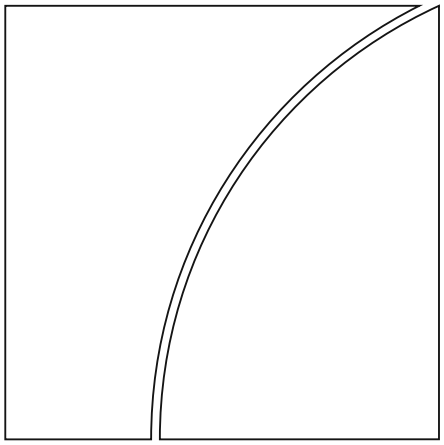
Basel Committee
on Banking Supervision



Basel III
Monitoring Report

December 2020

BANK FOR INTERNATIONAL SETTLEMENTS

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

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Basel III Monitoring Report

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Special feature

Annexes

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 30 September 2020.

Quantitative Impact Study Working Group
of the Basel Committee on Banking Supervision

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Highlights of the Basel III monitoring exercise as of 31 December 2019

Prior to Covid-19, large internationally active banks made further progress towards meeting fully phased-in final Basel III capital requirements and their liquidity ratios improved compared with end-June 2019

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 semiannual monitoring framework has been set up on the risk-based capital ratio, the leverage ratio and the liquidity metrics using data collected by national supervisors on a representative sample of institutions in each country. Since the end-2017 reporting date, the report also captures the effects of the Committee's finalisation of the Basel III reforms.[1] This report summarises the aggregate results using data as of 31 December 2019.[2] Furthermore, this report includes a special feature on counterparty credit risk and credit valuation adjustment risk. Given the December 2019 reporting date, the results do not reflect the economic impact of the coronavirus disease (Covid-19) on participating banks.[3] Nevertheless, 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 by voluntary and confidential data submissions from individual banks and their national supervisors. Data were included for a total of 173 banks, including 105 large internationally active ("Group 1") banks, among them all 30 G-SIBs, and 68 other ("Group 2") banks.[4] 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 take into account any transitional arrangements such as grandfathering arrangements. Rather, the estimates presented generally assume full implementation of the Basel III requirements based on data as of 31 December 2019. No assumptions have been made about banks' profitability or behavioural responses, such as changes in bank capital or balance sheet composition, either 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, any higher loss absorbency requirements for domestic systemically important banks, nor does it reflect any countercyclical capital buffer requirements.

1 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 Where relevant, the revised implementation dates of the final Basel III framework are reflected in this report. See Group of Governors and Heads of Supervision, *Governors and Heads of Supervision announce deferral of Basel III implementation to increase operational capacity of banks and supervisors to respond to Covid-19*, 27 March 2020, www.bis.org/press/p200327.htm.

4 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

Table 1

	30 June 2019[1]			31 December 2019		
	Group 1	Of which: G-SIBs	Group 2	Group 1	Of which: G-SIBs	Group 2
Initial Basel III framework						
CET1 ratio (%)	12.8	12.7	14.8	13.0	12.8	15.2
Target capital shortfalls (€ bn);[2] of which:	1.7	0.0	1.1	0.0	0.0	0.9
CET1	0.4	0.0	0.0	0.0	0.0	0.0
Additional Tier 1	1.3	0.0	1.1	0.0	0.0	0.9
Tier 2	0.0	0.0	0.0	0.0	0.0	0.0
TLAC shortfall 2022 minimum (€ bn)	35.2	35.2		0	0	
Total accounting assets (€ bn)	65,855	47,174	3,581	65,468	47,328	4,110
Leverage ratio (%)	5.8	5.8	5.2	6.1	6.0	5.4
LCR (%)	136.2	134.3	177.0	137.6	135.6	186.0
NSFR (%)	116.4	117.8	120.1	117.2	118.3	122.1
Fully phased-in final Basel III framework (2028) , reduced estimation bias[3]						
Change in Tier 1 MRC at the target level (%)	2.5	2.7	7.5	1.8	1.8	8.4
CET1 ratio (%)	12.3	12.3	12.2	12.5	12.4	13.2
Target capital shortfalls (€ bn); of which:	16.6	14.6	3.4	10.7	10.7	2.9
CET1	7.6	6.4	1.7	3.3	3.3	1.3
Additional Tier 1	5.6	4.7	0.7	3.8	3.8	0.8
Tier 2	3.4	3.4	1.0	3.6	3.6	0.9
TLAC shortfall 2022 minimum (€ bn)	42.7	42.7		1.9	1.9	
Fully phased-in final Basel III framework (2028), conservative estimation[3]						
Change in Tier 1 MRC at the target level (%)	3.0	3.4	8.5	2.1	2.2	8.4
CET1 ratio (%)	12.2	12.1	13.0	12.5	12.4	13.2
Target capital shortfalls (€ bn); of which:	24.7	22.8	3.8	10.7	10.7	2.9
CET1	7.0	6.0	1.8	3.3	3.3	1.3
Additional Tier 1	10.1	9.2	1.1	3.8	3.8	0.8
Tier 2	7.6	7.6	0.9	3.6	3.6	0.9
TLAC shortfall 2022 minimum (€ bn)	78.0	78.0		1.9	1.9	

See Table A.4 for the target level capital requirements. [1] The values for the previous period may slightly differ from those published in the end-June 2019 report at the time of its release. This is caused by data resubmissions for previous periods in order to improve the underlying data quality and enlarge the time series sample. [2] Uses the 2017 definition of the leverage ratio exposure measure. [3] For three G-SIBs that are outliers due to overly conservative assumptions under the revised market risk framework, zero change from the revised market risk framework has been assumed for the calculation of 31 December 2019 results with "reduced estimation bias". For two of the G-SIBs, the same assumption was made for the calculation of 30 June 2019 results. These banks are reflected with their overly conservative market risk assumptions in the results with "conservative estimation".

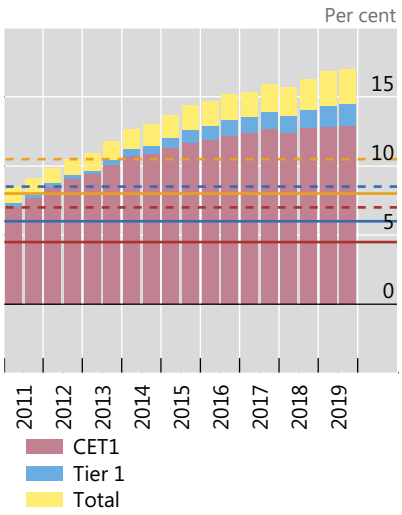
Source: Basel Committee on Banking Supervision.

- Compared with the previous reporting period (end-June 2019) the average Common Equity Tier 1 (CET1) capital ratio under the initial Basel III framework has increased from 12.8% to 13.0% for Group 1 banks and from 14.8% to 15.2% for Group 2 banks.
- The average impact of the final Basel III framework on the Tier 1 Minimum Required Capital (MRC) of Group 1 banks is lower (+1.8%) when compared to the 2.5% increase at end-June 2019.
- The total capital shortfalls under the fully phased-in final Basel III framework as of the end-December 2019 reporting date for Group 1 banks decreased to €10.7 billion in comparison to the end-June 2019 at €16.6 billion. The decrease was not influenced by the smaller size of the Group 1 sample in the current period.
- Applying the 2022 minimum TLAC requirements and the initial Basel III framework, none of the 23 G-SIBs reporting total loss-absorbing capacity (TLAC) data have reported a shortfall. Considering the fully phased-in final Basel III framework, one bank reports a shortfall of €1.9 billion.
- Group 1 banks' average Liquidity Coverage Ratio (LCR) increased from 136.2% to 138.2%, while the average Net Stable Funding Ratio (NSFR) increased only slightly from 116.4% to 117.2%. For Group 2 banks, there was also an increase for both the LCR and the NSFR.

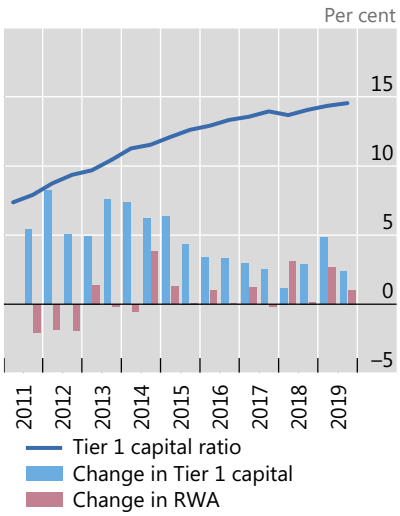
Initial Basel III capital ratios increase slightly

Consistent sample of Group 1 banks — Graph 1

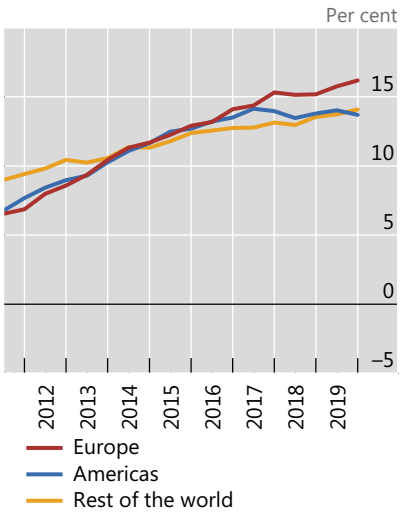
CET1, Tier 1 and total capital ratios[1]



Determinants of changes[2]



Tier 1 ratios by region[3]



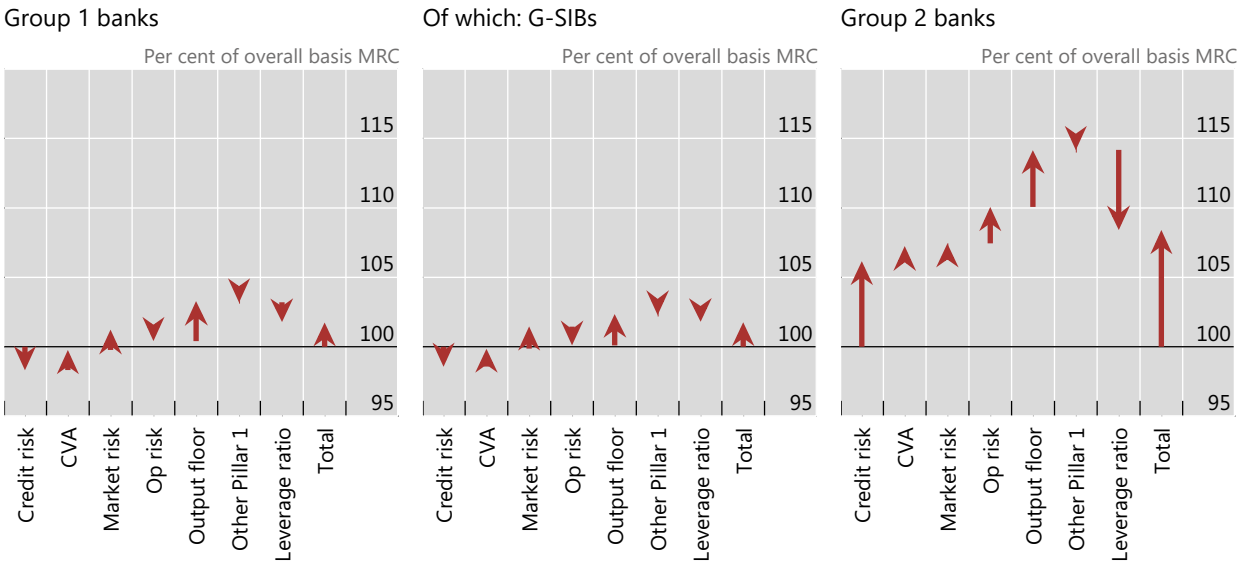
[1] The solid lines depict the relevant minimums, the dotted lines the minimums plus the capital conservation buffer. See Table A.4 for the relevant levels. [2] Exchange rates as of the current reporting date. [3] See Table B.1 for the composition of the regions.

Source: Basel Committee on Banking Supervision. See Table C.3, Table C.4 and Table C.6 for underlying data and sample size.

- The overall CET1 capital ratios for Group 1 banks in the consistent sample have increased to 12.9% in December 2019 from 12.8% in June 2019. Overall Tier 1 capital also showed a 10 basis points increase while total capital ratios displayed a 20 basis points increase to 17.0% over the same period.
- Currently, the Tier 1 capital ratios are higher in Europe than in the Americas and the rest of the world region. However, when compared with data starting from 2011, this relationship used to be reversed before 2014.
- Most of the capital ratios in Europe and the rest of the world saw increases, with the largest improvement coming from Europe. Capital ratios in the Americas decreased over the second half of 2019.

No significant change in Tier 1 MRC at the target level for Group 1 banks due to the final Basel III standards compared to end-June 2019

Reduced estimation bias[1] Graph 2



Credit risk shows the change in MRC due to revised standardised and internal ratings-based approaches, including securitisation. Operational risk figures may not show supervisor-imposed capital add-ons. 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. [1] For three G-SIBs that are outliers due to overly conservative assumptions under the revised market risk framework, zero change from the revised market risk framework has been assumed.

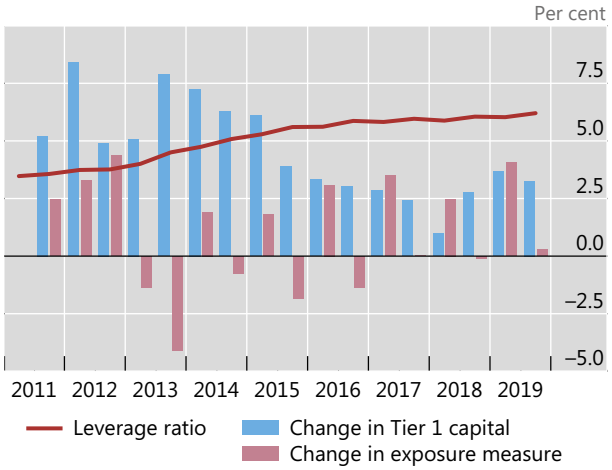
Source: Basel Committee on Banking Supervision. See also Table 6; Table 7 shows related results with conservative estimation.

- For Group 1 banks, the Tier 1 minimum required capital (MRC) would increase by 1.8% with reduced estimation bias and by 2.1% with conservative estimation, following full phasing-in of the final Basel III standards. This increase is composed of a 3.2% (3.6%) increase for the risk-based components combined, driven by the positive contributions of output floor (2.9%), market risk (1.5% or 1.9%) and CVA (1.4%), as well as reductions in credit risk (-1.7%) and operational risk requirements (-0.8%). This increase is offset by a -1.4% (-1.5%) reduction in leverage ratio Tier 1 MRC, which reflects the fact that the Basel III leverage ratio is becoming relatively less constraining for many banks in the sample in the presence of an output floor.
- The impact on MRC across regions is very heterogeneous for Group 1 banks with a small decrease shown in the Americas (-0.3%), a moderate decrease in the rest of the world (-6.7%) and in contrast to this a strong increase in MRC for European banks (+16.9% with reduced estimation bias and +18.1% with conservative estimation).
- For Group 2 banks, the overall 8.4% increase in Tier 1 MRC is driven by an increase in the risk-based measure of 14.2%, mainly driven by credit risk (6.2%) and the output floor (4.1%). The change in Tier 1 MRC for the leverage ratio is partially offsetting this increase at -5.8%.
- The average impact of the final Basel III framework on Group 1 banks at +1.8% with reduced estimation bias and +2.1% with conservative estimation is lower when compared to end-June 2019 results (+2.5% or +2.8%). However, there is slightly higher dispersion across regions.

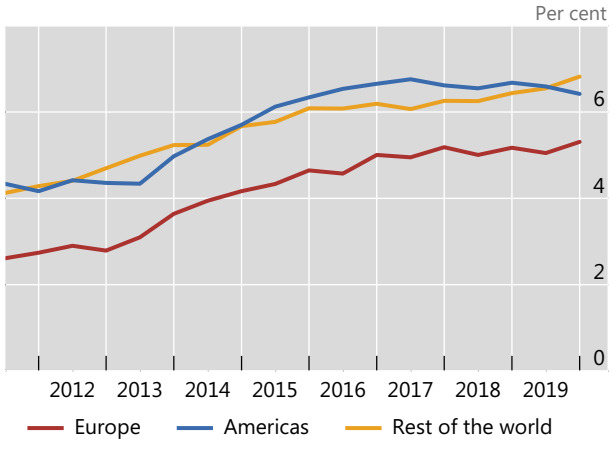
Fully phased-in Basel III leverage ratios[1] increased in H2 2019 except in the Americas

Consistent sample of Group 1 banks, exchange rates as of the current reporting date — Graph 3

Leverage ratios and their determinants



Leverage ratios by region



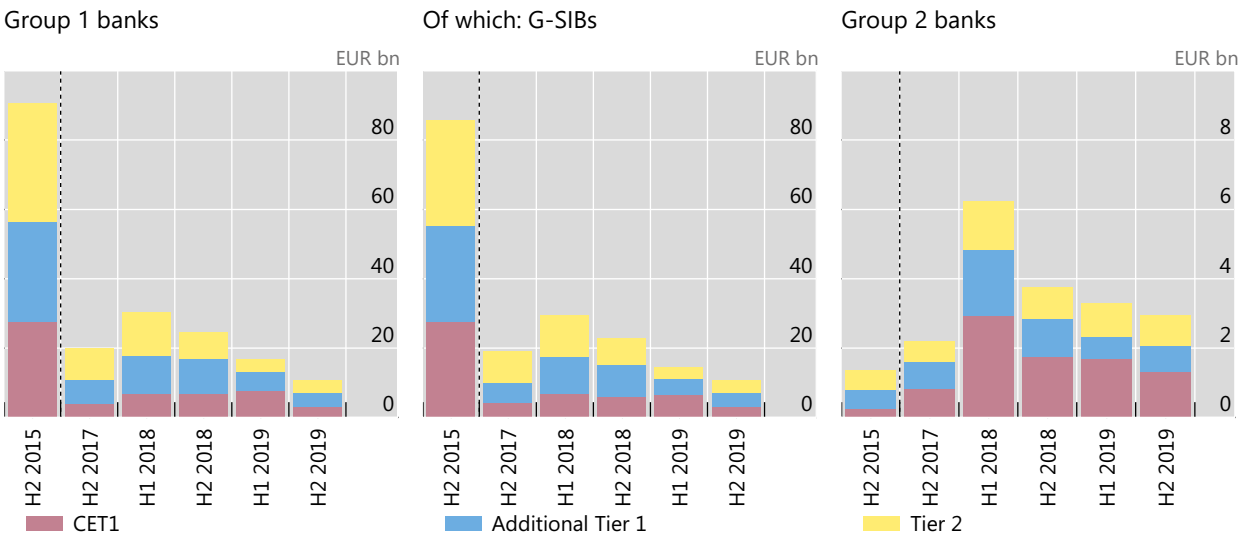
[1] Data points from H1 2011 to H2 2012 use the original definition of the leverage ratio. Data points from H1 2013 to H1 2017 use the definition of the leverage ratio set out in the 2014 version of the framework. Note that the data points for H1 2013 use an approximation for the initial definition of 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.

Source: Basel Committee on Banking Supervision. See Table C.17 and Table C.18 for underlying data and sample size.

- For the full sample at the end-December 2019 reporting date, the average fully phased-in Basel III Tier 1 leverage ratios are 6.0% for both Group 1 banks and G-SIBs and 5.3% for Group 2 banks.
- For the consistent sample of Group 1 banks, the average fully phased-in Basel III leverage ratio increased by 20 basis points to 6.2% in December 2019. Until the end of 2016, the average leverage ratio had continuously increased from 3.5% in June 2011, driven by Tier 1 capital increases, which had more than offset an overall increase in the exposure measure.
- Leverage ratios are lower in Europe (5.3%) as compared to the Americas (6.3%) and the rest of the world (6.8%).
- Compared to the previous reporting date, leverage ratios increased in Europe and the rest of the world while they decreased in the Americas.

Combined capital shortfalls at the target level under the final Basel III standards lower for large banks compared with end-June 2019

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



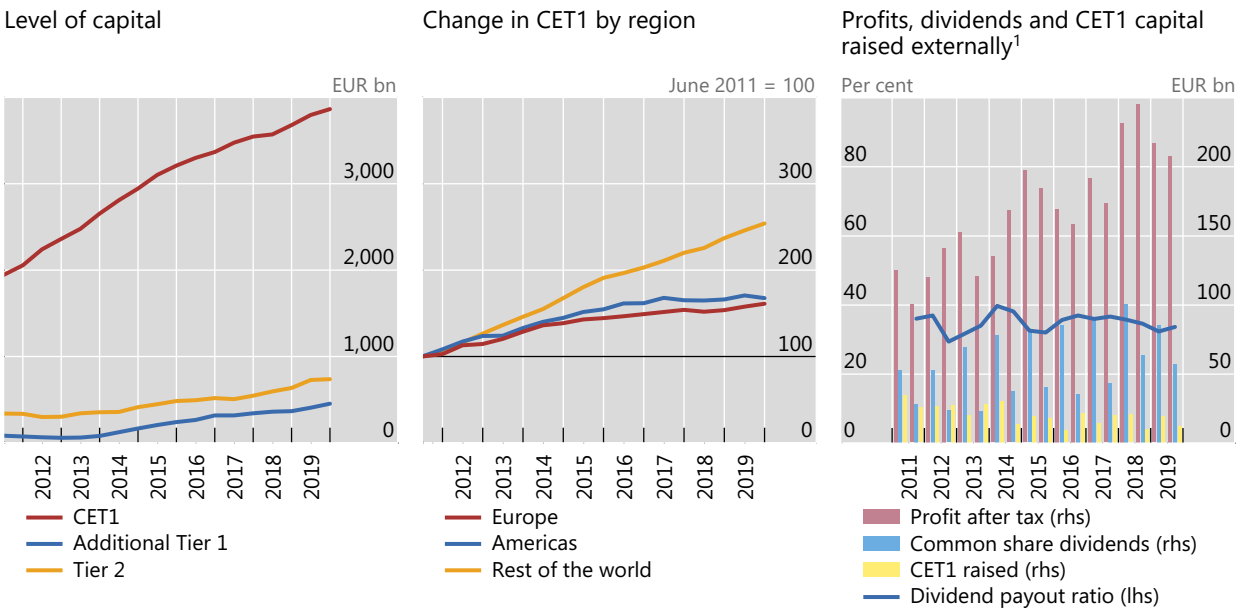
[1] Results for H2 2015 are based on the Committee's cumulative Quantitative Impact Study and are not fully comparable from a methodological point of view. Compared to H2 2017 and H1 2018, the results since H2 2018 include the revised market risk framework as finalised in January 2019. For two G-SIBs that were outliers due to overly conservative assumptions under the revised market risk framework, zero change from the revised market risk framework has been assumed for the calculation of 30 June 2019 results. The two banks are included with their numbers as reported in the results for earlier reporting dates.

Source: Basel Committee on Banking Supervision. See also Table C.26.

- The total capital shortfalls for Group 1 banks at the end-December 2019 reporting date have decreased by €5.9 billion since end-June 2019 to €10.7 billion. The decrease was not influenced by the smaller size of the Group 1 sample in the current period.
- The capital shortfalls for Group 1 banks are solely generated by G-SIBs at end-December 2019.
- For Group 2 banks, the amount of shortfalls has decreased from €3.3 billion to €2.9 billion. While the number of banks in the sample increased (currently 61 compared to 59 banks in the previous period), these changes are mainly driven by banks' improved capital positions.

Fully phased-in regulatory CET1 capital almost doubled since 2011

Consistent sample of Group 1 banks, exchange rates as of the current reporting date — Graph 5



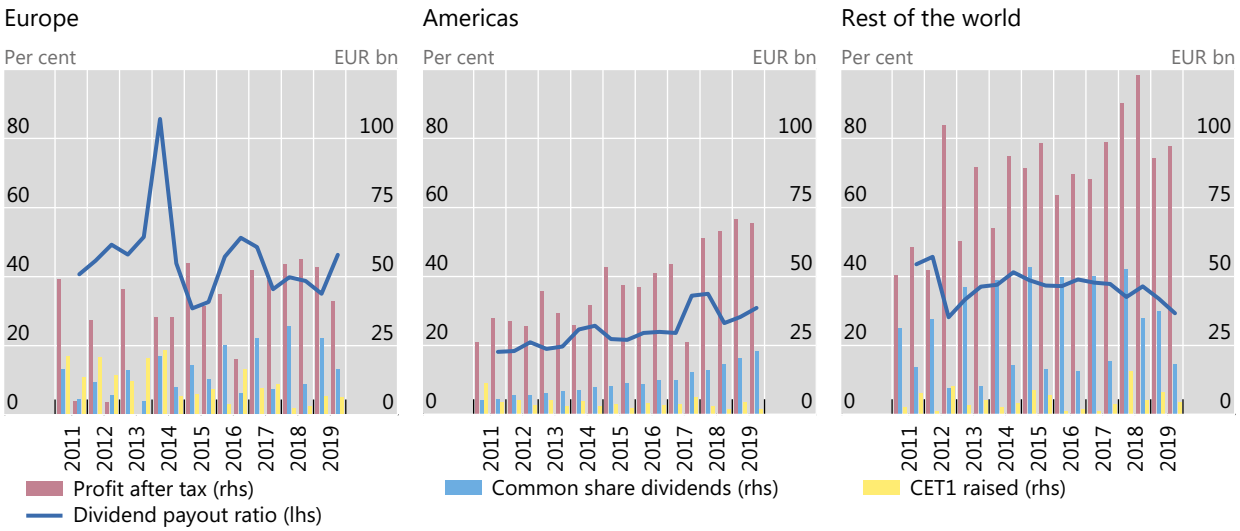
[1] The dividend payout ratio is calculated as common share dividends divided by profits after tax by using a rolling 12 months window.

Source: Basel Committee on Banking Supervision. See Table C.27, Table C.30, Table C.31 and Table C.34 for underlying data and sample size. Table C.28, Table C.32 and Table C.35 provide an additional regional breakdown for Group 1 banks.

- From end-June 2011 to end-December 2019, the level of Group 1 banks' CET1 capital has increased by 98.8% from €1,944 billion to €3,865 billion. Since end-June 2019, Group 1 CET1 capital has increased by €68 billion (or 1.8%).
- At a regional level, while CET1 capital in the rest of the world is now more than 2.5 times of its value in 2011, the increase in Europe and in the Americas was more limited at 61.2% and 67.6%, respectively.
- Around two thirds of the rise in overall CET1 capital among Group 1 banks over the reporting period appears to be driven by retained earnings on significant after tax profits.
- After tax profits for the Group 1 banks in the sample further decreased compared to the previous reporting period and stand at €207.8 billion as of end-December 2019. The €22.4 billion decline for G-SIBs was partially compensated by a €13.3 billion increase for other Group 1 banks.

Profits recorded a decline in the last reporting period in Europe and the Americas, especially for G-SIBs

Consistent sample of Group 1 banks, exchange rates as of the current reporting date — Graph 6



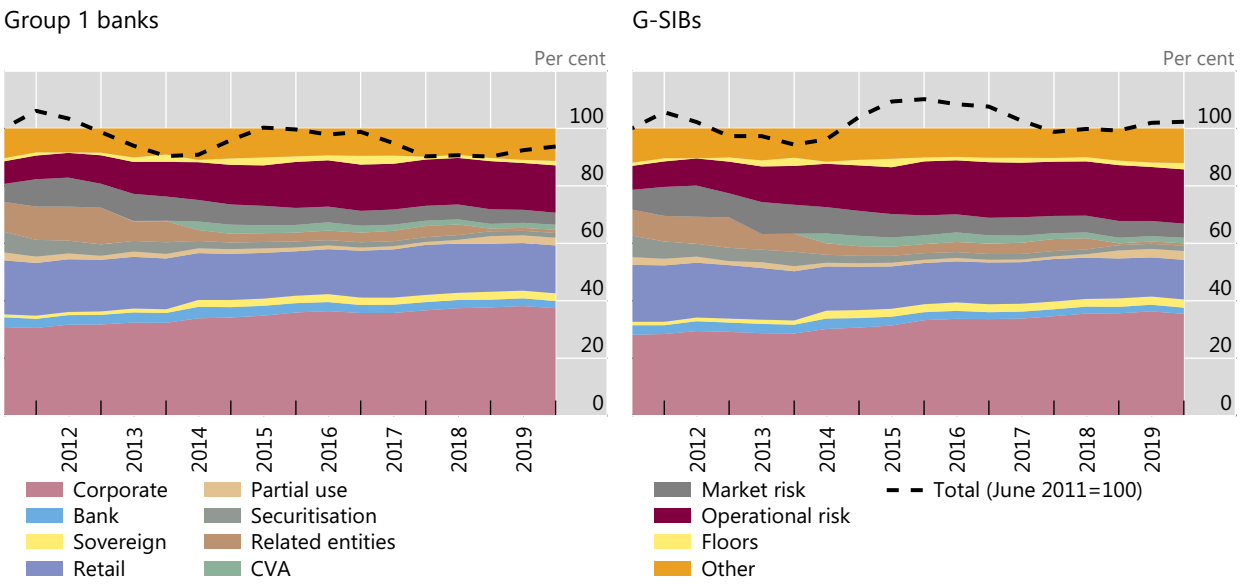
[1] The dividend payout ratio is calculated as common share dividends divided by profits after tax by using a rolling 12 months window.

Source: Basel Committee on Banking Supervision. See Table C.32 and Table C.35 for underlying data and sample size.

- Annual after tax profits for the Group 1 banks in the sample dropped significantly in Europe, stayed roughly flat in the Americas and increased in the rest of the world, after a significant drop in that region in the previous reporting period.
- The share of Europe and the rest of the world regions in global Group 1 bank profits are around 1.5 percentage points lower than their share in Group 1 bank Tier 1 capital (see also Table B.2). Conversely, the share of the Americas in profits is around 3 percentage points larger than their share in Tier 1 capital.

Analysis of share of MRC by asset class[1] according to current rules shows increase in operational risk MRC and decrease in securitisations and market risk

Consistent sample of banks — 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 Table C.38 and Table C.39 for underlying data and sample size.

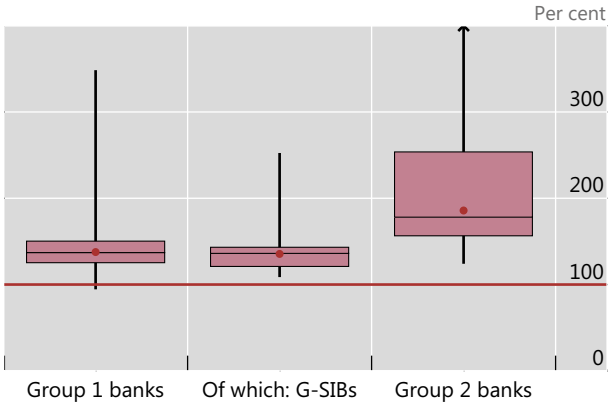
- As of end-December 2019 and for a consistent sample of Group 1 Group 1 banks, credit risk[5] continues to compose the dominant portion of overall minimum required capital (MRC), on average comprising 64.6% of total MRC. However, the share of credit risk has declined significantly from 74.4% at the end of June 2011.
- Conversely, the share of operational risk MRC increased sharply from 7.9% at the end of June 2011 to 16.3% at the end of 2015 and is roughly stable since. This increase is attributed in large part to the surge in the number and severity of operational risk events during and after the financial crisis, which are factored into the calculation of MRC for operational risk under the advanced measurement approach.
- Among the credit risk asset classes, the share of MRC for corporate exposures increased from 30.8% to 37.4% between June 2011 and December 2019, while the share of MRC for securitisation exposures declined from 7.2% to 1.7%.

[5] 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.

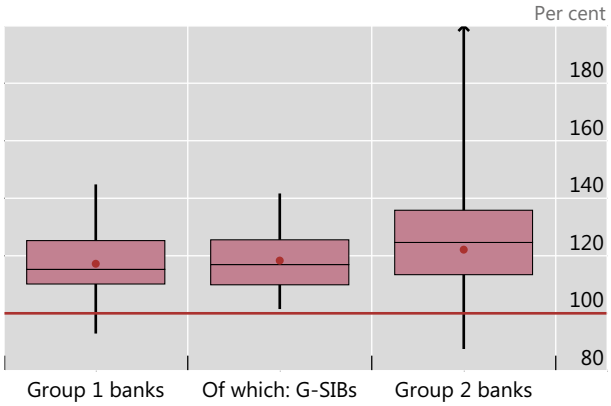
Almost all banks meet the fully phased-in liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR)[1]

Overall distribution — Graph 8

Liquidity coverage ratio[2]



Net stable funding ratio



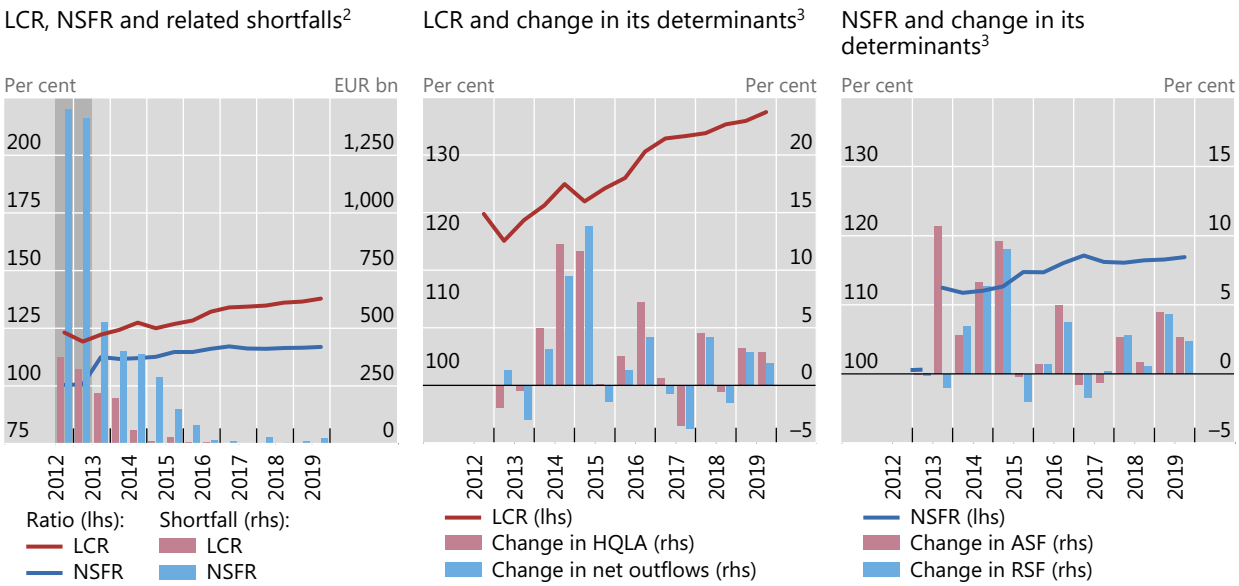
[1] The median value is represented by a horizontal line, with 50% of the values falling in the 25th to 75th percentile range shown by the box. The upper and lower end points of the thin vertical lines show the range of the entire sample. In some cases, arrows at the top of the vertical line indicate banks with ratios outside the range shown in the graph. The dots represent weighted averages. [2] The sample is capped at 400%, meaning that all banks with an LCR above 400% were set to 400%. The dots represent weighted averages. The horizontal line represents the 100% minimum (applicable from 1 January 2019).

