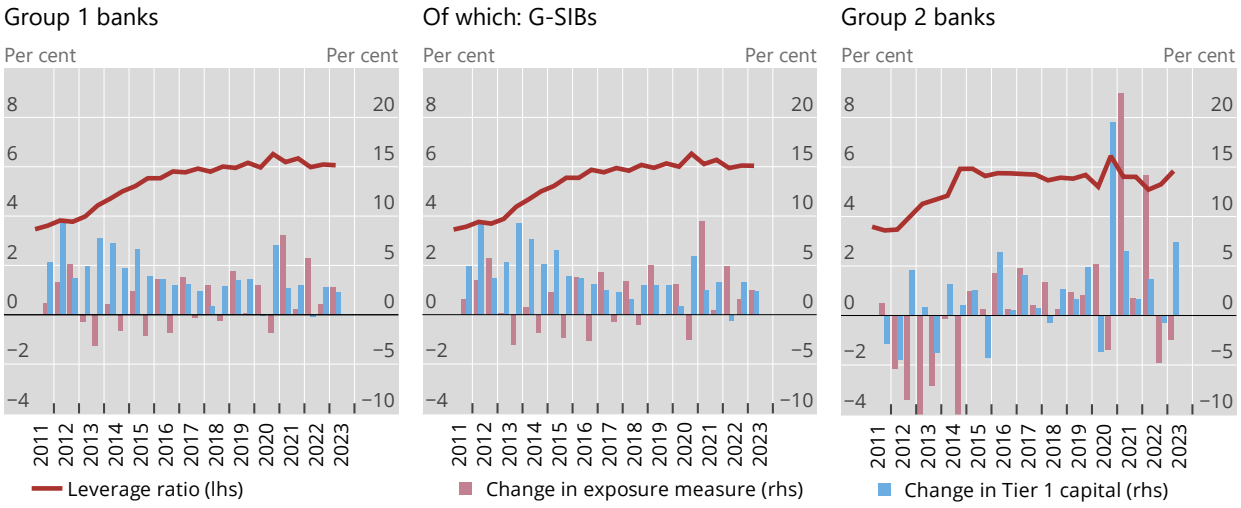
Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

Graph 25 shows how the fully phased-in final Basel III leverage ratios have evolved over time for a balanced data set comprising leverage ratio data for all reporting dates from June 2011 to June 2023. For Group 1 banks, the leverage ratio remained almost stable compared with end-December 2022. This is driven by increases both the exposure measure and Tier 1 capital for Group 1 banks.

Graph 26 shows the same information as Graph 25, but for a balanced data set of Group 1 banks, grouped by region. Overall, the leverage ratio has been growing over the past twelve years for all regions, with Europe showing the strongest relative increase and the rest of the world showing the largest absolute increase. In the last period, the average leverage ratio for banks in Europe increased again slightly, while it decreased slightly for banks in the Americas and the rest of the world. Leverage ratios continue to be lower in Europe (5.3%) compared with the Americas (5.9%) and the rest of the world (6.7%).

Fully phased-in final Basel III Tier 1 leverage ratios and component changes[1]

Balanced data set, exchange rates as at the current reporting date — Graph 25

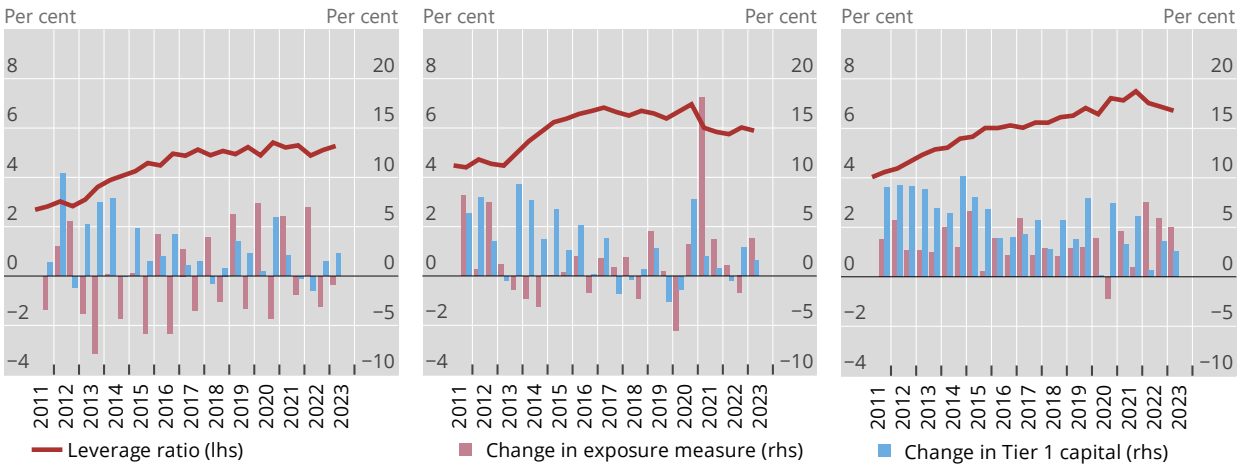


[1] Data points from H1 2011 to H2 2012 use the original definition of the leverage ratio. Data points from H1 2013 to H1 2017 use the definition of the leverage ratio set out in the 2014 version of the framework. Note that the data points for H1 2013 use an approximation for the initial definition of the Basel III leverage ratio exposure where gross instead of adjusted gross securities financing transaction values are used. Data points from H2 2017 onwards use the final definition of the leverage ratio to the extent data are available. Since the Committee did not collect the relevant data through its Basel III monitoring exercise for the end-June 2020 reporting date, the adjustment from initial to final leverage ratio exposure measure was calculated based on H2 2019 data.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

Fully phased-in final Basel III Tier 1 leverage ratios and component changes,[1] by region

Group 1 banks, balanced data set, exchange rates as at the current reporting date — Graph 26



[1] See footnote 1 to Graph 25.

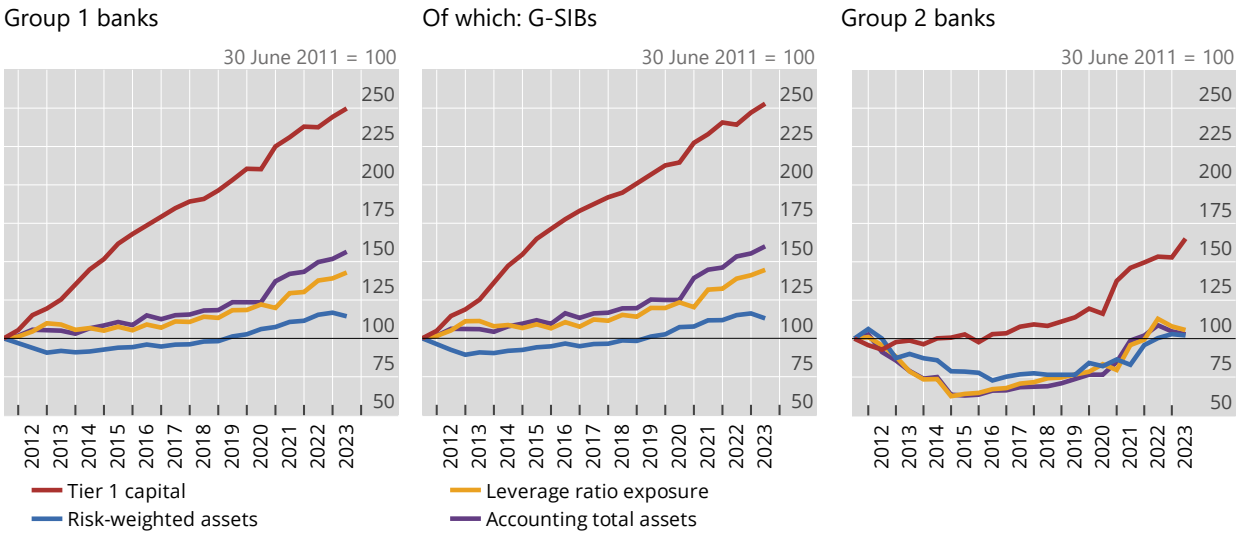
Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size. Worksheet "Graph 26a" provides the same breakdown for G-SIBs.

Graph 27 shows the evolution of key metrics of the risk-based capital and leverage ratios over time for a balanced data set, ie banks that have consistently provided the data since June 2011. The four key metrics are Basel III Tier 1 capital, RWA and the leverage ratio exposure measure, all assuming full implementation of Basel III, as well as accounting total assets. For Group 1 banks, all four key metrics increased steadily over the period, even though risk-weighted assets show a small dip since the previous reporting date. For Group 2 banks, Tier 1 capital increased substantially since end-December 2022, while the other three variables continued to decline at a slow rate. For all four metrics there is a substantial increase since end-December 2019 for both, Group 1 and Group 2 banks. For all banks, Tier 1 capital has increased at a much higher rate than risk-weighted assets, accounting assets and leverage ratio exposures over the entire observed period.

Graph 28 shows the same information for a balanced data set of Group 1 banks, grouped by region. While leverage exposures decreased from 2011 until 2016 for European Group 1 banks and remained below the level of 2011 since then, banks in the Americas experienced a moderate increase, and exposure for Group 1 banks in the rest of the world increased steadily since 2011.

Tier 1 capital, RWA, Basel III leverage ratio exposure and accounting total assets[1]

Balanced data set, exchange rates as at the current reporting date — Graph 27

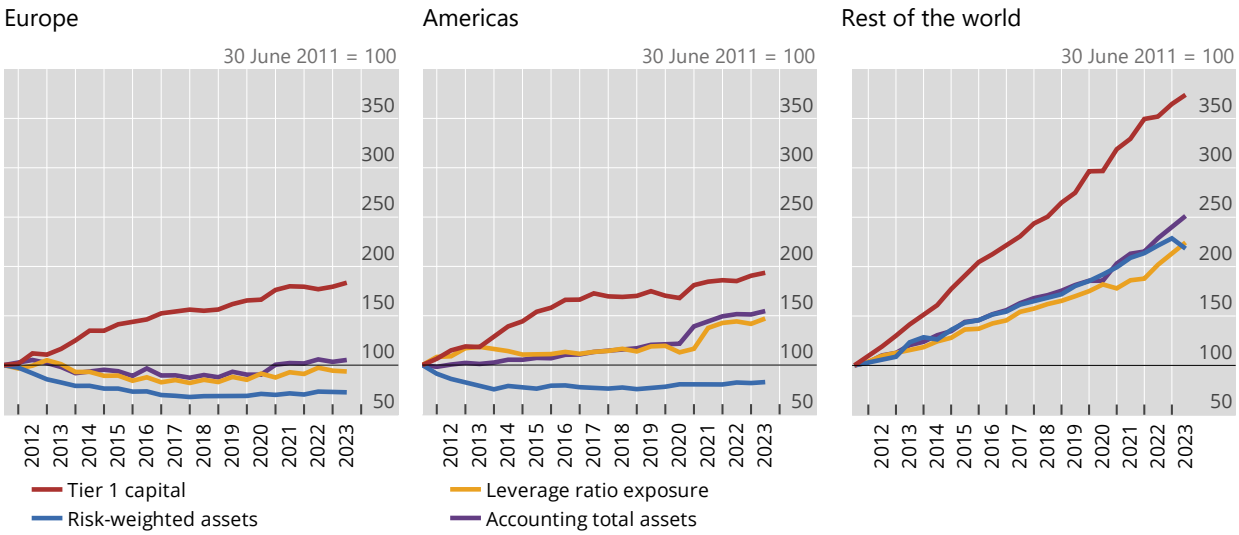


[1] Tier 1 capital, RWA and leverage ratio exposure assume full implementation of Basel III. Data points from H1 2010 to H2 2012 use the original definition of the leverage ratio. Data points from H1 2013 to H1 2017 use the definition of the leverage ratio set out in the 2014 version of the framework. Note that the data points for H1 2013 use an approximation for the initial definition of the Basel III leverage ratio exposure where gross instead of adjusted gross securities financing transaction values are used. Data points from H2 2017 onwards use the final definition of the leverage ratio to the extent data are available. Since the Committee did not collect the relevant data through its Basel III monitoring exercise for the end-June 2020 reporting date, the adjustment from initial to final leverage ratio exposure measure was calculated based on H2 2019 data, and accounting total assets are taken from end-2019 reporting.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

Tier 1 capital, RWA, Basel III leverage ratio exposure and accounting total assets,[1] by region

Group 1 banks, balanced data set, exchange rates as at the current reporting date — Graph 28



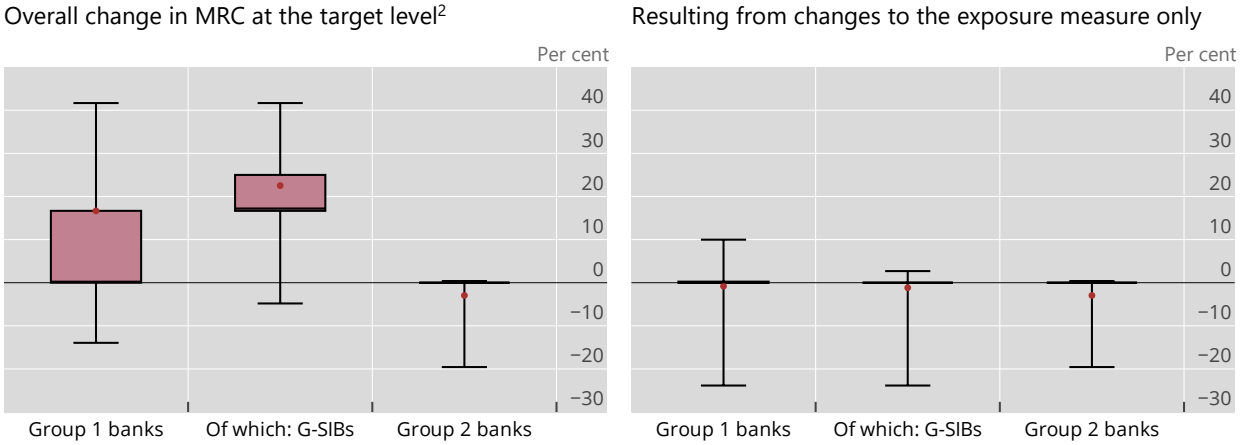
[1] See footnote 1 to Graph 27.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

2.3.2 Impact on Basel III leverage ratio MRC measure due to the final standards

Graph 29 assesses, for Group 1 banks, G-SIBs and Group 2 banks, the changes in leverage ratio MRC at the target level due to the revisions to the Basel III leverage ratio. This captures the change in the definition of the Basel III leverage ratio exposure measure and the introduction of a G-SIB buffer on top of a 3% leverage ratio minimum, which amounts to 50% of the G-SIB surcharge on risk-based capital requirements. The left-hand side panel of Graph 29 shows the overall MRC changes, while the right-hand side panel shows the changes in MRC due to the changes in the exposure measure only (right-hand panel). The main driver of the change in MRC is the introduction of the G-SIB buffer in the final Basel III framework, even though at individual level some banks might be materially impacted by the change of the leverage ratio exposure measure. Note that many banks have already adopted the final standards. For these banks, the change in MRC shown below is zero.

Changes in leverage ratio MRC due to revisions in the final standards[1] Graph 29



[1] See Section 1.3.3 for details on box plots. To the extent a bank could not provide a component under the 2017 exposure measure, the relevant component of the 2014 measure was used. If a bank already adopted the revisions to the leverage ratio exposure measure, the change to the exposure measure equals zero. [2] The increase for G-SIBs is driven by the introduction of a G-SIBs add-on.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

2.4 Combined shortfall amounts under the final Basel III framework

This section shows the regulatory capital shortfalls for the Group 1 and Group 2 bank samples assuming fully phased-in requirements according to the final Basel III standards. Results for the Basel III monitoring exercises (data as of end-December 2017 through to the current reporting period) are compared with the results of the previous cumulative QIS, using data as of end-December 2015.[22] This analysis is based on an unbalanced data set, ie it relies on the different samples for the different reporting dates.

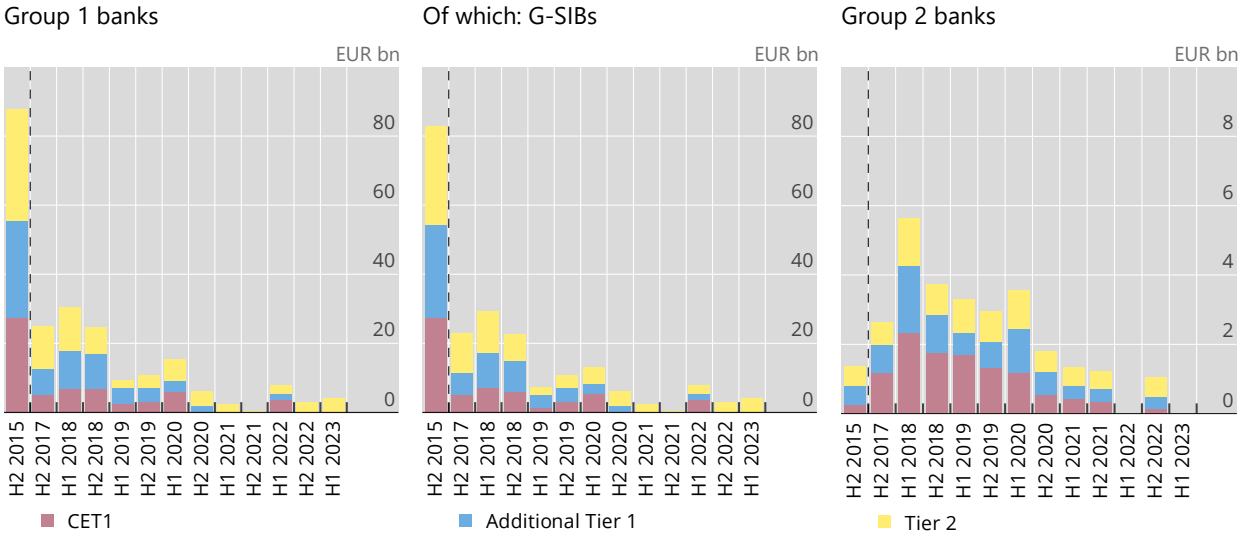
Considering Group 1 and Group 2 banks under the initial Basel III standards, only one Group 1 bank reports a capital shortfall, considering a combination of risk-based requirements and the leverage ratio requirements.

[22] Basel Committee on Banking Supervision, *Basel III Monitoring Report – Results of the cumulative quantitative impact study*, December 2017, www.bis.org/bcbs/publ/d426.htm.

Combined capital shortfalls at the target level

Fully phased-in final Basel III standards[1], unbalanced data set, exchange rates as at the reporting dates

Graph 30



[1] Results for H2 2015 are based on the Committee's cumulative Quantitative Impact Study and are not fully comparable from a methodological point of view. Compared with H2 2017 and H1 2018, the results since H2 2018 include the revised market risk framework as finalised in January 2019. Since the Committee did not collect all relevant data through its Basel III monitoring exercise for the end-June 2020 reporting date, shortfalls for H1 2020 are estimated using some data from end-2019 reporting.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

2.5 Total loss-absorbing capacity requirements for G-SIBs

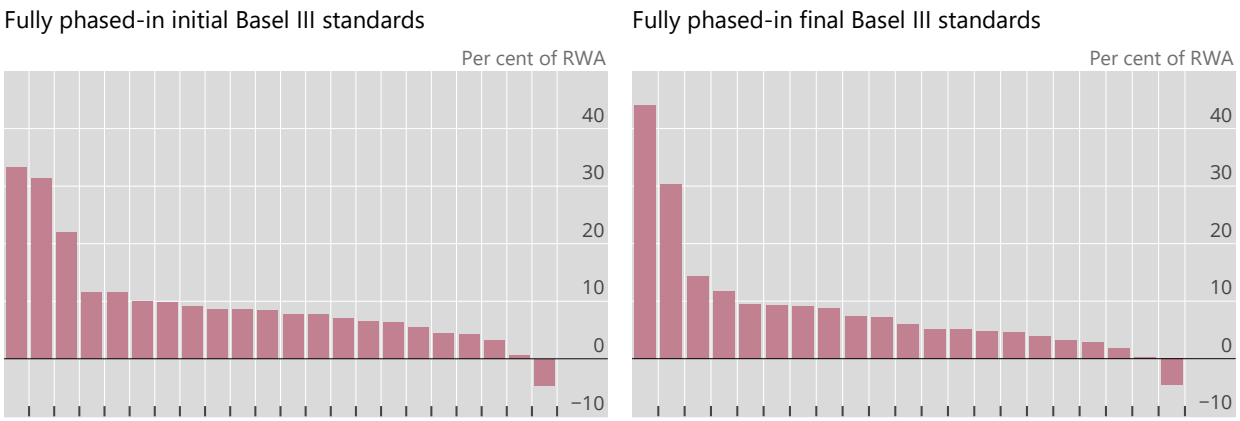
The Committee also collected data on additional total loss-absorbing capacity (TLAC) for G-SIBs, 22 of which participated in the exercise. Applying the 2022 minimum requirements under the initial Basel III framework (left panel of Graph 31), one G-SIB in the sample shows an incremental[23] TLAC shortfall which corresponds to 4.7% of its RWA. Overall, the shortfall amounts to €13.9 billion.

The final Basel III reforms, based on end-June 2023 data, resulted in no significant increase in aggregate capital requirements for the respondent banks. No additional G-SIBs reported shortfall when applying final Basel III framework and 2022 TLAC minimum requirements (right panel of Graph 31). The reported shortfall decreases to 4.6% of RWA with one bank less in the sample.

[23] The shortfall is incremental to any risk-based and leverage ratio shortfall discussed above.

Distribution of individual G-SIBs' incremental TLAC surplus and shortfall across banks[1]

Pure TLAC implementation[2], applying 2022 TLAC minimum requirements — Graph 31



[1] Surplus is indicated as positive and shortfall as negative. [2] Ie following the FSB TLAC Term Sheet rather than national implementation.

Source: Basel Committee on Banking Supervision.

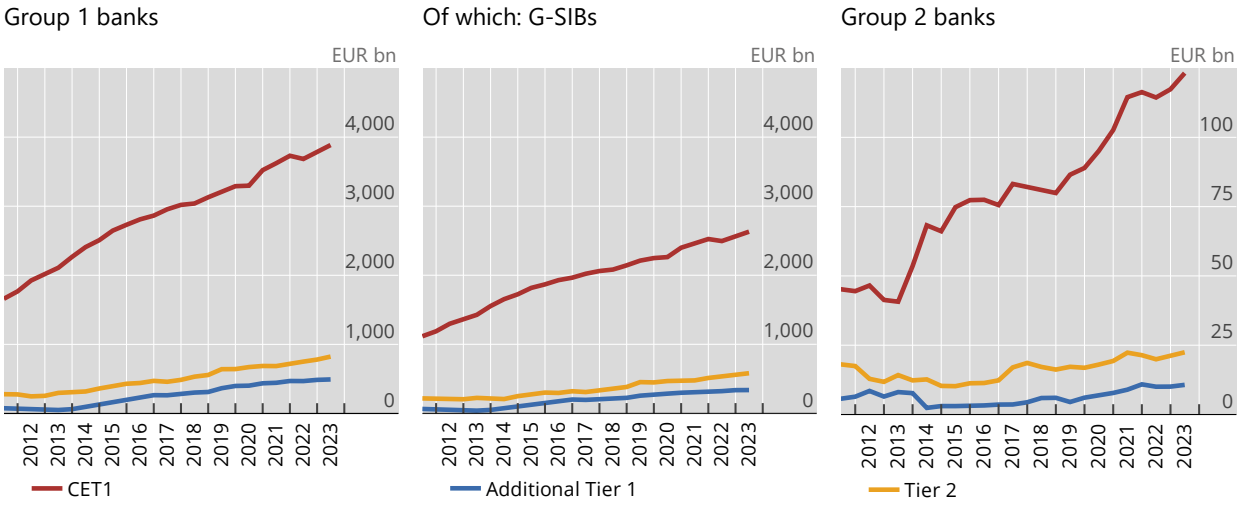
3. Level and composition of regulatory capital

3.1 Level of capital

Graph 32 shows a time series of the level of regulatory capital for a balanced data set of Group 1 banks, Group 2 banks and G-SIBs. From end-December 2022 to end-June 2023, the level of CET1 capital for Group 1 banks increased by €106 billion (or 2.8%) to €3,886 billion. G-SIBs, which collectively held €2,630 billion as of end-June 2023, account for 61% of this increase. For Group 1 banks, the increase in additional Tier 1 capital amounts to €6.3 billion since December 2022, while an increase of Tier 2 capital of €43.0 billion is observed. Over the most recent period, the level of Group 2 banks' CET1 capital increased by €5.8 billion (or 5.0%) to €123.2 billion. Group 2 banks' additional Tier 1 capital increased by €0.6 billion and Tier 2 capital increased by €1.3 billion.

Level of capital[1]

Balanced data set, exchange rates as at the current reporting date — Graph 32



[1] The graph shows the fully phased-in initial Basel III framework for the data points up to and including the end of 2018 and the actual framework in place at the reporting date for all data points thereafter.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size. Worksheet "Graph 32a" provides an additional regional breakdown for Group 1 banks.

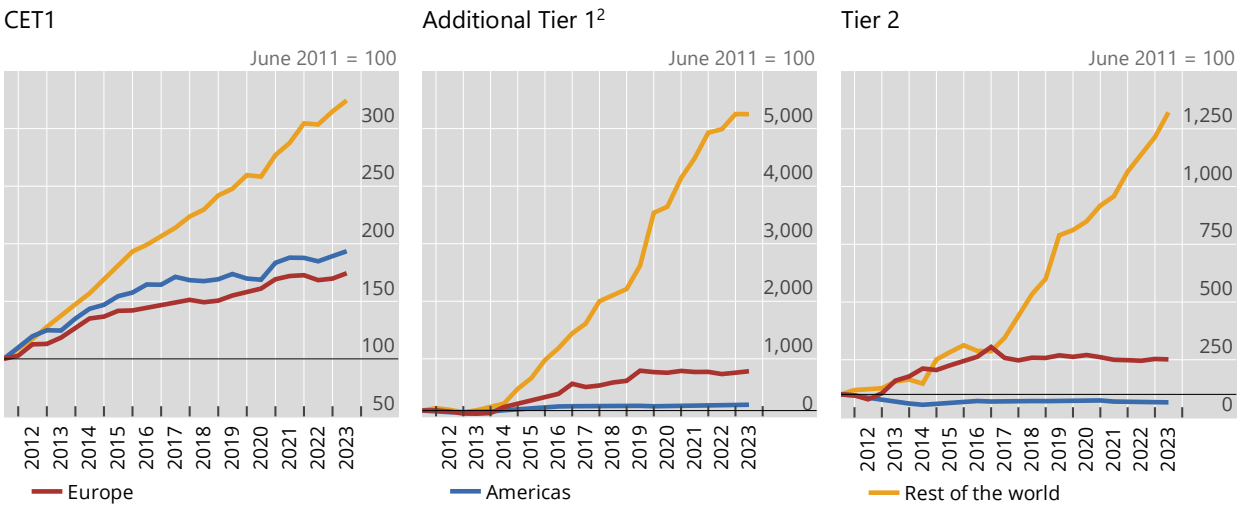
Graph 33 shows a time series of the level of regulatory capital for a balanced data set of Group 1 banks, grouped by region, assuming full implementation of final Basel III standards. Over H1 2023, CET1 capital increased in all the regions (Europe, the Americas and the rest of the world). While CET1 capital in the rest of the world is now more than three times of its value in 2011, the increase in Europe and in the Americas was more limited at 74.4% and 93.5%, respectively.

Additional Tier 1 capital showed some initial declines from 2011 through 2013 in Europe and the Americas and some mild increases in the rest of the world region. Afterwards, additional Tier 1 capital has grown significantly in the rest of the world region. The growth of additional Tier 1 capital is more modest in Europe and especially in the Americas. This development is in line with Tier 2 capital.

The stock of Tier 2 capital has grown compared with the end-June 2011 (reference date) for all regions except the Americas. This region experienced a decrease between 2011 and 2014 and has experienced mild increases thereafter. Nevertheless, the value of Tier 2 capital remains below the initial level in 2011. Since end-December 2022, the Americas and the rest of the world region experienced an increase in the level of Tier 2 holdings (by €1.8 billion and €107.2 billion, respectively), while banks' Tier 2 capital slightly decreased in the Europe (by €1.8 billion).

Evolution of Basel III capital,[1] by region

Group 1 banks, balanced data set, exchange rates as at the current reporting date — Graph 33



[1] The graph shows the fully phased-in initial Basel III framework for the data points up to and including the end of 2018 and the actual framework in place at the reporting date for all data points thereafter. [2] The strong percentage increases in additional Tier 1 capital are driven by the low absolute levels in 2011, in particular for the rest of the world region.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size. Worksheet Graph 33a provides the same breakdown but shown in EUR amounts.

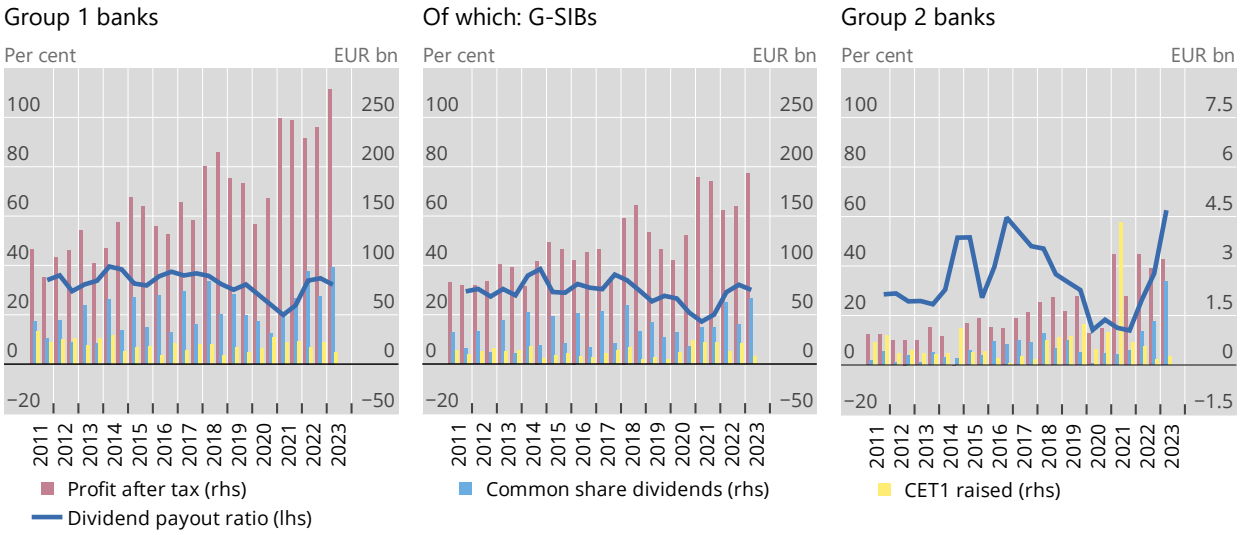
3.2 Profits, dividends and capital raised

Overall, Group 1 banks' profits after tax increased by 16.3% (€39.2 billion) since end-December 2022, thus reaching a level €137.1 billion above the pandemic-low of €141.8 billion in H1 2020. G-SIBs report profits after tax of €192.8 billion in H1 2023. The increase is driven by a significant spike in Europe in H1 2023 due to a merger between two banks. The annual dividend payout ratios for Group 1 banks and G-SIBs (calculated over the last two semesters to avoid seasonality issues) decreased to 32.2% and 30.0%. However, the annual dividend payout ratios is still higher than their lowest values, reached in end-June 2021 with values of 20.0% and 17.2%, respectively. Those low levels in 2021 can be explained by European banks facing restrictions in dividends by the ECB during the Covid-19 pandemic.

Group 2 banks posted €3.2 billion of profits after tax in H1 2023, compared with €2.9 billion in H2 2022, and an increasing annual dividend payout ratio of 62.5%, after 36.9% for H2 2022.

Profits, dividends, CET1 capital raised externally and dividend payout ratio

Balanced data set, exchange rates as at the current reporting date — Graph 34



The dividend payout ratio is calculated as common share dividends divided by profits after tax by using a rolling 12-month window to improve comparability across countries with different dividend payment patterns.

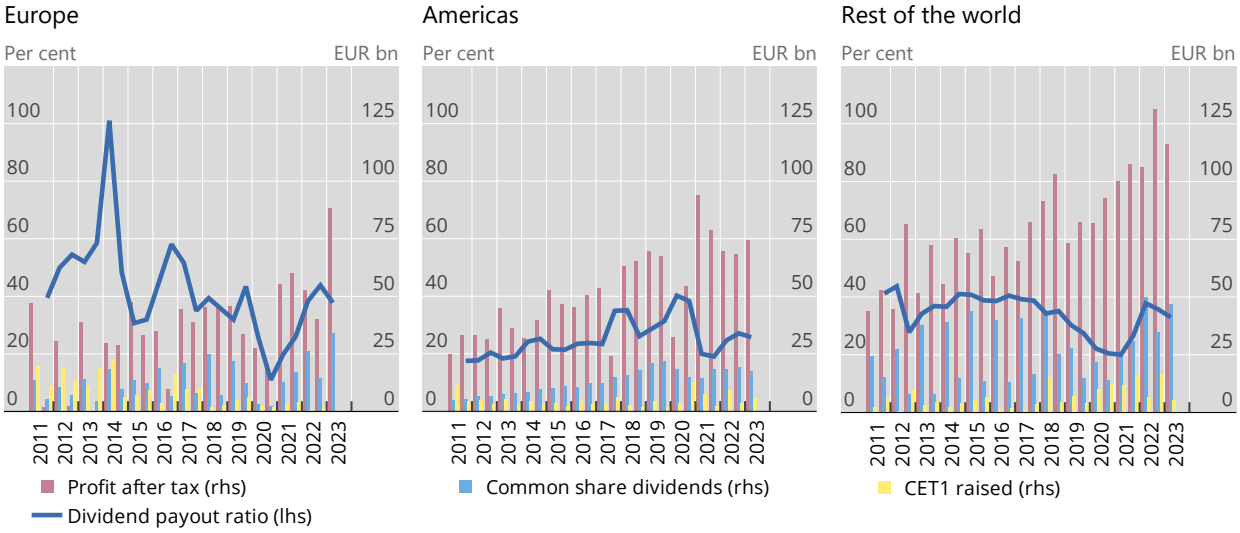
Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

Graph 35 provides the regional breakdown for Group 1 banks. After tax profits in Europe more than doubled from €39.9 billion in H2 2022 to €88.2 billion in H1 2023, driven by a merger between two banks. In the Americas, profits increased from €68.3 billion to €74.5 billion, while they decreased in the rest of the world from €131.5 billion to €116.2 billion. Over the same period, the annual dividend payout ratios decreased by 6.0 and 1.4 percentage points in Europe and the Americas respectively and by 2.7 percentage points in the rest of the world region.

Annual after-tax profits for the Group 1 banks in the sample saw a significant increase and reach an amount of €518.6 bn (+9.1%). For Group 2 banks they increased by 12.7% to €6.1 billion compared with the 12-month period ending June 2022.

Profits, dividends, CET1 capital raised externally and dividend payout ratio, by region

Group 1 banks, balanced data set, exchange rates as at the current reporting date — Graph 35



The dividend payout ratio is calculated as common share dividends divided by profits after tax by using a rolling 12-month window to improve comparability across countries with different dividend payment patterns.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size. Worksheet "Graph 35a" provides the same breakdown for G-SIBs.

Over the last twelve months, 75 out of the 104 Group 1 banks in the sample raised capital. Regarding CET1 capital, the total amount raised equals €41.9 billion (see Table 5), including €30.0 billion raised by G-SIBs.

Group 1 banks raised a greater amount of additional Tier 1 capital (€57.4 billion) and of Tier 2 capital (€117.5 billion) relative to CET1 capital (€41.9 billion). This could indicate that banks are continuing to focus on the remaining capital requirements such as the leverage ratio, TLAC and the minimum requirement for own funds and eligible liabilities (MREL) in countries in the European Union. The relevant regulations stipulate that CET1 capital is not necessarily the exclusive form of eligible capital to meet these requirements. In other countries, the same may hold true for additional requirements stemming from Pillar 2. Around 60% of the overall capital raised globally was raised by banks in the rest of the world region, especially in China. Over the last twelve months, Group 2 banks focused on Tier 2 capital (around 71% of the total capital raised).

Capital raised during 2022/2023

Full sample of banks[1], gross amounts, in billions of euros — Table 5

	Number of banks	Number of banks that raised capital	CET1	Add. Tier 1	Tier 2
Group 1 banks	103	75	41.9	57.4	117.5
Of which: Europe	31	24	4.5	22.1	33.6
Of which: Americas	22	15	12.6	8.2	6.6
Of which: RW	50	36	24.9	27.2	77.4
Of which: G-SIBs	29	25	30.0	33.0	75.2
Group 2 banks	45	12	0.6	0.0	1.5

[1] Table only includes banks that provide data for the current and previous reporting dates.

Source: Basel Committee on Banking Supervision.

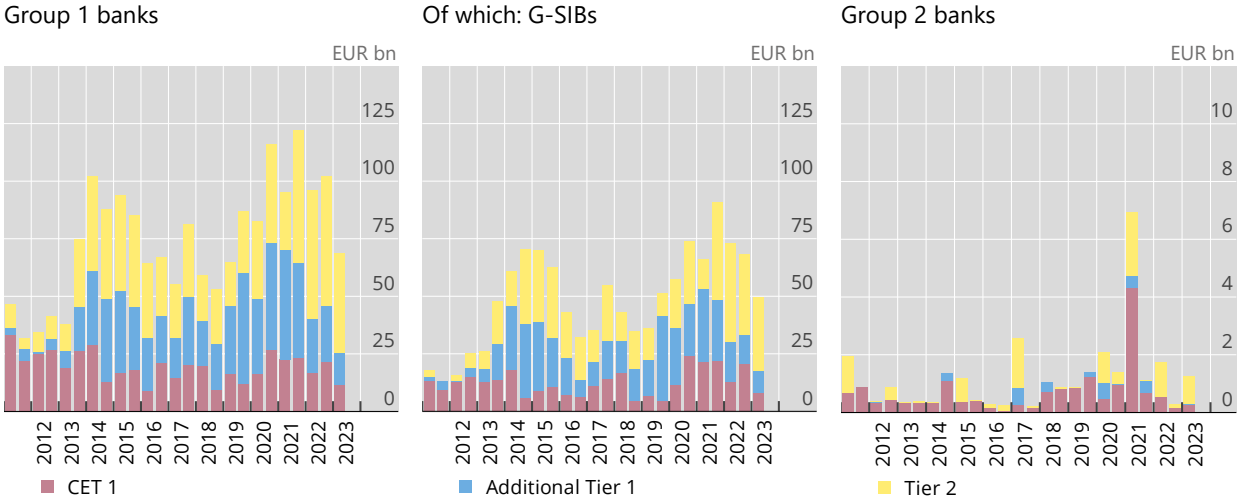
Graph 36 depicts the evolution of capital raised over time for a balanced data set. The capital raised in H1 2023 by Group 1 banks was €68.8 billion compared to €101.9 billion in H2 2022. Of this amount, the amount raised by G-SIBs decreased by €18.8 billion over the last semester. Overall, since 2011, the capital raised by G-SIBs accounts for more than 60% of the capital raised by Group 1 banks (71.9% in H2 2023). The CET1 capital raised in H1 2023 by Group 1 banks and G-SIBs decreased to €11.5 billion and €7.8 billion, respectively.