Source: Basel Committee on Banking Supervision. See Table C.90 for underlying data and sample size.

- The average LCR for Group 1 banks is 137.6% and for Group 2 banks 186.0% while at the end of June 2019, it was 136.8% and 163.2%, respectively.
- The average NSFR is 117.2% for Group 1 banks and 122.1% for Group 2 banks at end-December 2019 compared with 116.6% and 119.5% respectively, at end-June 2019.
- All Group 2 banks in the full sample of banks at the end-December 2019 reporting date exceed the final LCR minimum requirement of 100%. Group 1 banks in the consistent sample at the end-December 2019 also exceed 100% while one bank in the full Group 1 sample has an LCR of less than 100%.
- Some 96.0% of Group 1 banks and 97.1% of Group 2 banks meet or exceed the 100% minimum NSFR requirement, with all Group 1 at an NSFR of 90% or higher as of end-December 2019.

For Group 1 banks, LCRs increase, NSFRs continue to be stable while the NSFR shortfall slightly increased in the current period

Consistent sample of Group 1 banks[1] Graph 9



[1] As described in Section 3.2, 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 of the current reporting date.

Source: Basel Committee on Banking Supervision. See Table C.96, Table C.97, Table C.101 and Table C.108 for underlying data and sample size. Table C.98, Table C.102 and Table C.109 provide additional regional breakdowns for Group 1 banks.

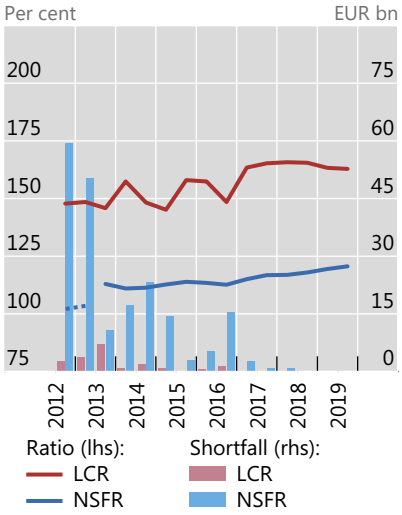
- For a consistent sample of Group 1 banks, all banks continue to comply with the 100% LCR minimum requirement at end-December 2019.[6] The average LCR for this sample increased to 137.9% from 136.6% at end-June 2019.
- The aggregate NSFR shortfall was €21.4 billion for a consistent sample of Group 1 banks, compared with €9.1 billion at end-June 2019. The average NSFR for the same sample of banks has slight increased to 116.9% from 116.6% at end-June 2019.

[6] Note that the LCR shortfall in the entire sample at end-December 2019 is €0.8 billion.

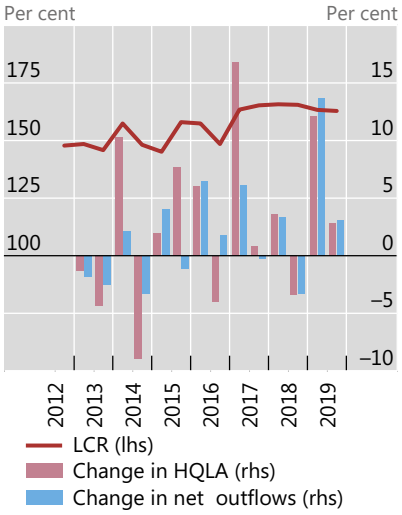
LCR and NSFR shortfalls for Group 2 banks remain at zero

Consistent sample of Group 2 banks[1] Graph 10

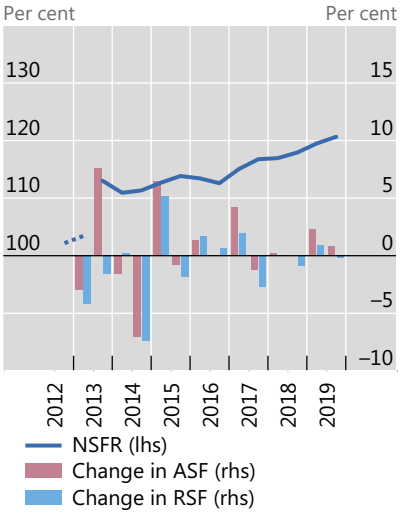
LCR, NSFR and related shortfalls[2]



LCR and change in its determinants[3]



NSFR and change in its determinants[3]



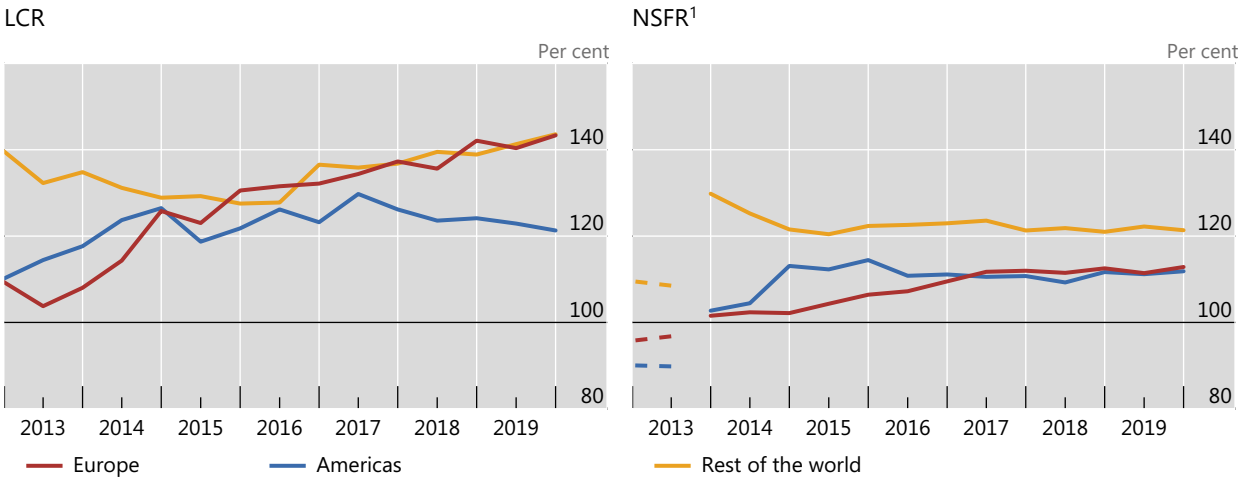
[1] As described in Section 3.2, the NSFR time series depicts data reflecting NSFR standards released in December 2010, January 2014 and October 2014. [2] Exchange rates as at the reporting dates. [3] Exchange rates as of the current reporting date.

Source: Basel Committee on Banking Supervision. See Table C.96, Table C.97, Table C.101 and Table C.108 for underlying data and sample size.

- For a consistent sample of Group 2 banks, the LCR shortfall remains at zero since June 2019.
- The aggregate NSFR shortfall also remains zero since June 2019 for a consistent sample of Group 2 banks. The average NSFR for the same sample of banks increased by 1.2 percentage points to 120.7%.

LCRs remain lower in the Americas, NSFRs remain lower in Europe and the Americas

Consistent sample of Group 1 banks — Graph 11



[1] As described in the Section 6.2, 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 Table C.98 for underlying data and sample size.

- The weighted average LCR at end-December 2019 for each of Europe and the rest of the world was above 140%, while the average LCR of the Americas is around 120%. While Europe and the Americas had initially lower average LCRs compared with the rest of the world, the average LCRs of Europe and the rest of the world have tended to converge gradually. The regions with lower end-2012 average ratios saw important increases in particular between end-2012 and June 2014.
- The weighted average NSFR at end-December 2019 for Group 1 banks in each of the three regions was well in excess of 100%. The average NSFRs in Europe and the Americas have increased to 112.8% and 111.9% at end-December 2019 but have lower average NSFRs compared with the rest of the world where NSFRs decreased to 121.4%.

Detailed results of the Basel III monitoring exercise as of 31 December 2019

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.[1] 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[2] 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.[3] This report summarises the results of the latest Basel III monitoring exercise using data as of 31 December 2019.[4] Given the December 2019 reporting date, the results do not reflect the economic impact of the coronavirus disease (Covid-19) on participating banks.[5] Nevertheless, the Committee believes that the information contained in the report will provide relevant stakeholders with a useful benchmark for analysis.

For the first time, this report is accompanied by a set of Excel tables. These present the same data as the Annex of the report but in a format that is easier to use for readers' own analyses. Some analyses presented in the liquidity section of the report have also 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.

1 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.

2 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.

3 A list of previous publications is included in the Annex.

4 The data for Japan are as of the end of September 2019, 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 31 October 2019, which corresponds to Canadian banks' fiscal year-end.

5 Where relevant, the revised implementation dates of the final Basel III framework are reflected in this report. See Group of Governors and Heads of Supervision, *Governors and Heads of Supervision announce deferral of Basel III implementation to increase operational capacity of banks and supervisors to respond to Covid-19*, 27 March 2020, www.bis.org/press/p200327.htm.

In order 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 in April 2020 not to collect Basel III monitoring data for the end-June 2020 reporting date. Therefore, the next regular Basel III monitoring report will be published in autumn 2021, based on end-2020 data.

1.1 Scope of the monitoring exercise

All but one of the 27 Committee member countries and Finland participated in the Basel III monitoring exercise as of 31 December 2019. The estimates presented are based on data submitted by the participating banks and their national supervisors in reporting questionnaires and in accordance with the instructions prepared by the Committee.[6] 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.[7]

The final data were submitted to the Secretariat of the Committee by 30 September 2020. 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 a total of 173 banks, including 105 Group 1 banks and 68 Group 2 banks.[8] 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 to the previous reporting date with 105 Group 1, 76 Group 2 banks and 181 banks overall, the sample decreased for Group 2 banks but remained constant for Group 1 banks. Nevertheless, the impact of the final Basel III framework could be assessed for a sample of 142 banks, among which 82 Group 1 banks and 60 Group 2 banks.[9]

Banks were asked to provide data at the consolidated level as of 31 December 2019. 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 consistent sample of banks. This consistent

6 See Basel Committee on Banking Supervision, *Instructions for Basel III monitoring*, March 2019, www.bis.org/bcbs/qis/.

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

8 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.

9 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 to the initial Basel III framework.

sample represents only those banks that reported necessary data at the June 2011 (labelled "H1 2011") through December 2019 ("H2 2019") reporting dates, in order to make more meaningful period-to-period comparisons. The consistent sample differs for the various analyses; typically, it includes around 78 Group 1 banks, of which 29 are G-SIBs, and around 29 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 2019, irrespective of whether they have also been classified as G-SIBs previously.

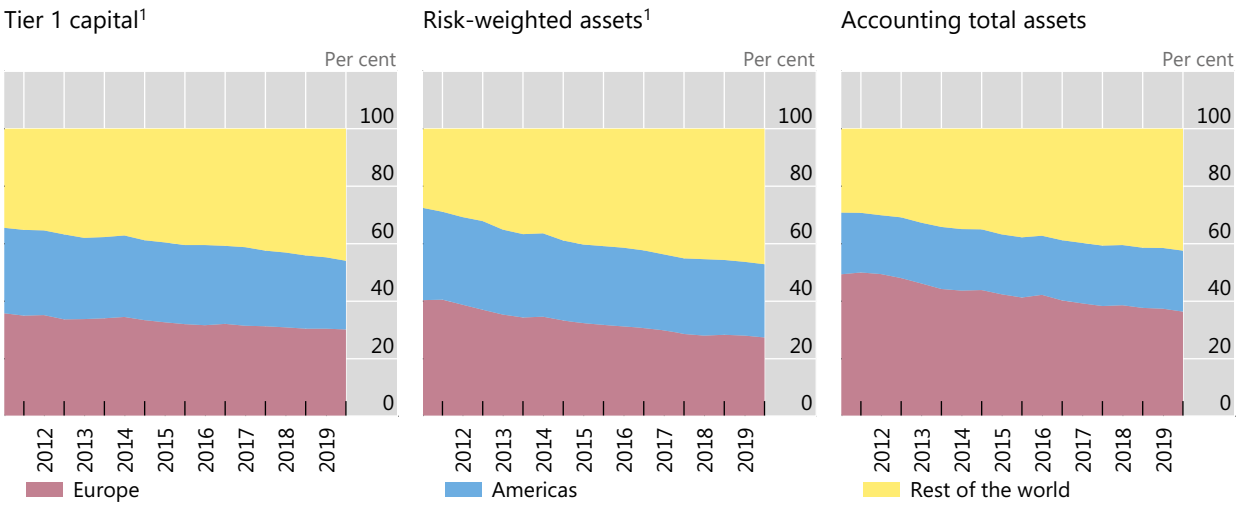
This report shows some of the results for three regional groupings – Europe, the Americas and the rest of the world. Table B.1 in the Statistical Annex provides detail on the composition of these country groupings. Table B.2 provides some additional sample statistics for the banks included in the exercise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

For the 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 2011, the share of the Americas in Tier 1 capital has declined by 5.9 percentage points to 23.8%, while the share in RWA decreased by 6.7 percentage points to 25.5%. The Americas' share in accounting total assets decreased only slightly from 21.5% to 21.1%. The share of European banks decreased by 5.6 percentage points to 30.2% in terms of Tier 1 capital, by 13.0 percentage points to 27.4% in terms of RWA and by 12.9 percentage points to 36.4% in terms of accounting total assets. Conversely, the share of banks in the rest of the world increased by 11.5 percentage points to 46.0% in terms of Tier 1 capital, by 19.6 percentage points to 47.5% in terms of RWA and by 13.3 percentage points to 42.4% by 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], consistent sample of Group 1 banks, exchange rates as of 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 also Table C.1.

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 II framework, any higher loss absorbency requirements for domestic systemically important banks, nor does it reflect any countercyclical capital buffer requirements.

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 jurisdiction 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.

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).

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 show the range of the entire sample unless noted otherwise. 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 Annex B; 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 now consistently reflect the impact of the output floor in the Basel II framework and any national floors in place.

1.4 Data quality

For this monitoring exercise, participating banks submitted comprehensive and detailed non-public data on a voluntary and best-efforts basis. 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.

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 are 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.

1.5 Interpretation of results

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

- When comparing results to prior 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 2019 reporting date may differ from the H2 2019 data point in graphs and tables showing the time series for the consistent sample of banks as described above. Furthermore, time series on the initial Basel III framework are affected by the methodological changes in this report, as explained at the end of Section 1.3.3.
- The actual impact of those new requirements that are covered in this analysis will almost certainly be less than shown in this report given the phased-in implementation of the standards and interim adjustments made by the banking sector to changing economic conditions and the regulatory environment. For example, the results do not consider bank profitability, changes in capital or portfolio composition or other management responses to the policy changes since 31 December 2019 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 estimates where information is not publicly available.
- Except for the results for the initial Basel III framework, the Basel III capital amounts shown in this report assume that all non-qualifying capital instruments are fully phased out (ie it is assumed that none of these capital instruments will be replaced by eligible instruments). As such, these amounts underestimate the amount of Tier 1 capital and Tier 2 capital held by a bank, as they do not give any recognition for non-qualifying instruments that will actually be phased out until 1 January 2022. The treatment of non-qualifying capital instruments also affects figures reported in the section on the Basel III leverage ratio.
- For banks that could not provide data on the impact of the revised standards for securitisation, 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 the upcoming changes in accounting frameworks which may influence capital requirements and eligible capital.

2. Regulatory capital, capital requirements, capital shortfalls and TLAC

Table 2 and Table 3 show 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 4 and Table 5 show CET1 capital ratios by regions. Details of capital ratios and capital shortfalls are provided in Section 2.1 and Section 2.4. Results are shown with "reduced estimation bias", where for three G-SIBs that are outliers due to overly conservative assumptions under the revised market risk framework,[10] zero change from the revised market risk framework has been assumed for the calculation of results since 30 June 2019. These three banks are reflected with their overly conservative market risk numbers in the tables with "conservative estimation".

[10] Specifically, the banks treated 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.

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

Reduced estimation bias[2] 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[3]		
	Initial	Final		Initial	Final	
	Current	Transitional	Fully phased-in	Current	Transitional	Fully phased-in
Group 1 banks						
CET1 capital	13.0	13.1	12.5	0.0	0.0	3.3
Tier 1 capital[4]	14.5	14.6	13.9	0.0	0.0	3.8
Total capital[5]	17.0	16.9	16.1	0.0	0.0	3.6
Sum				0.0	0.0	10.7
Of which: G-SIBs						
CET1 capital	12.8	12.9	12.4	0.0	0.0	3.3
Tier 1 capital[4]	14.4	14.5	14.0	0.0	0.0	3.8
Total capital[5]	16.9	16.9	16.2	0.0	0.0	3.6
Sum				0.0	0.0	10.7
Group 2 banks						
CET1 capital	15.2	13.5	13.0	0.0	1.3	1.3
Tier 1 capital[4]	16.0	14.1	13.7	0.9	0.8	0.8
Total capital[5]	18.2	16.0	15.5	0.0	0.9	0.9
Sum				0.9	2.9	2.9

[1] The target level includes the capital conservation buffer and the capital surcharges for 30 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] For three G-SIBs that are outliers due to overly conservative assumptions under the revised market risk framework, zero change from the revised market risk framework has been assumed. [3] 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. [4] The shortfalls presented in the Tier 1 capital row are *additional* Tier 1 capital shortfalls. [5] The shortfalls presented in the total capital row are *Tier 2* capital shortfalls.

Source: Basel Committee on Banking Supervision.

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

Conservative estimation

Table 3

	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	13.0	13.1	12.5	0.0	0.0	3.3
Tier 1 capital[3]	14.5	14.6	14.0	0.0	0.0	3.8
Total capital[4]	17.0	17.0	16.2	0.0	0.0	3.6
Sum				0.0	0.0	10.7
Of which: G-SIBs						
CET1 capital	12.8	13.0	12.4	0.0	0.0	3.3
Tier 1 capital[3]	14.4	14.6	14.0	0.0	0.0	3.8
Total capital[4]	16.9	16.9	16.2	0.0	0.0	3.6
Sum				0.0	0.0	10.7

[1] The target level includes the capital conservation buffer and the capital surcharges for 30 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

Reduced estimation bias[1], in per cent

Table 4

	Initial Basel III standards		Final Basel III standards		
	Number of banks	Current	Number of banks	Transitional	Fully phased-in
Group 1 banks	93	13.0	94	13.1	12.5
Of which: Europe	35	14.1	36	12.7	11.7
Of which: Americas	14	12.1	13	12.0	12.0
Of which: RW	44	12.7	45	13.9	13.3
Of which: G-SIBs	28	12.8	28	12.9	12.4
Group 2 banks	66	15.2	62	13.5	13.0

[1] For three G-SIBs that are outliers due to overly conservative assumptions under the revised market risk framework, zero change from the revised market risk framework has been assumed.

Source: Basel Committee on Banking Supervision.

CET1 capital ratios

Conservative estimation, in per cent — Table 5

	Initial Basel III standards		Final Basel III standards		
	Number of banks	Current	Number of banks	Transitional	Fully phased-in
Group 1 banks	92	13.0	94	13.1	12.5
Of which: Europe	35	14.1	34	12.8	11.8
Of which: Americas	14	12.1	13	12.0	12.0
Of which: RW	43	12.7	47	13.9	13.3
Of which: G-SIBs	30	12.8	29	13.0	12.4
Group 2 banks	65	15.0	65	13.6	13.2

Source: Basel Committee on Banking Supervision.

2.1 Risk-based capital ratios

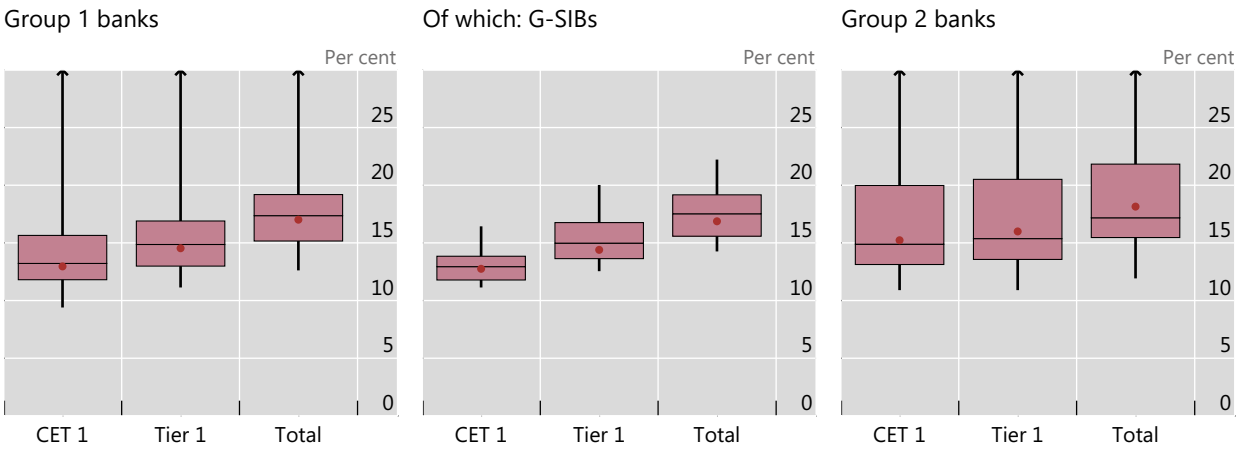
2.1.1 Initial Basel III standards

Regarding initial Basel III capital ratios, results continue to show quite significant dispersion across banks as shown in Graph 13, both for Group 1 and Group 2 banks.

For example, for Group 1 banks, the lowest initial Basel III CET1 capital ratio amounts to 9.4% whereas the highest ratio is reported at 32.6%. This wide dispersion is not observed for G-SIBs, for which the initial Basel III CET1 capital ratios are in a range from 11.1% to 16.4%. Regarding Group 2 banks, the dispersion is the highest compared with the other groups; for example, CET1 capital ratios range between 10.9% and 50.8%.

Apart from that, 98% of the Group 1 banks show an initial CET1 capital ratio above 10%. For Group 2 banks, all participants presented an initial CET1 capital ratio above 10%.

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



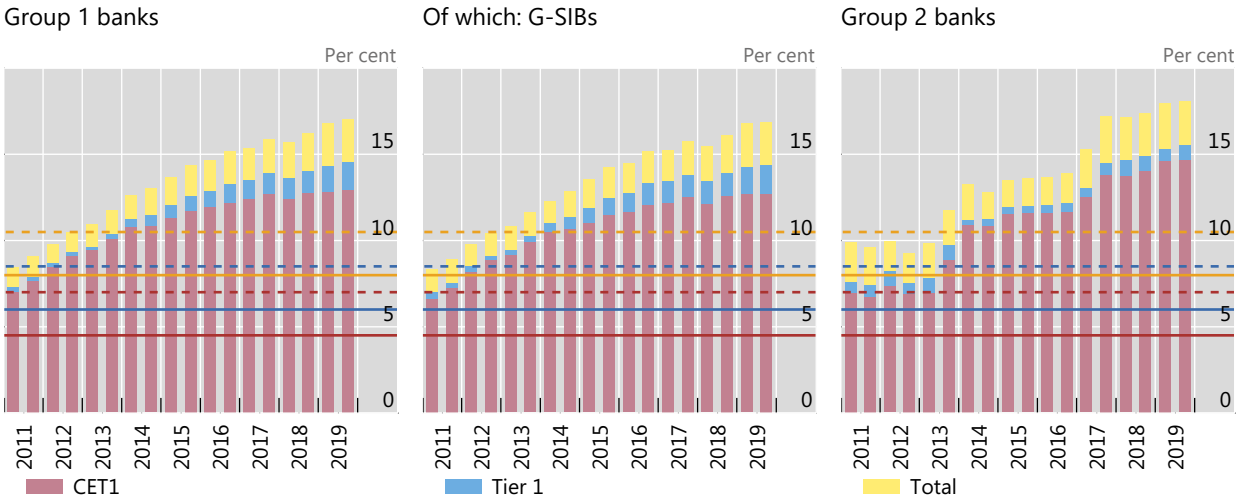
[1] The median value is represented by a horizontal line, with 50% of the values falling in the 25th to 75th percentile range shown by the box. The upper and lower end points of the vertical lines generally show the range of the entire sample. In some cases, arrows at the top of the vertical line indicate banks with capital ratios outside the range shown in the graph. The dots represent weighted averages.

Source: Basel Committee on Banking Supervision. See Table C.2 for underlying data and sample size. Table B.6 provides related information for the fully phased-in initial Basel III capital ratios.

Compared with prior periods, initial Basel III capital ratios have continued to slightly increase. More particularly, the Tier 1 capital ratios increased by 10 basis points for Group 1 banks, as well as for G-SIBs. The Tier 1 capital ratio for Group 2 banks increased by 20 basis points. For each group, the rationale of this strengthening is similar: the increase in CET1 (eg +2.4% for Group 1 banks) is significantly higher than the increase in total RWA (eg +1.0% for Group 1 banks).

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

Consistent sample of banks — Graph 14



[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.

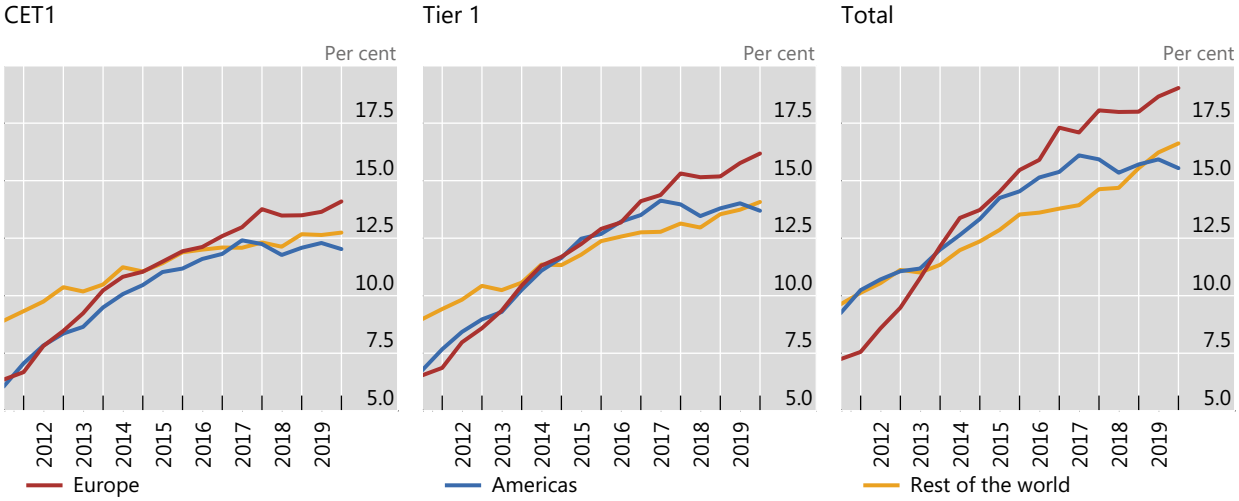
Source: Basel Committee on Banking Supervision. See Table C.3 for underlying data and sample size.

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 remarkable stronger than in the rest of the world. As a consequence, 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. As at 2019, the initial Tier 1 capital ratio in the Americas is even lower than in the rest of the world.

Generally, capital ratios increased across Europe and the rest of the world since the previous reporting date. The smallest increases were reported for the total capital ratios in Europe (+30 basis points) and for the CET1 capital ratios in the rest of the world (+10 basis points). The rest of the capital ratios in Europe and the rest of the world increased by 40 basis points. Contrary, and different from the previous period, all capital ratios in the Americas decreased by 30 basis points.

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

Consistent sample of Group 1 banks — Graph 15

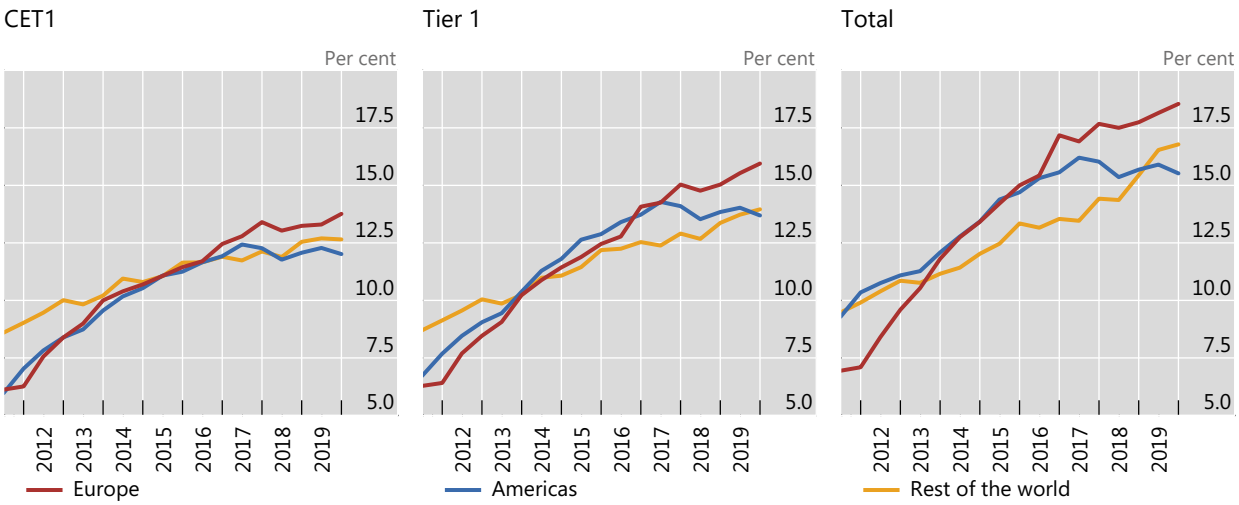


[1] The graph shows the fully phased-in initial Basel III framework for the data points up to and including the end of 2018 and the actual framework in place at the reporting date for all data points thereafter.

Source: Basel Committee on Banking Supervision. See Table C.4 for underlying data and sample size.

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

Consistent sample of G-SIBs — Graph 16



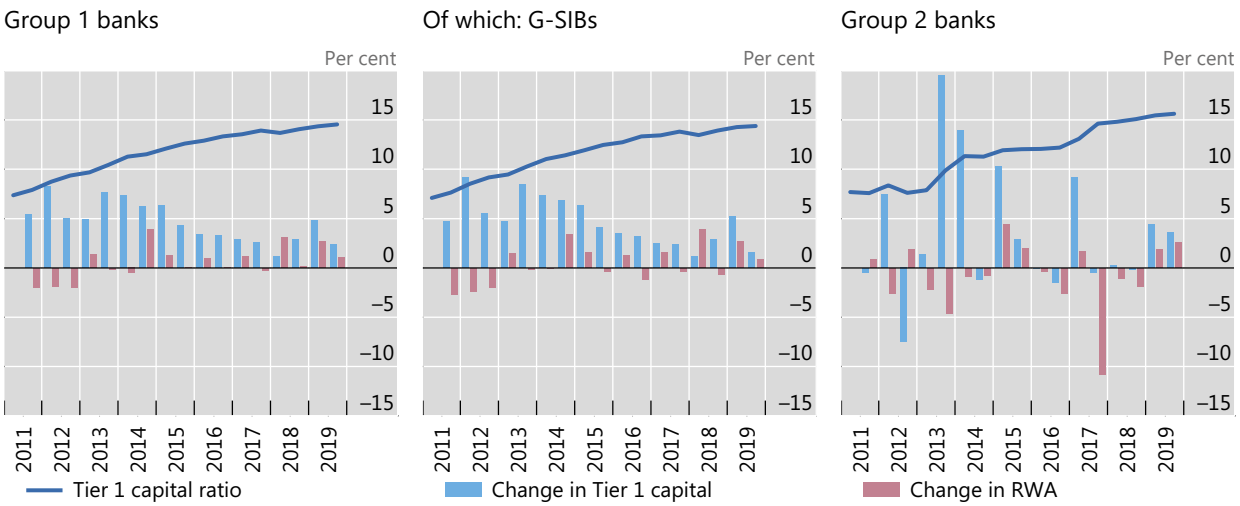
[1] The graph shows the fully phased-in initial Basel III framework for the data points up to and including the end of 2018 and the actual framework in place at the reporting date for all data points thereafter.

Source: Basel Committee on Banking Supervision. See Table C.5 for underlying data and sample size.

Over the prior period, RWA increased by 1.0% for Group 1 banks, roughly the same for G-SIBs, and even 2.6% for Group 2 banks. At the same time, Tier 1 capital increased by 2.4% for Group 1 banks, by 1.6% for G-SIBs and by 3.6% for Group 2 banks (see Graph 17). Consequently, the increase in Tier 1 capital offsets the RWA increase, leading to an increase in the Tier 1 capital ratios.