Banks from the rest of the world contribute the most to the overall decrease in CET1 capital raised while there is a small increase for banks from the Americas. Yet, European banks decreased their CET1 capital raised by 81.9% (€0.3 billion raised) while CET1 capital raised by banks from the Americas increased to €5.9 billion (+56.4%) over the past six months.

Observing total capital raised by Group 1 banks (€68.6 billion) in H2 2022, it shows that also Group 1 banks in the balanced sample focused mainly on Tier 2 capital (Graph 36) as it represents more than 60% of the total capital raised in that period. More than 70% of this increase in Group 1 banks' Tier 2 capital is attributable to G-SIBs.

Capital raised externally

Balanced data set, exchange rates as at the current reporting date — Graph 36



Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size. Worksheet "Graph 36a" provides an additional regional breakdown for Group 1 banks.

3.3 Composition of capital

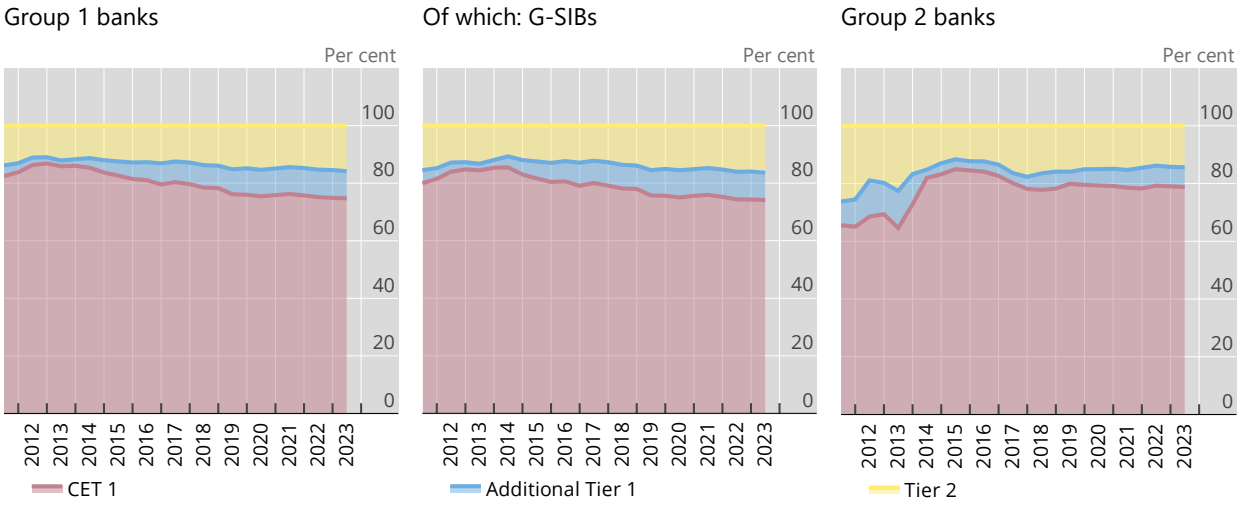
Graph 37 below shows the composition of total capital under the initial Basel III rules. As expected and as observed on previous reporting dates, CET1 capital continues to be the predominant form of regulatory capital amongst all banks. As of end-June 2023, the average share of initial Basel III CET1 capital for Group 1 banks is 74.7%. For Group 2 banks, the initial Basel III CET1 capital represents 78.8% of regulatory capital at the reporting date. Noticeably, the second largest share of total capital continues to be Tier 2 capital (15.8% for Group 1 banks and 14.4% for Group 2 banks).

For Group 1 banks, the positive trend of increasing shares of CET1 capital, which had been observed during the first years of the monitoring exercise, reversed starting in 2013. Since then, there is a decline in the share of CET1 capital offset by an increase in additional Tier 1 and Tier 2 capital. The structure of regulatory capital had somewhat stabilised up to 2017, but CET1 capital has continued to globally decline over the more recent reporting periods for Group 1 banks, as well as G-SIBs. For H1 2023, CET1 capital is standing at 74.7%, additional Tier 1 at 9,4% and Tier 2 at 15.8%.

For Group 2 banks, the structure of capital has remained fairly stable since end-June 2019, CET1 capital is standing at 78.8% for the current reporting period, additional Tier 1 capital at 6.8% and Tier 2 at 14.4%.

Structure of regulatory capital under initial Basel III[1]

Balanced data set — Graph 37



[1] The graph shows the fully phased-in initial Basel III framework for the data points up to and including the end of 2018 and the actual framework in place at the reporting date for all data points thereafter.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size. Worksheet "Graph 37a" for the structure of capital under transitional initial Basel III.

With regards to the composition of Basel III CET1 capital itself (Table 6), retained earnings and paid-in capital continue to comprise the overwhelming majority of CET1 outstanding for both Group 1 and Group 2 banks. For Group 1 banks, retained earnings and paid-in capital make up 97.6% of outstanding CET1 on average. Accumulated Other Comprehensive Income (AOCI)[24] contributes 1.8% to Group 1 banks' CET1 capital on average, but there is significant dispersion across banks and countries. Meanwhile, CET1 from recognised subsidiaries continues to provide minimal support to Group 1 banks' outstanding CET1 balances in most countries. For Group 2 banks, the share of paid-in capital and retained earnings in total CET1 capital is somewhat lower, at 30.4% and 50.6% respectively, while the share of AOCI is higher compared with Group 1 banks, again with significant dispersion across banks and countries.

Structure of CET1 capital, by bank group and region

Full sample of banks, in per cent of CET1 capital gross of regulatory adjustments — Table 6

	Number of banks	Paid in capital	Retained earnings	Other comprehensive income	CET1 from recognised subsidiaries
Group 1 banks	101	21.3	76.2	1.8	0.7
Of which: Europe	30	34.1	55.5	8.4	2.0
Of which: Americas	22	9.3	99.2	–8.5	0.0
Of which: RW	49	22.2	72.7	4.7	0.4
Of which: G-SIBs	28	16.0	81.8	1.3	0.8
Group 2 banks	42	30.1	51.0	17.8	1.1

Source: Basel Committee on Banking Supervision.

[24] AOCI typically includes the following: unrealised gains and losses in available for sale securities; actuarial gains and losses in defined benefit plans; gains and losses on derivatives held as cash flow hedges; and gains and losses resulting from translating the financial statements of foreign subsidiaries.

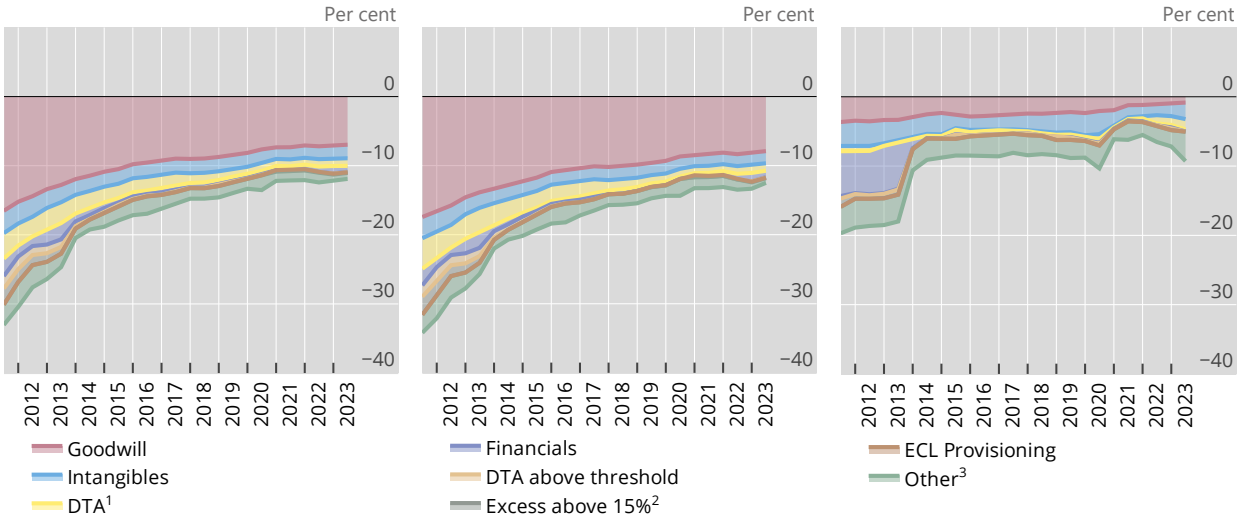
3.4 Regulatory adjustments

Using a balanced data set, regulatory adjustments reduce overall gross CET1 capital for the current period (ie CET1 capital before adjustments) for Group 1 and Group 2 banks by 11.9% and 9.3% respectively (see Graph 38). The largest driver of Group 1 bank CET1 capital adjustments continues to be goodwill (7.0%). The largest drivers of Group 2 banks' adjustments are other deductions, intangibles and DTA (4.3%, 2.4% and 1.5%, respectively).

Looking at Group 1 banks, most countries (15 out of 22) report zero adjustments from the transitional add-backs from ECL provisioning. Six countries report positive impacts while one reports a negative impact.

Regulatory CET1 capital adjustments under fully phased-in initial Basel III

Balanced data set, in per cent of CET1 capital prior to adjustments — Graph 38

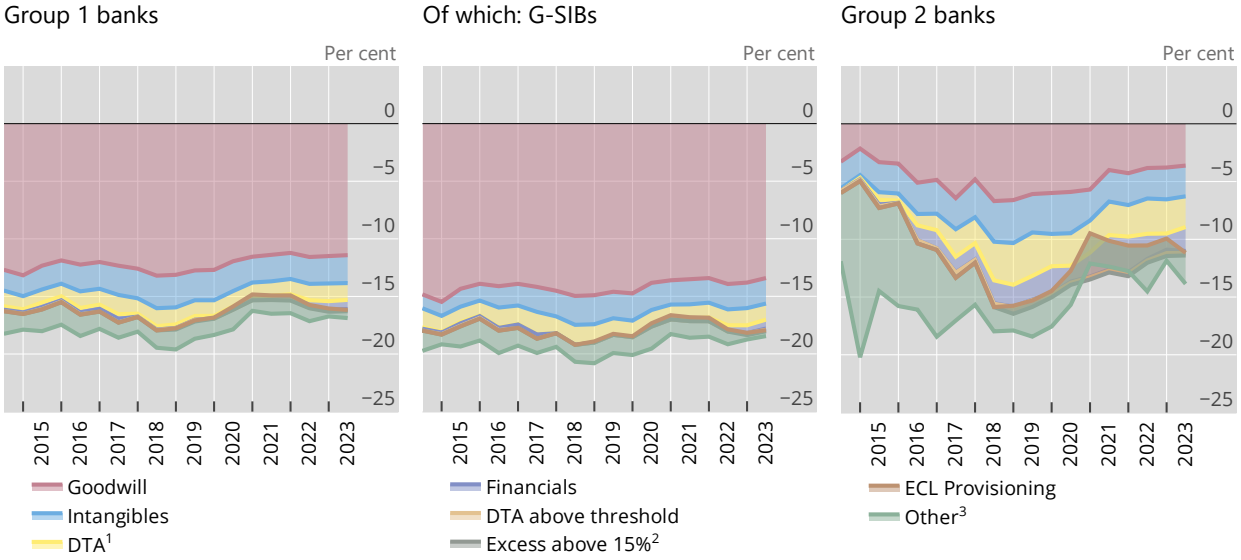


[1] DTAs are the deferred tax assets that are deducted in full under Basel III (ie they exclude DTAs that are related to temporary differences, which are only deducted when they exceed a threshold). [2] Excess above 15% pertains to significant investments in the common shares of unconsolidated financial institutions, mortgage servicing rights, and DTAs due to timing differences that do not separately exceed the 10% category thresholds but in the aggregate exceed the 15% basket threshold. [3] Other includes adjustments related to investment in own shares, shortfall of provisions to expected losses, cash flow hedge reserves, cumulative changes in fair value due to changes in own credit risk, net pension fund assets, securitisation gains on sale, mortgage servicing rights and deductions from additional Tier 1 capital to the extent they exceed a bank's additional Tier 1 capital.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

Regulatory CET1 capital adjustments under rules applicable at the reporting dates

Balanced data set, in per cent of CET1 capital prior to adjustments — Graph 39



[1] DTAs are the deferred tax assets that are deducted in full under Basel III (ie they exclude DTAs that are related to temporary differences, which are only deducted when they exceed a threshold). [2] Excess above 15% pertains to significant investments in the common shares of unconsolidated financial institutions, mortgage servicing rights, and DTAs due to timing differences that do not separately exceed the 10% category thresholds but in the aggregate exceed the 15% basket threshold. [3] Other includes adjustments related to investment in own shares, shortfall of provisions to expected losses, cash flow hedge reserves, cumulative changes in fair value due to changes in own credit risk, net pension fund assets, securitisation gains on sale, mortgage servicing rights and deductions from additional Tier 1 capital to the extent they exceed a bank's additional Tier 1 capital.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

4. Components and determinants of risk-based capital requirements

4.1 Share of different risk types in overall MRC under current rules

Graph 40 shows the evolution of the share of different asset classes in overall MRC for a balanced data set.[25] As of June 2023 and for a balanced data set of Group 1 banks, credit risk[26] continues to be the dominant portion of overall MRC, on average covering 66.7% of total MRC. However, the share of credit risk has declined significantly from 75.5% at end-June 2011 to its lowest share of 63.9% at end-June 2015 and since then slightly increased to the level at the current reporting date. This looping trend was mainly driven by the MRC for retail (from 17.8% to 17.4%), related entities (from 9.7% to 0%) and securitisations (from 6.0% to 3.1%) while the MRC for corporate exposures increase over the observed period from 32.4% at end-June 2011 to 37.3% at the current reporting date.

The share of operational risk MRC increased sharply from 7.6% at the end of June 2011 to 16.9% at the end of 2018 and then decreased slightly to reach 16.1% at the current reporting date. The increase in the early 2010s was attributed in large part to the surge in the number and severity of operational risk

[25] MRC figures in this section are based on the total capital ratio, ie based on 8% of RWAs. Where applicable, MRCs reflect the effect of the 1.06 scaling factor applied to IRB credit RWA, and deductions assigned to the securitisation and related entities asset classes.

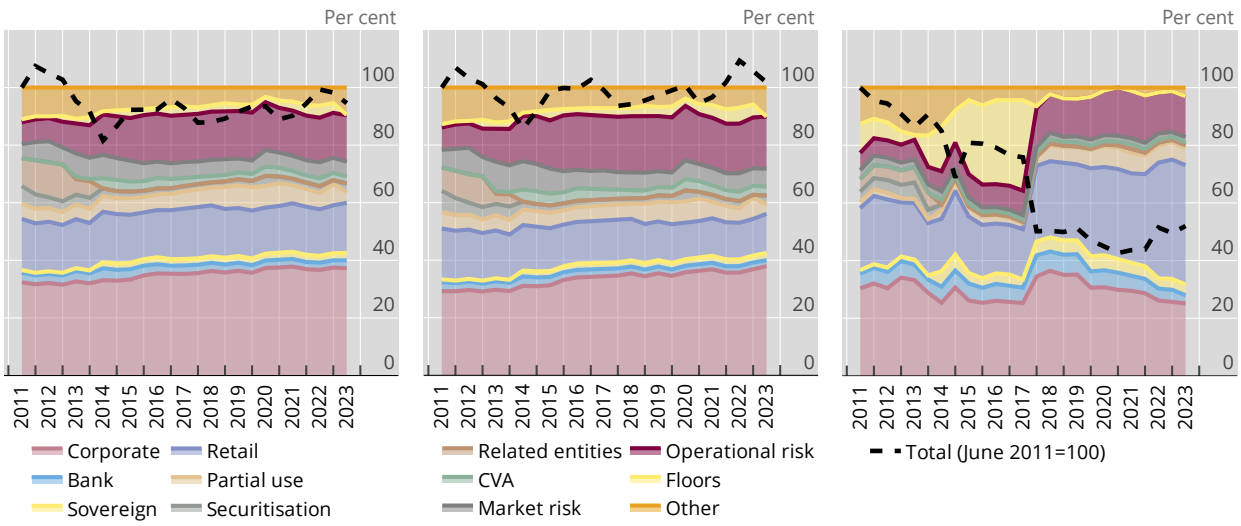
[26] Here overall credit risk is defined as the sum of corporate, bank, retail, sovereign, partial-use, securitisations and related entities as illustrated in the graph.

events during and after the financial crises, which are factored into the calculation of MRC for operational risk under the advanced measurement approach. More recently, there is some "fading out" of the financial crisis losses so that in 2020, the lowest loss level of the past 10 years is observed. This explains the latest decrease in capital requirements especially for the banks heavily affected in the financial crisis. On the other hand, losses triggered by the Covid-19 pandemic did not have a significant impact on the loss severity level. The share of market risk decreased strongly until end 2019 (from 6.5% in end-2011 to 4.7%) to stabilise around 5% since (5.2% in June 2023). The shares of "other" risk and of the floor requirement have been somewhat stable at around 10% and 2%, respectively, although floor requirements decreased more recently to 0.1% at end-June2023 where as "other" jumped to 9.5% for the current reporting date. This is likely due to difficulties for some banks to provide more granular data points for the main risk categories in the new Supervisory Reporting System templates.

For Group 2 banks, the drop in overall MRC in the second half of 2017 as well as the drop in the share of floors is due to a change in the Basel I floor reporting approach in several countries.

Share of MRC by asset class[1] according to current rules

Balanced data set — Graph 40



[1] Exposures subject to partial use of the standardised approach for credit risk that cannot be assigned to a specific portfolio, as well as past-due items under the standardised approach, are listed separately as "partial use". "Related entities" includes capital requirements specified in Part 1 of the Basel II framework. The category "other" includes capital requirements for other assets; the current Basel I-based output floor; Pillar 1 capital requirements in member countries for risks not covered by the Basel framework; reconciliation differences; and additional capital requirements due to regulatory calculation differences and general provisions. The latter item can lead to negative capital requirements in cases where there is an excess in provisions, which can be recognised in a bank's Tier 2 capital. Furthermore, for banks that apply the standardised approach, general provisions may be recognised to some extent as Tier 2 capital; consequently, MRC is reduced by this amount. The term "reconciliation differences" refers to the difference between MRC reported at the entire bank level and the sum of MRC reported for the individual portfolios.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

Table 7 provides data on relative sizes of asset classes in terms of exposures as well as MRC for both Group 1 and Group 2 banks according to current rules at the reporting date. The sample differs considerably from the balanced data set used for the time series above, resulting in differences for the values at the reporting date. The average risk weight suggests the relative riskiness of the different asset classes as measured by the current framework. Both the numerator (12.5 times MRC) and the denominator (exposure amounts) of this ratio include exposures under the IRB and standardised approaches for credit

risk.[27] Since a common exposure measure for credit, market and operational risk does not exist, the size in terms of exposure and the average risk weight are only defined for asset classes subject to a credit risk treatment.

Looking at Group 1 banks, corporate exposures are the biggest in size with 30.1% of total exposures and 35.2% of MRC; they attract a 53.9% risk weight. Retail and sovereign asset classes represent almost half of exposures although a small share of MRC as they have a low-risk density and an average risk weight at 29.1% and 5.5% respectively. For Group 2 banks, retail and sovereign asset classes comprise almost two third (61.9%) of exposures, corporates represent 17.5% adding up to 79.4% of the total. Group 2 banks' average risk weight for overall credit risk is lower by 2.5 percentage points at 28.1% versus 30.6% for Group 1 banks. This is largely driven by Group 2 banks' lower average risk weights for sovereign and retail exposures.

[27] The asset classification is mainly based on the IRB approach. Exposures subject to partial use of the standardised approach for credit risk which cannot be assigned to a specific portfolio, as well as past-due items under the standardised approach, are listed separately in Table 7.

Average asset class/risk type size and average risk weight[1]

In per cent

Table 7

	Group 1			Group 2		
	Size exposure	Size MRC	Average risk weight	Size exposure	Size MRC	Average risk weight
Credit risk; of which:	99.7	66.4	30.6	98.9	80.6	28.1
Corporate	30.1	35.3	53.9	17.5	32.3	63.6
Sovereign	25.6	3.1	5.5	31.8	3.2	3.5
Bank	5.8	3.1	24.5	8.8	5.3	20.8
Retail	24.0	15.2	29.1	30.1	21.4	24.5
Equity	1.0	4.3	199.4	1.0	5.3	188.6
Purchased receivables	0.1	0.1	26.7	0.0	0.0	
Securitisation	2.3	1.3	27.1	0.5	0.6	43.0
Defaulted exposures	0.1	0.1	85.4	0.1	0.4	96.8
Other assets	3.9	4.5	53.5	0.7	1.9	95.4
Failed trades and non-DVP transactions	0.0	0.0	140.6	0.0	0.0	
Not assigned[2]	6.9	8.5	56.5	8.3	13.3	54.9
Regulatory difference[3]		–9.1			–3.0	
CVA		1.1			0.8	
Trading book CCR[4]		0.0			0.0	
Market risk		3.1			2.1	
Other trading book		0.1			0.0	
Operational risk		10.2			9.9	
Floor adjustment		0.0			0.0	
Other[5]		7.6			2.1	
Total	100.0	100.0	45.9	100.0	100.0	34.5

[1] MRC figures in this table are based on the minimum total capital ratio (ie based on 8% of RWAs). [2] The "not assigned" asset class only includes those exposures subject to partial use of the standardised approach that could not be assigned to one of the other asset classes. [3] Includes shortfall (positive) or excess (negative) of provisions over expected loss amounts for exposures subject to the IRB approach for credit risk as well as general provisions (negative) for exposures subject to the standardised approach for credit risk to the extent they are recognised in Tier 2 capital. [4] Counterparty credit risk in the trading book. [5] Includes the reconciliation asset class and other Pillar 1 capital requirements.

Source: Basel Committee on Banking Supervision.

4.2 Credit risk

Graphs and explanations related to credit risk including securitisations are no longer included in the PDF report as they are now available in dashboards on the Committee's website.[28] For this period, related data are still included in the Excel data file accompanying this report (see worksheets "Graph 40a" to "Graph 40q").

[28] www.bis.org/bcbs/dashboards.htm?m=99.

4.3 Counterparty credit risk and credit valuation adjustment risk

4.3.1 Counterparty credit risk

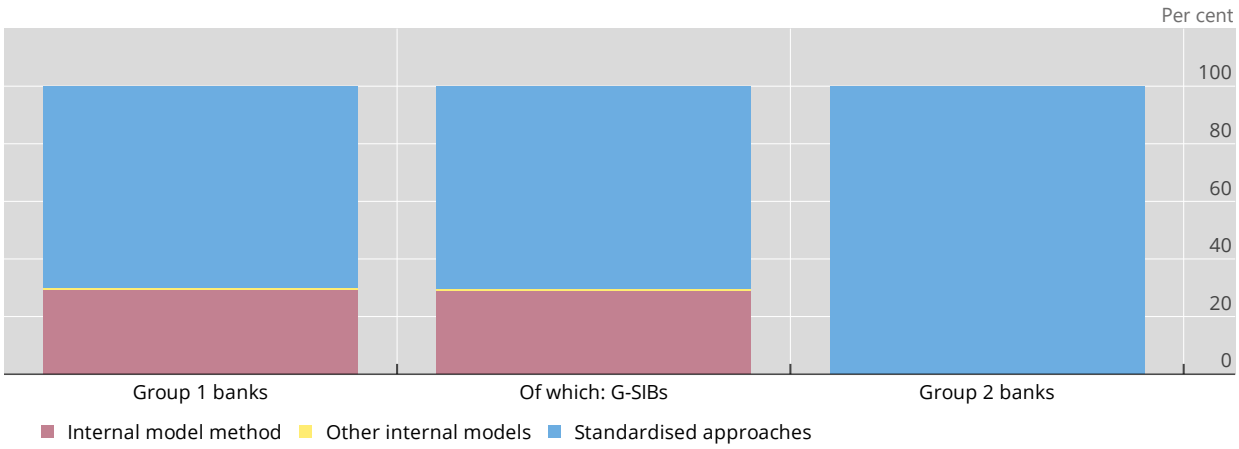
In understanding overall MRC, counterparty credit risk (CCR) is part of credit risk capital requirements. This section provides detailed analysis of the current and revised counterparty credit risk capital requirements.

Current rules for counterparty credit risk

Graph 41 shows the relative composition of counterparty credit risk capital requirements by exposure calculation approach per bank group at end-June 2023. A significant number of banks in the sample use standardised approaches (SA) to calculate CCR exposures. Amongst them, the SA-CCR is the most widely used as a considerable number of jurisdictions have already implemented this new approach for calculating SA exposures for derivatives, such as the European Union (as of end of June 2021), Canada and the United States (as of June 2022). A large number of Group 1 banks use the internal model approach, mainly the internal model method (IMM), to calculate CCR exposures for derivatives and securities financing transactions (SFTs). Group 2 banks do not apply the IMM and instead use standardised approaches to calculate CCR exposures. As of end-June 2023, for the 53 Group 1 banks in the sample (of which 21 are using the IMM), CCR IMM capital requirements contribute 29.2% to total CCR capital requirements. CCR capital requirements calculated using standardised approaches contribute 70.0% for these banks. For G-SIBs, around 29% of total CCR capital requirements stem from capital requirements calculated using the IMM. Other internal model methods (Repo-VaR and the comprehensive approach using own estimates of haircuts) are generally used for smaller portion of exposures (0.8% for Group 1 banks).

Contribution to current CCR capital requirements by approach to EAD calculation

All banks — Graph 41



Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

Overall impact of the revised minimum capital requirements for counterparty credit risk

This section shows the estimated impacts from the introduction of the revised minimum capital requirements for counterparty credit risk. It reflects changes to the exposure calculation methodologies, with the introduction of the standardised approach for counterparty credit risk (SA-CCR) published in March 2014, the amendments to the comprehensive approach using supervisory haircuts (CA(SH)) and the removal of the comprehensive approach using own estimates of haircuts (CA(OE)), published in December 2017. In addition, CCR capital requirements are affected by the changes to the credit risk framework that impact the risk weights applied to CCR exposures. Both changes to the framework contribute to the impact

of CCR capital requirements. Generally, these changes lead to an increase in CCR capital requirements under the revised framework relative to the current rules but in some cases, the impact is negative. For some banks, the impact from changes in exposure and risk weight calculations offset each other so that the overall impact is neutral.

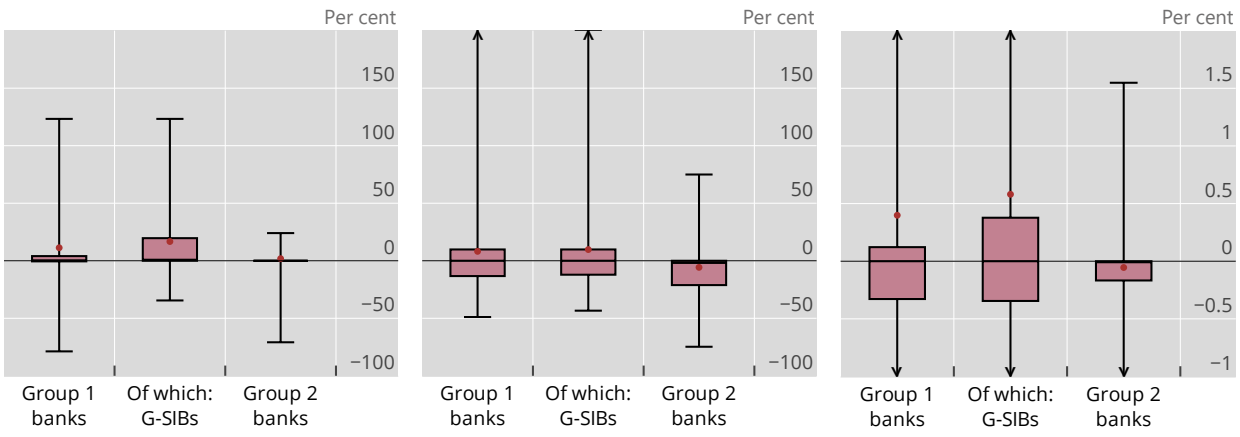
A total of 81 banks, including 53 Group 1 banks, of which 21 G-SIBs, and 28 Group 2 banks are included in the analyses regarding the revised minimum capital requirements for counterparty credit risk for the end-June 2023 reporting date. It should be noted that for this exercise some single jurisdictions chose to submit data via the SRS rather than the BM templates because they have implemented the revised CCR framework at the reporting date.

The centre panel of Graph 42 shows the impact on CCR capital requirements from the introduction of the revised CCR framework compared with the current CCR MRC. Capital requirements for Group 1 banks and G-SIBs exhibit an average increase of 8.2% and 9.7%, respectively. The average decrease for Group 2 banks is 5.8%, compared with –9.6% at end-December 2023. The decrease is attributable to the better reflection of margin agreements under the SA-CCR and, if compared with results from earlier exercises, to the implementation of the SA-CCR under the current rule in the European Union and other jurisdictions such as Canada and the United States resulting in zero exposure impacts between current and revised framework for derivatives under SA-CCR. The right-hand panel of Graph 42 displays the impact of the CCR revisions on current overall MRC. Group 1 banks and G-SIBs show an increase of 0.4% and 0.6%, while there is a decrease by 0.1% observed for the Group 2 banks.

The left-hand panel of Graph 42 shows the impact on CCR exposures of the revised CCR framework relative to the current framework. CCR exposures increase on average by 11.3% for Group 1 banks in the sample. The average impact is higher for the subsample of G-SIBs (16.7%), however for Group 2 banks the CCR exposures increased by only 1.8% on average. Group 2 banks show a different impact on exposures than Group 1 banks, likely due to the adoption of the SA-CCR methodology in the European Union since most of the Group 2 banks are European banks. For the median banks in Groups 1 and 2 there is no change in CCR exposures, while for the median bank of G-SIBs, a slight increase of 0.5% is observed.

Impact of revised CCR standards relative to current rules[1]

All banks — Graph 42



[1] See Section 1.3.3 for details on box plots.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

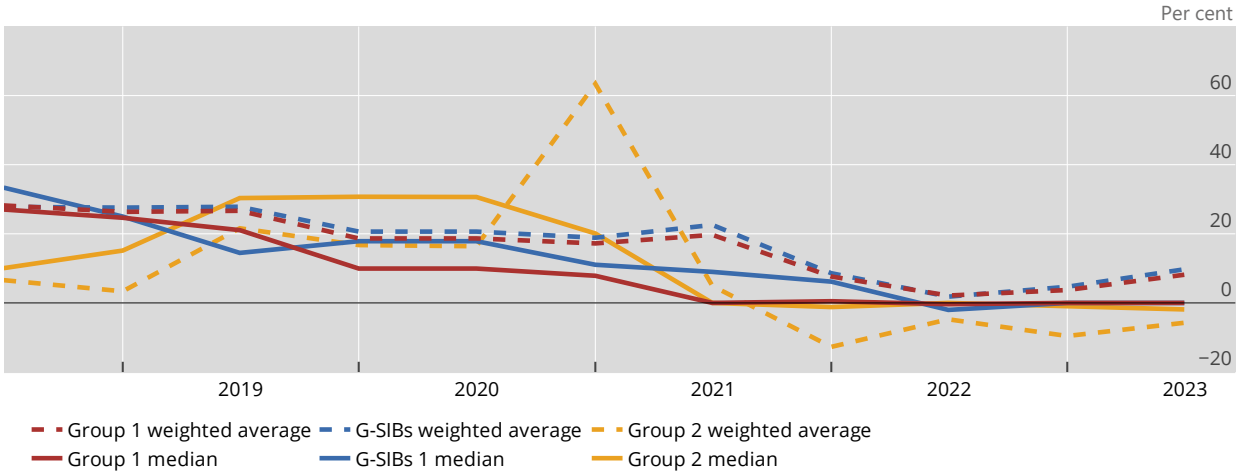
One of the factors that drive the change between the current SAs and SA-CCR exposures for derivatives includes the treatment of margin collateral under the current rules (ie CEM or SM). For few

banks which still use CEM under the current framework, SA-CCR exposure decreases significantly (sometimes leading to SA-CCR exposure and consequently capital requirements being close to zero) when banks account for margin collateral under SA-CCR. Also, changes to the supervisory haircuts for SFT exposures as well as the minimum haircut floors influence the exposures. Changes in the credit risk framework can amplify these impacts.

Graph 43 shows the average and median impacts of the revised CCR capital requirements relative to the current ones for an unbalanced data set of Group 1 banks, G-SIBs and Group 2 banks. The average impact for Group 1 banks increased slightly from around 4% to around 8% compared with last period. The same trends are observed for G-SIBs and for Group 2 banks. Reasons are among others the progressing implementation of the standardised approaches across jurisdictions. The estimated impact of the changes to the framework is more volatile for Group 2 banks than for Group 1 banks and G-SIBs.

Impact of total revised CCR capital requirements relative to current across time

Unbalanced data set — Graph 43



Since the Committee did not collect these data through its Basel III monitoring exercise for the end-June 2020 reporting date, results for H1 2020 show the same values as for H2 2019.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

.4.3.2 Credit valuation adjustment risk

Current rules for credit valuation adjustment risk

The sample for the analysis of the CVA risk component consists of 87 banks, including 67 Group 1 banks, of which 26 G-SIBs, and 20 Group 2 banks.

The left-hand side of Graph 45 shows the average share of CVA capital requirements in total MRC. For 75% of the Group 1 banks this share is 3% or less, for the Group 2 banks 75% of the banks have a CVA share of at most 2% in total MRC. The maximum share is 11.1% for Group 1 banks and 5.1% for Group 2 banks, respectively.

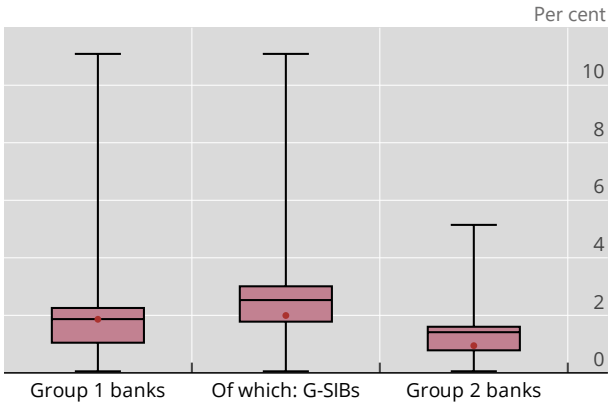
The right-hand side of Graph 45 displays for an unbalanced data set the average share of current CVA capital requirements relative to total MRC over time. It shows that G-SIBs recently report the highest average share; the average share for Group 1 banks is only slightly lower. The peak for the end-December 2020 data for Group 1 banks was due to an increase in absolute CVA capital requirements, driving the increase of the relative share of CVA capital requirements in the total MRC. Since then, decreasing CVA capital requirements resulted in a lower share of CVA capital requirements in total MRC. For Group 2 banks, the peak for the end-December 2021 could possibly be attributed to a sharp increase in the number of

participating banks, and hence due to banks with a higher share of CVA capital requirements that did not participate in the half-year exercises.

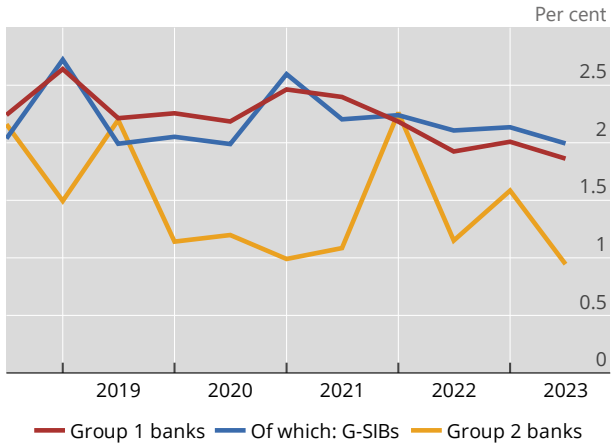
Share of CVA capital requirements in total MRC under the current rules

Unbalanced data set — Graph 44

Distribution by bank group[1]



Development over time



[1] See Section 1.3.3 for details on box plots.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

Overall impact of the revised minimum capital requirements for credit valuation adjustment risk

This section discusses the estimated impacts from the introduction of the revised minimum capital requirements for CVA risk including the targeted revisions to the framework published in July 2020.[29]

The sample includes 18 banks that currently apply the advanced method for CVA (A-CVA), of which 14 indicate to use the standardised approach for CVA (SA-CVA) under the revised framework. The other four banks indicate to be using the reduced and full BA-CVA under the revised framework, respectively. The 69 banks that currently apply only the standard method for CVA (S-CVA) include 14 banks that indicate to intend to apply the SA-CVA and 49 banks that indicate to move to the reduced basic approach for CVA (reduced BA-CVA) [30] under the revised framework. Overall, only six banks in the sample indicate to use only the full basic approach for CVA (full BA-CVA) in the future.

The left-hand side panel of Graph 45 shows that the average impact when moving to the revised CVA framework in relation to current CVA MRC is a decrease by 8.4% for Group 1 banks. Group 2 banks report a much higher average impact with an increase of up to 24.9%. This higher average and median impact for Group 2 banks is attributable to the relatively more conservative calibration of the reduced BA-CVA approach that is employed by most Group 2 banks compared with the full BA-CVA, which allows for hedging, as does the SA-CVA. The average impact reported by G-SIBs is comparable to the one for Group 1 banks. Group 1 banks show the largest variety in impacts ranging from a decrease of 79.8% to an increase of around 277.4% relative to the current CVA risk capital requirements.

The right-hand side panel of Graph 45 provides the impact of the revised CVA capital requirements relative to current overall MRC. Given the small share of CVA capital requirements in overall

[29] See Basel Committee on Banking Supervision, *Targeted revisions to the credit valuation adjustment risk framework,* July 2020, www.bis.org/bcbs/publ/d507.htm.

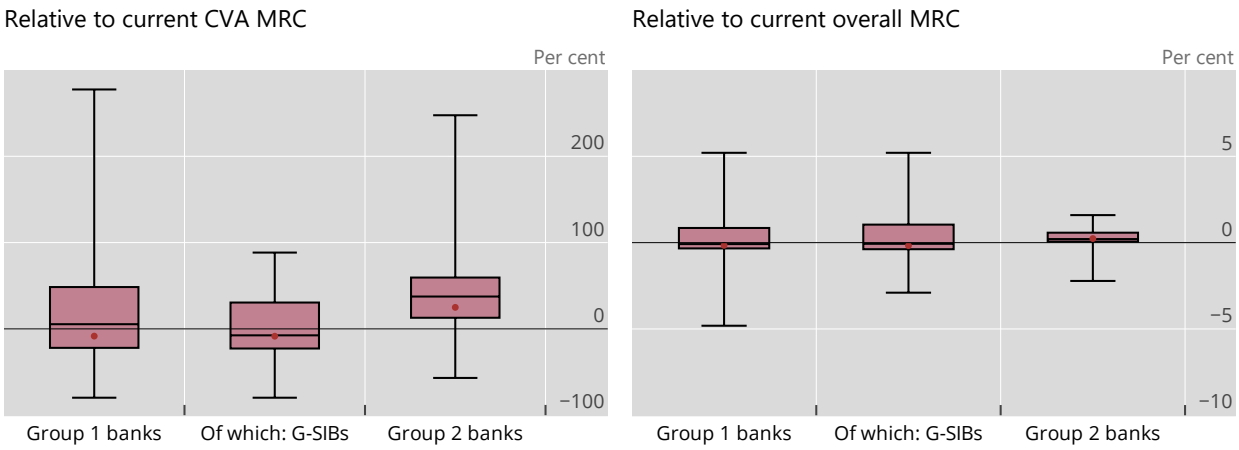
[30] 14 of these banks are eligible and willing to use CCR MRC for the calculation of revised CVA MRC, but also provided reduced BA-CVA figures.