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

Consistent sample of banks, exchange rates as of the current reporting date — Graph 17



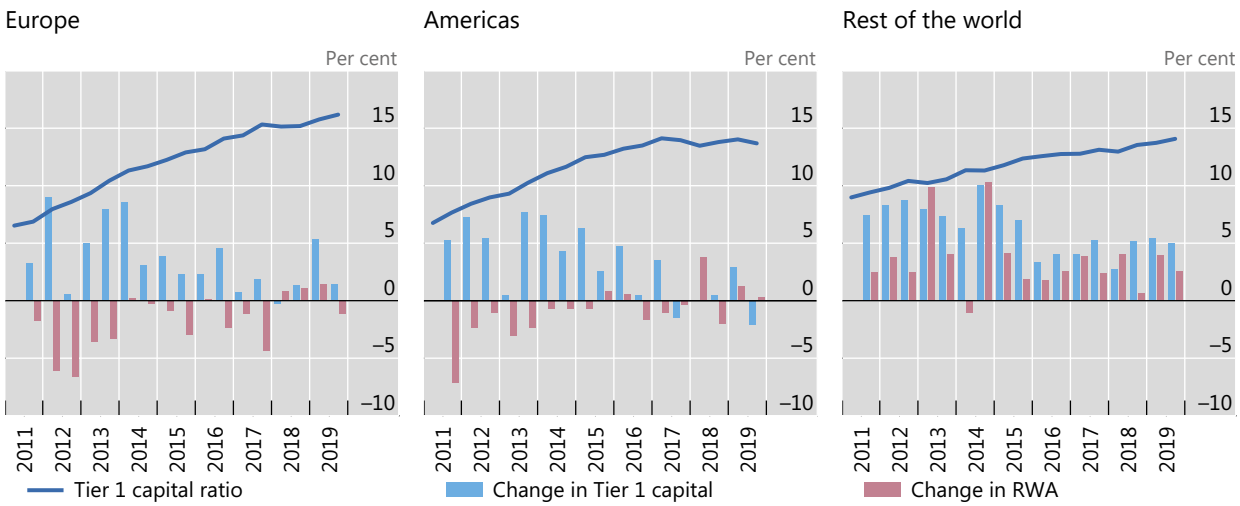
[1] The graph shows the fully phased-in initial Basel III framework for the data points up to and including the end of 2018 and the actual framework in place at the reporting date for all data points thereafter.

Source: Basel Committee on Banking Supervision. See Table C.6 for underlying data and sample size.

Compared with the previous period, the changes in Tier 1 capital and RWA were quite heterogeneous across regions. As at end of June 2019, all banks reported increases in Tier 1 capital and RWA. For this period, however, European banks show an increase in Tier 1 capital (+1.5%) and a decrease in RWA (-1.1%), whereas banks in the Americas report a decrease in Tier 1 capital (-2.1%) and a slight increase in RWA (+0.3%). Furthermore, banks in the rest of the world present an increase both in Tier 1 capital and RWA (+5.0% and +2.5%, respectively). Consequently, the Tier 1 capital ratios rose by 40 basis points in Europe and the rest of the world, while the Tier 1 capital ratio sank by 30 basis points in the Americas.

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

Consistent sample of Group 1 banks, exchange rates as of the current reporting date — 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.

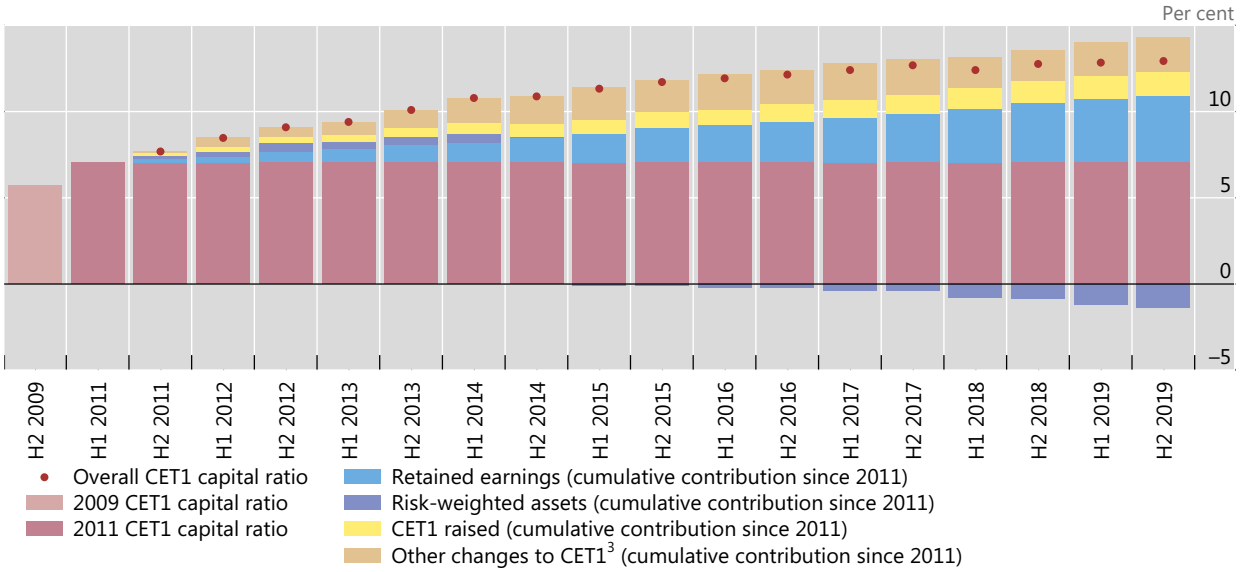
Source: Basel Committee on Banking Supervision. See Table C.7 for underlying data and sample size.

Graph 19 and Graph 20 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, the first graph suggests that retained earnings were the by far most significant contributor to the improvements in CET1 capital ratios, followed by CET1 capital raised. A more detailed observation proves the necessity to adapt this general comment for each region. 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, the rest of the world shows a quite balanced movement between an increase in CET1 due to retained earnings and a negative effect due to the increase in total RWA.

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

Consistent[2] sample of Group 1 banks — Graph 19

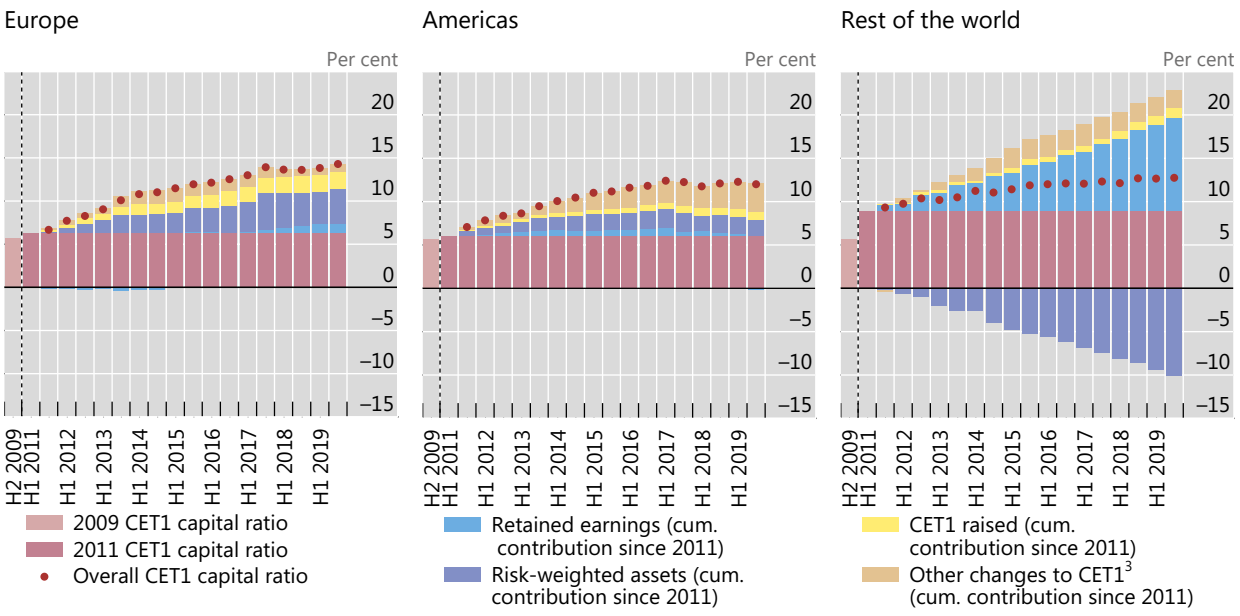


[1] The graph shows the fully phased-in initial Basel III framework for the data points up to and including the end of 2018 and the actual framework in place at the reporting date for all data points thereafter. [2] Except the ratio for H2 2009, which is based on the different sample of the Committee's 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 Table C.8 for underlying data.

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

Consistent[2] sample of Group 1 banks — Graph 20



[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 Table C.9, Table C.10 and Table C.11 for underlying data.

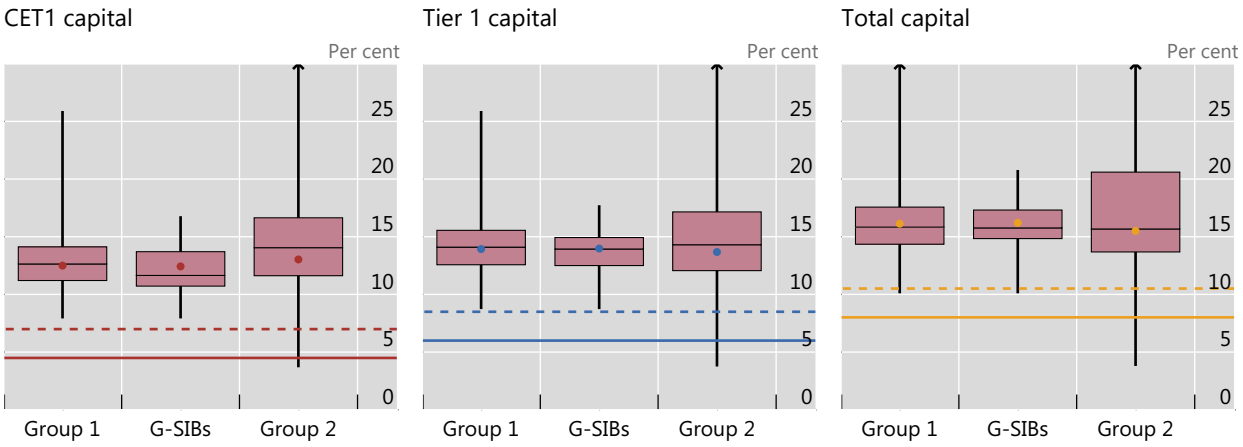
2.1.2 Final Basel III standards

On average, the initial Basel III CET1 capital ratio of Group 1 banks and G-SIBs (Graph 13) compared to the fully phased-in final Basel III CET1 capital ratio (Graph 21) would decline by 50 basis points from 13.0% to 12.5% and from 12.8% to 12.4%, respectively. However, Group 2 banks show a larger CET1 capital ratio decline by 220 basis points from 15.2% to 13.0%.

Similar to CET1 capital ratios, Tier 1 and total capital ratios would also decline for both groups. The Tier 1 capital ratios of Group 1 and Group 2 banks decrease, respectively, by 40 and 230 basis points. Total capital ratios show a 90 basis points decline for Group 1 banks and a more pronounced decline of 270 basis points for Group 2 banks.

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

Reduced estimation bias[2] Graph 21



[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 vertical lines generally show the range of the entire sample. In some cases, arrows at the top of the vertical line indicate banks with capital ratios outside the range shown in the graph. The dots represent weighted averages. 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). [2] For three G-SIBs that are outliers due to overly conservative assumptions under the revised market risk framework, zero change from the revised market risk framework has been assumed.

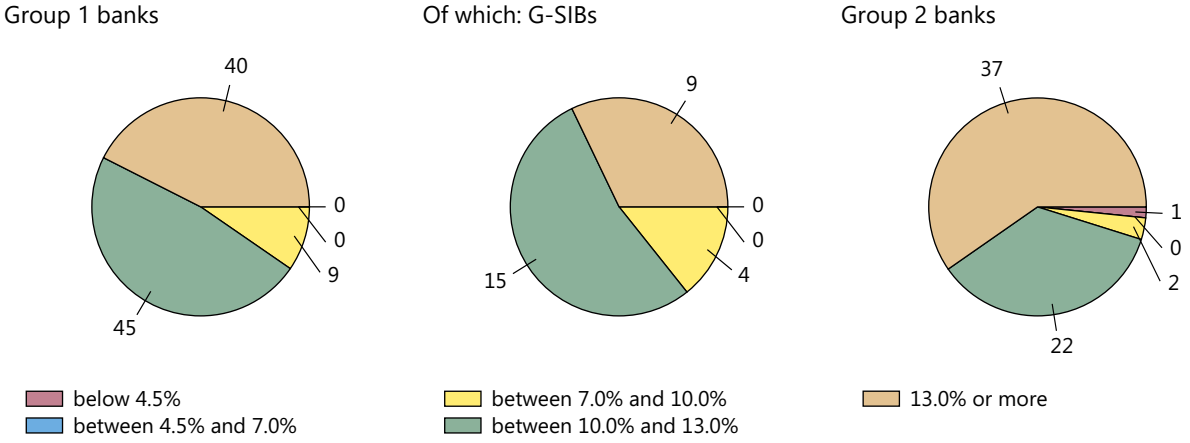
Source: Basel Committee on Banking Supervision. See Table C.13 for underlying data and sample size. Table C.12 provides the same information for the transitional final Basel III standards.

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, over 48% of Group 1 banks report a CET1 ratio higher than 13% and over 90% have a CET1 ratio amounting to more than 10%.

For Group 2 banks, one bank fails to meet the minimum fully phased-in capital requirement of 4.5% under the final Basel III framework. Nevertheless, the vast majority (95%) of Group 2 banks has a CET1 capital ratio that is higher than 10%. Furthermore, more than a half (60%) has a capital ratio over 13%.

Distribution of fully phased-in final Basel III CET1 ratios

Reduced estimation bias[1] Graph 22



[1] For three G-SIBs that are outliers due to overly conservative assumptions under the revised market risk framework, zero change from the revised market risk framework has been assumed.

Source: Basel Committee on Banking Supervision.

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 +1.8%. This is also the case for G-SIBs, while the impact for Group 2 banks is significantly higher (+8.4%, see Graph 23). In contrast to the results of the cumulative Quantitative Impact Study (QIS),[11] these numbers include the impact of the amended minimum capital requirements for market risk published in January 2019. Since three G-SIBs are outliers due to overly conservative assumptions under the revised market risk framework, zero change from the revised market risk framework has been assumed for the calculation of 31 December 2019 results ("reduced estimation bias"). If these three banks are reflected with their overly conservative market risk numbers (see the "conservative estimation" part of the table), there will be a 2.1% increase.

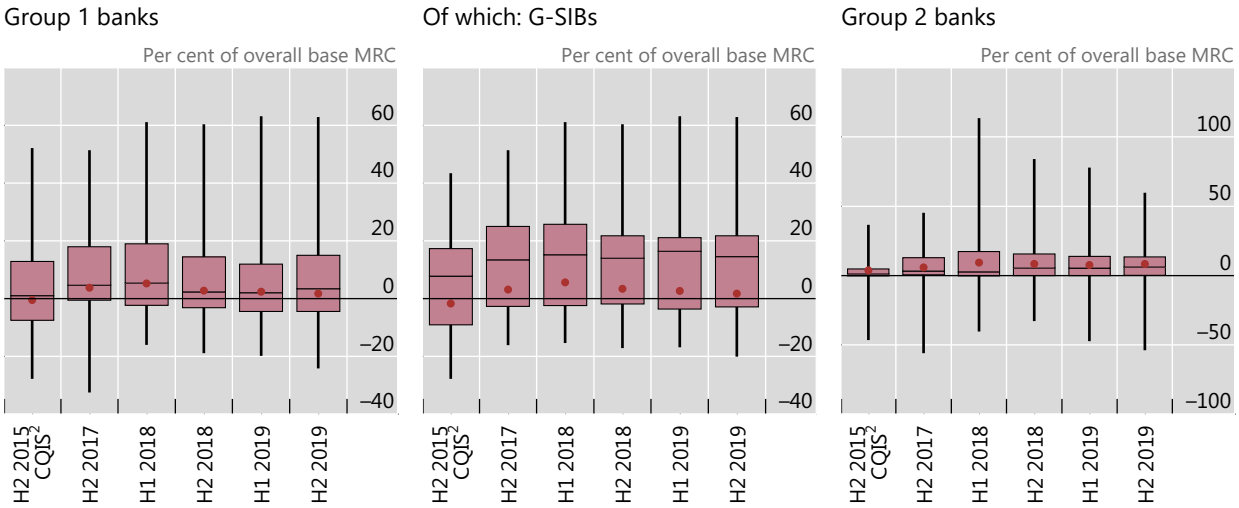
Moreover, Graph 23 shows the dispersion of changes in MRC across the Group 1 banks, G-SIBs and Group 2 banks in the sample with reduced estimation bias. The change in MRC including market risk for the current period for 50% of the Group 1 banks is between -4.4% and +15.1%, with a median of 3.4%. The distribution for G-SIBs suggests a higher impact, given that 50% report an MRC change between -2.9% and 21.7% with a median of 14.6%. With an interval from 0.1% to 13.4% Tier 1 MRC increase for 50% of the sample, Group 2 banks show the smallest range. The median is calculated at 6.1%.

Compared to the previous reporting date, the average impact of the final Basel III framework on Group 1 banks decreased stable for Group 1 banks and increased slightly for Group 2 banks. On average, the total change in Tier 1 MRC at the target level at end-June 2019 amounts to 2.4% for Group 1 banks, 2.8% for G-SIBs and 7.6% for Group 2 banks.

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

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

Samples as at the reporting dates, reduced estimation bias — Graph 23



[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 vertical lines generally show the range of the entire sample. The dots represent weighted averages. For three G-SIBs that are outliers due to overly conservative assumptions under the revised market risk framework, zero change from the revised market risk framework has been assumed. [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.

Source: Basel Committee on Banking Supervision. See also Table C.14 for details on the distribution; Table C.15 shows related results with conservative estimation..

The results are summarised in Table 6 and Graph 24 that include the following columns to 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, including the effect from migration of approaches.[12] The credit risk MRC impact for the end-December 2019 reporting date for the first time reflects the split between defaulted and non-defaulted assets in the treatment of EL amounts and provisions for those jurisdiction that require such a split. As a consequence 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 EU rules require the aforementioned split.
- *CVA* shows the change in Tier 1 MRC due to the revisions to the CVA framework.[13]
- *Market risk* shows the change in Tier 1 MRC due to the revisions to the market risk framework.

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

[13] Targeted revisions to the revised CVA framework were published in July 2020 and, therefore, are not yet considered in the Basel III monitoring exercise as of end-December 2019. They will be reflected in the exercise on the end-2020 reporting date. See Basel Committee on Banking Supervision, *Targeted revisions to the credit valuation adjustment risk framework, July 2020*, www.bis.org/bcbs/publ/d507.htm.

- *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 the following box.

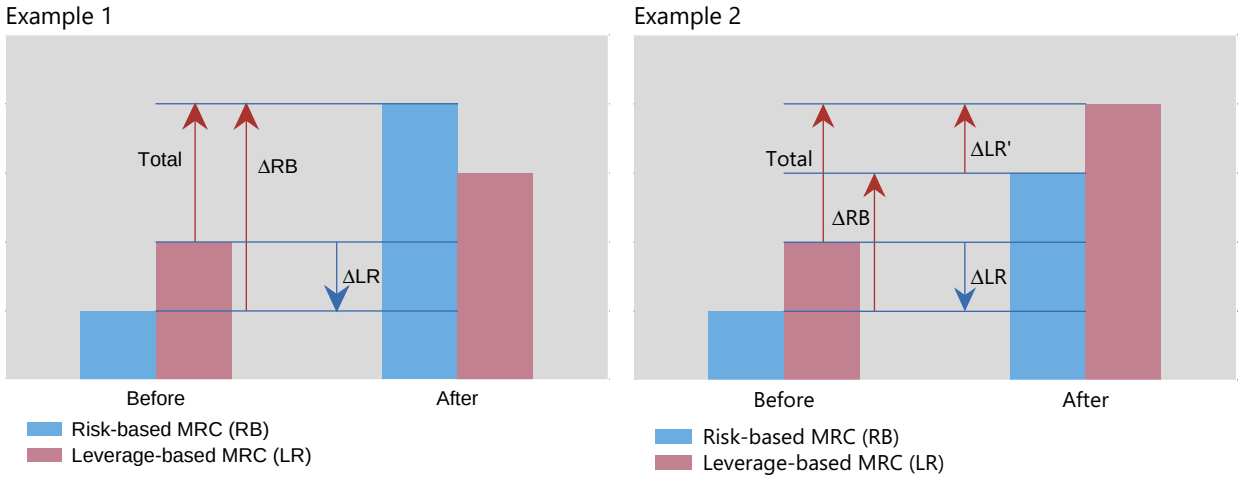
Box B

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

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



Applying the fully phased-in definition of the final Basel III standards, the Tier 1 MRC would increase by 1.8%, for Group 1 banks. Firstly, this increase is composed of a 3.2% rise in the combined risk-based components. Those are driven by positive contributions of the output floor (+2.9%), market risk (+1.5%) and CVA (+1.4%) on the one hand and a reduction in credit risk (-1.7%), operational risk (-0.8%) and other Pillar 1 requirements (-0.1%) on the other hand. Simultaneously, the rise of the combined risk-based components is lowered by a -1.4% change in leverage ratio Tier 1 MRC, which reflects the fact that the Basel III leverage ratio is becoming relatively less constraining for many banks in the sample in the presence of an output floor.

Regarding the impact on MRC across regions, one can observe very heterogeneous developments. European banks report a strong increase in MRC (+17.0%), mostly driven by the output floor (+8.7%) followed by increases in operational risk (+3.7%), credit risk (+3.3%) and CVA (+3.3. Contrary, a moderate decrease is noted in the Americas (-0.3%). Even though positive changes are observed for market risk (+4.7%), credit risk (+2.5%) and CVA (+1.7%), these are compensated by MRC reductions in operational risk (-6.0%) and the output floor (-3.2%). Banks in the rest of the world show an even bigger decrease in total MRC (-6.7%). In this region, the rises in MRC for the output floor (+2.2%) and CVA (+0.3%) are more than offset by reductions in MRC for credit risk (-5.4%), operational risk (-1.1%) and the leverage ratio (-1.1%).

For Group 2 banks, an overall increase in Tier 1 MRC of 8.4% is measured. The rise is driven by an increase in the risk-based requirements of 14.2%, contributed mainly by credit risk (+6.2%) and the output floor (+4.1%). Nevertheless, the leverage ratio measure partially offsets this increase at -5.8%.

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

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

Reduced estimation bias[1], in per cent of overall basis MRC — Table 6

	Number of banks	Total	Risk-based requirements							Leverage ratio
			Total	Of which:						
				Credit risk[2]	CVA	Market risk	Op risk[3]	Output floor[4]	Other Pillar 1	
Group 1 banks	82	1.8	3.2	–1.7	1.4	1.5	–0.8	2.9	–0.1	–1.4
Of which: Europe	34	16.9	19.8	3.2	3.2	1.2	3.7	8.7	–0.3	–2.9
Of which: AM	13	–0.3	–0.3	2.5	1.7	4.7	–6.0	–3.2	0.0	–0.1
Of which: RW	35	–6.7	–5.4	–6.8	0.3	0.0	–1.1	2.2	0.0	–1.2
Of which: G-SIBs	28	1.8	2.3	–1.4	1.3	1.6	–1.4	2.3	–0.1	–0.5
Group 2 banks	60	8.4	14.2	6.2	1.1	0.2	2.6	4.1	0.0	–5.8

[1] For three G-SIBs that are outliers due to overly conservative assumptions under the revised market risk framework, zero change from the revised market risk framework has been assumed. [2] Change in MRC due to the revised standardised and IRB approaches, including securitisation. [3] Change in MRC due to revised operational risk framework. Figures may not show supervisor-imposed capital add-ons. Therefore, increases in MRC may be overstated and reductions may be understated. [4] Net of 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

Conservative estimation, in per cent of overall basis MRC — Table 7

	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	82	2.1	3.6	–1.7	1.4	1.9	–0.8	2.9	–0.1	–1.5
Of which: Europe	34	18.1	21.2	3.2	3.2	2.7	3.7	8.7	–0.3	–3.2
Of which: AM	13	–0.3	–0.3	2.5	1.7	4.7	–6.0	–3.2	0.0	–0.1
Of which: RW	35	–6.7	–5.4	–6.8	0.3	0.0	–1.1	2.2	0.0	–1.2
Of which: G-SIBs	28	2.2	2.9	–1.4	1.3	2.2	–1.4	2.3	–0.1	–0.6
Group 2 banks	60	8.4	14.2	6.2	1.1	0.2	2.6	4.1	0.0	–5.8

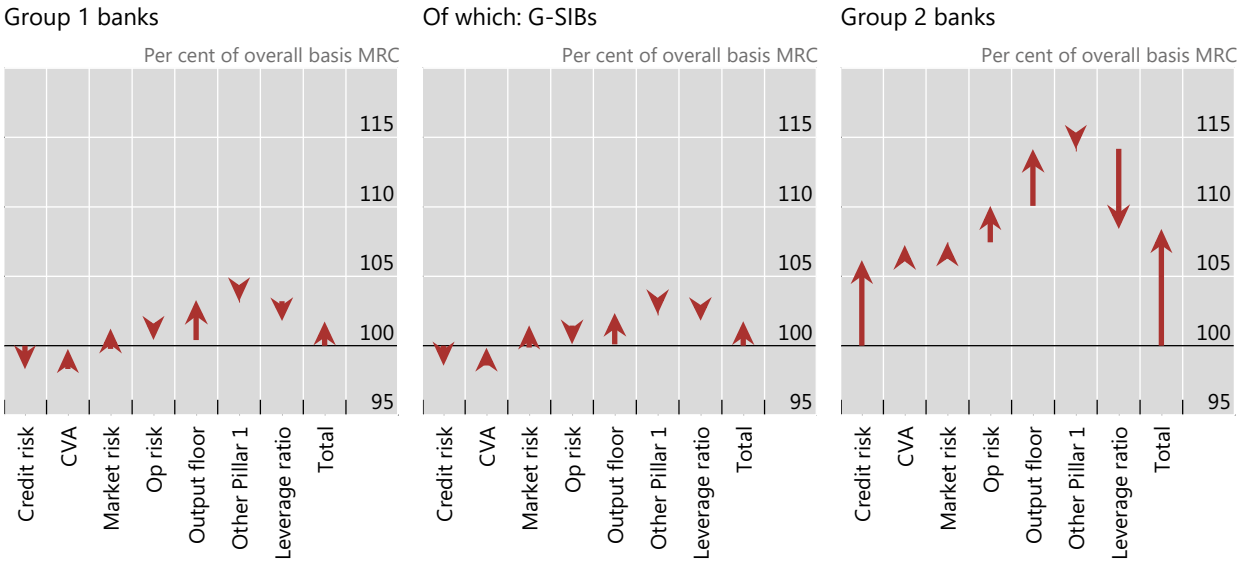
[1] Change in MRC due to the revised standardised and IRB approaches, including securitisation. [2] Change in MRC due to revised operational risk framework. Figures may not show supervisor-imposed capital add-ons. Therefore, increases in MRC may be overstated and reductions may be understated. [3] Net of existing Basel I-based floor according to national implementation of the Basel II framework.

Source: Basel Committee on Banking Supervision.

Graph 24 displays the contributions of each MRC component relative to the current basis for Group 1 banks, G-SIBs and Group 2 banks, respectively. The arrows pointing upwards (downwards) highlight the positive (negative) contributions induced by the different parts of the final Basel III framework, except for the rightmost arrow that represents the total MRC impact. Graph 25 provides the regional breakdown for Group 1 banks.

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

Reduced estimation bias[1] Graph 24

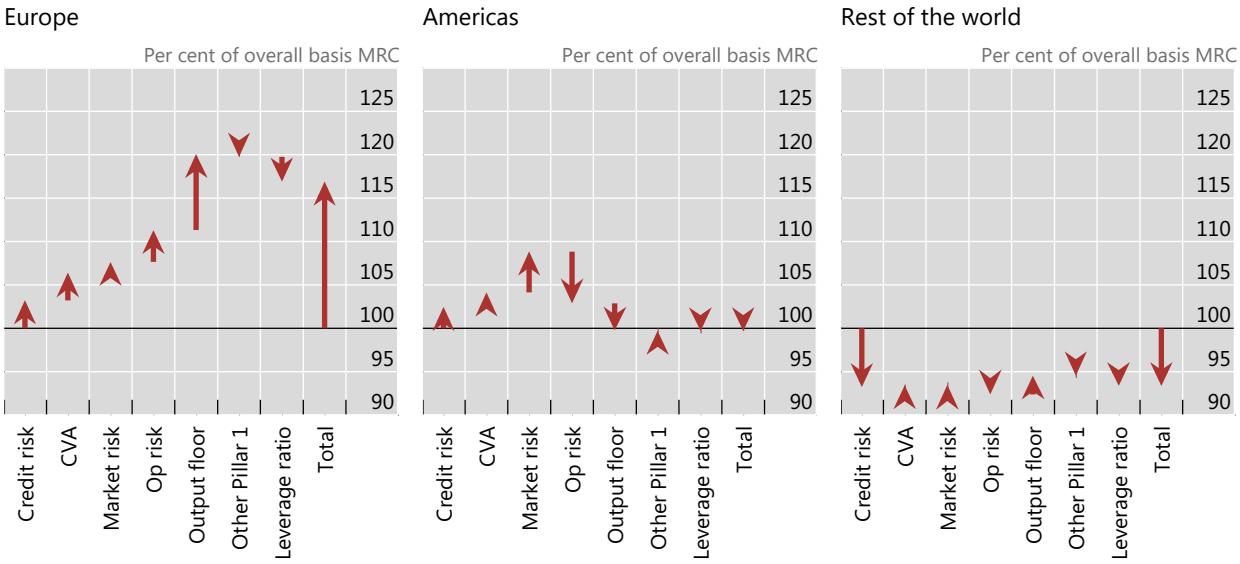


Credit risk shows the change in MRC due to revised standardised and IRB approaches, including securitisation. Operational risk figures may not show supervisor-imposed capital add-ons. Therefore, increases in MRC may be overstated and reductions may be understated. Output floor results are net of the existing Basel I-based floor according to national implementation of the Basel II framework. [1] For three G-SIBs that are outliers due to overly conservative assumptions under the revised market risk framework, zero change from the revised market risk framework has been assumed.

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, reduced estimation bias[1] Graph 25



Credit risk shows the change in MRC due to revised standardised and IRB approaches, including securitisation. Operational risk figures may not show supervisor-imposed capital add-ons. 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. [1] For three G-SIBs that are outliers due to overly conservative assumptions under the revised market risk framework, zero change from the revised market risk framework has been assumed.

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 two following measures of both Tier 1 capital in the numerator and Basel III leverage ratio exposure measure in the denominator:

- *numerator:* the numerator includes two alternative measures of Tier 1 capital:
  - *initial Basel III Tier 1,* which is 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 the final leverage ratio without considering any transitional arrangements set out in the in the Basel III framework.
- *denominator:* the Basel III leverage ratio exposure measure is also calculated on the same corresponding basis as the numerator above (unless otherwise stated).

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.

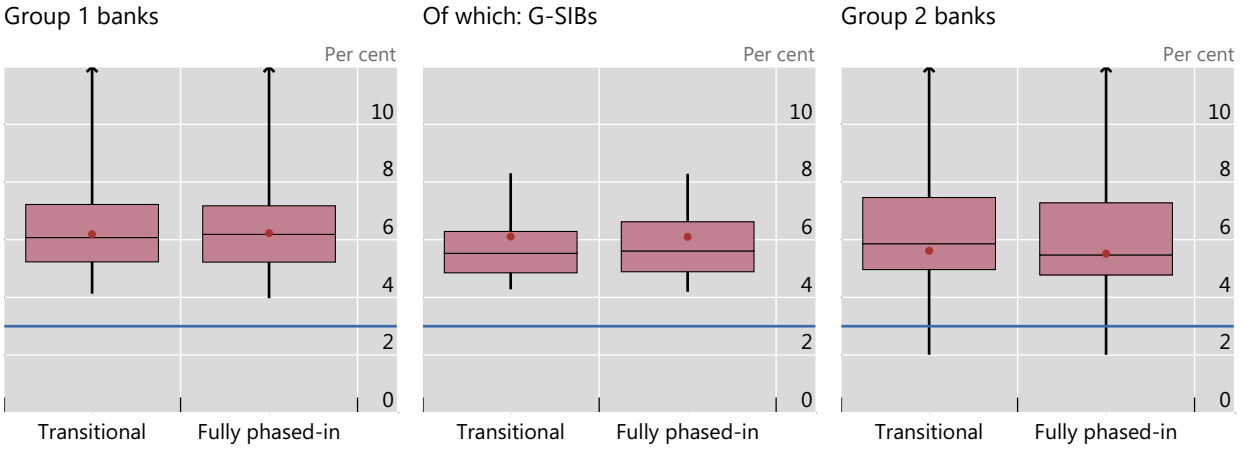
① Basel Committee on Banking Supervision, *Basel III leverage ratio framework and disclosure requirements*, January 2014, www.bis.org/publ/bcbs270.htm. The Committee agreed revisions to the leverage ratio framework in December 2017, see Basel Committee on Banking Supervision, *Basel III: Finalising post-crisis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

Graph 26 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. For each of these bank groups, the distribution of transitional and fully phased-in final Basel III leverage ratios are similar. When comparing across groups, Group 1 and Group 2 banks show a similar interquartile dispersion – although there are more Group 2 outlier banks with lower values, whereas G-SIBs leverage ratios are more concentrated.

Under both the initial and the fully phased-in final Basel III leverage frameworks, two Group 2 banks in the sample would not meet the 3% ratio level. The aggregate leverage incremental shortfall under the initial framework is €0.9 billion.

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

Graph 26



[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 vertical lines generally show the range of the entire sample. Banks with Basel III leverage ratios above 12% are included in the calculation but are not shown in the graph. The dots represent weighted averages. The blue line is set at 3% (minimum leverage ratio level).