MRC for most banks, the average impact of the CVA revisions on overall MRC is approximately 0% for both Group 1 and Group 2 banks. Overall, the impact ranges between -4.8% and 5.2% for all banks in the sample.

It should be noted that for this exercise some single jurisdictions chose to submit data via the SRS rather than the BM templates because they have implemented the revised CVA framework at the reporting date.

Impact of revised CVA capital requirements compared with current rules[1]

Graph 45



One Group 1 bank in the sample provided CVA data but no data on current overall capital requirements. It is therefore excluded from the right-hand panel. [1] See Section 1.3.3 for details on box plots.

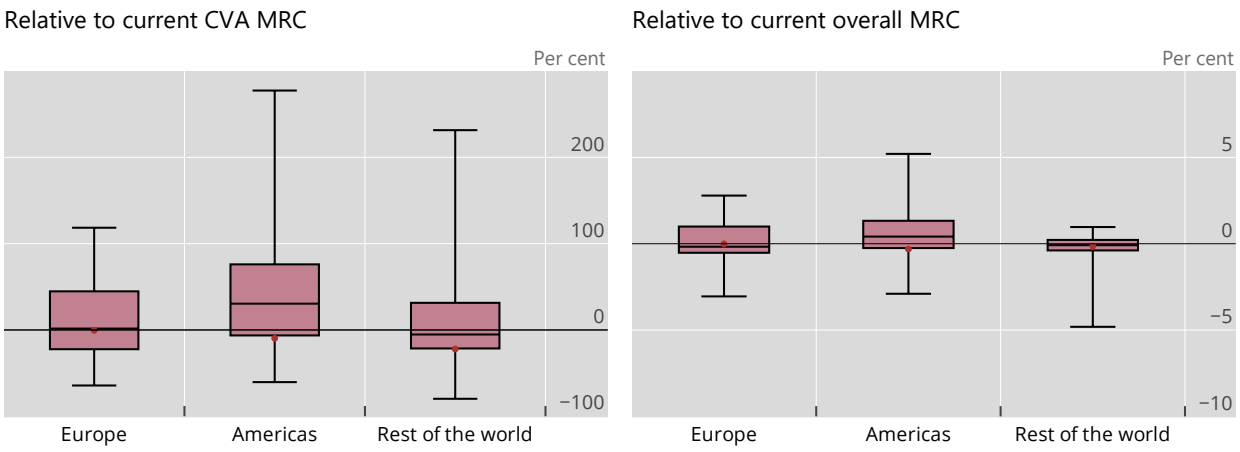
Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

Graph 46 shows based on the sample of Group 1 banks that results differ across regions: The average impacts to current CVA MRC are -0.4% for Europe, -9.7% for the Americas and -22.1% for the rest of the world. The Americas show the highest variability with a range between -60.5 and 277.4. In some countries, all banks show comparable impacts, and in others, large increases due to the differences in the methodology between the current and revised CVA frameworks can be observed. The average impact of the revised CVA capital requirements relative to current overall MRC demonstrates no impact for Europe, a slightly decreasing impact of -0.3% for the Americas and -0.1% for the rest of the world.

Impact of revised CVA capital requirements compared with current rules, by region[1]

Group 1 banks

Graph 46



One bank in the sample provided CVA data but no data on current overall capital requirements. It is therefore excluded from the right-hand panel. [1] See Section 1.3.3 for details on box plots.

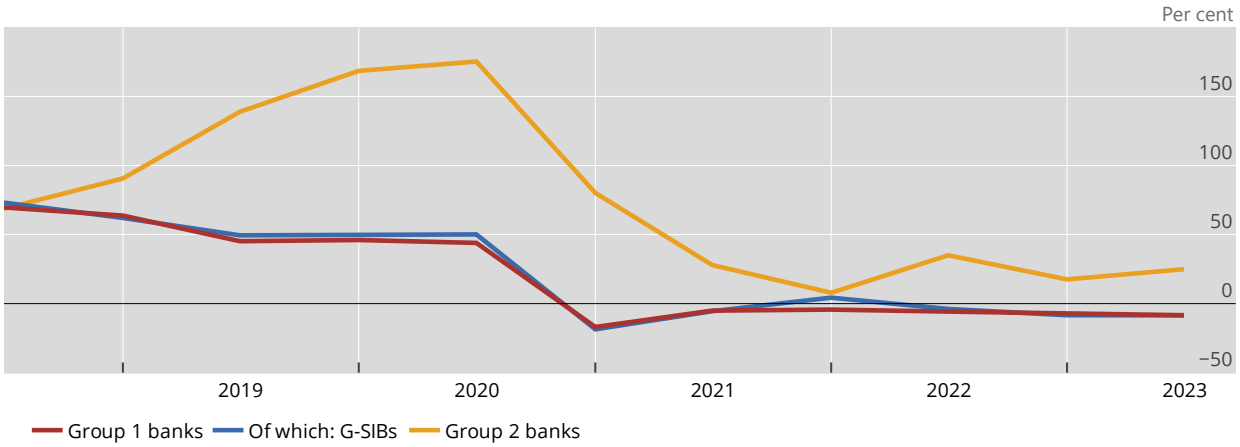
Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

For an unbalanced data set, the average impacts of the revised CVA capital requirements relative to current are displayed in Graph 92 starting with end-June 2018 Basel III monitoring data. All bank groups show a large drop in the impacts for end-December 2020. This drop in average CVA capital requirements is attributable to the final revisions to revised CVA framework that had to be applied by banks the first time for that exercise. Group 1 banks and G-SIBs benefit on average more from the amendments than Group 2 banks. Since then, impacts have stabilised and especially for Group 1 banks and G-SIBs seem to be unaffected by the sample composition.

Impact of total revised CVA capital requirements relative to current across time

Unbalanced data set

Graph 47



Since the Committee did not collect these data through its Basel III monitoring exercise for the end-June 2020 reporting date, results for H1 2020 show the same values as for H2 2019.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

4.4 Market risk

4.4.1 Current market risk rules

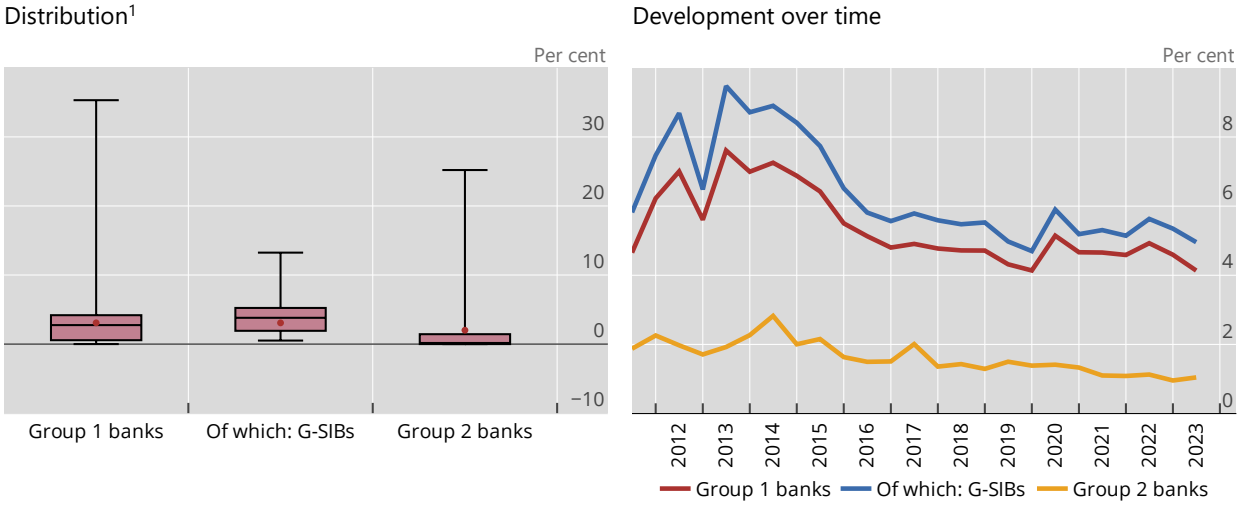
The left-hand panel of Graph 48 shows the distribution of the share of market risk MRC in overall MRC under the current rules, ie jurisdiction-specific Basel 2.5 implementations. The share of market risk MRC in total MRC is 3.1% for Group 1 banks and 2.0% for Group 2 banks. However, there is significant dispersion in shares of market risk MRC in total MRC from 0% to 35.3%.[31]

As the trends starting in 2011 in the right-hand panel of Graph 48 show, after a light reduction after the June 2022 upturn (which was likely due to increased value-at-risk (VaR) estimates driven by higher market volatility in response to the war in Ukraine and the significant central banking tightening cycle that commenced in the first half of 2022) the share of market risk again reached the June 2022 level. As of June 2023, Group 2 banks saw a small increase of 0.09 percentage points, while the decreasing trend for Group 1 banks and G-SIBs continues.

Notwithstanding the latest increase in market risk MRC, the longer-term trend continues for all groups of banks, which have seen their share of capital requirements attributed to market risk decline by respectively of 37%, 40% and 52% since their peak between 2013 (Group 1 banks and G-SIBs) and 2014 (Group 2 banks). As of June 2023, the average share for all groups of banks has remained below the level seen at end-June 2011 even after the recent spike in volatility.[32]

Share of market risk MRC in total MRC under the current rules

Balanced data set — Graph 48



[1] See Section 1.3.3 for details on box plots.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

Graph 49 below shows time series decompositions of reported market risk MRC by sub-component since end-June 2015. For Group 1 banks and the G-SIBs among them, the contributions of the internal models approach (IMA) to total market risk MRC are 67.9% and 75.6% respectively as of June 2023. This contribution from IMA was somewhat higher than as of year-end 2022, due to banks' VaR

[31] For this round of the exercise, a few banks already reported revised market risk data in the SRS sheet. These banks could not be included in the results of this section due to technical reasons. We aim for including the concerned banks as of the next reporting date.

[32] Data from 2011 should be viewed in light of the fact that many jurisdictions implemented Basel 2.5 beginning in 2012, so the 2011 numbers were reflective of the prior Basel II standards that resulted in significantly lower capital requirements.

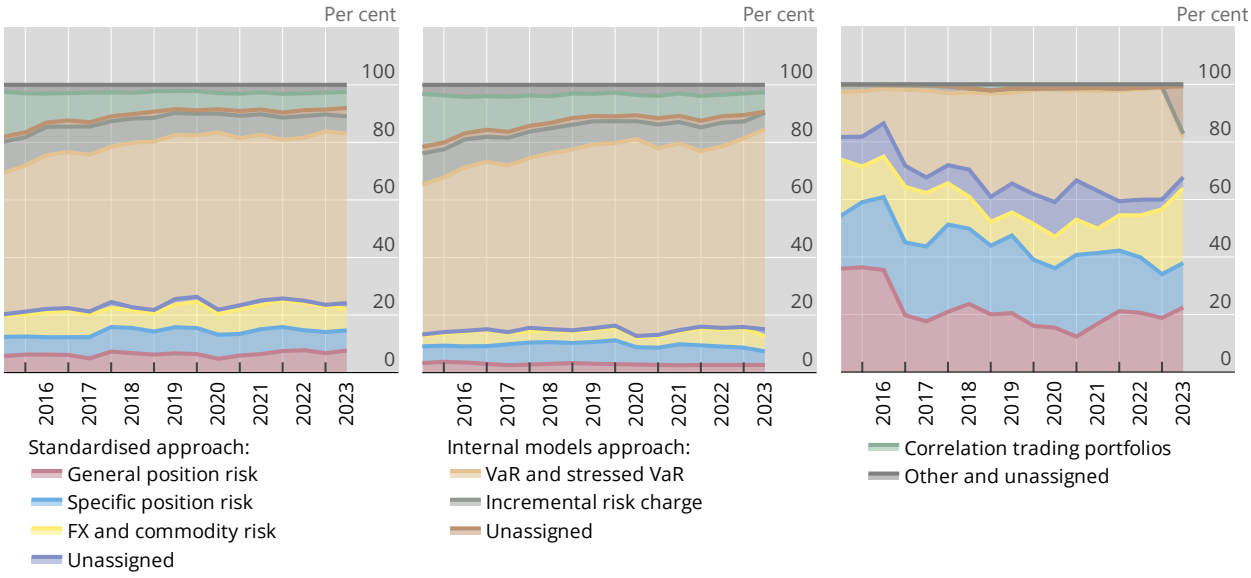
estimates increasing in response to higher market volatility, which was likely driven by the war in Ukraine and continued central bank tightening.

Since 2015, the share of overall market risk MRC composed of VaR and stressed VaR (SVaR) has generally increased over time while the shares of both the incremental risk capital charge and correlation trading portfolios (CTPs) in the total market risk MRC have generally decreased. The first half of 2023 saw a continued drop in the contribution from the incremental risk charge for both G-SIBs and Group 1 banks.

For Group 2 banks, the IMA contribution in the total market risk MRC, which is generally less relevant, decreased from year-end 2022 to 32%. The contribution from CTPs, which is relatively negligible for Group 2 banks, continues its decreasing trend from 0.8% (year-end 2022) to 0.71%, although their share remains elevated compared to 2015.[33]

Components of MRC for market risk under the current rules

Unbalanced data set, in per cent — Graph 49



Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

Graph 50 below shows the ratio of the 10-day 99th percentile stressed VaR to the current 10-day 99th percentile VaR under current market risk rules using two sets of balanced data from Group 1 banks. The left-hand panel shows the time series since end-2011 for 14 banks. Under this longer-run balanced data set, for the initial several years, the ratio of stressed VaR to VaR fluctuated around 200% with a local peak at 383% in mid-year 2018. However, the ratio subsequently rose to a new time-series high of 450% as of year-end 2021 before dropping again. The June 2023 ratio of 241% is slightly higher than the year-end 2022 ratio of 219%.

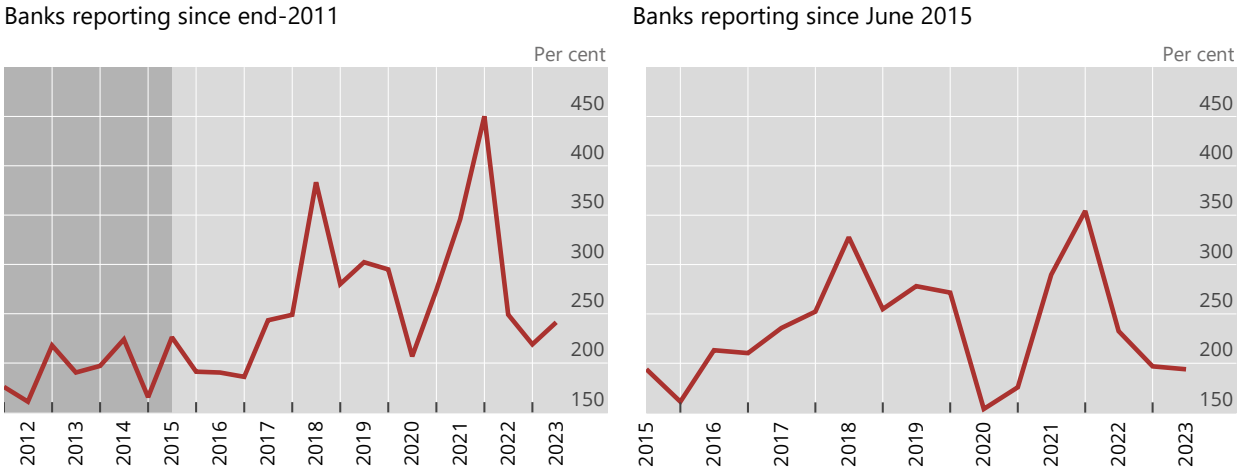
The right-hand panel of Graph 50 shows the same ratio for a shorter-run balanced data set including banks that have provided data since 2015. For this larger sample of overall 35 banks, the ratio has generally increased, reaching its pre-pandemic peak in end-June 2018 at 328% before dropping by nearly half to 154% as of end-June 2020 and subsequently rebounding to a new high of 354% as of year-end 2021 and subsequently falling to 194% as of June 2023.

[33] The large increase in the share of "Other and unassigned" for Group 2 banks is driven by a single bank reporting its entire current market risk MRC as belonging to that category.

VaR models are typically based on a fixed backward-looking period, often one year, that rolls forward over time. In contrast, SVaRs are based on historical high volatility stress periods, such as the 2008 global financial crisis or the onset of the Covid-19 pandemic, that typically change infrequently. In both time series, the increasing trend prior to the outbreak of Covid-19 can be attributed at least partially to the lower volatility environment that had been observed in the markets over the several years preceding the Covid-19 pandemic, which reduced VaR without reducing SVaR. The pandemic-related volatility experienced in markets in the first quarter of 2020 increased banks' VaRs substantially more than their SVaRs. This led the SVaR/VaR ratio to decline significantly across the banks. Thus, as banks' current VaRs fall in low volatility periods, the ratio becomes elevated. However, the huge increase in volatility seen during March 2020 with the onset of the Covid-19 pandemic reversed this trend, leading to a dramatic fall in ratio for end-June 2020. Markets in 2021 were much less volatile due in part to the extraordinary official sector policy responses to the pandemic across the globe. This effect, combined with the fact that the one-year lookback periods no longer included the volatility seen in March 2020, led to the ratio rising substantially across both samples at year-end 2021. As mentioned above, from 2022 a return of volatility across all risk classes has been seen due to the war in Ukraine and its impact on energy, grain and metals markets, the tightening cycle, a bear market in equities from the record levels and considerable movements in foreign exchange as the US dollar appreciated in 2022 to levels not seen in 20 years. These developments corresponded with the largest drops in the SVaR/VaR ratios observed since both time series began.

Stressed value-at-risk in relation to current value-at-risk

Group 1 banks, balanced data set — Graph 50



Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

4.4.2 Overall impact of the revised minimum capital requirements for market risk

Basel III monitoring market risk data tend to be more variable both over time and across reporting banks than that of other areas of the Basel III monitoring exercise owing to the short term and ever-changing nature of trading portfolios when compared with banking book portfolios, which are mostly held-to-maturity or revolving. In addition, while improving in data quality with each collection, the Basel III monitoring estimates for market risk under the final market risk standard are less robust than those that banks make for the banking book as the impact estimates still require significant manual intervention for many trading positions at banks that have yet to develop systems reflecting their local implementations. Although prior collections included banks' estimates of the capital impact of the final standard, the additional time has allowed banks to refine their calculations, which likely improved the accuracy of their estimates.

The estimates below show impacts based on banks' current portfolios and do not reflect potential changes to their portfolios upon implementation of the final standard. Banks had the opportunity to report their capital requirements based either on the current or intended set of model-approved trading desks.

On one hand, this methodology likely overstates the ultimate impact subsequent to implementation, as banks may reduce their exposures to positions with high capital requirements. On the other hand, the methodology does not reflect the consequences of trading desks potentially failing backtesting or P&L attribution tests (PLATs) based on the banks' submitted desk-level VaR and P&L data, which would likely understate the impact for IMA banks whose desks are not passing these tests. It is not clear which of these countervailing effects will dominate, although market risk capital requirements are generally expected to increase significantly.

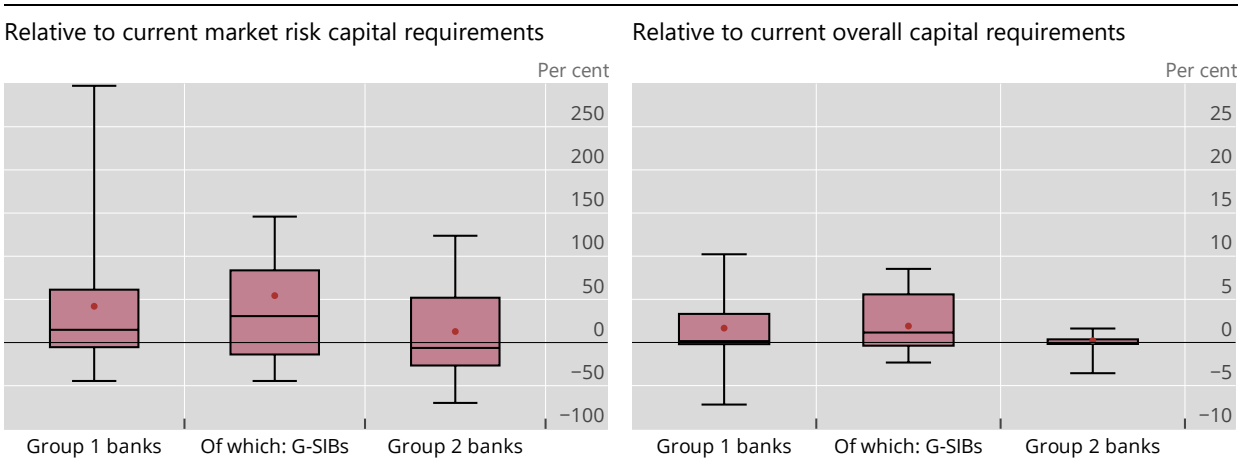
A total of 98 banks from 23 jurisdictions provided at least some market risk data as of June 2023 reporting date including 79 Group 1 and 19 Group 2 banks. Of these banks, 42 banks provided data sufficiently complete to estimate the overall impact from the revised market risk framework.

Graph 51 below shows the revised market risk standards' impact versus current market risk MRC and total MRC. The final Basel III market risk capital requirements relative to current market risk capital requirements increase by 14.8% for the median Group 1 bank and by 30.6% for the median G-SIB, while Group 2 banks saw a 6.2% decrease in their median. The weighted average expected increase was 42.0%, 54.4% and 12.8% for Group 1 banks, G-SIBs and Group 2 banks, respectively. There is wide variability at bank level: outliers are far more extreme ranging from a tripling in capital requirements (+297%) at a Group 1 bank, to a nearly three-quarters reduction (-69.9%) at a Group 2 bank.

Compared to banks' overall MRC rather than only market risk capital requirements, the revised standards result in a much more modest increase of 0.2% for the median Group 1 bank, 1.1% for the median G-SIB and a decrease of 0.06% for the median Group 2 bank. On a weighted average basis, all three groups saw increases in market risk's contribution to total capital of 1.7%, 1.9% and 0.2%, respectively. Also in this case, there is wide variability at bank level, especially in the Group 1 sample: outliers are ranging from an increase of 10.2% to a decrease of 7.2% in overall capital requirements.

Impact on MRC of the revised standards for minimum capital requirements for market risk[1]

Graph 51



[1] See Section 1.3.3 for details on box plots.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

Graph 52 decomposes the total market risk capital requirements under the current rules and under the revised standards. The breakdown includes components due to the standardised approach (SA) and internal models approach (IMA), and further breaks these components down into their sub-components for the revised standards.

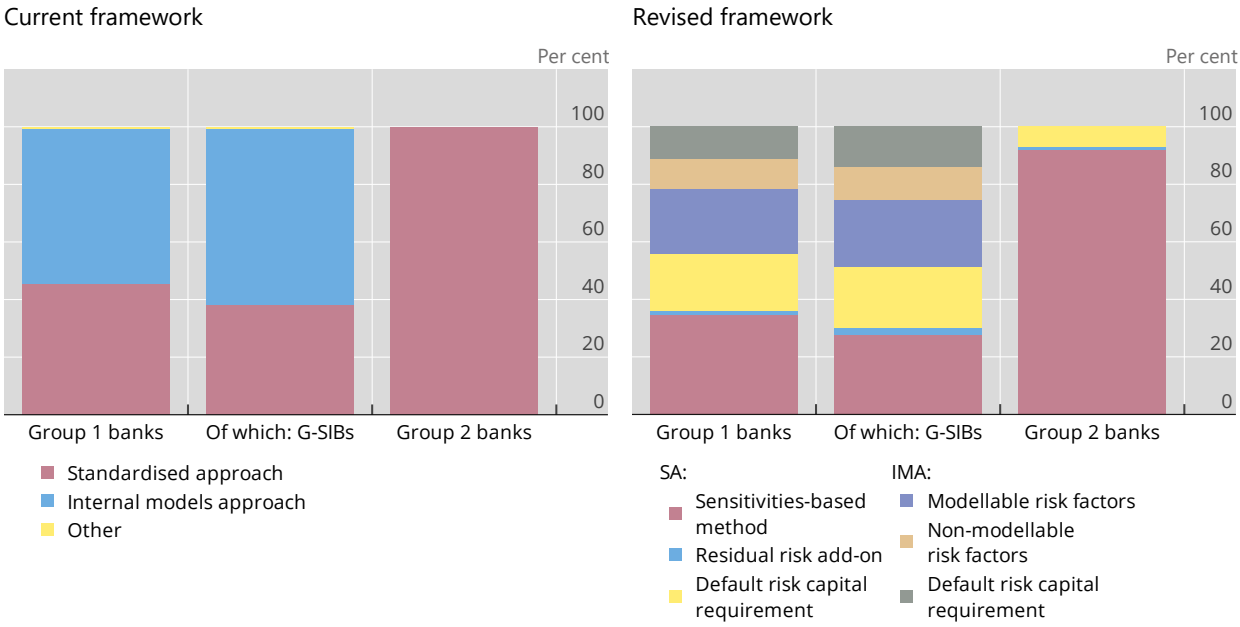
Group 1 banks expect their share of standardised approach capital requirements to increase from 45.5% to 55.8%. The vast majority of Group 2 banks' market risk capital requirements comes from the standardised approach and this is not expected to change under the revised standard.

For positions subject to the revised standardised approach, for Group 1 banks, 62% of the standardised approach capital requirement are expected to be attributed to the sensitivities-based method (SbM). For Group 2 banks, the share of the SbM is 92%. The default risk capital (DRC) requirement contributes 35% and 7% to the total standardised approach capital requirements for Group 1 and Group 2 banks, respectively. The residual risk add-on (RRAO), which accounts for risks not fully covered by the SbM or the DRC (including risks related to exotic derivatives and instruments containing gap risk, correlation risk and behavioural risks including prepayment risk), contributes 3% to the standardised approach capital requirement for Group 1 banks and 1% for Group 2 banks' SA capital requirement.

With respect to the revised IMA, the capital requirement for modellable risk factors would contribute 51% to the total IMA capital requirements (including modellable and non-modellable risk factors as well as the DRC) for Group 1 banks. The corresponding shares of IMA capital requirements from non-modellable risk factors and the DRC are 23% and 26%, respectively. No Group 2 banks reported that they intend to adopt IMA under the revised framework.

Breakdown of MRC for market risk by approach and risk component under the current rules and the revised standard

Graph 52



Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

4.5 Operational risk

4.5.1 Current operational risk rules

MRC for operational risk of Group 1 banks increased until end-2016 and levelled-off since then (see Graph 53). The share of operational risk MRC as a percentage of total MRC is also declining; it is currently 11.6% for Group 1 banks and 13.2% for G-SIBs (see Graph 55). For Group 2 banks, the share of operational risk MRC as a percentage of total MRC is 11.2%.

The evolution of losses over the past 10 years is depicted in Graph 54. MRC for operational risk first increased with growing losses, yet as losses have started to decline it has stabilised in recent years on

a low level compared to its peak in 2014. In total, €471.7 billion of gross and €420.3 billion of net operational risk losses have been reported over the past 10 years. Operational risk gross losses were €66.3 billion in 2013 and peaked in 2014 at €78.6 billion. Since then, gross losses have decreased significantly to €31.0 billion in 2021, the lowest value of the past 10 years. This decreasing trend was observed also in 2021 despite the Covid-19 pandemic. Although a slight increase to €32.6 billion is observed in 2022, it still represents a stable low loss situation where operational risk triggered losses just develop in parallel with the growing business volume.

The time-lagged impact of the financial crisis on banks' profits, notably due to long-standing lawsuits, appears to be completed. Nevertheless, banks still face risk due to the digitalisation that amplifies IT risk, potential afterpains of the Covid-19 pandemic or the war in Ukraine with its imponderabilities that could, for example, increase legal risks.

For Group 1 banks and G-SIBs, most of which use the Advanced Measurement Approach (AMA) as the primary method for calculating operational risk capital, the increase in the first half of the 2010s is largely explained by the surge in the number and severity of operational risk events during and after the financial crisis.

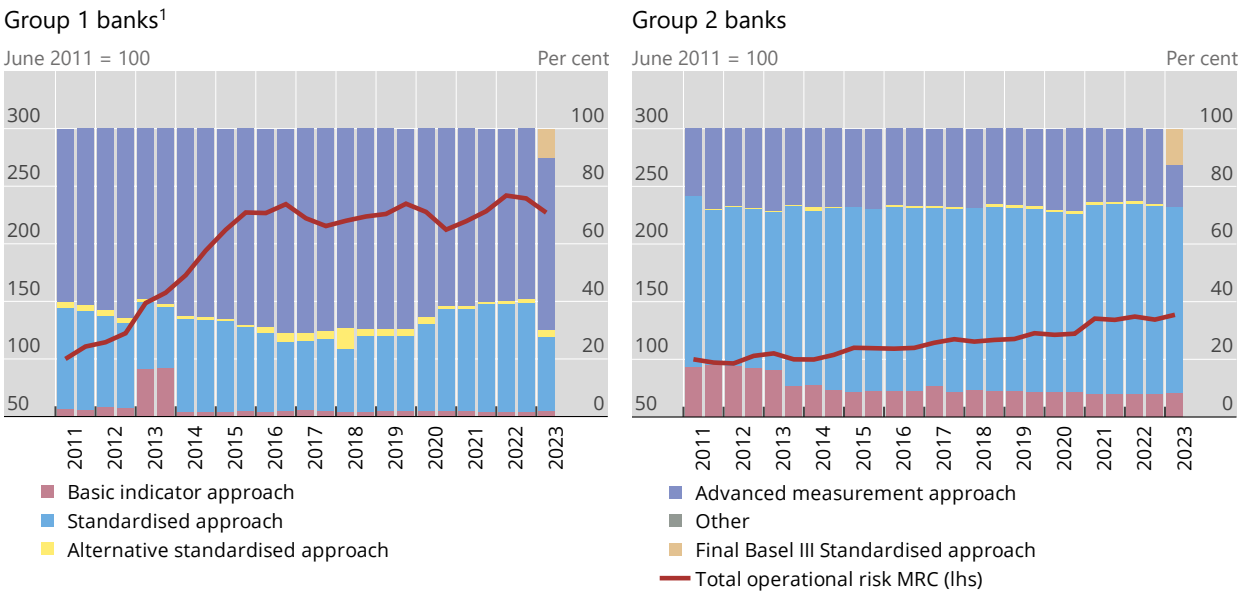
For Group 1 banks as a whole (see Graph 53), this resulted in a significant increase of total MRC for operational risk and an increasing share of MRC for operational risk under the AMA from 60% in 2011 to about 71.1% at end-June 2017. On the other hand, AMA banks benefit from a recently low loss environment, which resulted in stable MRC for operational risk despite an increasing business volume. This development explains the lower share of MRC for operational risk under the AMA of currently 59.2% for the end 2022 submission. This share increased slightly to 60% for the June 2023 submission although some jurisdictions started to apply the new standardised approach that replaces all the other approaches. This new standardised approach represents currently 10.0% of the Group 1 and 12.5% of the Group 2 capital requirements in the sample and is likely to increase in the upcoming years when more jurisdictions implement the final Basel III framework.

The increase in MRC for operational risk for Group 2 banks, most of which calculate operational risk capital requirements under the framework's non-model-based approaches,[34] is largely due to an increase in business volume, a factor captured by the financial statement-based components of the standardised approaches.

[34] These comprise the Basic Indicator Approach (BIA), the Standardised Approach (TSA) and its variant, the Alternative Standardised Approach (ASA).

Total MRC for operational risk and share of approaches

Balanced data set — Graph 53

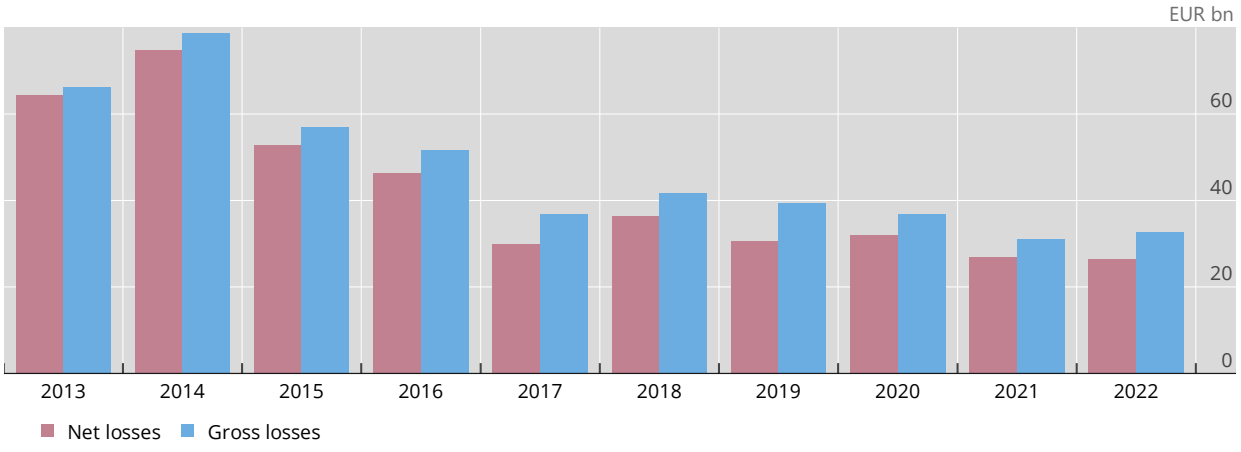


[1] Some banks started reporting operational risk RWAs under the Basic Indicator Approach in 2013 and eventually migrated to the Standardised Approach in 2014.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

Loss evolution over the past 10 years

All banks, sample and exchange rates as at the current reporting date — Graph 54



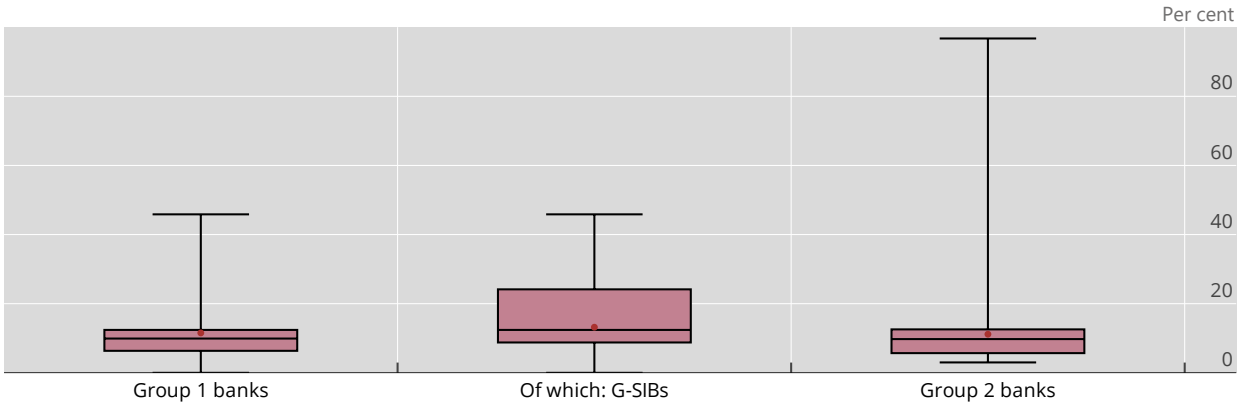
Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

The dominance of indicator-based properties found in the standardised approaches for operational risk mainly reflects the size or business volume of a bank rather than its risk exposure, explaining the lower variance of MRC for most Group 2 banks (see Graph 55). For Group 2 banks, the difference between the 25th and 75th quantiles of the share of MRC for operational risk in total MRC is 6.9 percentage points. Although the difference of 6.1 percentage points for Group 1 banks is similar, the difference for G-SIBs (15.4 percentage points) is significantly higher. This observation in combination with the weighted average (11.6% for Group 1 banks and 13.2% for G-SIBs) being significantly higher than the

median (9.9% for Group 1 banks and 12.4% for G-SIBs) still indicates a positive correlation between size and an above average operational risk profile.

The outliers among Group 2 banks are mostly fee business-specialised banks where operational risk is largely an exclusive risk, while outliers among Group 1 banks and G-SIBs are banks that use AMA where past loss events influence future operational risk exposure.

Distribution of share of MRC for operational risk in total MRC[1] Graph 55



[1] See Section 1.3.3 for details on box plots.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

4.5.2 Final operational risk standards

The objective of the design and calibration of the revised operational risk framework is to ensure stable capital requirements that are simple to estimate and comparable while remaining risk-sensitive. The revisions aim to accomplish this objective by replacing the existing set of approaches[35] used for the estimation of operational risk capital requirements with the standardised approach. The standardised approach is comprised of a single non-model-based method that combines a financial statement proxy of operational risk exposure (termed the "business indicator" or BI) with bank-specific operational risk-related losses (termed the "internal loss multiplier" or ILM). The following analysis applies the standardised approach to estimate the changes in operational risk MRC and evaluates the impact of the final against the existing framework. It also considers two national discretions: (1) to set the internal loss multiplier equal to one and hence base capital requirements for operational risk solely on the business indicator component for all banks in a jurisdiction; and (2) to have Bucket 1 banks measure their ILM using their loss history, rather than apply ILM=1 to all Bucket 1 banks.[36]

According to Table 8[37], the final operational risk framework generates an aggregate slight increase in operational risk MRC of approximately 1.1% for all Group 1 banks. Especially G-SIBs will benefit with a decrease of -8.3% while only a slight decrease of -0.4% for the Group 2 banks in the sample is observed. Compared with previous reports primarily European jurisdictions indicted for the first time to opt for the national discretion of ILM=1 which decreased the impact. Despite this option, Europe still faces

[35] Comprised of the basic indicator approach (BIA), the standardised approach (TSA) and its variant, the alternative standardised approach (ASA), along with the internal model-based advanced measurement approach (AMA).

[36] This has been reflected in the calculation by setting the internal loss multiplier to one whenever national supervisory authorities have indicated that they will most likely apply the national discretion.

[37] Note that comparability with previous monitoring reports is reduced for the following reason: the sample size differs between June and December submissions significantly. Furthermore, jurisdictions using already the new standardised approach for calculating the operational risk MRC are not anymore part of the impact analysis in Section 4.5.2. The impact for such jurisdictions would be zero and would therefore distort the result.

a significant increase of around 26.6% for its Group 1 banks but this is already significantly lower as it would be with the application of the ILM (+65.5%). The Americas (-1%) and the rest of the world (-16.2%) experience significant decreases.