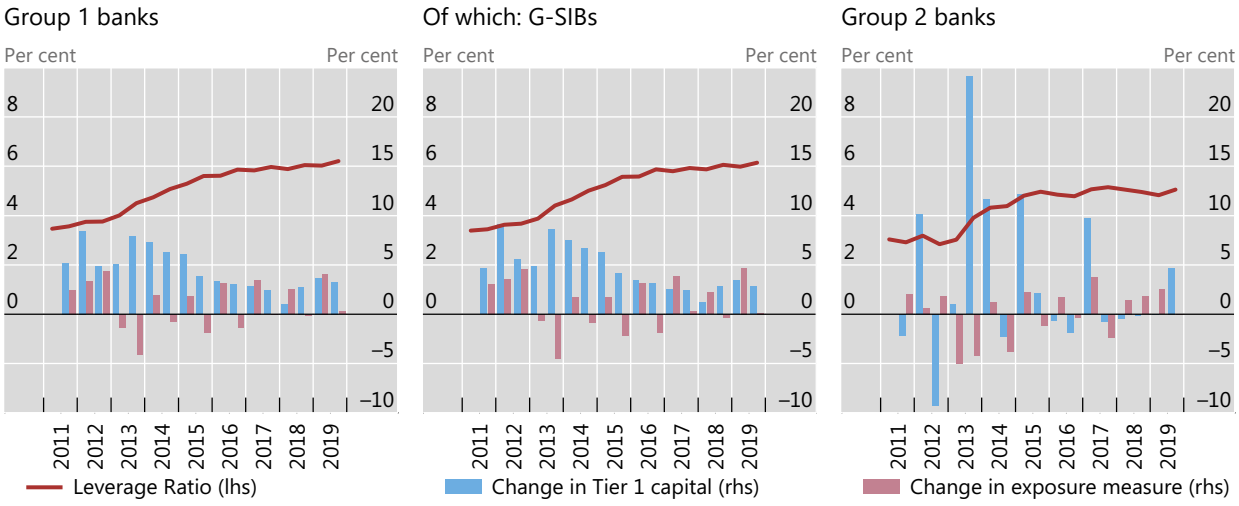
Source: Basel Committee on Banking Supervision. See Table C.16 for underlying data.

Graph 27 shows how the fully phased-in final Basel III leverage ratios have evolved over time for a consistent sample of banks, all of which provided leverage ratio data for all reporting dates from June 2011 to December 2019. For both Group 1 and Group 2 banks, the leverage ratio slightly increased from the prior period.

Graph 28 shows the same information as Graph 27 however only for a consistent sample of Group 1 banks and grouped by region. Overall, the leverage ratio for all regions has been growing over the past six years, although recently banks in the Americas have decreased their leverage ratios at the margin. Graph 29 provides the regional breakdown for G-SIBs, showing similar regional trends as the broader samples.

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

Consistent sample of banks, exchange rates as of the current reporting date — Graph 27

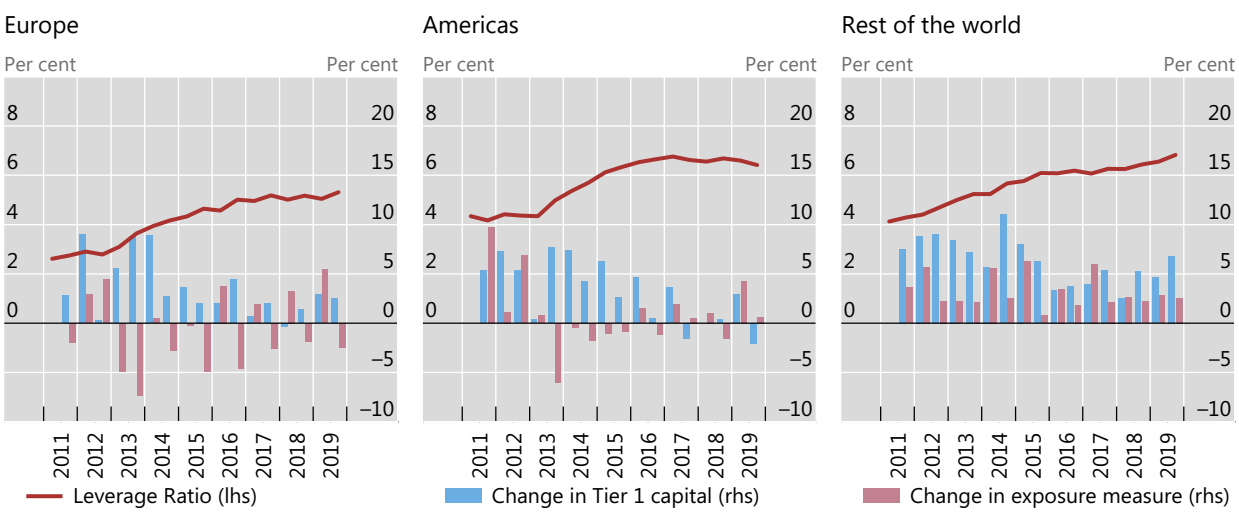


[1] Data points from H1 2011 to H2 2012 use the original definition of the leverage ratio. Data points from H1 2013 to H1 2017 use the definition of the leverage ratio set out in the 2014 version of the framework. Note that the data points for H1 2013 use an approximation for the initial definition of 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.

Source: Basel Committee on Banking Supervision. See Table C.17 for underlying data and sample size.

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

Consistent sample of Group 1 banks, exchange rates as of the current reporting date — Graph 28

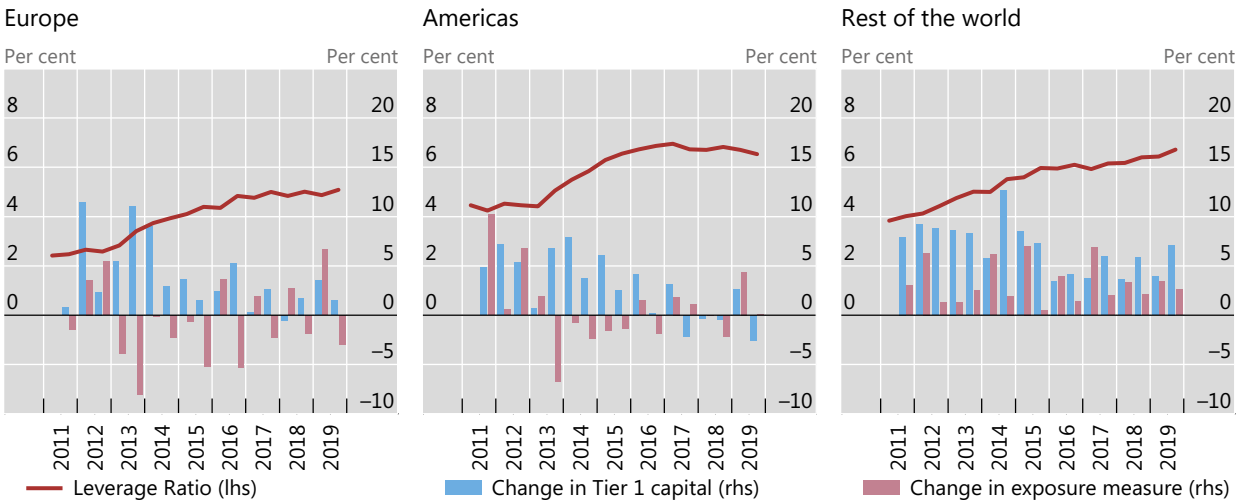


[1] Data points from H1 2011 to H2 2012 use the original definition of the leverage ratio. Data points from H1 2013 to H1 2017 use the definition of the leverage ratio set out in the 2014 version of the framework. Note that the data points for H1 2013 use an approximation for the initial definition of 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.

Source: Basel Committee on Banking Supervision. See Table C.18 for underlying data and sample size.

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

Consistent sample of G-SIBs, exchange rates as of the current reporting date — Graph 29



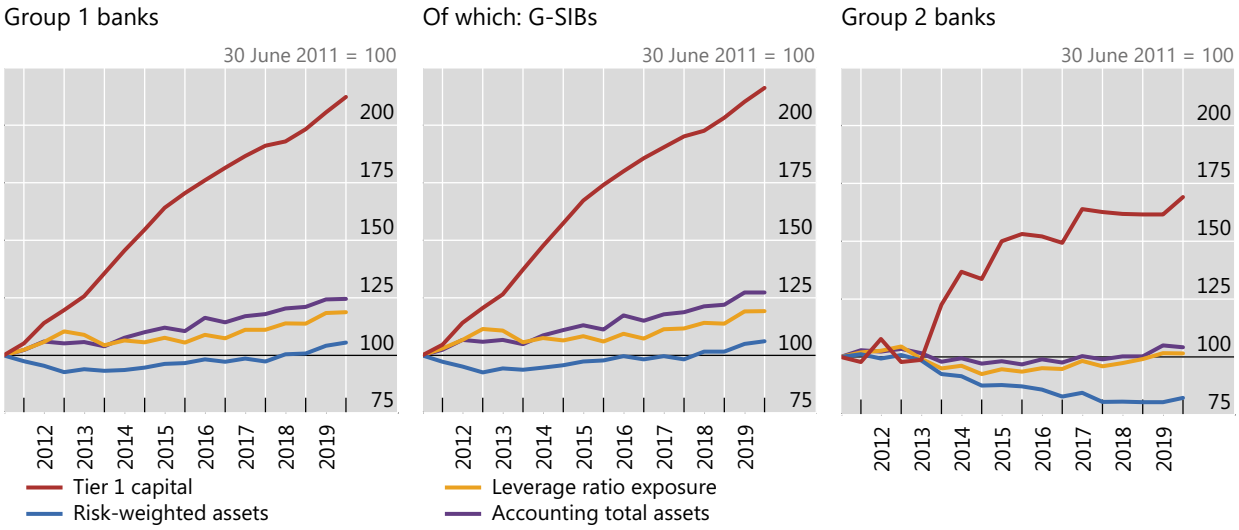
[1] Data points from H1 2011 to H2 2012 use the original definition of the leverage ratio. Data points from H1 2013 to H1 2017 use the definition of the leverage ratio set out in the 2014 version of the framework. Note that the data points for H1 2013 use an approximation for the initial definition of 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.

Source: Basel Committee on Banking Supervision. See Table C.19 for underlying data and sample size.

Graph 30 shows the evolution of the components of the risk-based capital and leverage ratios over time for a consistent sample of banks, ie banks that have consistently been providing the four data series for the period June 2011 to December 2019. The four components 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, Tier 1 capital and accounting total assets steadily increased over the period. For Group 2 banks, Tier 1 capital generally increased during the period, and recently surpassed the previous peak, recorded in June 2017. RWA declined after 2012 until the end of 2016 and remained on this level since, with a slight pick-up. Leverage total exposure and accounting total assets decreased until the end of 2014, but have since increased throughout the current period.

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

Consistent sample of banks, exchange rates as of the current reporting date — Graph 30



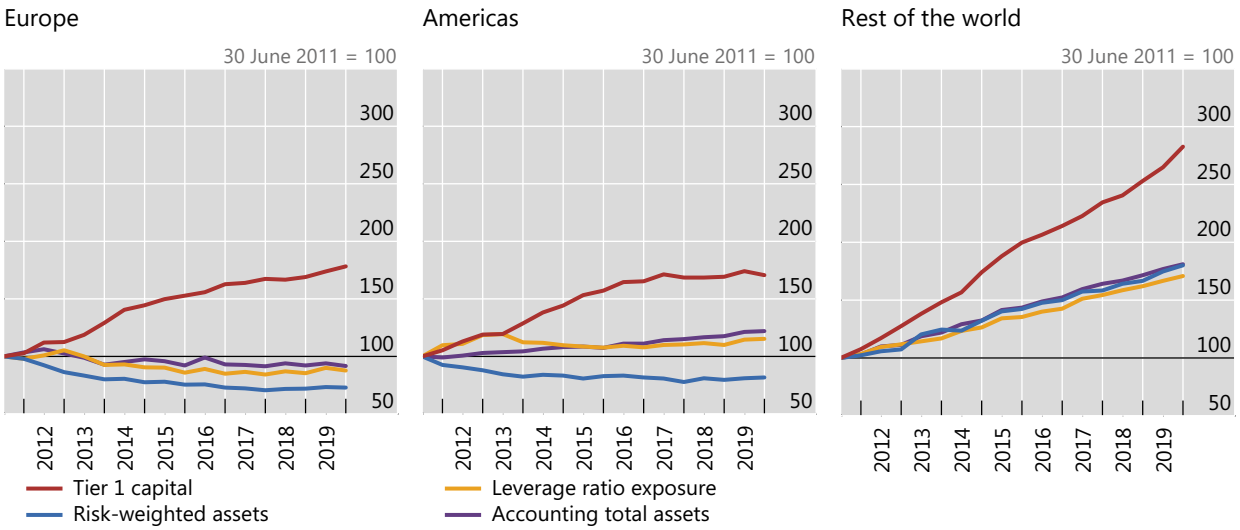
[1] Tier 1 capital, RWA and leverage ratio exposure assume full implementation of Basel III. Data points from H1 2010 to H2 2012 use the original definition of the leverage ratio. Data points from H1 2013 to H1 2017 use the definition of the leverage ratio set out in the 2014 version of the framework. 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.

Source: Basel Committee on Banking Supervision. See Table C.20 for underlying data and sample size.

Graph 31 shows the same information for a consistent sample of Group 1 banks and 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 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] by region

Consistent sample of Group 1 banks, exchange rates as of the current reporting date — Graph 31



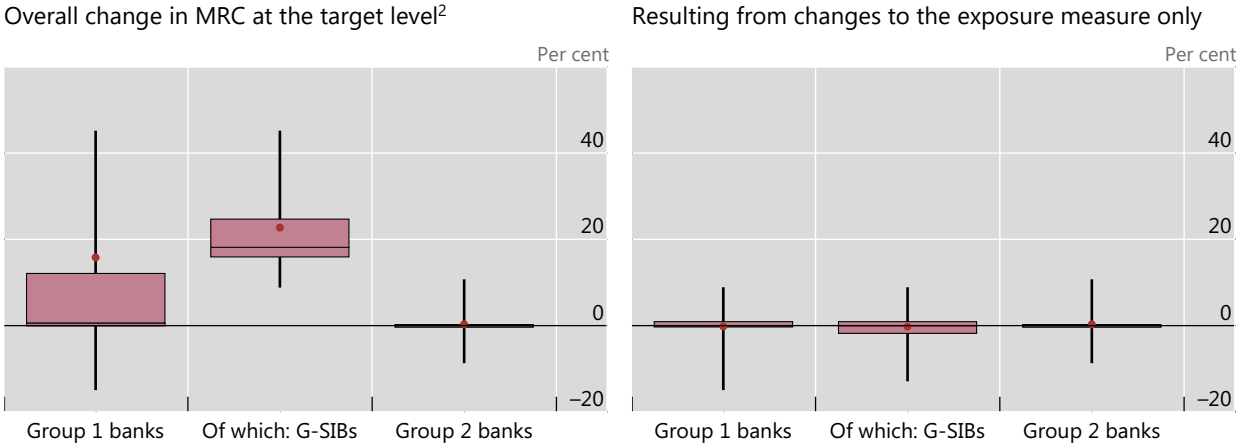
[1] Tier 1 capital, RWA and leverage ratio exposure assume full implementation of Basel III. Data points from H1 2010 to H2 2012 use the original definition of the leverage ratio. Data points from H1 2013 to H1 2017 use the definition of the leverage ratio set out in the 2014 version of the framework. 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.

Source: Basel Committee on Banking Supervision. See Table C.21 for underlying data and sample size.

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

Graph 32 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 and changes to the exposure measure only. 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.

Changes in leverage ratio MRC due to revisions in the final standards[1] Graph 32



[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 vertical lines generally show the range of the entire sample. The dots represent weighted averages. To the extent a bank could not provide a component under the 2017 exposure measure, the relevant component of the 2014 measure was used. [2] The increase for G-SIBs is driven by the introduction of a G-SIBs add-on.

Source: Basel Committee on Banking Supervision. See also Table C.22 and Table C.23.

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 last four Basel III monitoring exercises (data as of end-December 2017 through end-December 2019) are compared with the results of the previous cumulative QIS, using data as of end-December 2015.[14] This analysis is not reduced to a consistent sample, but relies on the different samples for the different reporting dates.

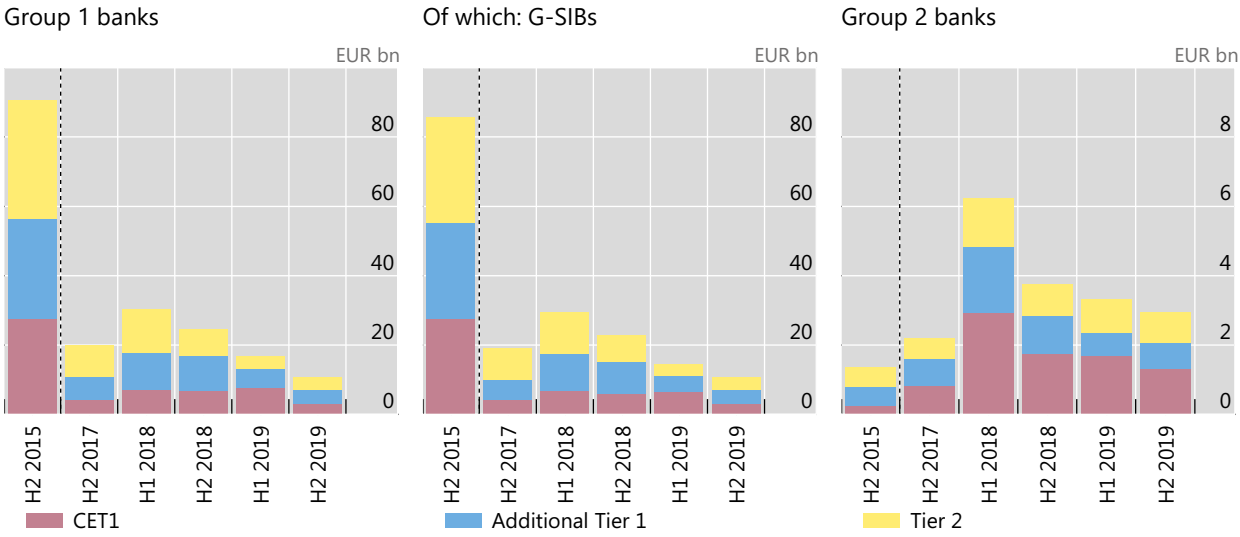
The total regulatory capital shortfalls at the target level as of the end-December 2019 reporting date for Group 1 banks amounts to €10.7 billion, solely generated by G-SIBs. It significantly decreased compared to the previous period (€16.6 billion). The end-December 2019 shortfall can be split into €3.3 billion CET1 capital, €3.8 billion additional Tier 1 capital and €3.6 billion Tier 2 capital, showing that the main driver for the decrease compared to the previous period is the reduction in CET1 capital shortfall (-€4.3 billion). The decrease was not influenced by the smaller size of the Group 1 sample in the current period. For the current reporting period, the shortfalls for reduced estimation bias and conservative estimation are the same.

For Group 2 banks, the aggregate total capital shortfalls decreased slightly from €3.3 billion to €2.9 billion. While the number of banks in the sample increased (currently 61 compared to 59 banks in the previous period), these changes are mainly driven by banks' improved capital positions.

[14] 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], sample and exchange rates as at the reporting dates — Graph 33



[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 to H2 2017 and H1 2018, the results since H2 2018 include the revised market risk framework as finalised in January 2019. For two G-SIBs that were outliers due to overly conservative assumptions under the revised market risk framework, zero change from the revised market risk framework has been assumed for the calculation of 30 June 2019 results. The two banks are included with their numbers as reported in the results for earlier reporting dates.

Source: Basel Committee on Banking Supervision. See also Table C.26.

2.5 Total loss-absorbing capacity requirements for G-SIBs

2.5.1 Initial Basel III framework

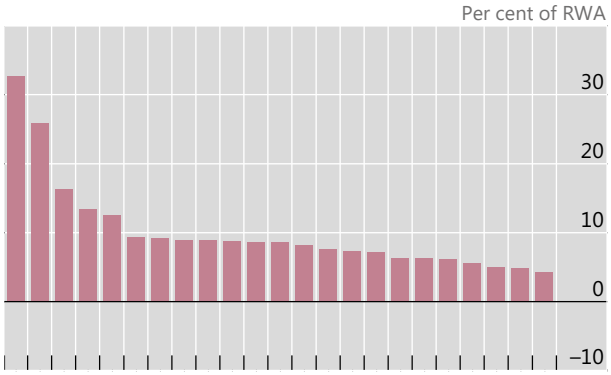
The Committee also collected data on additional total loss-absorbing capacity (TLAC) for G-SIBs, 23 of which participated in the exercise. Applying the 2019 minimum requirements, no G-SIB in the sample shows an incremental[15] TLAC shortfall. Compared to the previous period, this development is a significant improvement. As at end-June 2019, two banks had reported an incremental TLAC shortfall. Similarly, there is no shortfall against 2022 minimum requirements, compared to a shortfall of €35.2 billion in the previous period.

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

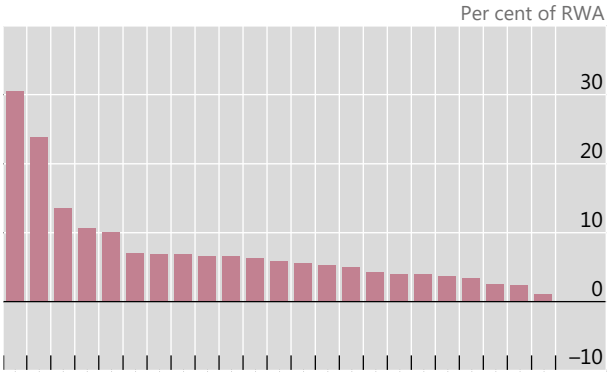
Distribution of individual G-SIB's incremental TLAC surplus and shortfall across banks[1]

Fully phased-in initial Basel III standards, pure TLAC implementation[2] Graph 34

Applying 2019 TLAC minimum requirements



Applying 2022 TLAC minimum requirements



[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.

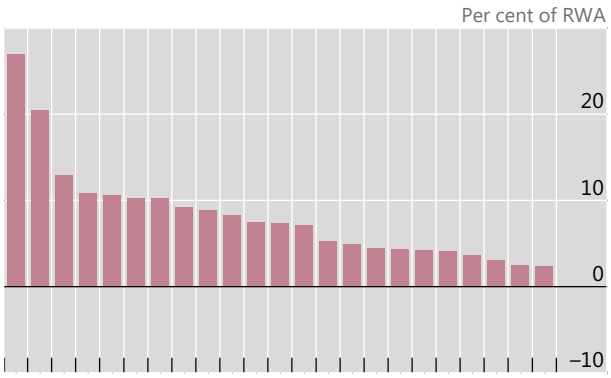
2.5.2 Final Basel III framework

The final Basel III reforms, based on end-December 2019 data, resulted in no significant increase in aggregate capital requirements for the respondent banks. With regard to TLAC, the reforms had a limited effect on the number of banks or size of shortfalls against the 2019 TLAC requirements. Relative to the 2022 TLAC requirements, combined with the final Basel III standards, only one bank is reporting a TLAC shortfall and the aggregate shortfall is €1.9 billion corresponding to around 0.5% of RWA (relative to the 2022 requirements).

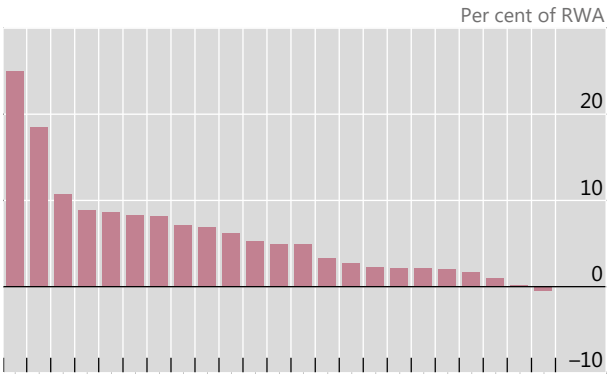
Distribution of individual G-SIB's incremental TLAC surplus and shortfall across banks[1]

Fully phased-in final Basel III standards, reduced estimation bias[2] Graph 35

Applying 2019 TLAC minimum requirements



Applying 2022 TLAC minimum requirements



[1] Surplus is indicated as positive and shortfall as negative. [2] For three G-SIBs that are outliers due to overly conservative assumptions under the revised market risk framework, zero change from the revised market risk framework has been assumed.

Source: Basel Committee on Banking Supervision.

3. Level and composition of regulatory capital

3.1 Level of capital

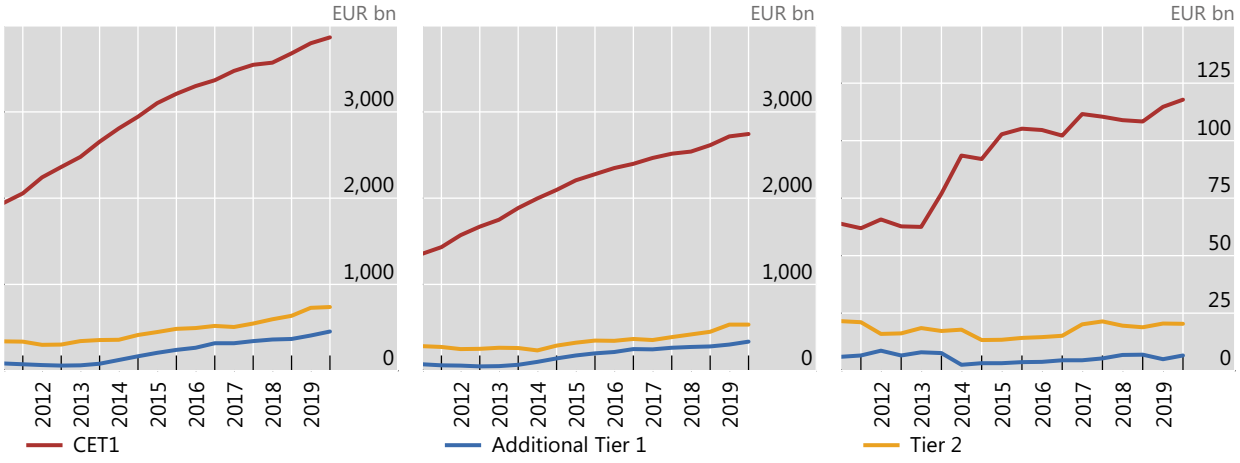
Graph 36 shows a time series of the level of regulatory capital for a consistent sample of Group 1 banks, Group 2 banks and G-SIBs. From end-June 2019 to end-December 2019, the level of CET1 capital for Group 1 banks increased by €68 billion (or 1.8%) to €3,865 billion. G-SIBs, which collectively held €2,744 billion as of end-December 2019, account for 39.7% of this increase, a significantly lower share compared to 85% over the previous reporting period. For Group 1 banks, the increase in Tier 2 capital almost stopped (€7 billion over the last reporting period), while the increase in additional Tier 1 capital (€45 billion) is slightly higher than over the previous reporting period. Around two thirds of the rise in overall CET1 capital among Group 1 banks over the reporting period appears to be driven by retained earnings on significant after tax profits.

From end-June 2019 to end-December 2019, the level of Group 2 banks' CET1 capital increased by €3 billion (or 2.6%) to €118 billion. Additional Tier 1 capital increased slightly to €7 billion while Tier 2 capital remained stable.

From end-June 2011 to end-December 2019, the level of Group 1 banks' CET1 capital has increased by 98.8% from €1,944 billion to €3,865 billion.

Level of capital[1]

Consistent sample of banks, exchange rates as of the current reporting date — Graph 36



[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 Table C.27 for underlying data and sample size. Table C.28 provides an additional regional breakdown for Group 1 banks.

Graph 37 shows a time series of the level of regulatory capital for a consistent sample of Group 1 banks, grouped by region, assuming full implementation of final Basel III standards. CET1 capital has increased for Europe and the rest of the world region by €23 and €61 billion, respectively. Conversely, the Americas saw a decline by €17 billion. The rest of the world region also has the highest overall holdings of CET1 capital at €1,919 billion with an average of €49.2 billion per bank compared to €1,131 billion at an average of €37.7 billion per bank and €815 billion with an average of €58.2 billion per bank for Europe and the Americas, respectively. While CET1 capital in the rest of the world is now more than 2.5 times of its

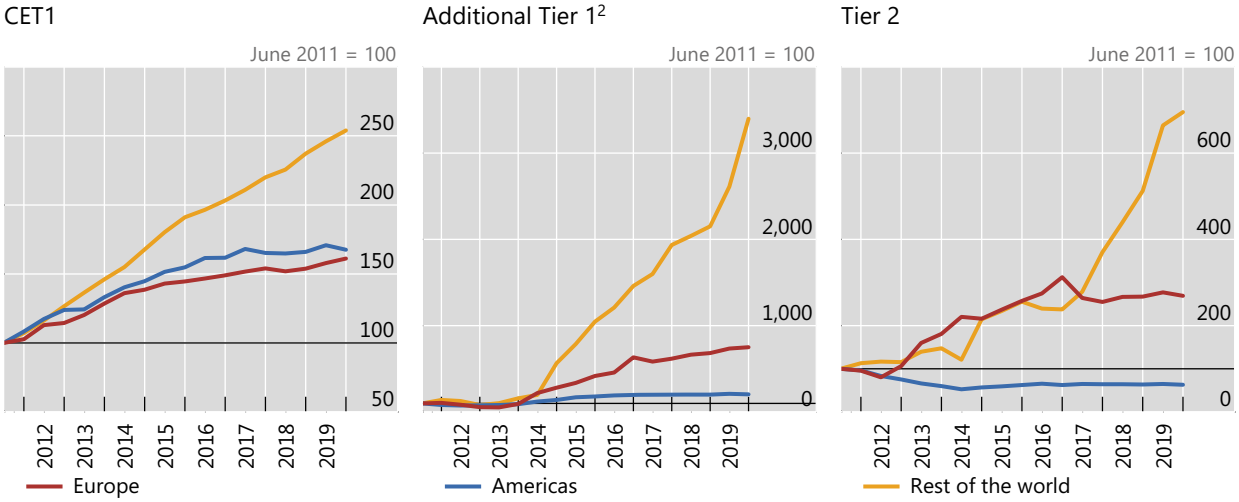
value in 2011, the increase in Europe and in the Americas was more limited at 61.2% and 67.6%, respectively.

After some initial declines from 2011 through 2013 in Europe and the Americas and some mild increases in the rest of the world region, additional Tier 1 capital has grown significantly across all regions thereafter. From end-June 2019 to end-December 2019, additional Tier 1 capital remained rather stable in Europe and the Americas, while the rest of the world reported an increase of €45 billion or more than 30%. Even with this increase, the share of additional Tier 1 capital in the rest of the world is still lower at 7.7% compared to Europe (9.6%) and the Americas (11.0%).

The stock of Tier 2 capital has grown compared to 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. During the current reporting period, the rest of the world region has experienced an increase in the level of Tier 2 holdings (€17 billion), while banks' Tier 2 capital decreased in Europe (€7 billion) and the Americas (€3 billion). As of end-December 2019, Tier 2 capital holdings for the Europe, Americas and rest of the world regions stand at €227 billion, €126 billion and €384 billion, respectively.

Evolution of Basel III capital,[1] by region

Consistent sample of Group 1 banks, exchange rates as of the current reporting date — 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. [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 Table C.30 for underlying data and sample size.

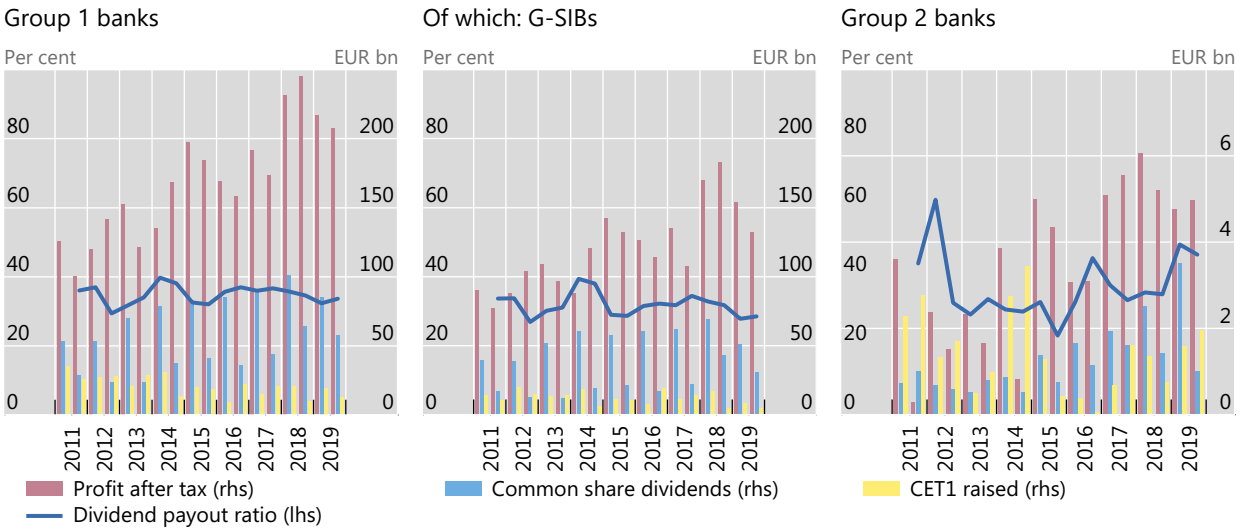
3.2 Profits, dividends and capital raised

Graph 38 depicts the evolution of profits, dividends, CET1 capital raised and the dividend payout ratio over time. After tax profits for the Group 1 banks in the sample further decreased compared to the previous reporting period and stand at €207.8 billion as of end-December 2019. The €22.4 billion decline for G-SIBs was partially compensated by a €13.3 billion increase for other Group 1 banks. Therefore, G-SIBs contributed only 63.4% of all the profits generated by Group 1 banks during the second half of 2019, compared to more than 70% in the previous reporting period. The annual dividend payout ratios for Group 1 banks and G-SIBs increased by around one percentage point to 33.6% and 28.5%, respectively.

Group 2 banks posted a €0.2 billion increase in after tax profits to €5.0 billion and a 3 percentage point decline in the annual dividend payout ratio to 46.4%.

Profits, dividends, CET1 capital raised externally and dividend payout ratio[1]

Consistent sample of banks, exchange rates as of the current reporting date — Graph 38



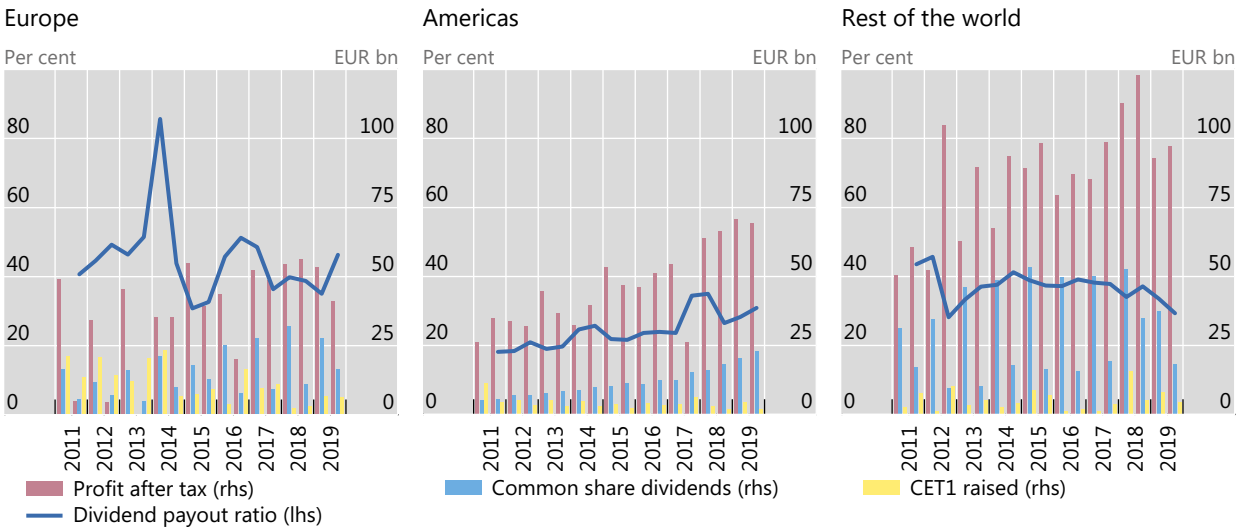
[1] The dividend payout ratio is calculated as common share dividends divided by profits after tax by using a rolling 12 months window to improve comparability across countries with different dividend payment patterns.

Source: Basel Committee on Banking Supervision. See Table C.31 and Table C.34 for underlying data and sample size.

Graph 39 provides the regional breakdown for Group 1 banks. Annual after tax profits for the Group 1 banks in the sample dropped significantly in Europe, stayed roughly flat in the Americas and increased in the rest of the world, after a significant drop in that region in the previous reporting period. The share of Europe and the rest of the world regions in global Group 1 bank profits are around 1.5 percentage points lower than their share in Group 1 bank Tier 1 capital (see also Table B.2). Conversely, the share of the Americas in profits is around 3 percentage points larger than their share in Tier 1 capital. Over the previous year, the highest annual dividend payout ratios were posted by European banks (46.3%), followed by banks in the Americas (30.9%) and banks in the rest of the world (29.3%). Graph 40 provides the same breakdown for G-SIBs.

Profits, dividends, CET1 capital raised externally and dividend payout ratio,[1] by region

Consistent sample of Group 1 banks, exchange rates as of the current reporting date — Graph 39

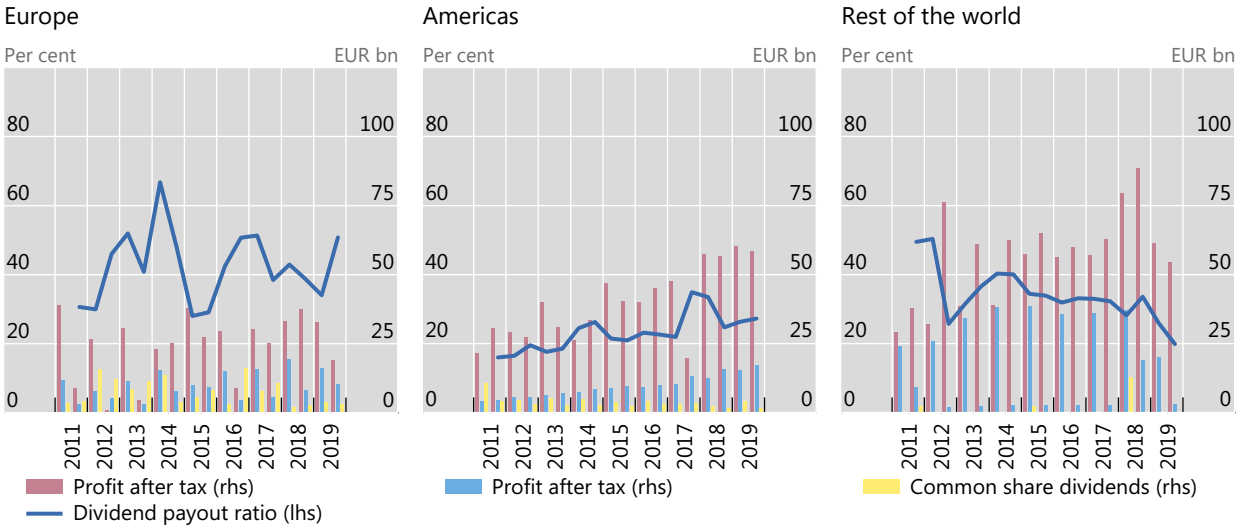


[1] The dividend payout ratio is calculated as common share dividends divided by profits after tax by using a rolling 12 months window to improve comparability across countries with different dividend payment patterns.

Source: Basel Committee on Banking Supervision. See Table C.32 and Table C.35 for underlying data and sample size.

Profits, dividends, CET1 capital raised externally and dividend payout ratio,[1] by region

Consistent sample of G-SIBs, exchange rates as of the current reporting date — Graph 40



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

Source: Basel Committee on Banking Supervision. See Table C.33 and Table C.36 for underlying data and sample size.

Over the second half of 2019, 64 out of the 103 Group 1 banks in the sample raised capital. Regarding CET1 capital the total amount raised equals €17.1 billion (see Table 8). G-SIBs account for 29% of the CET1 capital raised by Group 1 banks in the sample, compared to 33% in the previous period.

It is noticeable that Group 1 banks raised more additional Tier 1 capital (51.1% of the total capital raised) and Tier 2 capital (31.8%) than CET1 capital (17.0%). This could indicate that banks are continuing to focus on the remaining, not yet fully phased-in, 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 71% of the additional Tier 1 capital raised globally was raised by banks in the rest of the world region, and roughly half of this by one bank. For Group 2 banks, CET1 capital continues to be the focus (57.0% of the total capital raised). Group 2 banks also raised additional Tier 1 capital (17.7%) and Tier 2 capital (25.3%).

Capital raised during the current reporting period

Full sample of banks, gross amounts, in billions of euros — Table 8

	Number of banks	Number of banks that raised capital	CET1	Add. Tier 1	Tier 2
Group 1 banks	103	64	17.1	51.4	32.0
Of which: Americas	14	9	1.8	4.4	5.4
Of which: Europe	36	25	6.4	10.3	7.5
Of which: Rest of the world	53	30	8.8	36.6	19.0
Of which: G-SIBs	28	24	4.9	38.1	12.6
Group 2 banks	67	20	4.4	1.4	2.0

Source: Basel Committee on Banking Supervision.

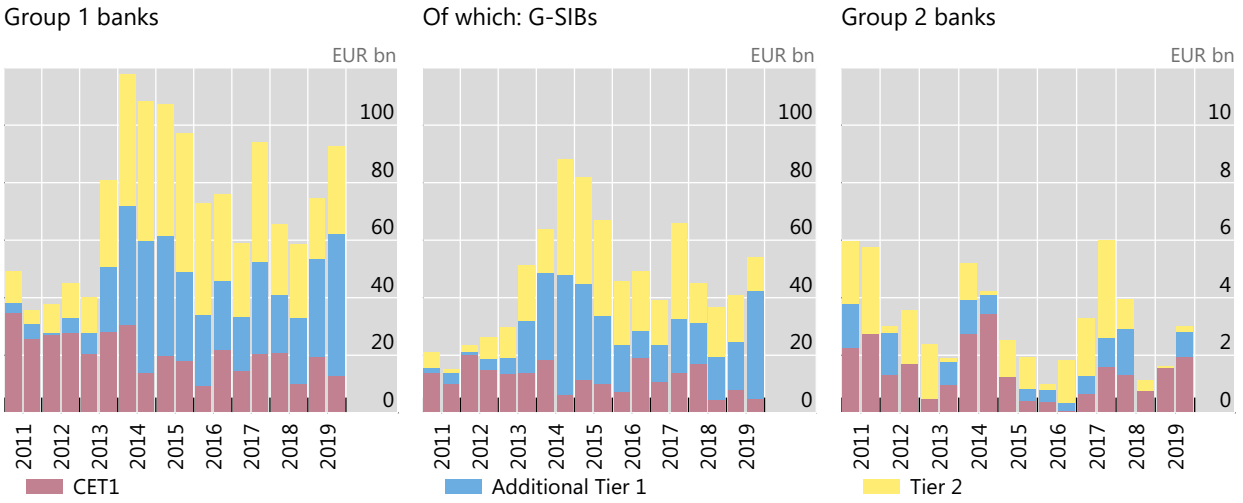
Graph 41 depicts the evolution of capital raised over time for a consistent sample of banks. Since 2011, the capital raised by G-SIBs accounts for 64.4% of the capital raised by Group 1 banks. Moreover, G-SIBs account for 58.1%, 70.8% and 63.6% respectively of CET1 capital, additional Tier 1 capital and Tier 2 capital raised by Group 1 banks. The higher regulatory requirements imposed on large and complex banks might explain their higher observed capital issuances.

More than half of the CET1 capital raised since 2011 has been raised by Group 1 banks in Europe, which is materially higher than their share in terms of Tier 1 capital or RWA (around 25%). For the banks in the Americas and the rest of the world, the opposite relationship was observed.

In the second half of 2019, Group 1 banks generally raised less capital compared to the previous period in Europe and the Americas. However, there was a strong increase in additional Tier 1 issuance in the rest of the world region.

Capital raised externally

Consistent sample of banks, exchange rates as of the current reporting date — Graph 41



Source: Basel Committee on Banking Supervision. See Table C.34 for underlying data and sample size. Table C.35 provides an additional regional breakdown for Group 1 banks.

3.3 Composition of capital

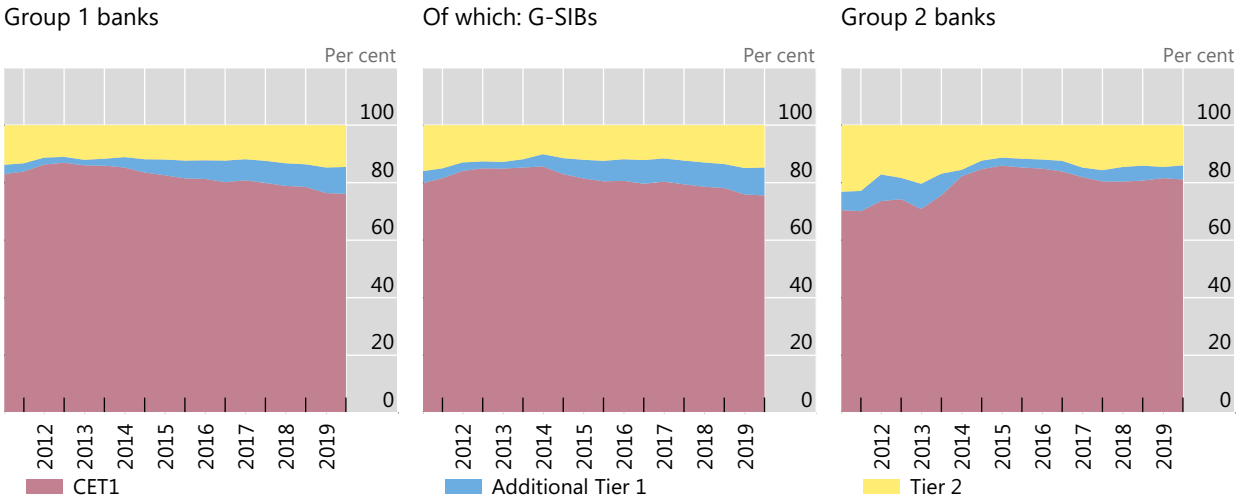
Graph 42 below shows the composition of total capital under the initial Basel III rules. As expected and as observed on previous reporting dates, CET1 capital continues to be the predominant form of regulatory capital amongst all banks. As of end-December 2019, the average share of initial Basel III CET1 capital for Group 1 banks is 76.2%. For Group 2 banks, the initial Basel III CET1 capital represents 81.2% of regulatory capital at the reporting date. Noticeably, the second largest share of total capital continues to be Tier 2 capital (14.5% for Group 1 banks and 14.0% 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 we observe a decline in the share of CET1 capital offset by an increase of additional Tier 1 holdings. The structure of regulatory capital had somewhat stabilised in 2017, but CET1 capital has continued to decline over the four most recent reporting periods for Group 1 banks, as well as G-SIBs.

For Group 2 banks, a strong positive trend can be observed over time for the share of CET1 capital: it increases from 70.5% in H1 2011 to 85.9% in H1 2015, which corresponds to a cutback of Tier 2 elements in a similar magnitude (from 23.1% to 11.3%). Over the period from H2 2015 through H1 2018, a decrease in the share of CET1 holdings for Group 2 banks was compensated by an increase in both additional Tier 1 and Tier 2 instruments. Since H2 2018, the share of additional Tier 1 and Tier 2 capital holdings for Group 2 banks have slightly increased while CET1 capital has slightly decreased to 81.2%. Group 2 banks started from a higher level with regards to Tier 2 capital. At end-June 2011, Group 2 banks reported a share of 23.1% while Group 1 banks only reported a share of 13.8%.

Structure of regulatory capital under initial Basel III[1]

Consistent sample of banks — Graph 42



[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 Table C.37 for underlying data and sample size and Table B.7 for the structure of capital under transitional initial Basel III.

With regard to the composition of Basel III CET1 capital itself, 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 92.6% of outstanding CET1 on average. Accumulated Other Comprehensive Income (AOCI) contributes 6.6% to Group 1 banks' CET1 capital on average, but there is significant dispersion across banks and countries.[16] 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 79.5%, while the 19.0% share of AOCI is higher compared to Group 1 banks, again with significant dispersion across banks and countries.

[16] 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.

Structure of CET1 capital, by bank group and region

Group 1 banks, in per cent of CET1 capital gross of regulatory adjustments — Table 9

	Number of banks	Paid in capital	Retained earnings	Other comprehensive income	CET1 from recognised subsidiaries
Group 1 banks	104	26.9	65.7	6.6	0.8
Of which: Americas	15	19.8	83.8	–3.6	0.0
Of which: Europe	36	36.3	51.3	10.4	2.0
Of which: Rest of the world	53	24.0	66.5	9.0	0.5
Of which: G-SIBs	28	22.3	71.0	5.7	1.0
Group 2 banks	66	41.7	37.8	19.0	1.5

Source: Basel Committee on Banking Supervision.

3.4 Regulatory adjustments

Using the consistent sample of banks over time for the current period, regulatory adjustments reduce overall gross CET1 capital (ie CET1 capital before adjustments) for Group 1 banks by 13.1% (see Table B.4). The largest driver of Group 1 bank CET1 capital adjustments continues to be goodwill (7.7%) followed by deductions for intangibles, other deductions and deferred tax assets (DTA) (2.2%, 1.5% and 1.1%, respectively). Currently there is no aggregate impact from the transitional add-backs from the introduction of ECL provisioning.

The impact of regulatory adjustments on Group 2 banks is slightly higher, on average being at around 14.2% (see Table B.5). A limited number of large Group 2 banks drives this result. Without taking these banks into account, the overall impact of CET1 deductions would decline considerably.

4. Components and determinants of risk-based capital requirements

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

Graph 43 shows the evolution of the share of different asset classes in overall MRC for a consistent sample of Group 1 banks and G-SIBs.[17] As of end-December 2019 and for a consistent sample of Group 1 banks, credit risk[18] continues to compose the dominant portion of overall MRC, on average comprising 64.6% of total MRC. However, the share of credit risk has declined significantly from 74.4% at end-June 2011 to its lowest share of 63.4% at end-December 2014 to end-June 2015 and since then slightly increased to the level at the current reporting date. This looping trend was mainly driven by a decrease in the MRC for related entities (10.4% to 1.0%) and securitisations (7.2% to 1.7%) while the MRC for corporate exposures increased over the observed period from 30.8% at end-June 2011 to 37.4% at the current reporting date.

Conversely, the share of operational risk MRC increased sharply from 7.9% at the end of June 2011 to 16.3% at the end of 2015 and is roughly stable since. This increase is attributed in large part to

[17] MRC figures in this section are based on the total capital ratio, ie based on 8% of RWAs. Where applicable, the MRC 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.

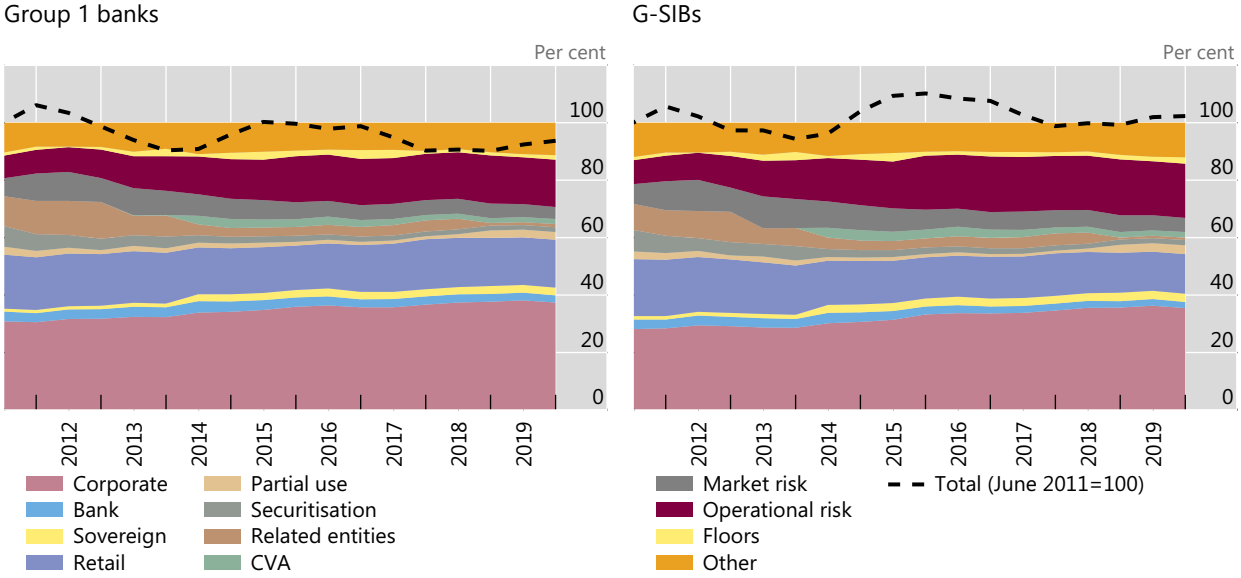
[18] Here overall credit risk is defined as the sum of corporate, bank, retail, sovereign, partial-use, securitisations and related entities as illustrated in the graph.

the surge in the number and severity of operational risk events during and after the financial crisis, which are factored into the calculation of MRC for operational risk under the advanced measurement approach.

The share of market risk declined slightly from 6.2% to 4.2% in the observed period while the shares of "other" risk and of the floor requirement have been somewhat stable at around 8% to 11% and zero to 3%, respectively.

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

Consistent sample of banks — Graph 43



[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 Table C.38 and Table C.39 for underlying data and sample size.

Table 10 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 consistent sample used for the time series above, resulting in differences for the values of the end-December 2019 reporting date.

Additionally, 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.[19] 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.

[19] 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 10.

Looking at Group 1 banks, it is observed that while the retail and sovereign asset classes comprise more than 45% of the exposures, their relative riskiness as measured by the average risk weight is rather low in comparison to other asset classes at 27.1% and 6.2%, respectively. With 32.9% of total exposures, the corporate asset class is the largest asset class, and it attracts a 56.6% risk weight. For Group 2 banks, corporate, retail and sovereign asset classes comprise the overwhelming majority of exposures. While Group 2 banks' average risk weights are higher for the corporate asset class, they are lower for the sovereign, bank and retail asset classes.

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

In per cent — Table 10

	Group 1			Group 2		
	Size exposure	Size MRC	Average risk weight	Size exposure	Size MRC	Average risk weight
Credit risk; of which:	98.9	79.7	36.5	99.6	83.6	29.9
Corporate	32.9	41.1	56.6	20.7	35.7	61.5
Sovereign	21.8	3.0	6.2	27.2	3.8	5.0
Bank	7.5	4.1	24.8	10.8	5.5	18.2
Retail	24.8	14.9	27.1	29.0	19.0	23.3
Equity	0.9	4.8	229.5	0.8	4.4	194.0
Purchased receivables	0.2	0.1	25.1	0.0	0.0	89.7
Securitisation	2.1	1.5	32.9	0.5	0.5	34.8
Related entities	0.0	0.6	659.6	0.0	0.0	347.4
Past-due items	0.1	0.3	103.0	0.5	1.4	112.7
Other assets	4.6	5.8	57.5	0.9	2.3	93.7
Failed trades and non-DVP transactions	0.0	0.0	97.8	0.0	0.0	
Not assigned[2]	3.8	9.7	114.3	9.2	12.1	46.8
Regulatory difference[4]		–6.1			–1.1	
CVA	1.1	1.3	56.1	0.4	0.9	77.5
Trading book CCR[3]		0.1			0.0	
Market risk		3.5			2.5	
Other trading book		0.1			0.0	
Operational risk		12.8			9.7	
Floor adjustment		1.4			0.1	
Other[5]		0.9			3.1	
Total	100.0	100.0	45.3	100.0	100.0	35.7

[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] Counterparty credit risk in the trading book. [4] 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. [5] Includes the reconciliation asset class and other Pillar 1 capital requirements.

Source: Basel Committee on Banking Supervision.

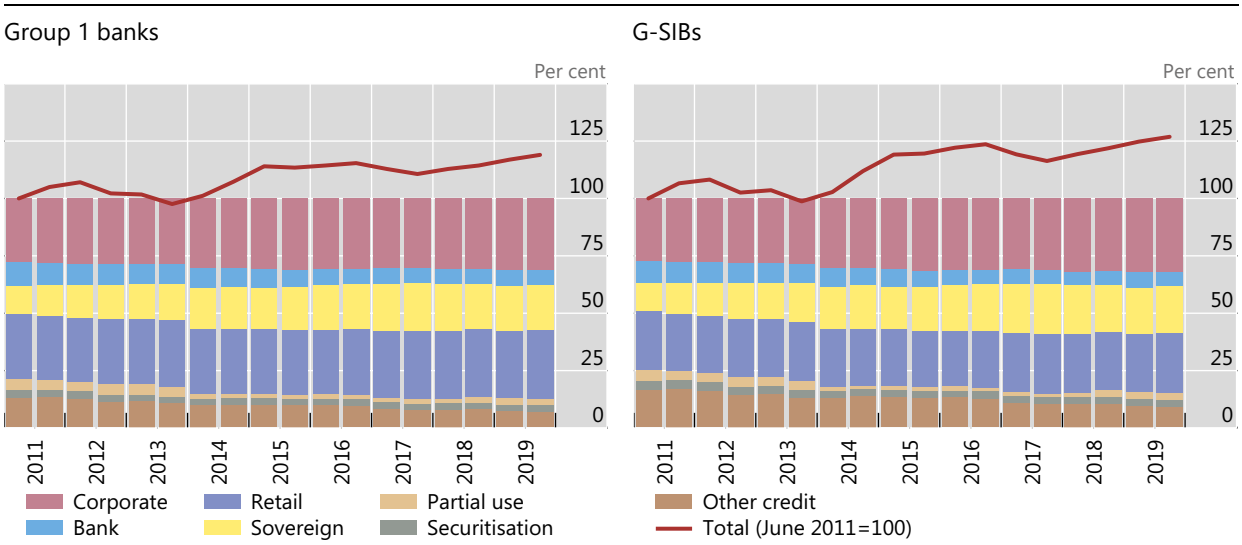
4.2 Credit risk

4.2.1 Share of credit risk exposure by asset classes under the current rules

The left panel of Graph 44 shows the evolution of exposure for the seven major asset classes for a consistent sample of 35 Group 1 banks. The composition of credit risk exposures has remained relatively stable as overall exposure levels have grown by 19.0% over the entire period. The share of sovereign exposures has increased steadily in recent years to more than 20% in 2017 and decreased slightly since, while exposures to banks, exposures subject to the partial use of the standardised approach and other credit exposures have declined. The right panel of Graph 44 shows the same analysis for the subset of 16 G-SIBs.

Share of credit exposure

Consistent sample of banks — Graph 44



Source: Basel Committee on Banking Supervision. See Table C.40 and Table C.41 for underlying data and sample size.

4.2.2 Impact of revisions to the standardised and IRB approaches for credit risk on MRC

Graph 45 shows the changes in terms of current Tier 1 MRC associated with exposures under the standardised and IRB approaches for credit risk due to the final Basel III framework. The left-hand panel shows the overall distribution of the impact, while the right-hand panel provides a breakdown by asset class.

On average, the impact is higher for Group 2 banks (+7.8%) than for Group 1 banks, for which the impacts on standardised approach and IRB exposures compensate each other resulting in a decrease in capital requirements of -2.7% (decrease of -2.1% for G-SIBs).

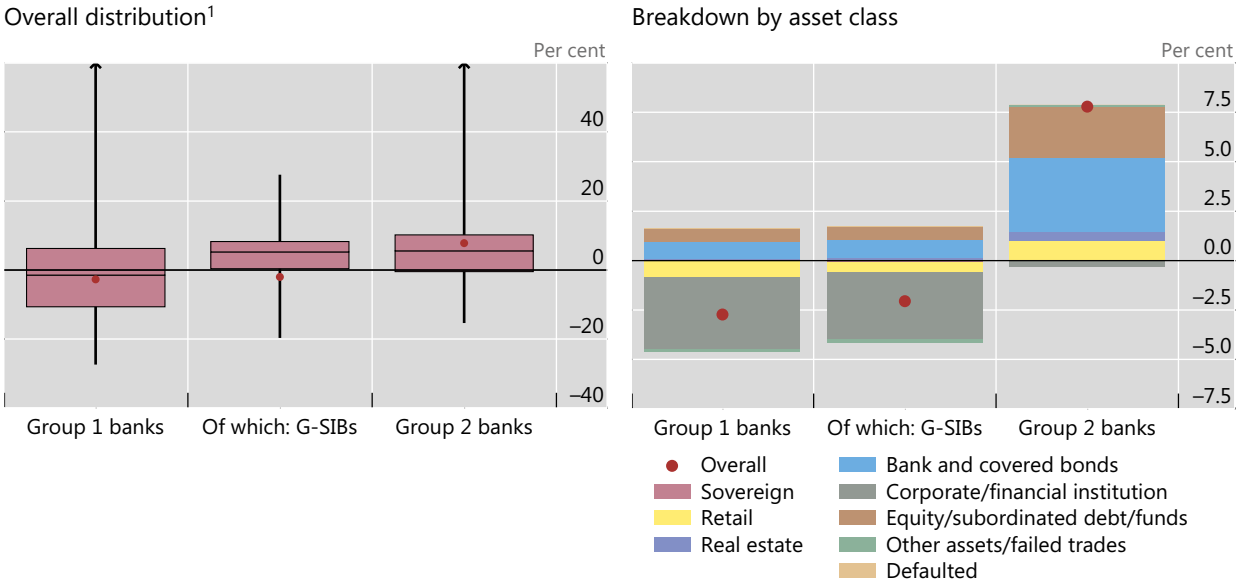
The right panel of Graph 45 breaks down the impact by asset class. For Group 1 banks, corporate exposures contribute -3.7 percentage points to the overall change, while the contributions of bank and equity exposures are positive at +0.9 percentage points and +0.7 percentage points, respectively. For Group 2 banks, bank and equity/subordinated debt exposures contribute +3.7 percentage points and +2.6 percentage points to the overall change in MRC. The contributions of real estate and retail asset classes account for a less significant +0.5 percentage points and +1.0 percentage points, respectively. These results are mainly driven by the removal of the advanced IRB (AIRB) approach for exposures to banks and the removal of all IRB approaches for equity exposures, as well as by the reduction of the supervisory loss-

given-default (LGD) parameter for unsecured corporate exposures from 45% to 40% under the foundation IRB (FIRB) approach.

The regional breakdown for Group 1 banks in Graph 46 highlights significant differences in impact by region, which however should be carefully considered given the variable and limited number of banks per region included in the sample.

Changes in Tier 1 MRC for credit risk due to the final Basel III standards

Graph 45

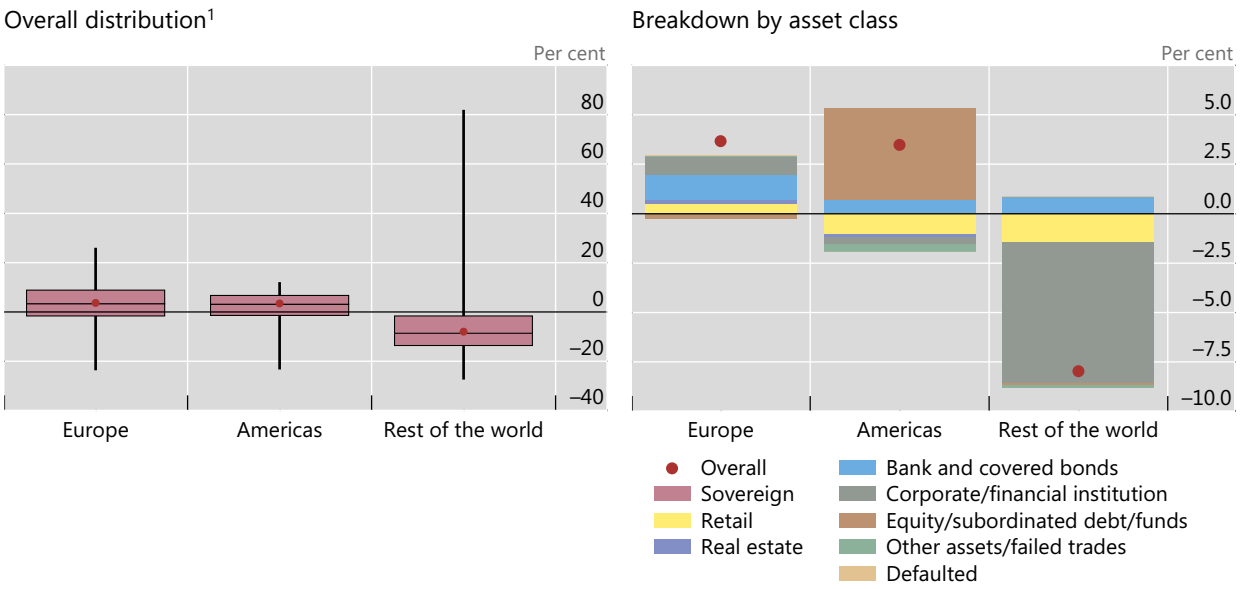


[1] The median value is represented by a horizontal line, with 50% of the values falling in the 25th to 75th percentile range shown by the box. The upper and lower end points of the vertical lines generally show the range of the entire sample. In some cases, arrows at the top of the vertical line indicate banks with changes outside the range shown in the graph. The dots represent weighted averages.

Source: Basel Committee on Banking Supervision. See also Table C.42 and Table C.43.

Changes in Tier 1 MRC for credit risk due to the final Basel III standards, by region

Group 1 banks — Graph 46



[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 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. The dots represent weighted averages.

Source: Basel Committee on Banking Supervision. See also Table C.44 and Table C.45.

4.2.3 Standardised approach for credit risk

Impact of the revisions on MRC

Graph 47 shows the changes in Tier 1 MRC due to the finalisation of the Basel III standards for credit risk exposures that are currently under the standardised approach. These data include exposures of banks subject to the standardised approach for credit risk as well as exposures of banks using the IRB approach for credit risk to the extent that they are subject to partial use provisions. It does not include exposures currently under the IRB approach that migrate to the standardised approach under the revised framework (eg IRB equity exposures). Note that changes in Tier 1 MRC are calculated as a percentage of current Tier 1 MRC associated with exposures currently under the standardised approach only.

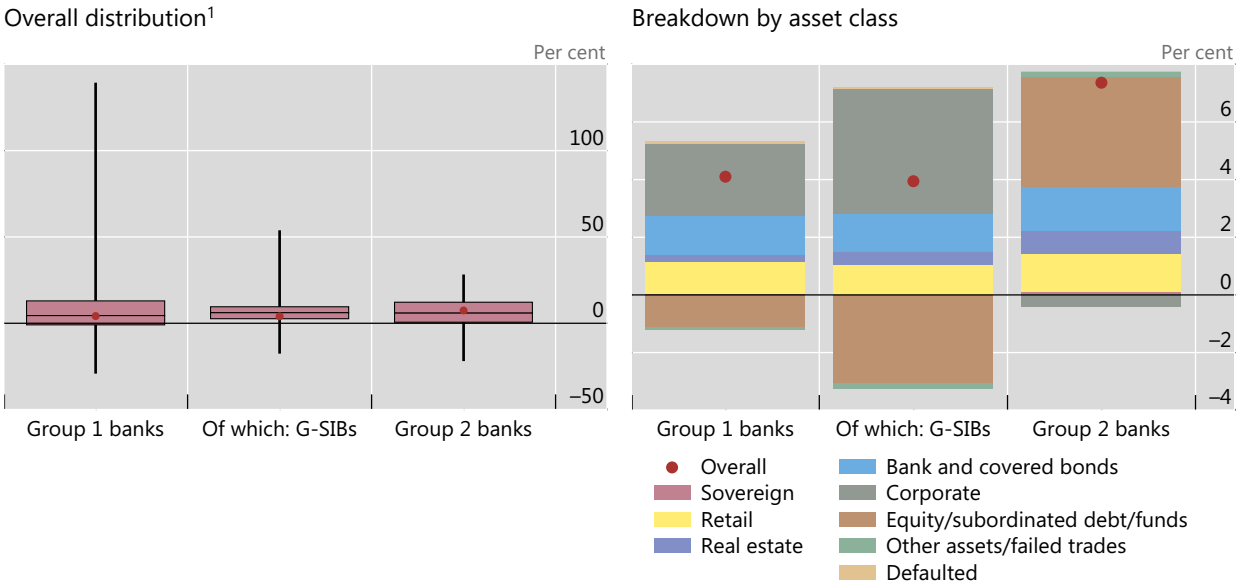
The left-hand panel of the graph shows the overall distribution of the impact. The revised standardised approach for credit risk results in a weighted average increase in MRC of 4.1% for Group 1 banks, 3.9% for G-SIBs and 7.4% for Group 2 banks. The change in MRC for banks between the 25th and 75th percentiles of the distribution ranges from -0.9% to +13.0% for Group 1 banks, from +2.6% to +9.6% for G-SIBs and from +0.6% to +12.2% for Group 2 banks..