If all banks used the less risk-sensitive BI component only ("ILM=1", shaded brown in Table 8), the operational risk MRC for Group 1 banks would be further reduced by -0.6% and -10.6% for G-SIBs. If all Group 1 banks applied the ILM based on the average losses above €20,000 of the past 10 years ("20k 10Y", shaded green in Table 8), the impact would be 10.6% and around -0.9% for G-SIBs. This indicates that the past losses due to the financial crisis would still have a measurable impact on possible MRC. The comparison between ILM=1 and ILM 20k on a regional level shows that the MRC in Europe (delta of 43.7 percentage points) and the Americas (delta of 26.5 percentage points) – those regions most affected by the operational risk losses during the financial crisis – would still face MRC increases due to these past losses, while the low loss experiences in the rest of the world would (delta of -38.5 percentage points) result in significant discounts.

Nevertheless, given the decreasing trend of losses and the fading out of the financial crisis losses in the upcoming years (see Graph 54), the MRC impact at the time of first implementation of the final Basel III framework may be overestimated due to the risk-sensitive feature of the ILM. In case that the current average losses above €20,000 remain the same as the past five years, the impact for Group 1 banks could drop to -0.2% (-12.7% for G-SIBs). In case that even the average losses of the past three years remain, the MRC would decrease by -2.5% (-13.5% for G-SIBs). From this decreasing trend in MRC, Europe and the Americas – the most affected regions – would benefit most but starting from a much higher MRC level. The rest of the world face a quite stable impact for the scenarios of average losses for 10, 5 or 3 years. This shows - in combination with the observation of a significant discount effect - that this region had not such high losses that needs to normalise.

Unlike the previous Basel III monitoring exercise, the impact described above is based on data accounting for possible exclusion of losses not relevant anymore for a bank's risk exposure, and possible correction of the business indicator (eg due to divested activities, mergers or acquisitions).[38] In light of improved data quality, the default methodology that was used to calculate the impact of the new standardised approach was changed to be consistent with the current and future operational risk capital requirement methodologies. These allow to exclude divested activities from the relevant indicator component of the standardised approaches as well as the losses that are not relevant anymore for AMA banks. With this change a more realistic impact of the new standardised approach will be achieved. In case the possible loss exclusions and the BI adjustments reported by banks are not considered (as shown in unadjusted figures reported on the right side of Table 8), the estimated capital impact of Group 1 banks would slightly be more reduced in case of ILM=1 (-1.3%). By considering the risk sensitive ILM the impact would be 10.3%. The reduced impact of BI unadjusted is counterintuitive, as the inclusion of divested activities should lead to an increased impact. This shows that the reporting banks might not yet have fully reflected the new methodology in its data submissions.

[38] As the new standardised approach is not yet applied in any of the jurisdiction that take part in this exercise, it is still possible that the reported corrections do not reflect the full potential of adjustments as these are used just at the time when banks must apply the rules.

Changes in MRC for operational risk

Table 8

	With indicated approach	ILM=1	20k 10Y	100k 10Y	20k 5Y	20k 3Y	ILM=1, unadjusted	20k10y, unadjusted
Group 1 banks	1.1	–0.6	10.6	8.4	–0.2	–2.5	–1.3	10.3
Of which: Europe	26.6	21.8	65.5	61.5	44.4	36.5	21.8	67.3
Of which: Americas	–1.0	–27.5	–1.0	–3.0	–14.9	–12.8	–29.0	–2.6
Of which: RW	–16.2	22.2	–16.3	–17.5	–13.9	–18.4	22.2	–16.2
Of which: G-SIBs	–8.3	–10.6	–0.9	–2.6	–12.7	–13.5	–11.5	–1.5
Group 2 banks	–0.4	–0.1	18.1	10.9	23.0	20.5	0.8	18.8

Source: Basel Committee on Banking Supervision.

With Graph 56 it is possible to explain the effect of differences in the evolution in BIC and LC on the impact on the final MRC of the new standardised approach for operational risk. Especially the decreasing losses since 2015 as shown in Graph 54 might change the interaction between BIC and LC. To make numbers comparable without showing confidential data, the values are converted to a fraction of the *reported 2017 operational risk MRC*.[39] The analysis comprises a balanced set of 80 banks, 33 of them are AMA banks.

For AMA banks, the left-hand panel of Graph 56 shows that the business-driven BIC is constantly growing from 66.5% in 2017 to 79.5% in 2022 (a change of +13 percentage points), only interrupted in the 2020 pandemic year. On the other hand, the loss component was more or less stable until 2019 and decreases since then. Despite the decreasing losses since 2015, the loss component could not directly decrease as until 2019, pre-financial crisis low-loss years were just replaced by similar low-loss years after 2014. This changed in 2020, as high-loss years triggered by the financial crisis started to be replaced by the lately observed low-loss years. This caused a quick decrease of the loss component from its peak of 248.6% in 2018 by about 47 percentage points to 201.3% in 2022. This trend might continue for some further years as still high-loss years of the financial crisis affect the loss component of many AMA banks. These high-loss years can be replaced if the lately observed trend of low-loss years continues, even the losses start to increase a little and grow in parallel to the business volume.

Although the loss component decreases similarly as the BIC increases, the final MRC of the new standardised approach for ILM 20k is still increasing by almost 10% (or 8.3 percentage points) over the past six years as due to the logarithm feature of the ILM, the loss component has only a diminished impact. This diminishing effect is even stronger for banks whose loss component is already significantly higher than the BIC. This is currently true for the "average Group 1 bank", whose average loss component of 2022 is still about 2.5 times higher than the average BIC of 2022. The average ILM in such a case is roughly 1.34 and is reflected in the difference between 79.5% BIC and 102.3% "20k new SA". This ratio is already significantly lower as in 2017 when the loss component to BIC ratio was about 3.7. Nevertheless, despite the fade out of losses in the 10-year window, they still drive the "20k new SA" capital requirements and even the current AMA MRC. If these banks would use the Basic Indicator Approach instead of the AMA (hypothetical BIA), the current MRC in 2022 would be 65.9%, ie about 40 percentage points lower than with the current AMA (105.7%).

A different picture can be observed for the non-AMA Group 1 banks presented in the right-hand panel of Graph 56. In 2022, the hypothetical BIA is about 10.6 pp higher than current MRC, which indicates that these banks use a less conservative approach to measure their risk exposure and benefit from the use of the current indicator-based approaches of ASA or SA. Furthermore, both the BIC and the loss

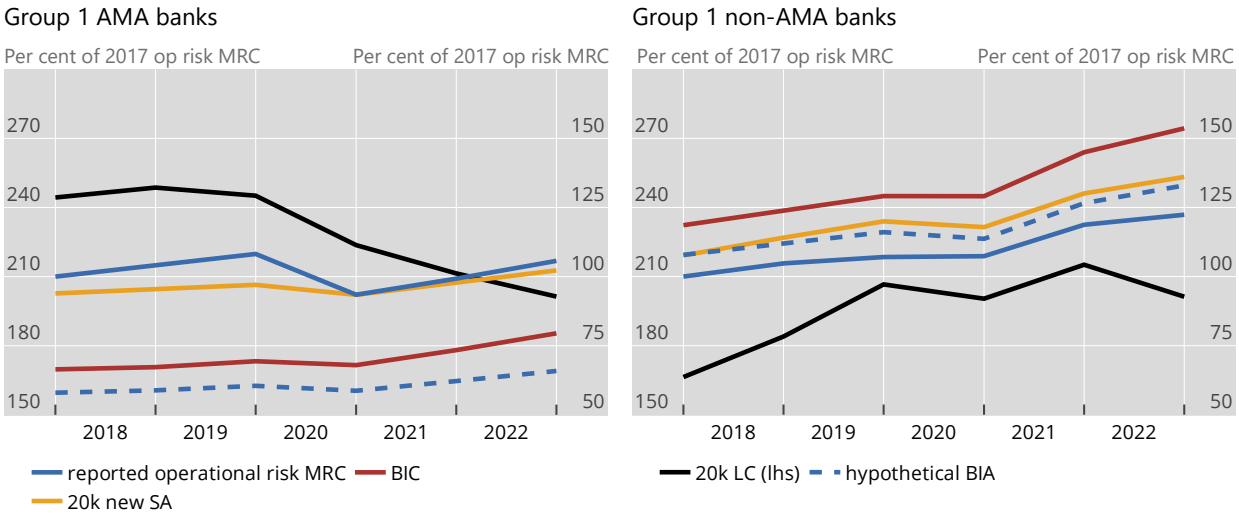
[39] In the previous Basel III monitoring report, data were converted to a fraction of 2021 operational risk MRC. The choice to adopt a different value base to normalise data prevents a comparison of Graph 56 with the one shown in the previous monitoring report.

component increased with a quite similar rate of 35 percentage points. But while the BIC increase from 118% to 153% represents a relative increase of about 30%, the LC increased just by about 21% from 166% in 2017 to 201% in 2022.[40] Despite the LC increases with a slightly smaller rate than the BIC, for non-AMA banks, which are usually smaller Group 1 banks, a phase-out of financial crisis losses cannot be identified. The observed reduced impact of the LC seems to be more a point in time observation where the LC average growth is sometimes below and sometimes above the BIC average growth. This view is strengthened since last year the relative increase of the BIC was just 22% while the increase of the LC was about 29%. A missing phase out can be explained as these banks did not experience high (legal) losses after the financial crisis and thus have a loss component closer to the BIC. The ratio of the average LC to the average BIC for these banks is only 1.3 in 2022, which would lead to an ILM of about 1.08.

Nevertheless, despite an ILM>1 derived from average LC/BIC, the aggregated "20k new SA" is below the aggregated BIC and indicates – contrary to what is expected – a real ILM of less than 1 ("20k new SA"/BIC=0.89). This can be explained by the cumulative LC, which is mainly influenced by just a few banks experiencing high losses while most of the banks have low losses compared to their BIC. Thus, the high losses of these few banks lead to a below average contribution of their losses to its capital requirements resulting in an aggregated "20k new SA" requirement of Group 1 non-AMA banks lower than the aggregated BIC requirement despite the aggregated LC is greater than the aggregated BIC.

Evolution of new SA components

Balanced data set — Graph 56

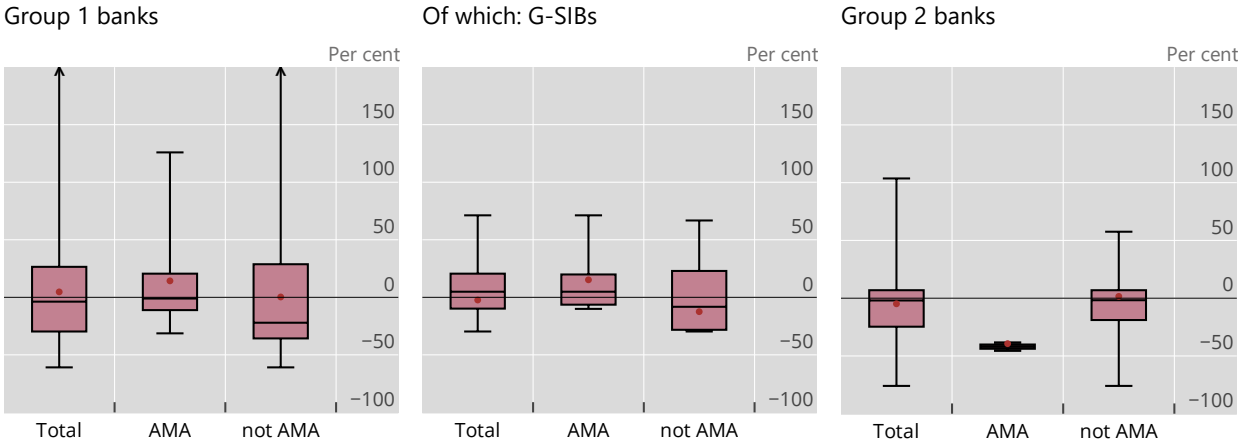


Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

Graph 57 depicts the distribution of changes in operational risk capital requirements for Group 1 banks, G-SIBs and Group 2 banks that calculate operational risk capital requirements using the existing set of standardised and advanced approaches in the framework.

[40] Differences in the hypothetical BIA show that the values of non-AMA banks and AMA banks cannot be compared easily. Although the financial crisis losses in 2022 with a loss component of 201.3% for non-AMA banks seem to be identical to the ones of AMA banks, they are twice as high for AMA banks if the loss component values are divided by their hypothetical 2022 BIA (65.9% for AMA and 133% for non-AMA banks).

Changes in MRC for operational risk[1] Graph 57



[1] See Section 1.3.3 for details on box plots. For the purpose of this graph, AMA banks are banks that currently calculate some part of their operational risk capital requirements using the AMA.

Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

5. Interactions between risk-based, output floor and leverage ratio capital requirements

5.1 Relationship between the Basel III leverage ratio and risk-based capital requirements under initial Basel III standards

Graph 58 below shows the interaction between the initial Basel III Tier 1 leverage ratios (horizontal axis) and the initial Basel III Tier 1 risk-weighted capital ratios (vertical axis). Ratios of Group 1 banks are marked with red dots and those of Group 2 banks with blue dots. The dashed horizontal line represents a Tier 1 target risk-based capital ratio of 8.5%,[41] whereas the dashed vertical line represents a Basel III Tier 1 leverage ratio of 3%. The diagonal line represents points where an 8.5% initial Basel III Tier 1 target risk-based capital ratio results in the same amount of required initial Basel III Tier 1 capital as an initial Basel III Tier 1 leverage ratio of 3%. By construction, it also represents a multiple of 8.5% / 3% ≈ 2.83 between RWA and the Basel III leverage ratio exposure measure. Therefore, for banks plotted above the diagonal line, the Basel III Tier 1 leverage ratio requires more Tier 1 capital than the Tier 1 risk-based capital ratio (ie the Basel III Tier 1 leverage ratio becomes the constraining requirement).[42] For banks plotted below the diagonal line, the target Tier 1 risk-based capital ratio requires more capital than the leverage ratio (ie the Tier 1capital ratio remains the constraining requirement).

As shown in Graph 58, all banks meet the minimum Basel III Tier 1 leverage ratio of 3% and the Tier 1 target risk-based capital ratio under initial Basel III standards of 8.5%. The graph also shows that the Basel III Tier 1 leverage ratio under initial Basel III standards is constraining for 60 banks out of 157, of which 41 are Group 1 banks and 19 are Group 2 banks (plotted above the diagonal line).

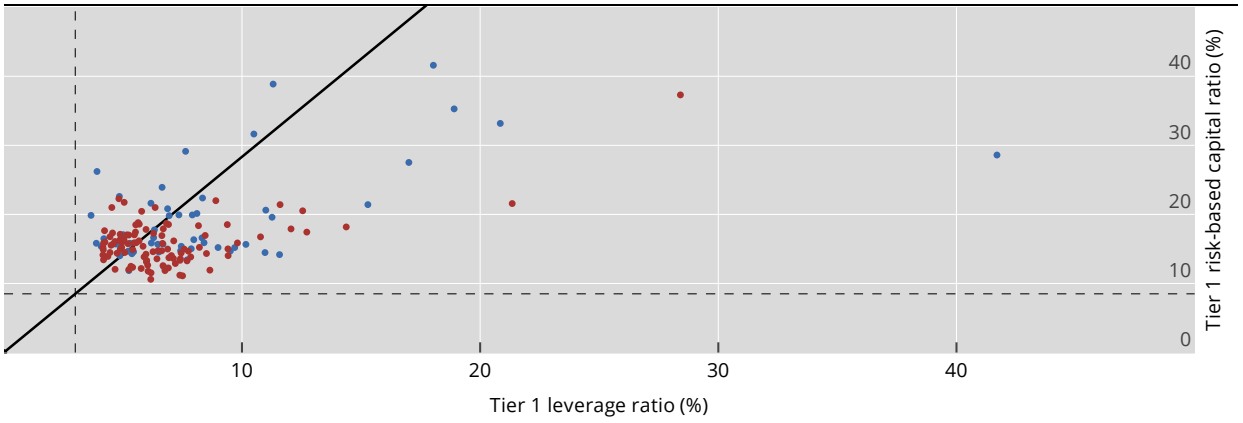
41 Calculated as the sum of a 6.0% Tier 1 minimum capital ratio plus 2.5% capital conservation buffer.

42 Note that the effect of the G-SIB surcharge is not considered here. As the G-SIB surcharges only apply to the risk-based requirement under the initial Basel III framework, the relevant proportion between RWA and total leverage ratio exposure that determines whether the Basel III leverage ratio is constraining or not and hence the slope of the diagonal line would be different by bank.

National implementation initial Basel III Tier 1 risk-based capital and leverage ratios

In per cent

Graph 58



The dashed horizontal line represents a Tier 1 target risk-based capital ratio of 8.5%, whereas the dashed vertical line represents a Basel III Tier 1 leverage ratio of 3%. The diagonal line represents points where an 8.5% Basel III Tier 1 target risk-based capital ratio results in the same amount of required Basel III Tier 1 capital as a Basel III Tier 1 leverage ratio of 3%.

Source: Basel Committee on Banking Supervision.

5.2 Interactions between risk-based, output floor and leverage ratio capital requirements under the final Basel III standards

This section discusses the interaction between Tier 1 risk-based, output floor and Basel III leverage ratio capital requirements, all including the capital conservation and G-SIB buffers as applicable. The purpose of this analysis is to gain deeper insight into which capital requirement component of the framework is constraining for the banks in the sample. The *constraining* requirement in this analysis refers to the requirement that imposes the largest amount of Tier 1 MRC among the three requirements mentioned above. Accordingly, the Tier 1 MRC for a bank is determined as the highest of the requirement under the risk-based framework, the requirement using the output floors and the requirement measured using the Basel III leverage ratio.

Note that in contrast to the analyses presented in Section 2.1 and Section 2.2, the risk-based capital requirements here denote the risk-based capital framework *prior* to the application of any output floor. Also note that while all banks are by definition constrained by one of the measures, this does not necessarily result in a capital shortfall for any of them. Finally, some capital requirements, such as D-SIB buffer and Pillar 2 requirements, are not considered in the analysis. This tends to give more importance to leverage ratio requirements relative to risk-based requirements. In the actual situation where those additional requirements would be considered fewer banks could be constrained by the leverage ratio all other things equal.

Graph 59 shows which of the three parts is constraining under both the current standard and the final Basel III framework. For Group 2 banks, results are presented separately for IRB banks and banks only using the standardised approach for credit risk ("pure SA").[43]

Under the current initial Basel III framework, the output floor is constraining for 11 out of the 80 Group 1 banks. For the remaining Group 1 banks, the risk-based ratio is constraining for a larger number of banks than the leverage ratio (42 and 27 banks respectively). Globally, under the fully phased-in final

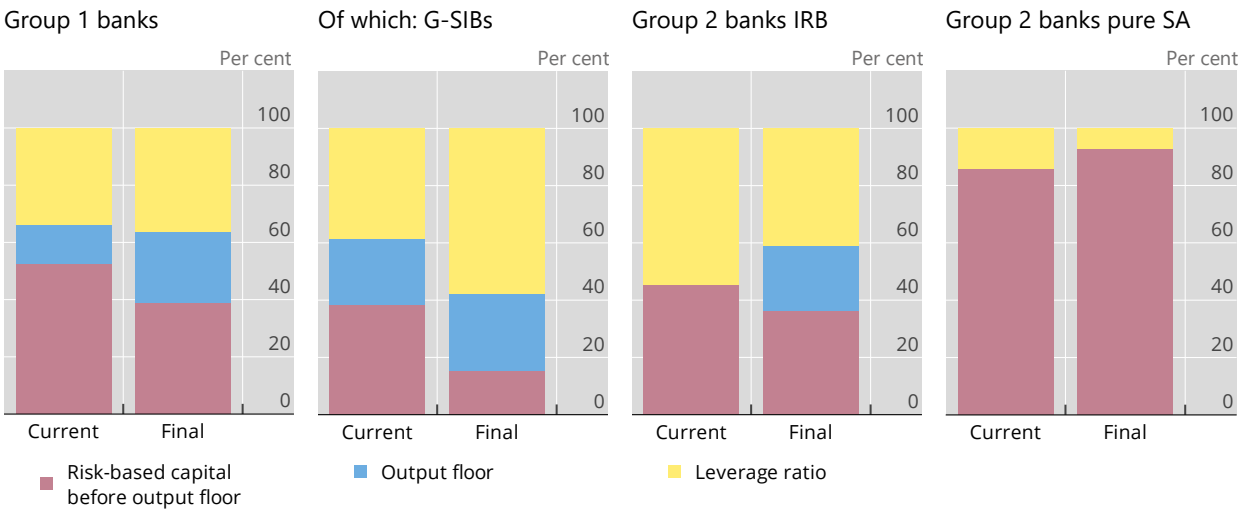
[43] Graph 59 does not distinguish between IRB and "pure SA" Group 1 banks as the number of "pure SA" Group 1 banks is small.