The right-hand panel provides a breakdown of the change of MRC by asset class. For Group 1 banks in the sample, the asset classes with the greatest contribution to the overall change in MRC are exposures to corporates (+2.5 percentage points), followed by bank and covered bonds and retail (respectively +1.4 and +1.1 percentage points). MRC for sovereign, real estate and defaulted exposures are largely unchanged while equity and subordinated debt exposures on average show a decrease (-1.1 percentage points). For Group 2 banks, MRC for equity and subordinated debt exposures contributed 3.8 percentage points to the overall change in MRC of 7.4%. The increases of MRC for bank and covered bonds, retail and real estate exposures are also significant, contributing +1.5; +1.4 and +0.8 percentage

points, respectively. The changes in MRC for other asset classes are relatively smaller. The results suggest a large variation across asset classes and countries.

Changes in Tier 1 MRC for exposures subject to the standardised approach for credit risk due to the final Basel III standards

Graph 47



Data generally include banks subject to the standardised approach for credit risk and exposures subject to partial use of banks using the IRB approach for credit risk. [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 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. The dots represent weighted averages.

Source: Basel Committee on Banking Supervision. See also Table C.46 and Table C.47.

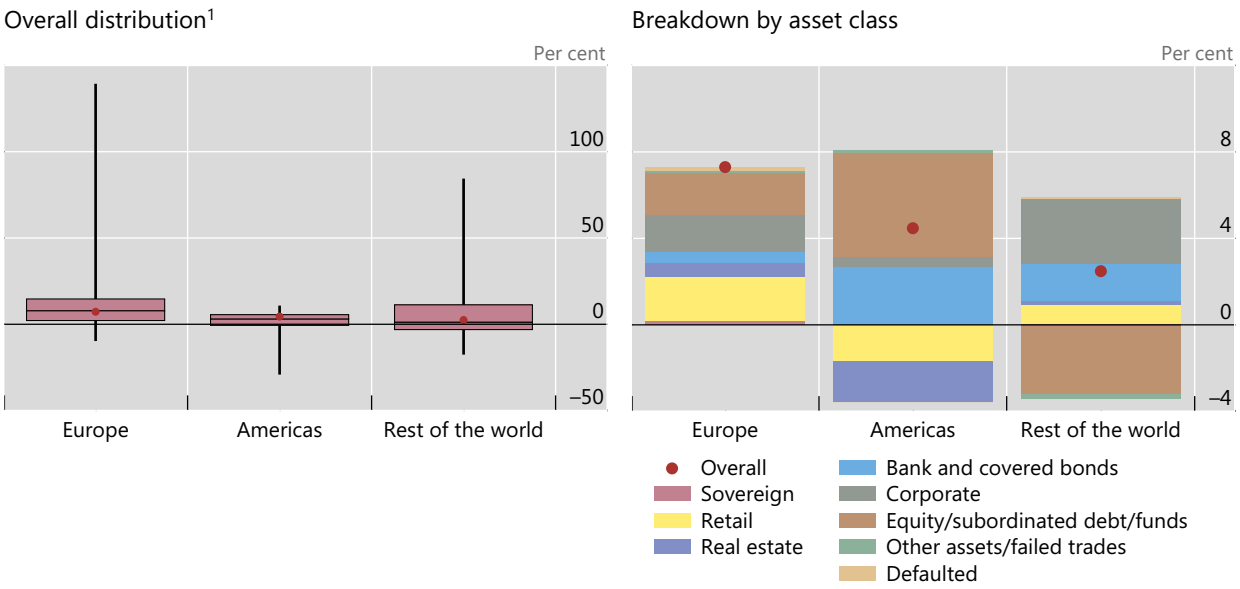
Graph 48 replicates the analysis of Graph 47 but breaks down the results for Group 1 banks by geographical region. For Group 1 banks, the revised standardised approach, on average, shows a positive impact on the MRC of all regions: European banks show the largest impact (+7.3%), followed by banks in the Americas (+4.5% compared to -6.3% in the previous period) and banks in the rest of the world (2.5%). The change in MRC for banks between the 25th and 75th percentile of the distribution ranges from +2.2% to +14.7% for European banks, from -0.6% to +5.6% for banks in the Americas, and from -3.1% to +11.3% for banks in the rest of the world.

Looking at individual asset classes, the results are largely heterogeneous. Exposures to corporates are the largest contributor for banks in the rest of the world (+3.0 percentage points) while having a moderate positive impact for European banks (1.7 percentage points) and the Americas (0.5 percentage points). Surprisingly, while in the previous report banks in the Americas showed a significant decrease of MRC for the corporate portfolio, in this report a positive impact is reported. Conversely, relative to the other asset classes, equity exposures, subordinated debt and funds have significant positive impacts for the Americas and Europe (4.8 percentage points and +1.9 percentage points, respectively) while they have a significant negative impact on the rest of the world (-3.2 percentage points). Retail and real estate have the most negative impacts in the Americas (-1.7 an -1.9 percentage points, respectively), while these asset classes show increases for European banks and banks in the rest of the world.

Changes in Tier 1 MRC for exposures subject to the standardised approach for credit risk due to the final Basel III standards, by region

Group 1 banks

Graph 48



Data generally include banks subject to the standardised approach for credit risk and exposures subject to partial use of banks using the IRB approach for credit risk. [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 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. The dots represent weighted averages.

Source: Basel Committee on Banking Supervision. See also Table C.48 and Table C.49.

Average risk weights

Graph 49 and Graph 50 provide additional detail on the current and revised average risk weights by asset class for Group 1 and Group 2 banks, respectively.

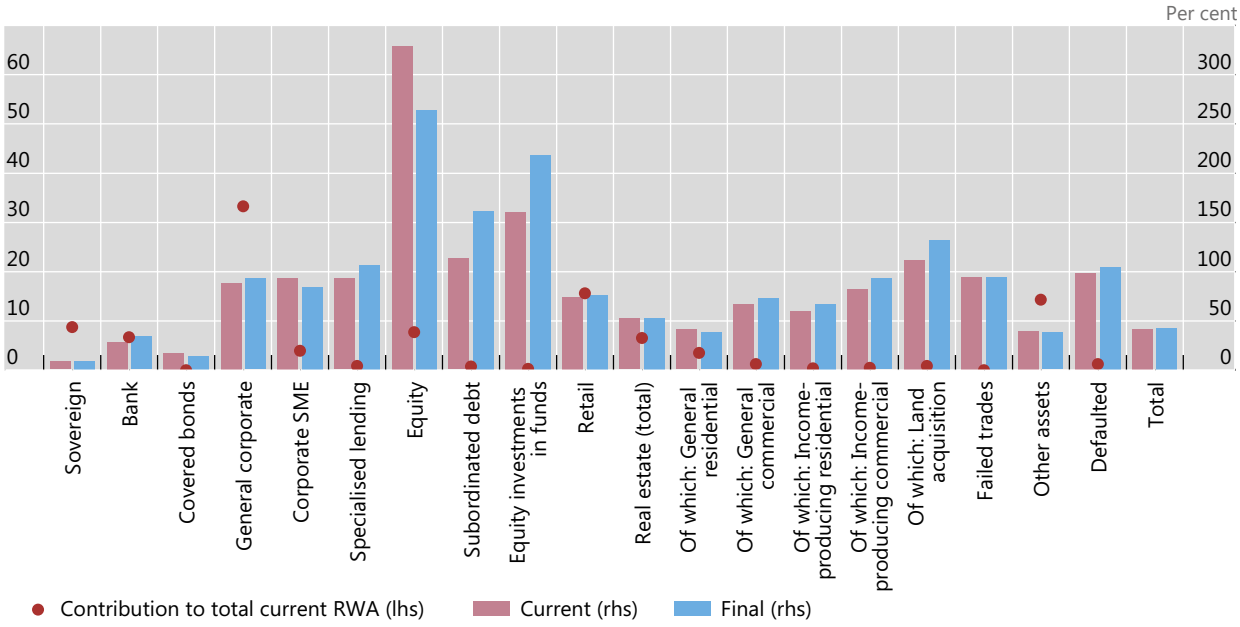
Overall, the average risk weight of Group 1 banks' exposures currently under the standardised approach increases from 42.1% to 43.3% (a 2.6% increase, compared to a 1.1% increase at the end-June 2019 reporting date) when moving from the current to the revised framework. Focusing on individual asset classes, subordinated debt shows the largest absolute increase in standardised approach risk weights on average followed by equity investment in funds). This is fully in line with expectations since for subordinated debt, the standardised approach foresees a risk weight of 150%[20], and the standards for equity investments in funds foresee a very punitive fall-back approach where a risk weight of 1250% is applied. Equity exposures show the largest absolute decrease in risk weights on average, which a priori is counterintuitive given that the revised standardised approach actually increases equity risk weights (with the exception of equity holdings pursuant to national legislated programmes). This counterintuitive result is driven by a small number of countries that currently apply super-equivalent risk weights to equity exposures, which are higher than the revised risk weights.

[20] It should be noted that the average risk weight for subordinated debt reported by banks is around 160% which is above the 150% set out in the standard. This could be due to super-equivalent national rules, or due to banks mixing up subordinated debt with equity exposures for which a higher risk weight is stipulated.

Standardised approach average risk weights under the current rules and the final Basel III standards, by asset class

Group 1 banks

Graph 49

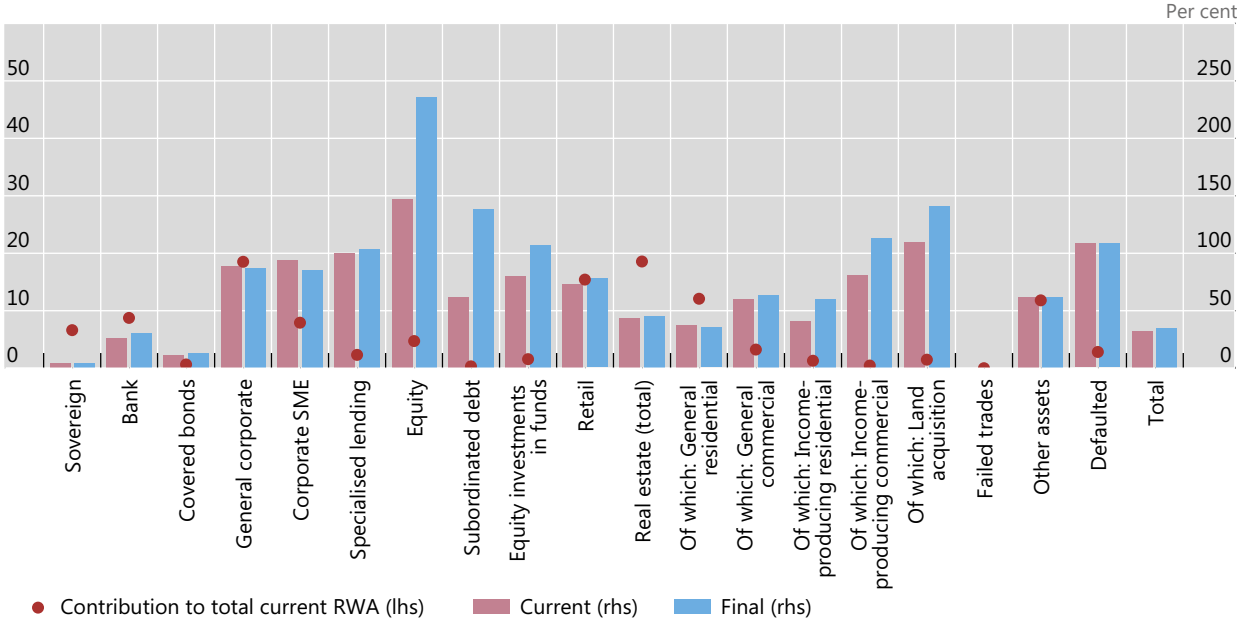


Source: Basel Committee on Banking Supervision. See also Table C.50 that includes a breakdown for G-SIBs. Table C.51 provides an additional regional breakdown.

Looking at Group 2 banks, the overall average risk weight under the standardised approach is estimated to increase from 32.6% to 34.8% when comparing the current with the revised framework. As expected, equity exposures represent the largest absolute increase and one of the main drivers behind the risk weight average increase under the standardised approach. Subordinated debt is the asset class with the largest relative increase but its limited contribution to total current RWA means it is not a driving force behind the risk weight increase. Corporate SME shows the largest decrease, roughly 10% in both absolute and relative terms.

Standardised approach average risk weights under the current rules and the final Basel III standards, by asset class

Group 2 banks — Graph 50



Source: Basel Committee on Banking Supervision. See also Table C.50.

4.2.4 Internal ratings-based approach for credit risk

Impact of the revisions on MRC

Graph 51 summarises the change in Tier 1 MRC due to the IRB revisions, for all credit risk exposures that are currently under the IRB approach, regardless of which approach they are subject to under the final Basel III standards (ie it includes equity exposures currently under the IRB approach, even if under the revised standards their MRC will be calculated using the standardised approach). The sample of banks included in this section differs from the sample of IRB banks in the previous sections. Moreover, changes in Tier 1 MRC in this section are calculated as a percentage of current Tier 1 MRC associated with exposures under the IRB approach only.

The left-hand panel of Graph 51 shows the overall distribution of the impact. In aggregate, the revisions to the IRB approach appear to result in a decrease in overall Tier 1 MRC for Group 1 banks (-5.5%) and G-SIBs (-4.3%), and an increase for Group 2 banks (+8.4%). The change in MRC for the banks between the 25th and 75th percentiles of the distribution ranges from -12.8% to +5.9% for Group 1 banks, and from -1.9% to +9.3% for G-SIBs. The range for Group 2 banks goes from -6.4% to +9.6%, but some Group 2 banks have a more extreme increase in MRC. Median values, which are less sensitive to extreme values and are not weighted, show a different sign for the impact, when compared to the weighted average values, for G-SIBs (+4.1%) and for Group 2 banks (-0.6%).

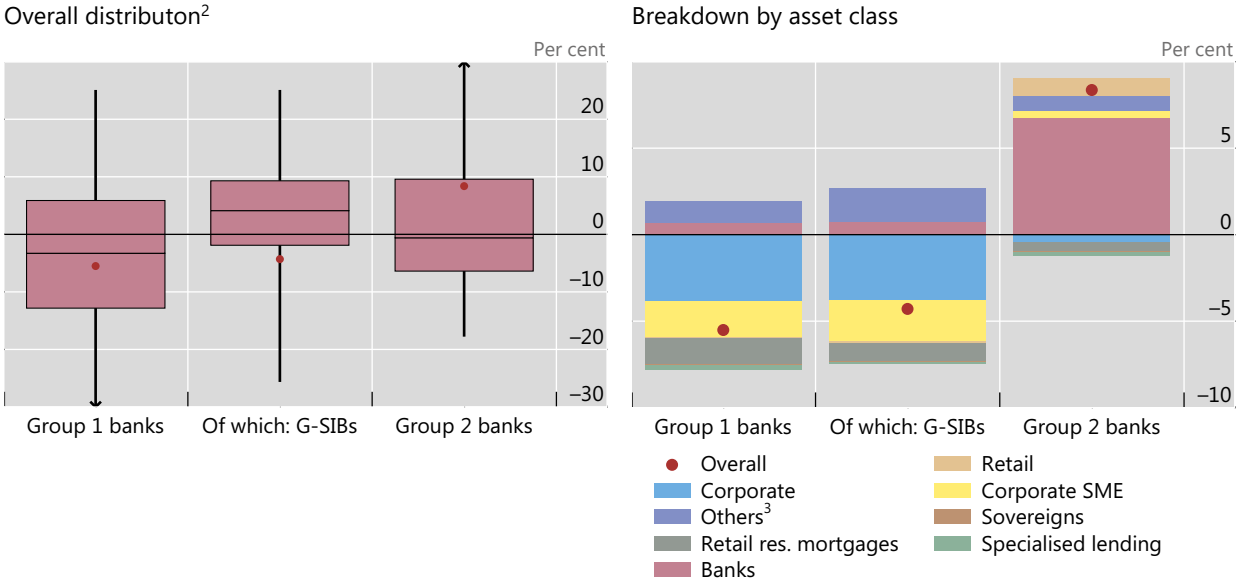
The right-hand panel of Graph 51 breaks down the impact by asset class. Exposures to corporates and to corporate SMEs are the main contributors to the overall decrease in MRC (-3.8 and -2.1 percentage points, respectively) for Group 1 banks. The MRC for exposures to retail residential mortgages also shows a decrease (-1.5%). At the aggregate level, the results may appear counterintuitive, given that the revised framework applies more stringent standards to these asset classes (under the advanced IRB), but are likely to be driven by four factors: (i) certain jurisdictions currently apply super-equivalent requirements, which the analysis assumes will not be carried over to the new framework, (ii) the changes in the FIRB rules, which

in many cases result in a decrease in MRC, (iii) the removal of the 1.06 IRB scaling factor, and (iv) the lower LGD floor for retail residential mortgages (though it applies on exposure rather than portfolio level). The impact of points (i) and (ii) may be amplified when the affected countries also make up a substantial amount of total exposures in the sample.

The asset classes that experience the largest increases are banks (+0.7 percentage points for Group 1 banks, +6.9 percentage points for Group 2 banks) and other assets (+1.2 percentage points for Group 1 banks, +0.9 percentage points for Group 2 banks). The latter is mainly driven by equity exposures, whose RWA under the revised framework are calculated using the standardised approach instead of the IRB approaches.

Changes in Tier 1 MRC for exposures subject to the IRB approach for credit risk due to the final Basel III standards[1]

Graph 51



[1] The change is calculated as a percentage of current Tier 1 MRC across all IRB exposures. [2] 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 vertical lines 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. The dots represent weighted averages. [3] "Others" include equity exposures, equity investments in funds and other assets.

Source: Basel Committee on Banking Supervision. See also Table C.52 and Table C.53.

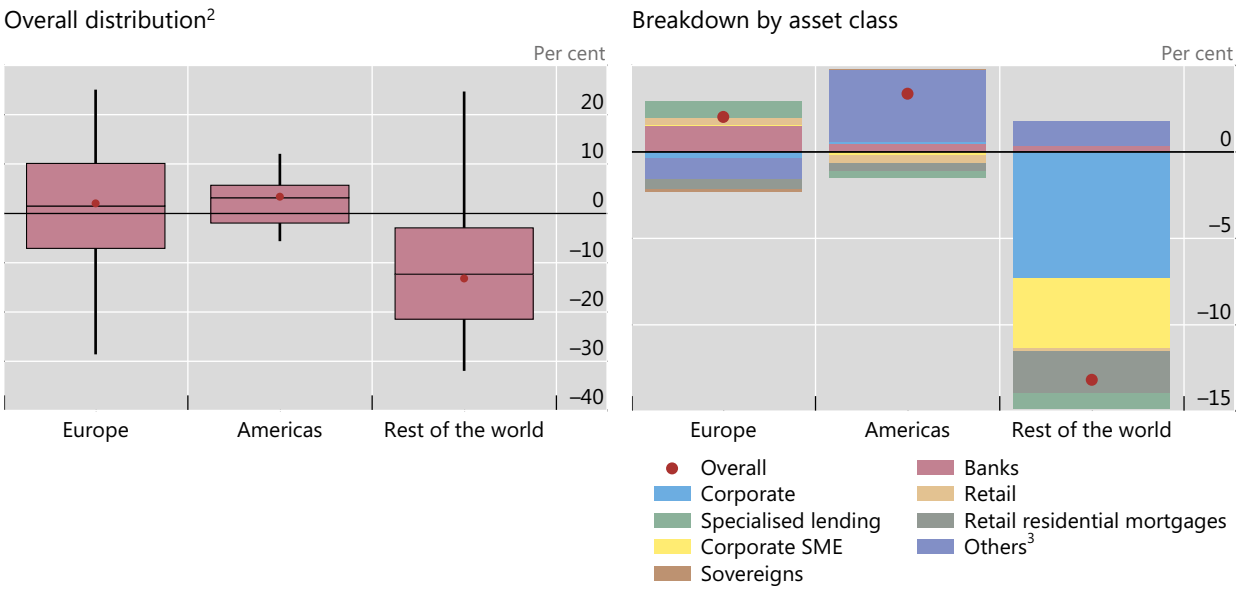
Graph 52 replicates the analysis of Graph 51 but breaks down the results by geographical region considering only Group 1 banks. Overall, the revisions to the IRB approach lead to an average increase in overall Tier 1 MRC for Group 1 European banks (2.0%), to an increase in the Americas (3.4%) and a significant decrease for banks in the rest of the world (-13.2%). The impact is heterogeneous across banks: the change in MRC for the banks between the 25th and 75th percentile of the distribution ranges from -7.1% to +10.1% for Europe, from -2.0% to +5.7% for the Americas, and from -21.4% to -2.9% for the rest of the world.

For European banks, exposures to banks (+1.5 percentage points) and specialised lending exposures (+1.0 percentage points) are the main contributors to the overall increase in MRC. For American banks, the main driver for the MRC change is the increase for others (+4.1 percentage points). For the rest of the world, the decrease in MRC is mainly driven by exposures to corporates (-7.3 percentage points) and corporate SMEs (-4.0 percentage points).

Changes in Tier 1 MRC for exposures subject to the IRB approach for credit risk due to the final Basel III standards,[1] by region

Group 1 banks

Graph 52



[1] The change is calculated as a percentage of current Tier 1 MRC across all IRB exposures. [2] 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 vertical lines show the range of the entire sample. The dots represent weighted averages. [3] "Others" include equity exposures, equity investments in funds and other assets.

Source: Basel Committee on Banking Supervision. See also Table C.54 and Table C.55.

Average risk weights

Graph 53 and Graph 54 provide additional detail on the current and revised average risk weights by asset class for Group 1 and Group 2 banks, respectively. Note that for equity exposures, the current amounts show the average risk weight for equity exposures currently under the IRB approach, and the revised amounts show their average risk weight under the revised framework, ie calculated using the revised standardised approach.

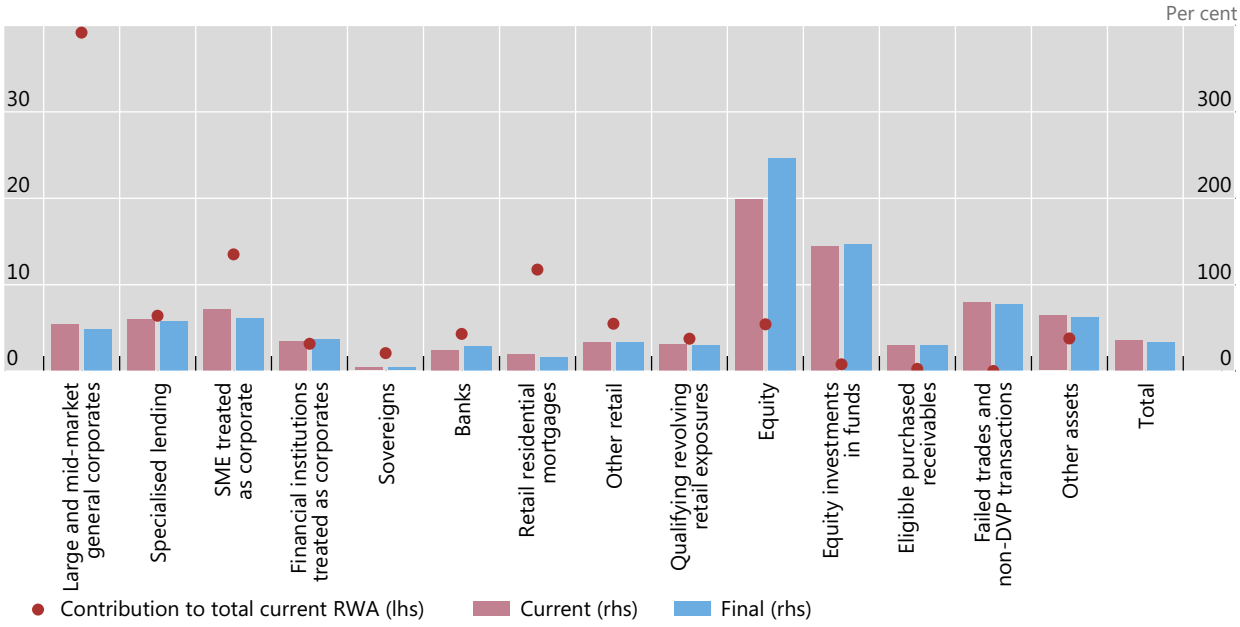
Overall, the average risk weight of Group 1 banks' exposures currently under the IRB decreases from 36.6% to 34.4% (a 6.0% decrease), which is in line with the decreases observed in the previous periods. The asset classes which show a decrease in average risk weights between the current and revised frameworks make up more than 80% of the total current IRB RWA of Group 1 banks.

Looking at individual asset classes, exposures to SME treated as corporate show the largest decrease in both absolute and relative terms. This is most likely due to the revised FIRB approach, which lowers regulatory LGDs for corporate exposures. Non-SME corporate and mortgage exposures also show significant decreases in relative terms. Equity exposures on the other hand show the largest increase, both in absolute and relative terms, due to the migration of equity exposures to the standardised approach, which imposes a risk weight of 400% to speculative unlisted equity exposures and a risk weight of 250% to all other equity holdings. Exposures to banks, for which the AIRB is no longer available under the revised framework, also show significant relative increases.

IRB approach average risk weights under the current rules and the final Basel III standards, by asset class

Group 1 banks

Graph 53



Source: Basel Committee on Banking Supervision. See also Table C.56 that includes a G-SIB breakdown. Table C.57 provides an additional regional breakdown.

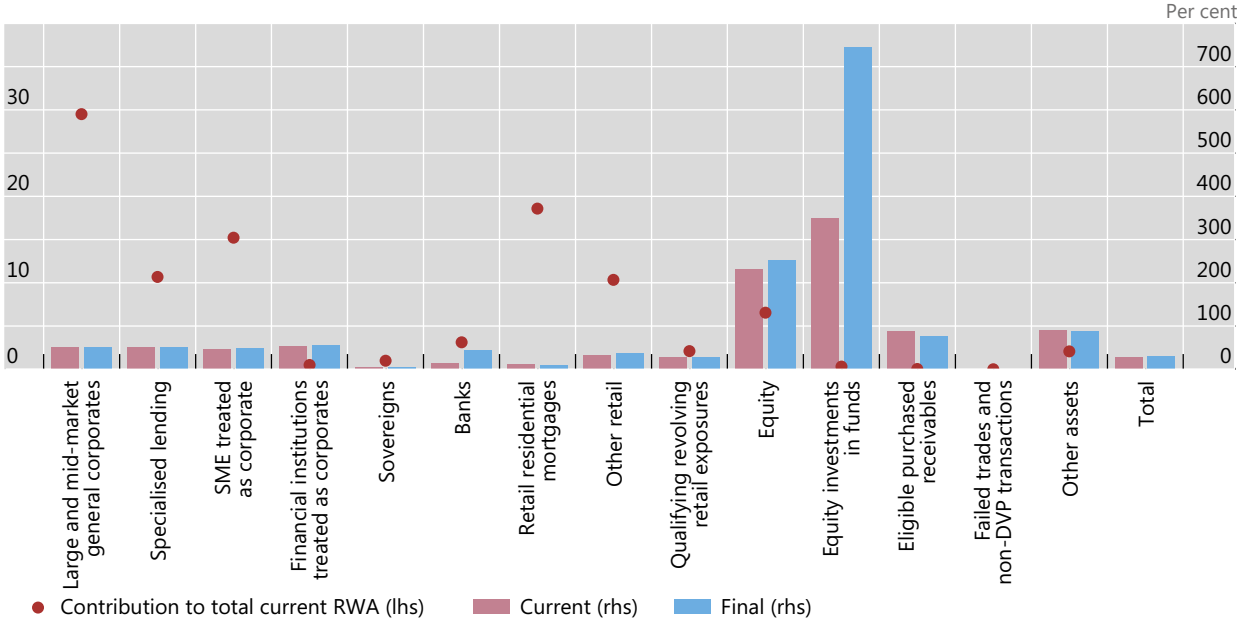
The overall average risk weight of Group 2 banks' exposures currently under the IRB increases from 27.6% to 29.9% (an 8.2% increase). The asset classes that show a decrease in average risk weights between the current and revised frameworks make up roughly half of the total current IRB RWA of Group 2 banks. This amount is significantly lower than for Group 1, and has decreased significantly since the last reporting period, where it was roughly two thirds.

Looking at individual asset classes, eligible purchased receivables show both the largest relative and absolute decrease, but their relatively small importance in terms of RWA does not let them impact the average risk weight. Exposures to banks show the largest increase in relative terms[21] whereas equity investments in funds show the largest absolute increase.

IRB approach average risk weights under the current rules and the final Basel III standards, by asset class

Group 2 banks

Graph 54



Source: Basel Committee on Banking Supervision. See also Table C.56.

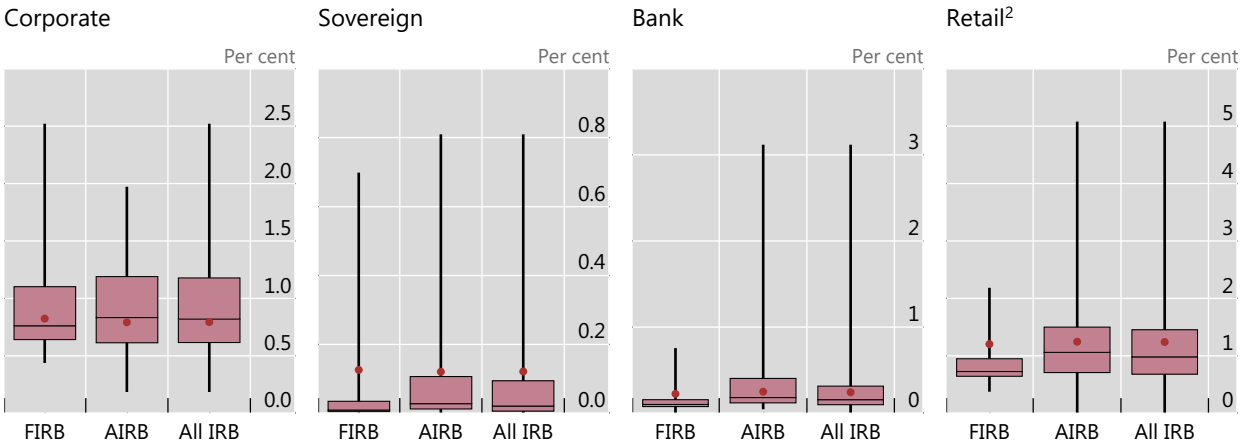
Risk parameters by IRB asset classes under current rules

This section presents IRB risk parameters under current rules for a sample of Group 1 banks only. Graph 55 and Graph 56 illustrate weighted average probability of default (PD) and LGD for Group 1 banks' exposures subject to the IRB approaches, respectively. For Group 1 banks, average PDs are generally highest for retail and corporate portfolios (1.24% and 0.79%, respectively) while PDs for bank and sovereign portfolios are considerably lower (0.25% and 0.12%, respectively). Looking further, it is observed that average PDs do not differ materially between portfolios primarily being measured using the foundation and advanced IRB approaches.[22] For corporate and retail portfolios measured under the advanced IRB approach, PDs are slightly lower relative to those measured under the foundation IRB approach. When comparing the LGDs, the differences are somewhat larger. The average LGDs for corporate, sovereign and bank portfolios are generally higher under the foundation IRB approach compared to the LGDs modelled under the advanced IRB approach.

[22] In general, the main approach to credit risk is determined by the approach utilised on the non-retail portfolios. Therefore, if a bank uses the foundation IRB approach for all non-retail portfolios and the IRB approach to retail for the retail portfolio, it is considered a "foundation IRB" bank.

Exposure-weighted average PD for non-defaulted exposures by main asset classes[1]

Group 1 IRB banks — Graph 55

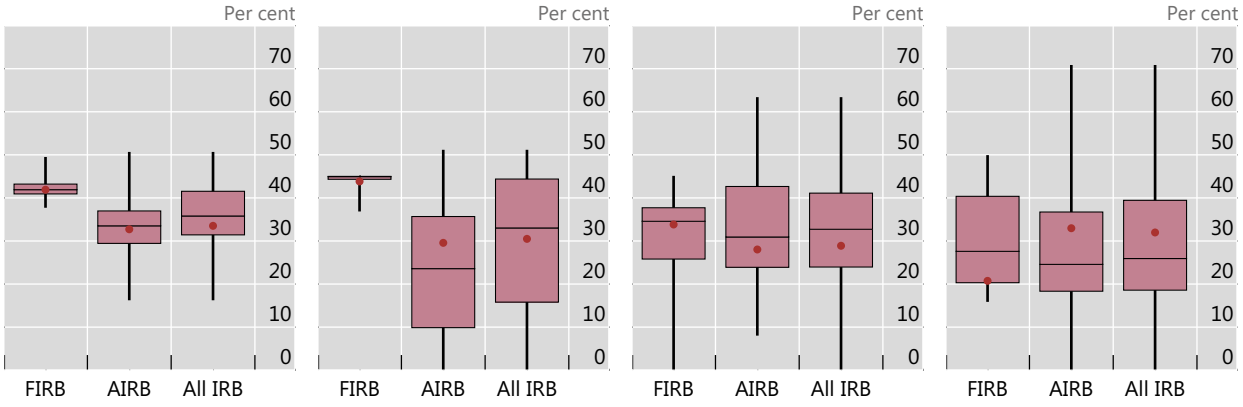


[1] The median value is represented by a horizontal line, with 50% of the values falling in the 25th to 75th percentile range shown by the box. The upper and lower end points of the vertical lines generally show the range of the entire sample. The dots represent weighted averages. [2] While there is only one IRB approach for retail, the graph distinguishes between banks using foundation and advanced IRB approach for their non-retail portfolios.

Source: Basel Committee on Banking Supervision. See Table C.58 for underlying data and sample size.

Exposure-weighted average LGD after credit risk mitigation for non-defaulted exposures by main asset classes[1]

Group 1 IRB banks — Graph 56

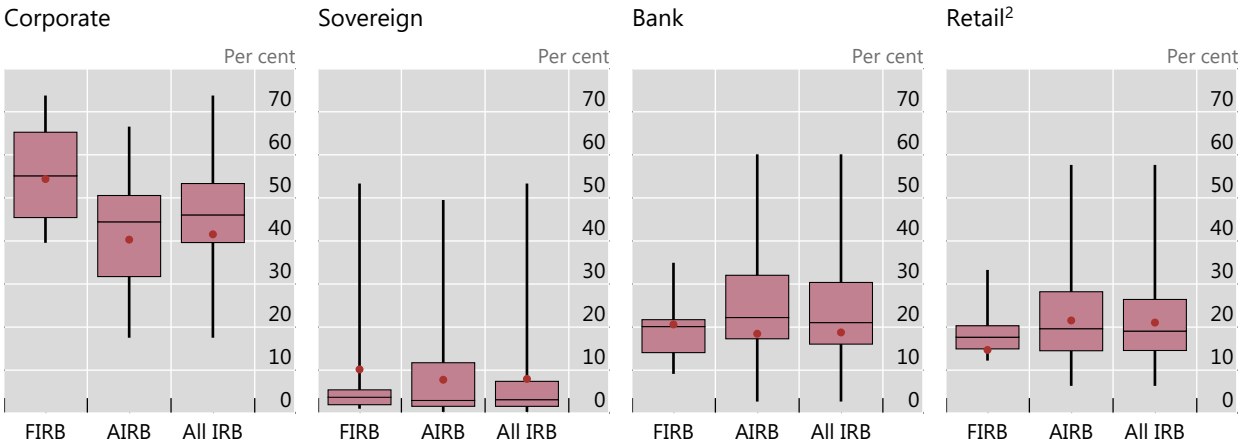


[1] The median value is represented by a horizontal line, with 50% of the values falling in the 25th to 75th percentile range shown by the box. The upper and lower end points of the vertical lines generally show the range of the entire sample. The dots represent weighted averages. [2] While there is only one IRB approach for retail, the graph distinguishes between banks using foundation and advanced IRB approach for their non-retail portfolios.

Source: Basel Committee on Banking Supervision. See Table C.59 for underlying data and sample size.

Exposure-weighted average risk weights for non-defaulted exposures by main asset classes[1]

Group 1 IRB banks — Graph 57

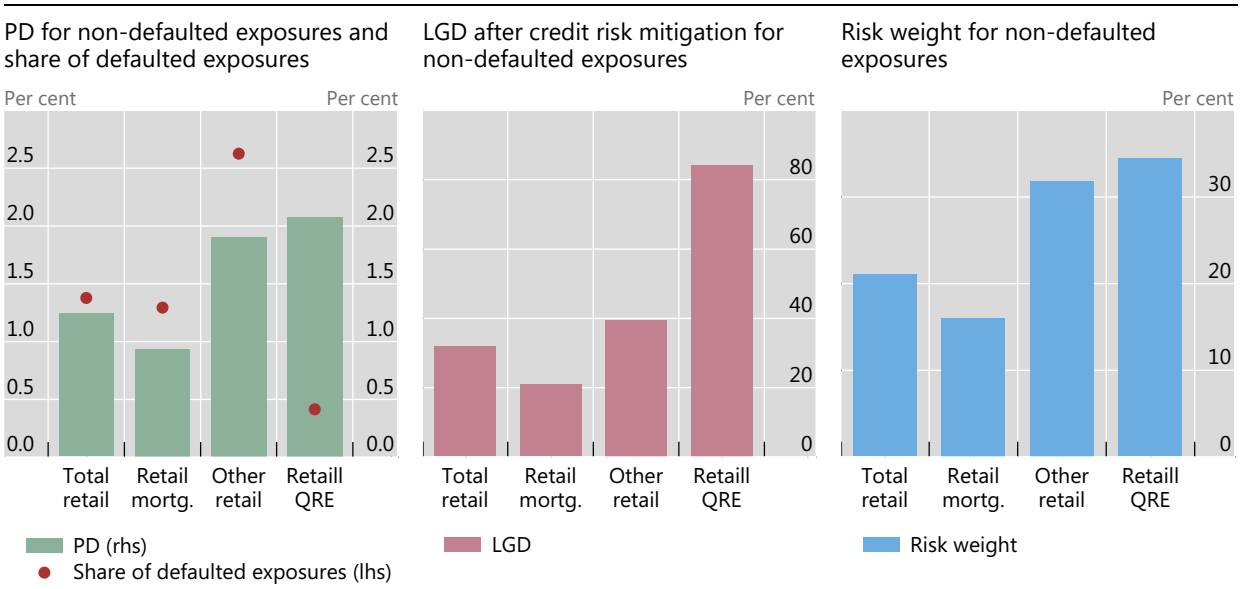


[1] The median value is represented by a horizontal line, with 50% of the values falling in the 25th to 75th percentile range shown by the box. The upper and lower end points of the vertical lines generally show the range of the entire sample. The dots represent weighted averages. [2] While there is only one IRB approach for retail, the graph distinguishes between banks using foundation and advanced IRB approach for their non-retail portfolios.

Source: Basel Committee on Banking Supervision. See Table C.60 for underlying data and sample size.

Exposure-weighted average risk parameter values for retail sub-asset classes

Group 1 banks — Graph 58



Source: Basel Committee on Banking Supervision. See Table C.61 for underlying data and sample size.

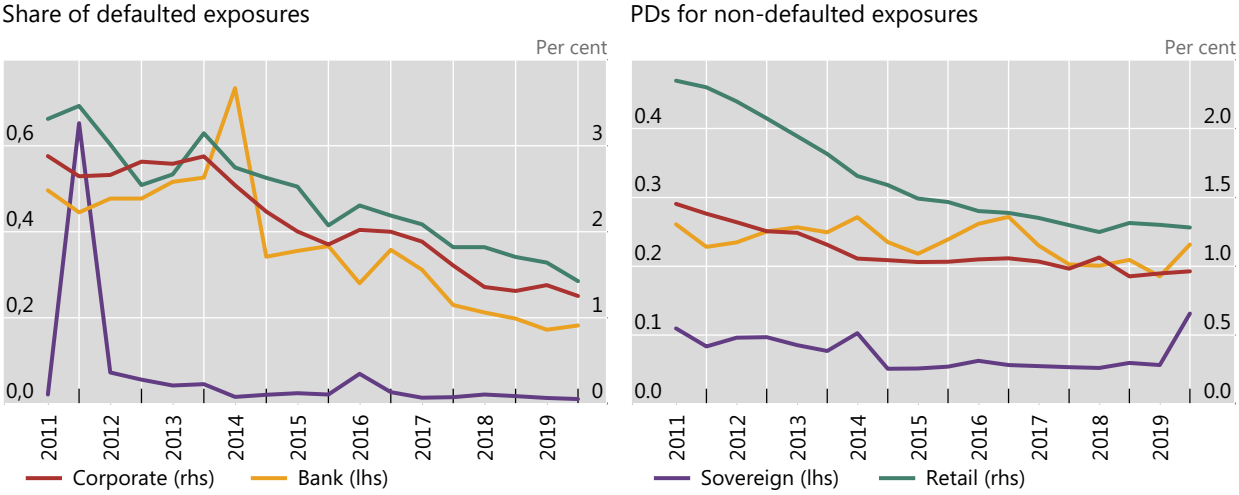
Graph 59 shows PDs and the share of defaulted exposures for different asset classes for a consistent sample of Group 1 banks over time. It should be noted that the share of defaulted exposures is a stock variable, which depends highly on banks' workout processes upon default. Banks may choose to sell off defaulted exposures to external parties after default or retain them on balance sheet, which would

heavily impact this metric. In addition, since the share of defaulted exposures is a stock variable, it should not be confused with a default rate, which could be compared with PDs for backtesting purposes.

The left hand-side of the graph below clearly shows the effects of the sovereign debt crisis, whereas PDs remained roughly stable in that period. For other asset classes, a downward trend over time can be discerned, which is most pronounced for retail exposures.

Share of defaulted exposures and PDs for non-defaulted exposures by asset class

Consistent sample of Group 1 banks — Graph 59

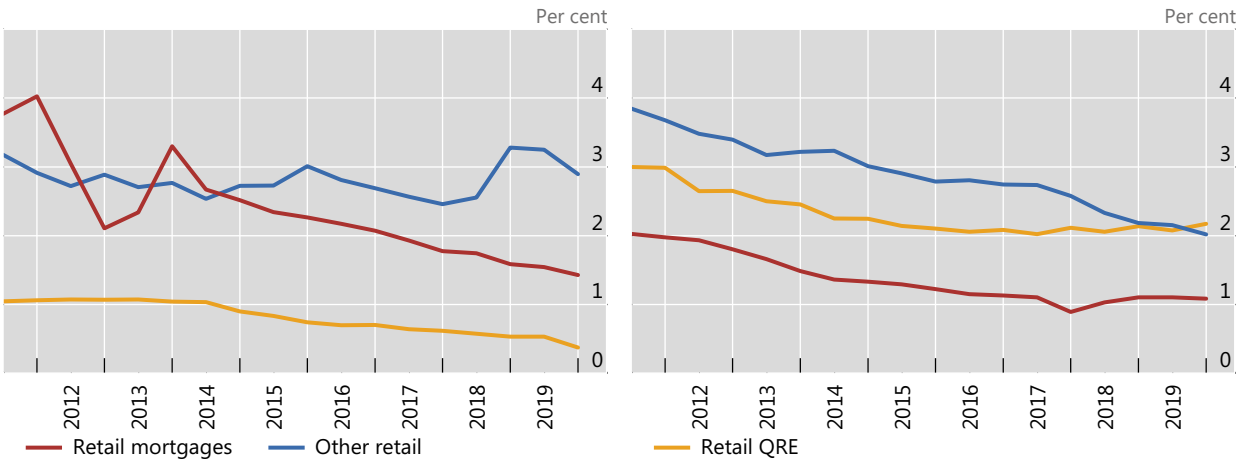


Source: Basel Committee on Banking Supervision. See Table C.62 and Table C.63 for underlying data and sample size.

With respect to the retail asset classes (Graph 60), the negative trend in PDs described above seems to be driven by other retail exposures. While retail residential mortgages and qualifying revolving retail exposures showed a downward trend between H2 2011 and H1 2014, the curves seem to flatten out in more recent years.

Share of defaulted exposures and PDs for non-defaulted exposures by retail sub-asset classes

Consistent sample of Group 1 banks — Graph 60

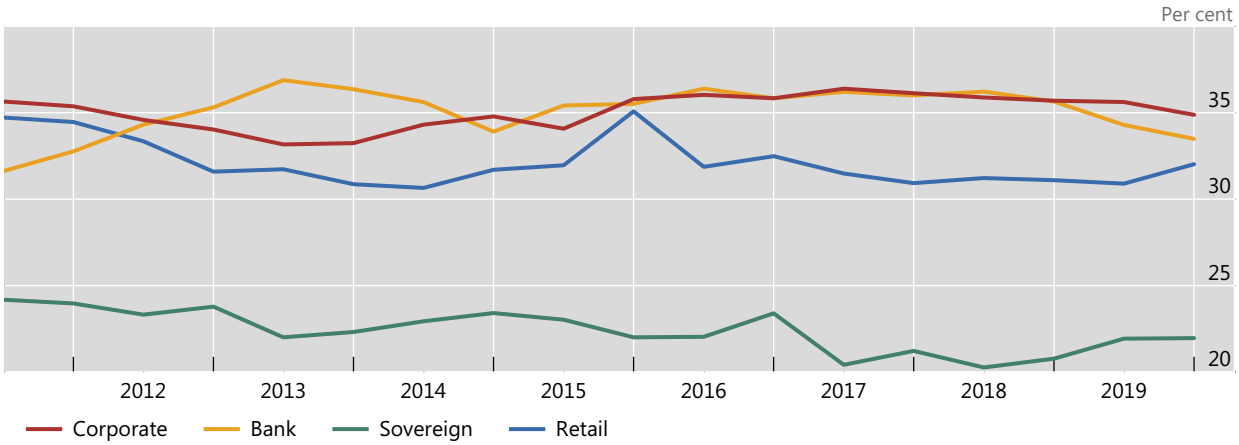


Source: Basel Committee on Banking Supervision. See Table C.64 and Table C.65 for underlying data and sample size.

LGD estimates, which are supposed to be reflective of economic downturn conditions, are expected to be somewhat more stable. Graph 61 and Graph 62 indeed seem to suggest this is the case.

LGDs for non-defaulted exposures by asset class

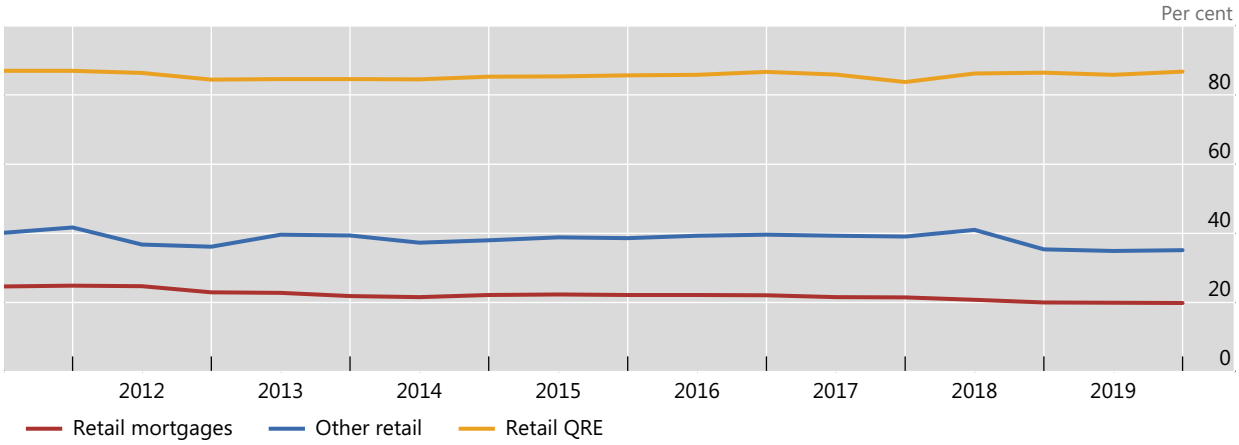
Consistent sample of Group 1 banks — Graph 61



Source: Basel Committee on Banking Supervision. See Table C.66 for underlying data and sample size.

LGDs for non-defaulted exposures by retail sub-asset class

Consistent sample of Group 1 banks — Graph 62



Source: Basel Committee on Banking Supervision. See Table C.67 for underlying data and sample size.

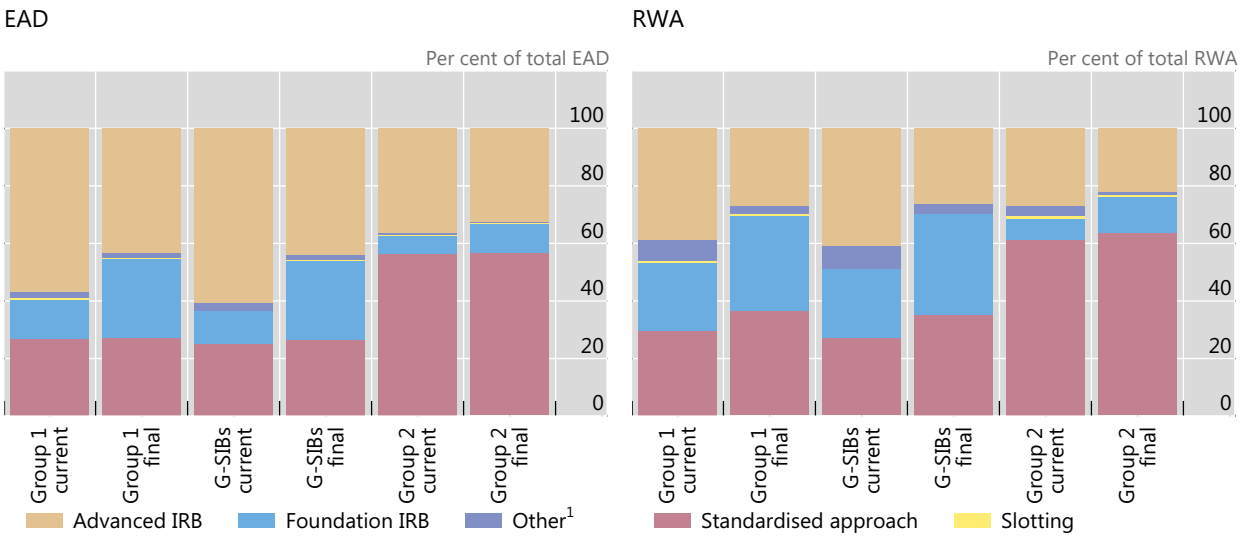
4.2.5 Distribution of exposure at default and risk-weighted assets across approaches

The left panel of Graph 63 shows the distribution of exposure at default (EAD) under different modelling and non-modelling approaches. For the purpose of this section, "slotting" refers to the EAD that is subject to the supervisory slotting criteria approach for specialised lending. For Group 1 banks, the portion of exposures under the advanced IRB approach decreases from 56.6% to 43.4% under the revised framework, while exposures under the foundation IRB approach increase from 13.8% to 27.2% of total exposure value. Exposures under the standardised approach increase from 26.8% to 27.4%, mainly driven by the migration of equity exposures (included in the "Other" category). For Group 2 banks, the changes follow a similar trend but are less pronounced.

The right panel of Graph 63 replicates the exercise for the distribution of RWA. For Group 1 banks, RWA under the advanced IRB approach decrease from 38.7% to 26.8%, RWA under the foundation IRB approach increase from 23.8% to 32.9% and RWA under the standardised approach increase from 29.6% to 36.7% of total RWA. For Group 2 banks RWA under the advanced IRB approach decrease from 27.0% to 22.1%, RWA under the foundation IRB approach increase from 7.3% to 12.3% and RWA under the standardised approach show a minor increase from 61.5% to 63.9%.

Distribution of EAD and RWA by approach under the current rules and the final Basel III standard

Graph 63

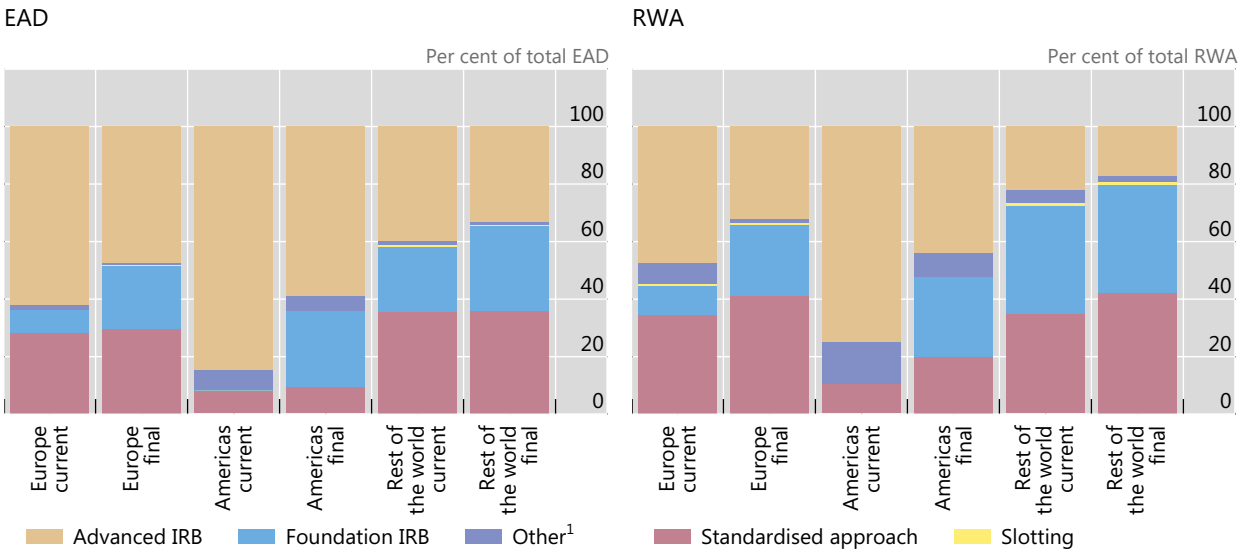


[1] "Other IRB" includes equity exposures, equity investments in funds, failed trades and non-DVP transactions and other assets under the IRB approach for credit risk.

Source: Basel Committee on Banking Supervision. See also Table C.68 and Table C.69.

Distribution of EAD and RWA by approach under the current rules and the final Basel III standard, by region

Group 1 banks — Graph 64



[1] "Other IRB" includes equity exposures, equity investments in funds, failed trades and non-DVP transactions and other assets under the IRB approach for credit risk.

Source: Basel Committee on Banking Supervision. See also Table C.70 and Table C.71.

Additional constraints to modelling will apply due to the introduction of risk parameter floors. The risk parameter floors introduce a five basis points PD floor,[23] which will be binding for some IRB exposures. Furthermore, some exposures subject to the advanced IRB approach will be bound by the risk parameter floors on LGD and EAD. These risk parameter floors together with the output floor further reduce the shares of EAD and RWA that are effectively subject to unconstrained modelling; these effects are however not shown in the graphs above.

4.2.6 Impact of the revised securitisation framework

This section explores the impact of the Basel III securitisation framework.[24] In particular, the analysis focuses on the following issues:

- the estimated impact in RWA for securitisation exposures of the implementation of the Basel III securitisation framework, when compared to the Basel 2.5 framework; and
- the prevalence of "simple, transparent and comparable" (STC) vs non-STC exposures and its relationship with the approach used for the calculation of capital requirements.

General overview of the securitisation framework

The main changes of the Basel III securitisation framework in comparison to the previous framework are:

- harmonisation of the treatment of banks operating under the standardised or IRB approaches;

[23] The PD floor will be 10 basis points for certain qualifying revolving retail (QRRE) exposures.

[24] Basel Committee on Banking Supervision, *Revisions to the securitisation framework, amended to include the alternative capital treatment for "simple, transparent and comparable" securitisations*, July 2016, www.bis.org/bcbs/publ/d374.htm and Basel Committee on Banking Supervision, *Capital treatment for simple, transparent and comparable short-term securitisations*, May 2018, www.bis.org/bcbs/publ/d442.htm.

- adjustment of the hierarchy of approaches in order to avoid the mechanistic reliance on external ratings;
- inclusion of additional risk drivers and better recognition of existing risk drivers;
- introduction of preferential risk weights for simple, transparent and comparable (STC) term and short-term securitisations, typically in asset-backed commercial paper (ABCP) structures; and
- complete recalibration of all available approaches and increase of the risk weight floor from currently 7% to 10% and 15% for STC exposures and for non-STC exposures, respectively.

The Basel III securitisation framework provides banks with three approaches to calculate RWAs. The definition of which approach will apply follows a defined hierarchy – the capital requirements for securitisation exposures are calculated according to the following sequence:

- Securitisation Internal Ratings-Based Approach (SEC-IRBA);
- Securitisation External Ratings-Based-Approach (SEC-ERBA);[25]
- Securitisation Standardised Approach (SEC-SA).

In addition, banks that are allowed to use SEC-ERBA may also use an additional approach, the Internal Assessment Approach (SEC-IAA) to calculate RWAs for unrated securitisation exposures (predominantly liquidity facilities or credit enhancements) to an SA pool within an asset-backed commercial paper (ABCP) conduit.

The internationally-agreed date of implementation of the Basel III securitisation framework is 1 January 2018. According to the *Eighteenth progress report on adoption of the Basel regulatory framework*,[26] in May 2020, 21 Committee member jurisdictions have implemented the Basel III securitisation framework, including the member states of the European Union that introduced a transition period until the end of 2019 allowing banks to use the Basel 2.5 framework for legacy exposures. There are six member jurisdictions where the Basel III securitisation framework was not in force in May 2020 (China, India, Mexico, South Africa, Turkey and the United States). It is important to highlight that this implementation assessment does not refer to the term and short-term STC criteria, which are optional.

Data description

A total of 100 banks submitted data of sufficient quality for securitisation, including 74 Group 1 banks and 26 Group 2 banks. The Group 1 sample represents 98.3% of total securitisation exposures of all banks. Total securitisation exposures and RWA across Group 1 banks are €1.36 trillion and €358 billion respectively, compared with €23.5 billion and €5.9 billion for Group 2 banks.

[25] National supervisors are provided with a national discretion to not implement the SEC-ERBA.

[26] Basel Committee on Banking Supervision, *Eighteenth progress report on adoption of the Basel regulatory framework*, July 2020, www.bis.org/bcbs/publ/d506.htm.

Data description

Table 11

	Group 1 banks	Group 2 banks	All banks
Number of banks	74	26	100
Exposure (EUR bn)	1,363.9	23.5	1,387.3
Exposure (% of total)	98.3	1.7	100.0
RWA (EUR bn)	358.3	5.9	364.3
RWA (% of total)	98.4	1.6	100.0

Source: Basel Committee on Banking Supervision.

Banks are included in the following analyses only if their data are complete and of sufficient quality. Accordingly, some banks have been excluded from certain sections of the analysis. Hence, certain results reported in the following sections reflect slightly different sample sizes. Even for banks included in the sample, differences in how they complete the Basel III monitoring template could impact the comparability of the results. The most material issue is the classification as STC or non-STC exposure, which is detailed in Table 12 below.

Overview of securitisation exposures

Table 12 describes the aggregate securitisation exposure and its RWA according to the bank role, ie as an originator of the securitisation transactions, investor, or sponsor. It should be noted that, while Table 12 presents aggregate figures, the breakdown of a jurisdiction's overall exposure according to the role of the bank differs significantly across jurisdictions, given the idiosyncrasies among securitisation markets and varying business models among banks.

Bank role exposure amounts and RWAs[1]

In billions of euros

Table 12

	Originator	Investor	Sponsor	Total
Exposure amounts	389.4	771.8	229.7	1,390.8
RWA	92.4	212.1	46.7	351.2

[1] The sample consists of 100 banks.

Source: Basel Committee on Banking Supervision.

The Basel III securitisation framework distinguishes between STC and non-STC exposures, providing preferential capital treatment to STC exposures. For this exercise, not all banks have performed STC classification for their securitisation exposures, possibly due to the effort required to assess their exposures against the STC criteria.[27] It is likely that some banks have applied a portfolio-wide classification, assigning either all or none of their exposures as STC-eligible. Furthermore, some jurisdictions have not implemented the Basel III securitisation framework or implemented it without the capital treatment for STC securitisations, which is optional. Under this assumption, the majority of banks that reported no STC exposures underestimate the actual amount of STC-eligible securitisation exposures and correspondingly, overestimate the capital increase due to the implementation of the Basel III securitisation framework. The share of STC-compliant securitisation exposures can be expected to increase as jurisdictions implement the Basel III securitisation framework.

[27] To classify a securitisation exposure as STC, it must be analysed against a set of criteria that assess the risk of the underlying assets, the securitisation's structure, and risks associated with the securitisation's servicers and other agents with a fiduciary duty to the securitisation's investors.

Number of banks per range of STC share

Table 13

	Share = 0%	0% < share ≤ 25%	25% < share ≤ 50%	50% < share ≤ 75%	75% < share < 100%	Share = 100%
Total	62	21	3	4	4	6

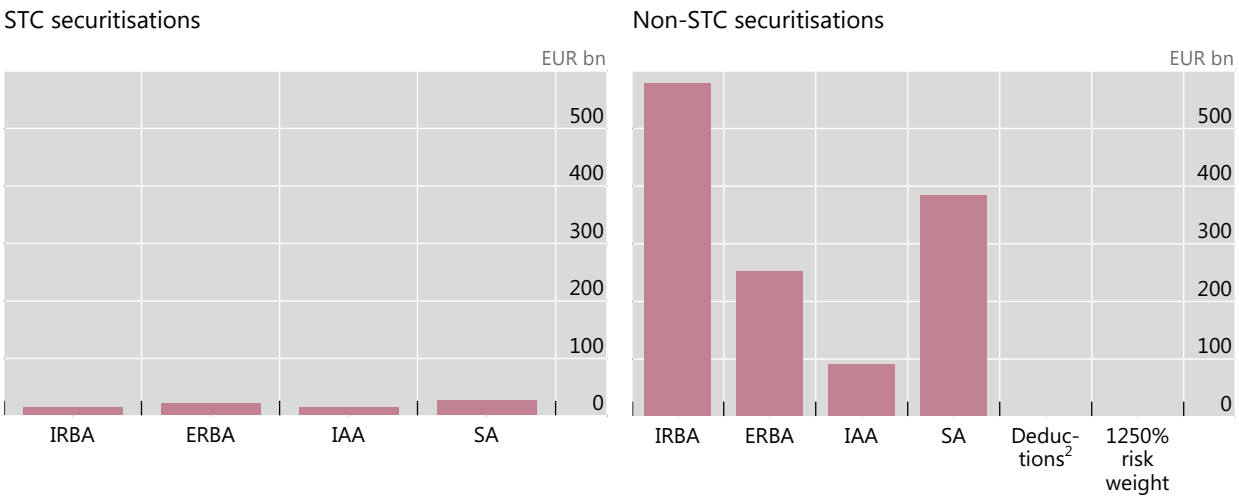
Source: Basel Committee on Banking Supervision.

The Basel III securitisation framework also introduced a new hierarchy of three approaches (SEC-IRBA, SEC-ERBA and SEC-SA) for calculating risk weights. Because of this hierarchy, it is expected that banks have, in aggregate, a larger share of their securitisation exposures risk weighted by SEC-IRBA, then SCE-ERBA and SEC-IAA, and then SEC-SA, whenever these exposures are available to the bank. Graph 65 shows the distribution of approaches for all banks in the sample.

Securitisation exposure amounts by approach

All banks[1]

Graph 65



[1] The sample consists of 100 banks. [2] Note that deducted exposures and exposures subject to a 1250% risk weight are comparatively small but non-zero.

Source: Basel Committee on Banking Supervision. See also Table 14.

Impact of the Basel III securitisation framework

Change in RWA for securitisation exposures

The sample of banks considered in this analysis is limited to the banks located in the jurisdictions that have not yet implemented the final Basel III securitisation standards. For these banks, Table 14 presents both the securitisation exposures and RWA using the current and final standards, broken down by STC vs non-STC status and by risk weighting approach. The expectation is that the exposure values remain broadly constant (reflecting the template reporting instructions), while RWA would increase in line with the objectives of the securitisation standard reforms. However, for individual rows it is possible that RWAs actually decrease, in particular for STC exposures. For the same sample, Graph 66 compares the average risk weightings applicable to exposures under the previous and the Basel III securitisation frameworks, separated by compliance with STC criteria as assessed by banks.

Total amounts and change of securitisations exposures and RWAs under the current national rules and the final standards

Table 14

	Exposure			RWA		
	Current framework (EUR bn)	Final standards (EUR bn)	Change (%)	Current framework (EUR bn)	Final standards (EUR bn)	Change (%)
Non-STC securitisations: SEC-IRBA	206.4	206.2	–0.1	57.6	74.6	29.5
Non-STC securitisations: SEC-ERBA	0.6	0.6	0.0	0.3	0.4	52.7
Non-STC securitisations: SEC-IAA	0.0	0.0		0.0	0.0	
Non-STC securitisations: SEC-SA	245.1	245.6	0.2	90.7	99.3	9.6
Of which: resecuritisation	2.4	2.6	11.6	3.1	4.8	53.4
Non-STC securitisations: total	452.2	452.3	0.0	148.6	174.4	17.4
STC securitisations: SEC-IRBA	0.0	0.0	0.0	0.0	0.0	11.8
STC securitisations: SEC-ERBA	0.0	0.0	0.0	0.0	0.0	13.2
STC securitisations: SEC-IAA	0.0	0.0		0.0	0.0	
STC securitisations: SEC-SA	9.6	9.6	0.0	2.8	1.9	–31.6
STC securitisations: total	9.6	9.6	0.0	2.9	2.0	–31.0
Others (1250% RW)	0.4	0.4	0.0	5.3	5.2	–1.6
Total	462.2	462.3	0.0	156.7	181.6	15.8

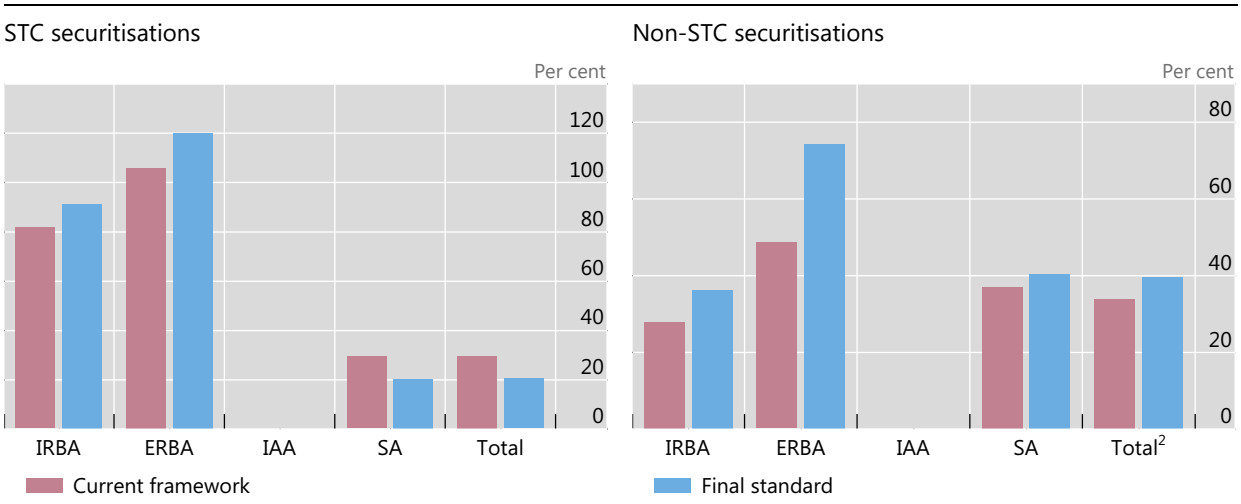
[1] The sample consists of 17 banks.

Source: Basel Committee on Banking Supervision.

Average risk weight by approach

All banks[1]

Graph 66



[1] The sample consists of 17 banks from jurisdictions that have not yet implemented the Basel III securitisation framework. [2] Total under non-STC securitisations includes securitisations subject to a 1250% risk weight.

Source: Basel Committee on Banking Supervision. See also Table C.72.

Graph 67 compares more directly the average risk weights between STC and non-STC exposures under the Basel III securitisation framework. In line with the calibration of the parameters, the average risk weights for non-STC exposures are expected to be higher than for STC exposures.

Average risk weight, final standards[1]

All banks[2] Graph 67

[1] Results for STC and non-STC securitisations refer to different exposures. [2] The sample consists of 100 banks.