Basel III framework, the output floor becomes more constraining for Group 1 banks, especially at the expense of the risk-based ratio as the constraining requirement: The number of banks for which the output floor is constraining increases from 11 to 20. In parallel, the number of Group 1 banks for which the risk-based ratio is the constraining requirement drops from 42 to 31.

G-SIBs display a similar behaviour, with 10 banks being constraint by the minimum leverage ratio and risk-based ratio each under the current initial Basel III framework and six banks constrained by the transitional Basel I-based floor. Under the fully phased-in final Basel III framework however, the minimum leverage ratio is the most dominant restriction as only four banks are now constrained by the risk-based ratio and seven banks are constrained by the output floor.

For Group 2 banks, for analysis purposes, Graph 59 distinguishes between IRB and pure SA banks (22 and 14 respectively). Under the current initial Basel III framework, the leverage ratio is binding for 12 Group 2 IRB banks. Under the final Basel III framework, nine Group 2 IRB banks are constrained by the leverage ratio, whereas the output floor is constraining for five Group 2 IRB banks. For pure SA Group 2 banks, the number of banks constrained by risk-based capital requirements increases by one bank while and the number of banks constrained by the leverage ratio requirements decreases correspondingly. No Group 2 pure SA banks are constrained by the output floor.

Percentage of banks constrained by different parts of the framework — Graph 59



Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

Graph 60 shows the percentage of Group 1 banks constrained by different parts of the framework, by region. In Europe, under the current initial Basel III framework, one bank is constrained by the transitional Basel I based floor and the main binding ratio is the leverage ratio, by which 19 banks out of 29 European banks are constrained. This could be partially driven by the non-consideration of some risk-based capital requirements, such as D-SIB buffer and Pillar 2 requirements in the analysis. Against this background, the numbers in this section might overestimate the impact of the leverage ratio constraint. Under the fully phased-in final Basel III framework, the output floor significantly gains relevance, constraining seven European banks. Consequently, the number of banks constrained by the leverage ratio or the risk-based requirements decreases (15 and seven European banks respectively).

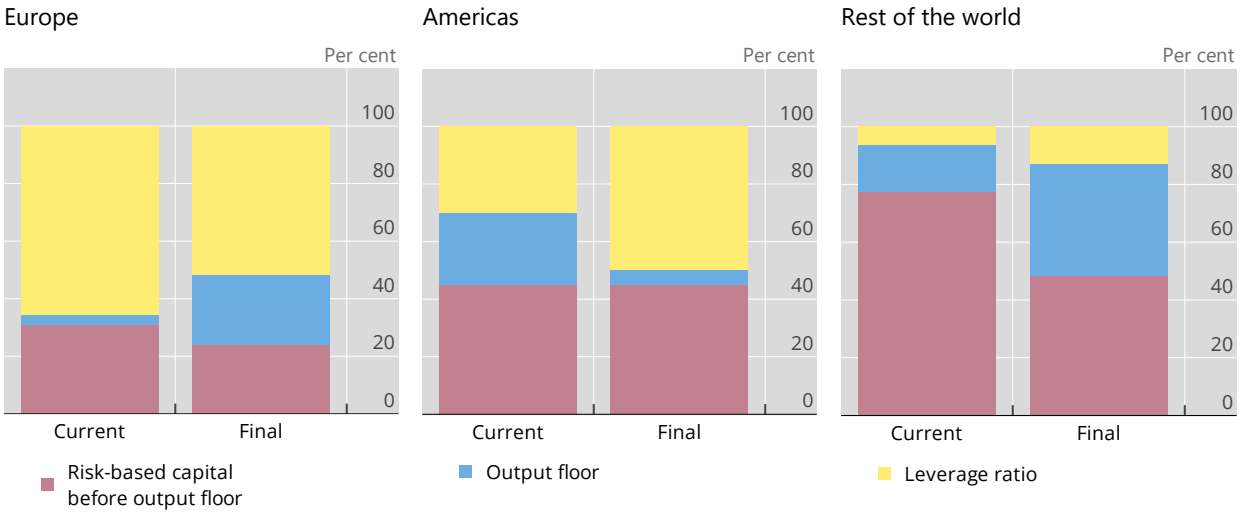
In contrast, the development in the Americas is different. Under the current initial Basel III framework, the Basel I-based floor is constraining five banks out of 20) while nine banks are constrained by the risk-based capital requirements before floor-application. Under the fully phased-in final Basel III framework, the number of banks constrained by the leverage ratio increases, constraining ten banks from the Americas whereas the output floor loses significance (only one bank constrained). Consequently, under

the fully phased-in final Basel III framework, the majority of banks in the Americas (nine banks) is constrained by the leverage ratio.

For the rest of the world, most banks (24 out of 31) are constrained by the risk-based capital requirements before floor-application under the initial Basel III framework. Under the final Basel III framework, this is the case for only 15 banks. In contrast, the number of banks constrained by the output floor increases significantly from five to 12 while the number of banks constrained by the leverage ratio doubles (two banks for the initial and four banks for the final Basel III frameworks).

Percentage of banks constrained by different parts of the framework, by region

Group 1 banks — Graph 60



Source: Basel Committee on Banking Supervision. See the Excel data file for underlying data and sample size.

6. Liquidity

Graphs and explanations related to liquidity are no longer included in the PDF report as they are now available in dashboards on the Committee's website.[44] For this period, related data are still included in the Excel data file accompanying this report (see worksheets "Graph 11a" to "Graph 11m").

[44] www.bis.org/bcbs/dashboards.htm?m=99.

Annex A: Basel III standards and phase-in arrangements

Basel III minimum requirements and buffers

Table A.1

	As of 1 January 2019
Leverage ratio	3.0%
Minimum CET1 ratio	4.5%
Capital conservation buffer	2.50%
G-SIB surcharge	1.0%–2.5%
Minimum common equity plus capital conservation buffer	7.0%
Phase-in of deductions from CET1 (including amounts exceeding the limit for DTAs, MSRs and financials)	100%
Minimum Tier 1 capital	6.0%
Minimum total capital	8.0%
Minimum total capital plus capital conservation buffer	10.5%
Capital instruments that no longer qualify as Tier 1 capital or Tier 2 capital	Phased out over 10-year horizon beginning 2013
Liquidity Coverage Ratio	100%
Net Stable Funding Ratio	100%[1]

[1] Note that as of May 2020, a final rule for the Net Stable Funding Ratio is in force in 12 out of 27 Basel Committee member jurisdictions. See Basel Committee on Banking Supervision, *Eighteenth progress report on adoption of the Basel regulatory framework*, July 2020, www.bis.org/bcbs/publ/d506.htm, p 8.

Final Basel III phase-in arrangements

Shading indicates transition periods – all dates are as of 1 January.

Table A.2

	2023	2024	2025	2026	2027	2028
Revisions to the standardised and internal ratings-based approaches to credit risk	Introduce					
Revised CVA and market risk frameworks	Introduce					
Revised operational risk framework	Introduce					
Output floor	50%	55%	60%	65%	70%	72.5%
	Increase in RWA subject to 25% cap at national discretion.					
Leverage ratio exposure measure and G-SIB surcharge	Introduce					

Definition of different Basel III regimes

Table A.3

	Initial Basel III framework	Transitional final Basel III framework	Fully phased-in final Basel III framework
Definition of capital	*Basel III: A global framework for more resilient banks and the banking system*, www.bis.org/publ/bcbs189.htm		
Credit risk	*Basel III: A global framework for more resilient banks and the banking system*, www.bis.org/publ/bcbs189.htm *Capital requirements for bank exposures to central counterparties,* www.bis.org/publ/bcbs227.htm	Basel III: Finalising post-crisis reforms, www.bis.org/bcbs/publ/d424.htm Capital requirements for bank exposures to central counterparties, www.bis.org/publ/bcbs227.htm Capital requirements for banks' equity investments in funds, www.bis.org/publ/bcbs266.htm	
Operational risk	Basel II: International Convergence of Capital Measurement and Capital Standards: A Revised Framework, www.bis.org/publ/bcbs128.htm	Basel III: Finalising post-crisis reforms, www.bis.org/bcbs/publ/d424.htm	
Market risk	Revisions to the Basel II market risk framework, www.bis.org/publ/bcbs158.htm Guidelines for computing capital for incremental risk in the trading book, www.bis.org/publ/bcbs159.htm	Minimum capital requirements for market risk, www.bis.org/bcbs/publ/d457.htm	
Counterparty credit risk	Basel III: A global framework for more resilient banks and the banking system, www.bis.org/publ/bcbs189.htm	The standardised approach for measuring counterparty credit risk exposures, www.bis.org/publ/bcbs279.htm	
CVA	Basel III: A global framework for more resilient banks and the banking system, www.bis.org/publ/bcbs189.htm	Basel III: Finalising post-crisis reforms, www.bis.org/bcbs/publ/d424.htm Targeted revisions to the revised CVA framework published in July 2020 are **not** yet considered for the end-December 2019 reporting date. They will be reflected in the exercise on the end-2020 reporting date. www.bis.org/bcbs/publ/d507.htm	
Securitisation	Basel III: A global framework for more resilient banks and the banking system, www.bis.org/publ/bcbs189.htm	Revisions to the securitisation framework, www.bis.org/bcbs/publ/d374.htm	
Floor	Basel II: International Convergence of Capital Measurement and Capital Standards: A Revised Framework, www.bis.org/publ/bcbs128.htm	Output floor of 50%, Basel III: Finalising post-crisis reforms, www.bis.org/bcbs/publ/d424.htm	Output floor of 72.5%, Basel III: Finalising post-crisis reforms, www.bis.org/bcbs/publ/d424.htm
Leverage ratio	Basel III: A global framework for more resilient banks and the banking system, www.bis.org/publ/bcbs189.htm; Basel III leverage ratio framework and disclosure requirements, www.bis.org/publ/bcbs270.htm	Basel III: Finalising post-crisis reforms, www.bis.org/bcbs/publ/d424.htm; Leverage ratio treatment of client cleared derivatives www.bis.org/bcbs/publ/d467.htm	

Minimum and target risk-based capital and leverage ratio requirements

Fully phased-in final Basel III standards, in per cent — Table A.4

	Fully implemented risk-based requirement			Fully implemented leverage ratio requirement	
	Minimum	Target non-G-SIBs	Target G-SIBs	Minimum all banks and target non-G-SIBs	Target G-SIBs
CET1 capital	4.5	7.0	8.0–9.5		
Tier 1 capital	6.0	8.5	9.5–11.0	3.0	3.5–4.25
Total capital	8.0	10.5	11.5–13.0		

Annex B: Sample statistics

Number of banks for which data have been included[1] Table B.1

	Group 1 banks					Group 2 banks				
	All	RWA and capital	Leverage	LCR	NSFR	All	RWA and capital	Leverage	LCR	NSFR
Argentina (AM)	0	0	0	0	0	3	3	3	3	3
Australia (RW)	4	4	4	4	4	1	1	1	1	1
Belgium (EU)	3	3	3	3	2	2	2	2	2	1
Brazil (AM)	2	2	2	2	2	0	0	0	0	0
Canada (AM)	6	6	6	6	6	0	0	0	0	0
China (RW)	6	6	6	6	6	0	0	0	0	0
France (EU)	5	5	5	5	4	2	2	2	2	0
Germany (EU)	11	11	11	11	4	22	22	21	22	6
India (RW)	7	7	7	7	7	0	0	0	0	0
Indonesia (RW)	0	0	0	0	0	2	2	1	2	1
Italy (EU)	2	2	2	2	2	6	6	6	6	5
Japan (RW)	15	15	14	15	15	1	1	1	1	1
Korea (RW)	8	8	6	8	0	0	0	0	0	0
Luxembourg (EU)	0	0	0	0	0	3	3	3	3	3
Mexico (AM)	2	2	2	2	2	4	4	4	4	4
Netherlands (EU)	4	4	4	4	4	3	3	3	3	3
Saudi Arabia (RW)	3	3	2	3	0	0	0	0	0	0
Singapore (RW)	3	3	3	3	3	0	0	0	0	0
South Africa (RW)	4	4	4	4	4	2	2	2	2	2
Spain (EU)	2	2	1	2	2	4	4	4	4	3
Sweden (EU)	3	3	3	3	3	3	3	3	3	3
Switzerland (EU)	2	2	2	2	2	4	4	0	0	0
Türkiye (EU)	3	3	3	3	3	0	0	0	0	0
United Kingdom (EU)	5	5	5	5	5	3	3	3	3	3
United States (AM)	12	12	12	12	12	0	0	0	0	0
Total	112	112	107	112	92	65	65	59	61	39
Of which: G-SIBs	29	29	28	29	29	0	0	0	0	0

[1] The regional grouping to which a country is assigned is included in parentheses. AM denotes Americas, EU Europe and RW the rest of the world.

Source: Basel Committee on Banking Supervision.

Additional sample statistics[1]

In billions of euros

Table B.2

	Number of banks	Tier 1 capital	Risk-weighted assets	Accounting total assets	Leverage total exposure
Group 1 banks	99	5,360	33,709	83,639	87,920
Of which: Europe	31	1,321	7,865	25,473	24,770
Of which: Americas	22	1,447	9,811	21,496	24,846
Of which: Rest of the world	46	2,592	16,033	36,670	38,303
Of which: G-SIBs	29	3,690	22,842	58,812	61,415
Group 2 banks	40	171	877	2,656	2,473

[1] Tier 1 capital, RWA and leverage ratio exposure assume full implementation of Basel III.

Source: Basel Committee on Banking Supervision.

Number of banks for which data have been included in the assessment of the impact of the final Basel III framework[1]

Table B.3

	Group 1 banks	Group 2 banks
Argentina (AM)	0	3
Australia (RW)	1	0
Belgium (EU)	2	1
Brazil (AM)	2	0
Canada (AM)	6	0
China (RW)	4	0
France (EU)	4	0
Germany (EU)	4	8
India (RW)	4	0
Italy (EU)	2	5
Japan (RW)	15	0
Korea (RW)	8	0
Luxembourg (EU)	0	3
Mexico (AM)	2	4
Netherlands (EU)	4	3
Saudi Arabia (RW)	3	0
Singapore (RW)	3	0
South Africa (RW)	3	2
Spain (EU)	2	3
Sweden (EU)	3	3
Switzerland (EU)	1	0
Türkiye (EU)	3	0
United Kingdom (EU)	5	2
United States (AM)	10	0
Total	91	37

[1] The regional grouping to which a country is assigned is included in brackets. AM denotes Americas, EU Europe and RW the rest of the world.

Source: Basel Committee on Banking Supervision.

Previous monitoring reports published by the Basel Committee

December 2010	*Results of the comprehensive quantitative impact study*, December 2010, www.bis.org/publ/bcbs186.htm	
April 2012	*Results of the Basel III monitoring exercise as of 30 June 2011*, www.bis.org/publ/bcbs217.htm	
September 2012	*Results of the Basel III monitoring exercise as of 31 December 2011*, www.bis.org/publ/bcbs231.htm	
March 2013	*Results of the Basel III monitoring exercise as of 30 June 2012*, www.bis.org/publ/bcbs243.htm	
September 2013	*Basel III monitoring report,* www.bis.org/publ/bcbs262.htm	
March 2014	*Basel III monitoring report,* www.bis.org/publ/bcbs278.htm	
September 2014	*Basel III monitoring report,* www.bis.org/publ/bcbs289.htm	
	Main findings of the trading book hypothetical portfolio exercise	Diana Iercosan, Derek Nesbitt and Arnaud Sandrin
March 2015	*Basel III monitoring report,* www.bis.org/bcbs/publ/d312.htm	
	Analysis of the QIS for the fundamental review of the trading book	
September 2015	*Basel III monitoring report,* www.bis.org/bcbs/publ/d334.htm	
March 2016	*Basel III monitoring report,* www.bis.org/bcbs/publ/d354.htm	
	Comprehensive QIS on interest rate risk in the banking book	Ethan Goh, Kamil Pliszka and Davy Reinard
September 2016	*Basel III monitoring report,* www.bis.org/bcbs/publ/d378.htm	
	Results of the quantitative impact study on the large exposures review clause	Marie-Céline Bard, Ken Taniguchi and Lynnette Withfield
February 2017	*Basel III monitoring report*, www.bis.org/bcbs/publ/d397.htm	
	Impact of the revised minimum capital requirements for market risk	Scott Nagel
	Results of the survey on the interaction of regulatory instruments	Diana Hancock and Doriana Ruffino
September 2017	*Basel III monitoring report*, www.bis.org/bcbs/publ/d416.htm	
	Impact of the revised minimum capital requirements for market risk	Scott Nagel
	Impact of the revised securitisation framework	Bernardo D'Alessandro, Thomas Morck and Emanuela Piani
December 2017	*Basel III monitoring report – Results of the cumulative quantitative impact study*, www.bis.org/bcbs/publ/d426.htm	
March 2018	*Basel III monitoring report*, www.bis.org/bcbs/publ/d433.htm	
	Impact of the revised securitisation framework	Bernardo D'Alessandro, Thomas Morck and Emanuela Piani
October 2018	*Basel III monitoring report*, www.bis.org/bcbs/publ/d449.htm	
March 2019	*Basel III monitoring report,* www.bis.org/bcbs/publ/d461.htm	

September 2019	*Basel III monitoring report*, www.bis.org/bcbs/publ/d477.htm	
	Counterparty credit risk and credit valuation adjustment risk	Alexandra Gebauer, Evariste Beigneux and Giulio Malberti
April 2020	*Basel III monitoring report*, www.bis.org/bcbs/publ/d500.htm	
	Counterparty credit risk and credit valuation adjustment risk	Thomas Blumentritt
December 2020	*Basel III monitoring report*, www.bis.org/bcbs/publ/d512.htm	
	Counterparty credit risk and credit valuation adjustment risk	Thomas Blumentritt and Alexandra Gebauer
September 2021	*Basel III monitoring report*, www.bis.org/bcbs/publ/d524.htm	
	Exclusions from the leverage ratio exposure measure due to Covid-19	Renzo Corrias
February 2022	*Basel III monitoring report*, www.bis.org/bcbs/publ/d531.htm	
September 2022	*Basel III monitoring report*, www.bis.org/bcbs/publ/d541.htm	
	Banks' exposures to cryptoassets – a novel dataset	Renzo Corrias
	Capital buffers and total CET1 requirements including Pillar 2	Irina Barakova and Roberto Ottolini
February 2023	*Basel III monitoring report*, www.bis.org/bcbs/publ/d546.htm	
	Regional distributions of Group 1 and Group 2 banks and their impact on results in the Basel III monitoring reports	Martin Birn, Lea Charlotte Neugebauer and Verena Seidl
September 2023	*Basel III monitoring report*, www.bis.org/bcbs/publ/d554.htm	