Source: Basel Committee on Banking Supervision. See also Table C.73.

Results under SEC-SA as alternative to the general hierarchy

One of the effects of the Basel III securitisation framework is that some exposures may have a lower risk weight under the SEC-SA than in SEC-IRBA in specific circumstances. This can occur depending on the maturity, performance and type of underlying assets. In particular, there is the possibility that exposures with long maturity[28] or those related to non-performing loans may be in this situation. Another example might be transactions with underlying assets showing significant dilution risk.[29] While dilution risk is reflected in SEC-IRBA through K_{IRB}, it is not considered in SEC-SA through K_{SA}, although it was one of the factors considered more generally during the calibration relative to SEC-IRBA. Additionally, securitisations of assets that are still performing, but have low or decreasing credit quality, might result in lower SEC-SA risk weights. This effect occurs due to the lower sensitivity of K_{SA} to the credit quality of the underlying assets; as long as assets are still performing, the reliance of SEC-SA on a single, portfolio-level credit risk parameter might lead to an underestimation of the risk under the SEC-SA in comparison to the SEC-IRBA (and SEC-ERBA).

For the reasons above, one of the possible effects of the revised securitisation framework is that banks could have an incentive to use SEC-SA for these particular exposures, instead of SEC-IRBA. Under the hierarchy of approaches, SEC-SA is used when (a) the bank does not have approval to use IRB or cannot estimate K_{IRB} for the underlying exposures due to lack of sufficient data; and (b) the supervisor does not allow the bank to use the SEC-ERBA or the position is not externally rated and there cannot be an inferred

[28] Both SEC-IRBA and SEC-ERBA take maturity into account as a risk driver. On the other hand, SEC-SA risk weights are independent of maturity. Thus, long maturity exposures are likely to have lower RWA under the SEC-SA than under the more sophisticated approaches.

[29] Dilution risk is defined in CRE34.8 (www.bis.org/basel_framework/chapter/CRE/34.htm?inforce=20220101) and refers to the possibility that the receivable amount is reduced through cash or non-cash credits to the receivable's obligor. Examples include offsets or allowances arising from returns of goods sold, disputes regarding product quality, possible debts of the borrower to a receivables obligor, and any payment or promotional discounts offered by the borrower (eg a credit for cash payments within 30 days).

credit rating. Comparing the average risk weights of SEC-IRBA/SEC-ERBA/SEC-IAA with those obtained if the exposures were risk weighted by SEC-SA should provide preliminary evidence about the need to further exploring the issue, even considering that exposures that are risk weighted under one approach are usually not comparable to exposures under a different approach.

A similar potential issue could arise if banks had incentives to use the more standardised approaches (SEC-ERBA or SEC-SA) rather than the internally modelled approaches (SEC-IRBA and SEC-IAA). Because the latter approaches rely on more updated information from the underlying assets and are generally more associated with enhanced risk management by banks, banks are encouraged to use them, including by the introduction of the approach hierarchy. However, if the resulting risk weights for the standardised approaches are materially lower, banks could respond to this incentive, which would undermine the objective imbedded in the design of the framework, that banks use the SEC-IRBA whenever possible. Analogous to the lower sensitivity of SEC-SA to credit risk deterioration described above, a similar delay in recognition of credit deterioration in the underlying exposures can occur under the SEC-ERBA when credit ratings for securitisation positions have not been recently reconsidered to reflect this deterioration.

This is the third time that banks are asked to report the RWA calculated using SEC-SA for exposures reported to be under SEC-IRBA, SEC-ERBA and SEC-IAA approaches. For this reason, not all participating banks were able to provide this additional information yet, and consequently a number of banks had to be excluded from the analyses presented in this subsection. Data provided by a total of 84 banks were included in the analysis sample corresponding; these banks correspond to 90% of the overall exposure amounts under the SEC-SA.

Table 15 shows the comparison of the average risk weights following the hierarchy under the Basel III implementation with the average risk weights when applying the SEC-SA to all exposures. It is expected that the application of the SEC-SA would result in a higher average risk weight compared to the more risk-sensitive approaches, especially if the reported exposures are of relatively high quality. On the other hand, for low quality exposures SEC-SA could result in lower risk weights than the other approaches. This reflects the lower risk-sensitivity of SEC-SA, which is in particular relevant for exposures with very high or very low quality.

SEC-SA as alternative to the general hierarchy of the final standards[1]

Average risk weight by approach vs SEC-SA, in per cent — Table 15

	Final standards	SEC-SA	Change
Non-STC securitisations: SEC-IRBA	27.2	54.2	99.5
Non-STC securitisations: SEC-ERBA	28.4	34.7	22.3
Non-STC securitisations: SEC-IAA	28.4	57.2	101.7
Non-STC securitisations: SEC-SA	35.8	35.8	0.0
Of which: resecuritisation	194.6	194.6	0.0
Non-STC securitisations: total	**30.2**	**45.6**	**51.1**
STC securitisations: SEC-IRBA	28.2	47.3	67.9
STC securitisations: SEC-ERBA	15.0	26.8	78.7
STC securitisations: SEC-IAA	13.6	18.9	38.9
STC securitisations: SEC-SA	17.2	17.2	0.0
STC securitisations: total	18.2	26.5	45.4
Others (1250% RW)	1,250.9	1,250.9	0.0
Total	**30.4**	**45.4**	**49.4**
Deducted (EU only)	990.2	892.2	–9.9

[1] The sample consists of 84 banks.

Source: Basel Committee on Banking Supervision.

4.3 Market risk

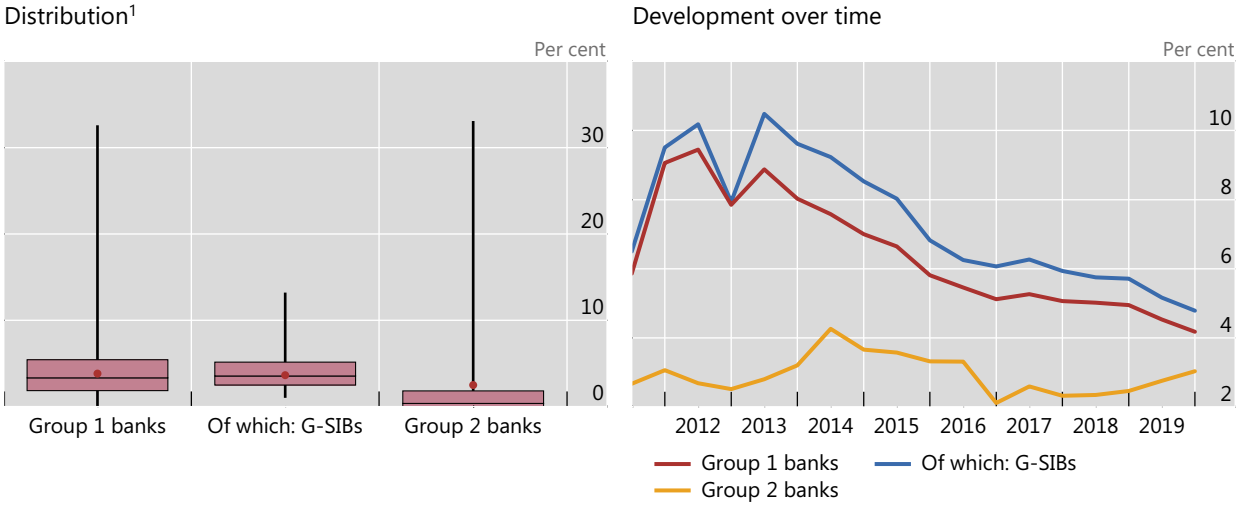
4.3.1 Current market risk rules

The left panel of Graph 68 shows the distribution of the share of minimum market risk capital requirements in total MRC under the current rules, ie jurisdiction-specific Basel 2.5. On weighted average, the share of market risk MRC is 3.8% of total MRC for Group 1 banks and 2.5% of total MRC for Group 2 banks. However, there is significant dispersion in impacts from zero to 32.6% across participating Group 1 banks and from zero to 33.1% across participating Group 2 banks.

As seen in the trends starting in 2011, shown in the right panel, market risk's contribution to the sample banks' consolidated capital requirements has declined significantly for all bank groups since peaking between 2012 and 2014. This drop is most pronounced for G-SIBs, which have seen their relative capital requirements attributed to market risk decline by more than half since the peak. As of December 2019, the average share for Group 1 banks and G-SIBs was around one third lower compared with that seen at end-June 2011. However, 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 less conservative capital requirements. Group 2 banks' average share of market risk MRC as of end-December 2019, 3.0%, is virtually the same as it was at the beginning of the time series after experiencing a peak of 4.3% in 2014.

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

Graph 68



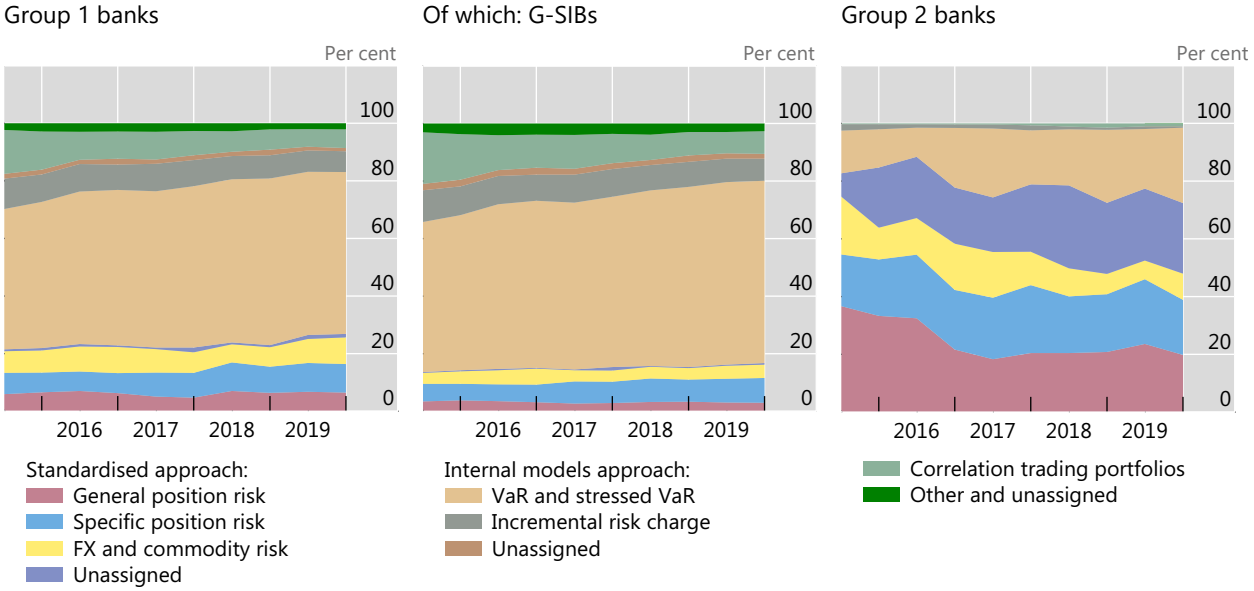
[1] The median value is represented by a horizontal line, with 50% of the values falling in the 25th to 75th percentile range shown by the box. The upper and lower end points of the vertical lines generally show the range of the entire sample. The dots represent weighted averages.

Source: Basel Committee on Banking Supervision. See Table C.74 and Table C.75 for underlying data and sample size.

Graph 69 below shows time series decompositions of reported market risk MRC by sub-components since end-June 2015. For Group 1 banks, and in particular the G-SIB subset, the internal models approach comprises nearly two thirds and three quarters of overall market risk MRC respectively. The contribution of value-at-risk (VaR) and stressed VaR has increased steadily before stabilising in the second half of 2019, while the contribution of correlation trading portfolios (CTP) – complex securitisations or credit derivative positions – had decreased prior to increasing marginally as of December 2019. For Group 2 banks, the internal models approach is far less relevant with 70.1% of market risk capital requirements calculated under the standardised approach although their exposure to IMA had increased at the end of December 2019 to 28.7% from 24.8% at the end of June 2019.

Components of MRC for market risk under the current rules

Consistent sample of banks, in per cent — Graph 69



Source: Basel Committee on Banking Supervision. See Table C.76, Table C.77 and Table C.78 for underlying data and sample size.

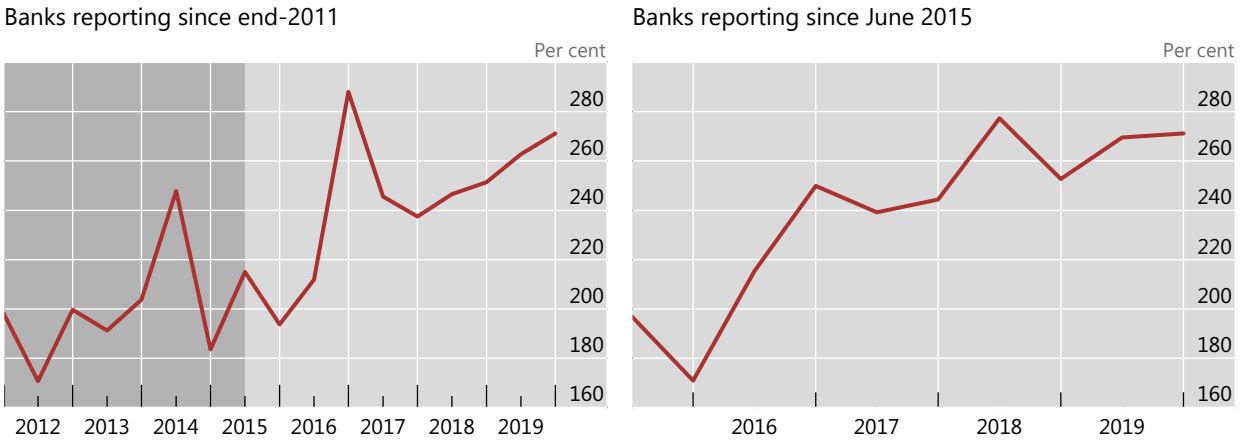
Graph 70 below shows the relation of the 10-day 99th percentile stressed value-at-risk (VaR) to the current VaR under current market risk rules using two consistent samples of Group 1 banks. The left panel shows the time series since end-2011 for 24 banks. Under this longer-run consistent sample, the ratio of stressed VaR to VaR has fluctuated around 200% with a local peak at 247.9% in H1 2014 and a time series high at end-December 2016 of 288.0%. After falling through 2017, it increased again with the second highest reading of 271.2% as of end-December 2019.

The right panel of Graph 70 shows the same ratio for a shorter-run consistent sample including banks that have provided data since 2015. For this larger sample of overall 49 banks, the ratio has generally increased, reaching its peak at end-June 2018 at 277.3% before falling back slightly at year-end before rebounding to 271.2% as of end-December 2019.

In both time series, the increasing trend can be attributed at least partially to the lower volatility environment that has been observed in the markets over the several years preceding the Covid-19 pandemic, which reduces VaR figures. Banks' VaR models are based on a fixed backwards-looking period that rolls forward over time. Stressed VaR, however, is based on the banks' most stressful period. Thus, as banks' current VaRs fall in low volatility periods, the ratio becomes elevated.

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

Consistent sample of Group 1 banks — Graph 70



Source: Basel Committee on Banking Supervision. See Table C.79 for underlying data and sample size.

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

This exercise as of end-December 2019 included the second data collection in which banks' capital impact estimates were based on the final market risk framework published in January 2019[30] (referred to as the January 2019 standard) which replaced an earlier version of the standard published in 2016. Compared to the 2016 framework, the 2019 standard clarified the scope of exposures that are subject to market risk capital requirements, refined certain elements of the standardised approach, including risk weight adjustments, and improved the processes to assess modellability, including capital consequences for falling short of them.

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 to the banking book portfolios, which are mostly held-to-maturity or revolving. In addition, the Basel III monitoring data for market risk under the revised market risk standard is less robust as the impact estimates will continue to require significant manual intervention for a large number of trading positions at each bank until banks develop systems reflecting their local implementations. Although prior collections included banks' estimates of the capital impact of the 2019 standard, the fact that the banks had additional time to refine their calculations might have generally improved the accuracy of their estimates.

The impact estimates below only show impacts fixing banks' portfolios and the set of modelled desks. The impact estimates below do not reflect potential changes in the scope of model-approved trading desks upon implementation of the final standard. For the purpose of the analysis, participating banks were instructed to calculate the internal models approach capital requirements for trading desks or portfolios currently subject to the internal models approach. In addition, the presented impacts do not reflect the consequences of trading desks potentially failing backtesting or P&L attribution tests. The impact numbers also do not reflect banks potentially changing their portfolios in response to the new rules, which likely overstates the impact since banks may reduce their allocations to positions with high capital requirements.

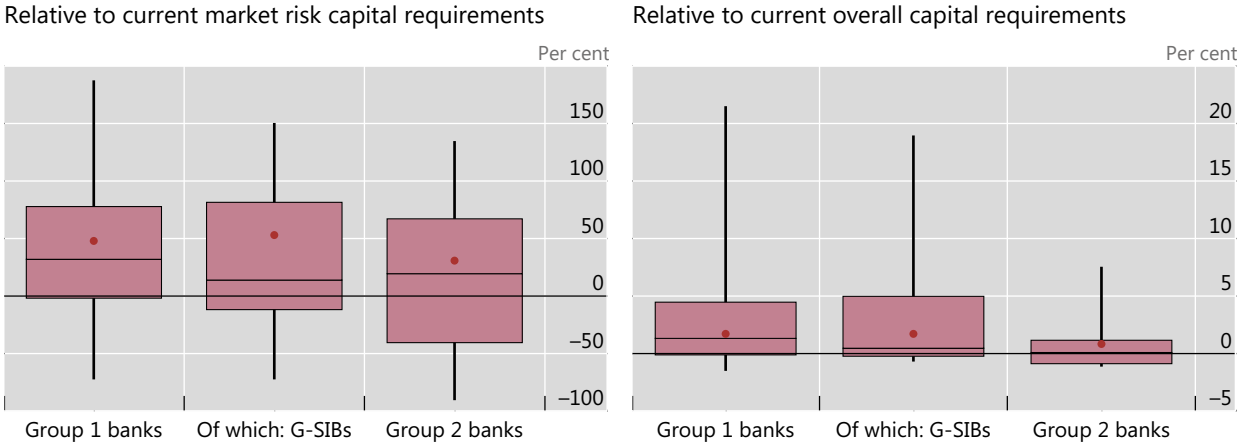
[30] Basel Committee on Banking Supervision, *Minimum capital requirements for market risk*, January 2019 (rev February 2019), www.bis.org/bcbs/publ/d457.htm.

A total of 52 Group 1 banks including 23 G-SIBs, and 11 Group 2 banks provided market risk data as of the end-December 2019 reporting date that were sufficiently complete to estimate the overall impact of the revised market risk framework.

Graph 71 below shows the revised market risk standards' impact versus current market risk capital requirements (left panel) and current overall capital requirements (right panel). The weighted average prospective Basel III market risk capital requirements increase by 47.9% relative to current market risk capital requirements for Group 1 banks with reduced estimation bias (59.6% with conservative estimation), and by 30.9% for Group 2 banks. At the individual bank level, the impact exhibits wide variability ranging from a drop of 72.4% to an increase of 187.5% (530.6% with conservative estimation). However, as a portion of the banks' overall MRC rather than only market risk MRC, the revised standards result in a much more modest average increase of 1.7% for Group 1 banks (2.1% with conservative estimation) and 0.8% for Group 2 banks. At the individual bank level, the impact ranges from a drop of 1.5% to an increase of 21.5% for Group 1 banks. For Group 2 banks the impact varies from a drop of 1.1% to an increase of 7.5%.

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

Reduced estimation bias — Graph 71



[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. The dots represent weighted averages.

Source: Basel Committee on Banking Supervision. See also Table C.80; Table C.81 shows related results with conservative estimation.

Graph 72 decomposes the total market risk capital requirements under the current rules and under the 2019 standard. The breakdown is shown by SA or IMA approach and further broken down into the sub-components of each for both the current and revised standard.

Group 1 banks expect their share of standardised approach capital requirements to increase from 47.1% to 55.2%. For Group 2 banks, the share of their internal models-based capital requirement is expected to drop from 16.5% to 2.2%.

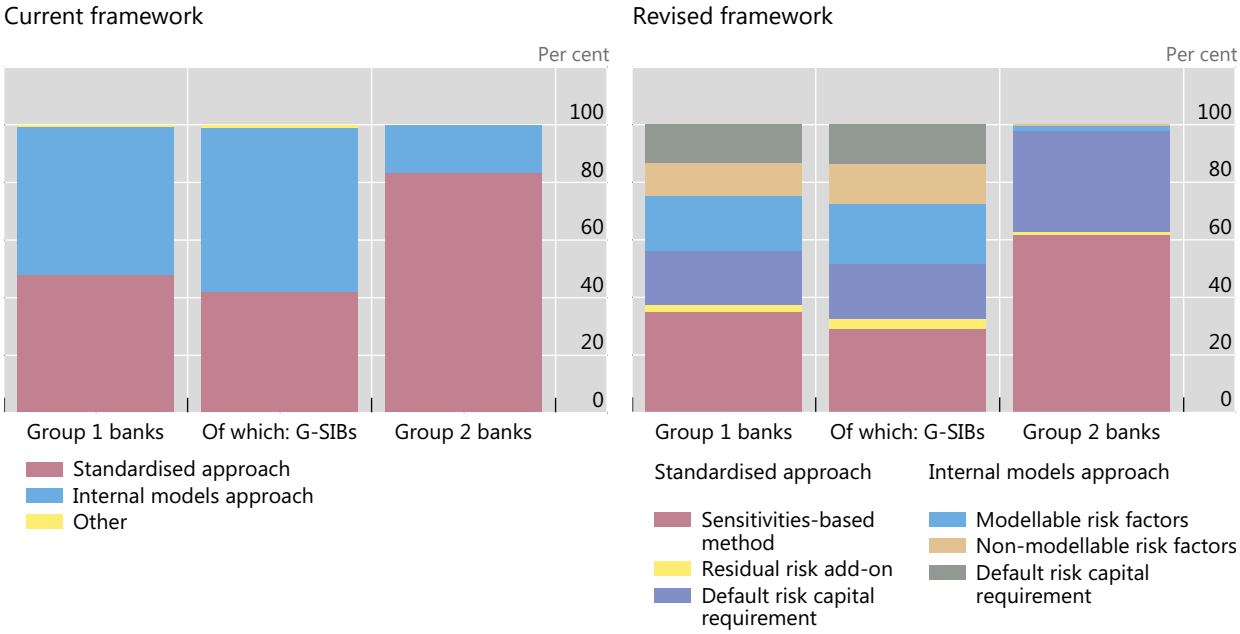
For positions subject to the revised standardised approach, for Group 1 banks, 62.3% of the standardised approach capital requirement is expected to be attributed to the sensitivities-based method (SbM). For Group 2 banks, the share of SbM is 63.3%. The default risk capital (DRC) requirement contributes 32.6% and 35.9% 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 (eg gap risk, correlation risk and behavioural risk), contributes 5.1% to the standardised approach capital requirement for Group 1 banks and 0.8% for Group 2 banks.

With respect to revised IMA, the capital requirement for modellable risk factors would contribute 43.9% to the total internally-modelled capital requirements (modellable, non-modallable risk factors and

DRC) for Group 1 banks and 81.8% for Group 2 banks. The corresponding share of capital requirements from non-modellable risk factors is 25.9% and 18.2% respectively. Finally, the DRC for internal models is expected to contribute 30.2% for Group 1 banks and not at all for Group 2 banks.

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

Graph 72



Source: Basel Committee on Banking Supervision. See also Table C.82.

4.3.3 Revised model validation tests

The revised market risk standard introduces additional trading desk-level model validation tests for the use of the IMA on an ongoing basis – VaR backtesting and profit and loss attribution (PLA) tests. If a trading desk's model performs poorly on these tests, then the trading desk either is subject to a capital surcharge or must calculate capital requirements under the standardised approach.

Data on risk measures and profit and losses (P&L) have been collected. Given that many banks have not yet built the trading desk-level infrastructure to produce some of the requisite time series data to perform these new tests, specifically the risk-theoretical profit and loss, it is too early to draw meaningful conclusions based on the data collected for this exercise. 20 banks in ten countries were able to provide sufficient data to perform VaR backtesting for BM-194 versus fifteen in the prior data collection. Banks provided enough data for 311 desks for all tests to be performed versus 213 desks in the prior data collection. Of these desks, 42 were able to pass all tests in the green zone and a further 24 desks passed in the amber zone for a total pass rate of 21.2% which is an improvement over the 17.8% of desks that passed in the prior collection.

4.4 Operational risk

4.4.1 Current operational risk rules

As depicted in Graph 73 below, MRC for operational risk of Group 1 banks has continuously increased until end-2016 and since then a sideward movement has been observed . For Group 1 banks and G-SIBs, most of which use the Advanced Measurement Approaches (AMA) as the primary method for the

calculation of operational risk capital, this increase is largely explained by the surge in the number and severity of operational risk events during and after the financial crisis. These are factored into the calculation of MRC for operational risk under the AMA.

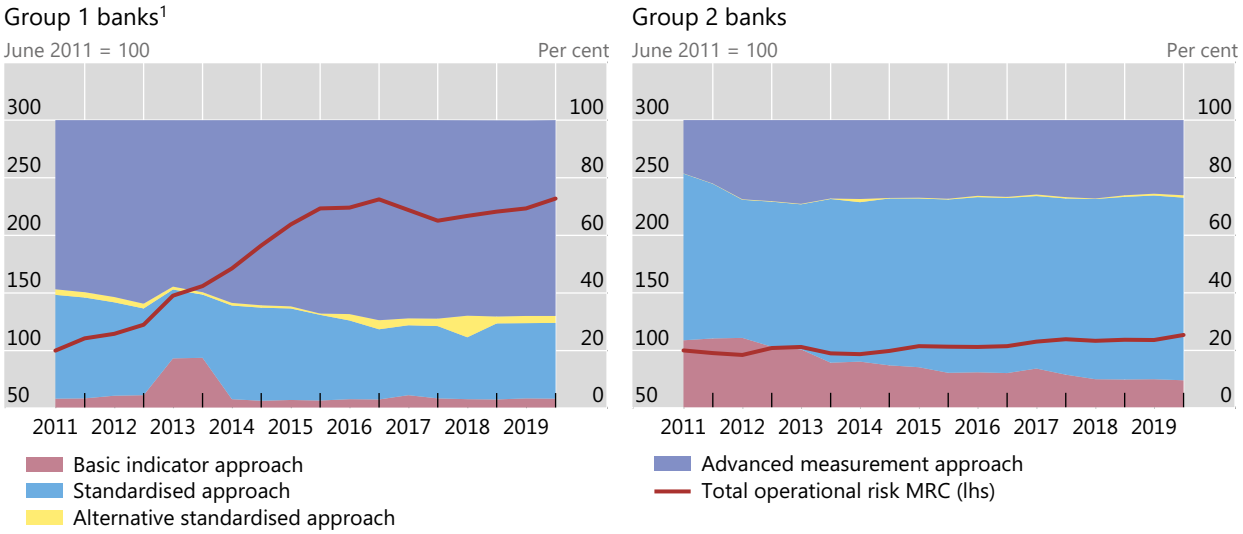
The evolution of losses over the past 10 years, depicted in Graph 74, explains the development of MRC changes. MRC for operational risk first increased with the increasing losses. However, as the losses started to decline the MRC for operational risk stabilised in recent years. In total, €549.4 billion of gross and €496.4 billion of net operational risk losses have been reported over the past 10 years. Operational risk gross losses increased from €36.5 billion in 2010 up to the peak in 2014 with €79.2 billion. The gross losses have decreased significantly to around €40 billion since then; however, they still stand above the pre-crisis level. The time-lagged impact of the financial crisis in banks' P&L is caused by the long-standing lawsuits of conduct risk events.

For Group 1 banks and G-SIBs, the share of MRC for operational risk under the AMA has increased from 58.7% in 2011 to 67.9% in the latest reporting period, while the share of operational risk MRC as a percentage of total MRC is 14.0% for Group 1 banks and 16.1% for G-SIBs.

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,[31] is largely explained by an increase in business volume, which is a factor captured by the financial statement-based components of the standardised approaches. For Group 2 banks, the share of operational risk MRC as a percentage of total MRC is 9.7%.

Total MRC for operational risk and share of approaches

Consistent sample of banks — Graph 73



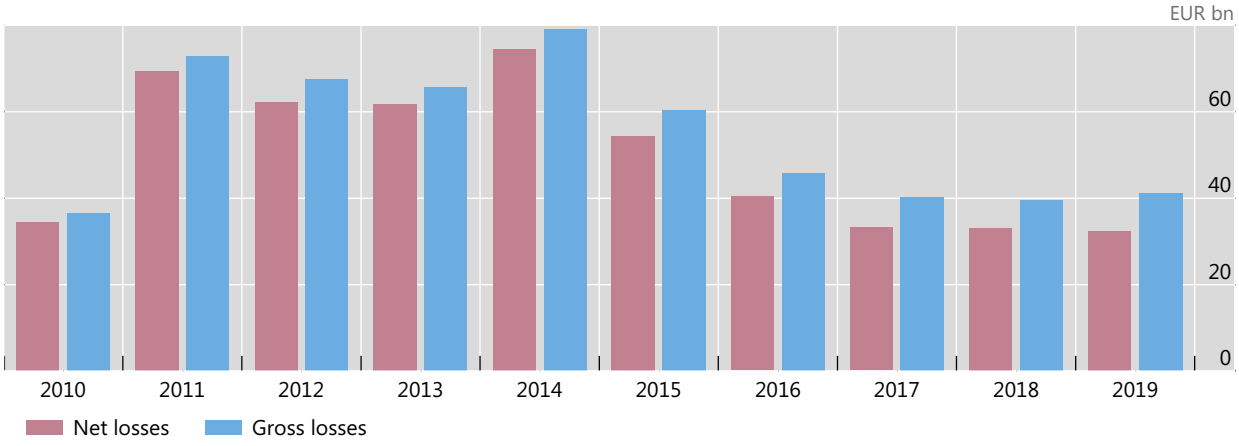
[1] Some banks started reporting operational risk RWAs under the Basic Indicator Approach in 2013 and eventually migrated to the Standardised Approach in 2014.

Source: Basel Committee on Banking Supervision. See Table C.83 and Table C.84 for underlying data and sample size.

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

Loss evolution over the past 10 years

All banks, exchange rates as of the current reporting date — Graph 74

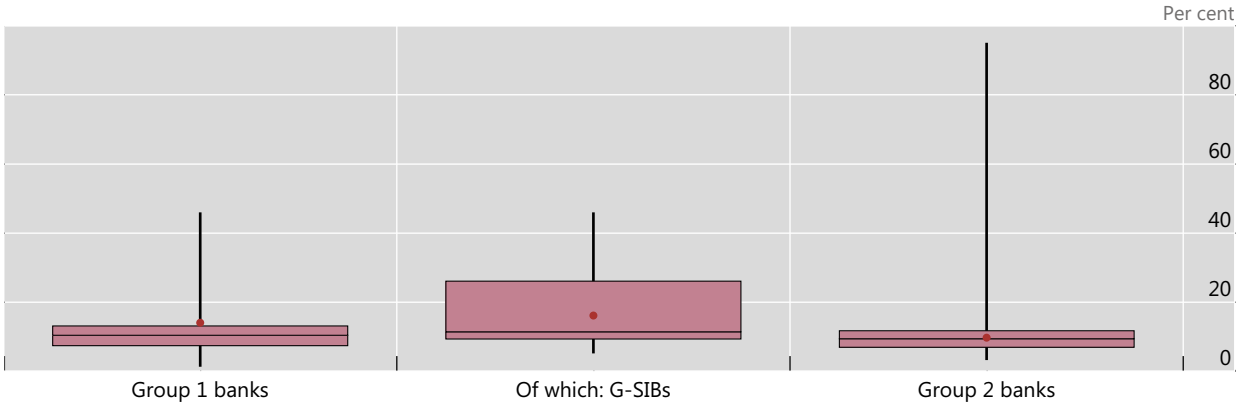


Source: Basel Committee on Banking Supervision. See Table C.85 for underlying data and sample size.

The dominance of indicator-based properties found in the standardised approaches for operational risk reflects the size of a bank rather than its risk exposure, which explains the limited variance of MRC for most Group 2 banks (see Graph 75). For Group 2 banks, the difference between the 25th and 75th quantile of the share of MRC for operational risk in total MRC is 4.9 percentage points. Although the difference of 5.8 percentage points for Group 1 banks is similar, the difference for G-SIBs with 16.8 percentage points is significantly higher. The outliers among Group 2 banks are mostly fee business-specialised banks in the sample where operational risk is virtually an exclusive risk, while outliers among Group 1 banks and G-SIBs are banks using AMA in which past loss events influence future operational risk exposure.

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

Graph 75



[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 vertical lines generally show the range of the entire sample. The dots represent weighted averages.

Source: Basel Committee on Banking Supervision. See Table C.86 and for underlying data and sample size.

4.4.2 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[32] 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 takes into account 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.[33]

According to Table 16, the final operational risk framework generates an aggregate decrease of operational risk MRC of approximately -4.9% for all Group 1 banks and a -9.1% decrease for G-SIBs as well as an increase of 29.5% for the Group 2 banks in the sample. Under the assumption that the evolution of experienced losses is as low as in the last four years (see Graph 74) the observed trend of MRC decreases should continue in the next periods due to the risk sensitive feature of the ILM of the new standardised approach. Finally, it should be noted that the results exclude current supervisory-imposed capital add-ons for Pillar 2 risk for certain banks in the sample that would otherwise cause the impact of the reforms to the operational risk framework on MRC to be lower compared to current MRC levels for the Group 1 bank sample. Given some of those additional Pillar 2 capital requirements may be removed or reduced, the size of the increases in MRC shown in Table 16 may be overstated and reductions may be understated.

Changes in operational risk capital requirements

In per cent — Table 16

	Change in Tier 1 MRC[1]	Number of banks migrating from AMA	Number of banks migrating from other approach
Group 1 banks	–4.9	40	60
Of which: Americas	–20.0	11	3
Of which: Europe	31.5	15	21
Of which: Rest of the world	–14.6	14	36
Of which: G-SIBs	–9.1	19	9
Group 2 banks	29.5	6	60

[1] Figures may not show supervisor-imposed Pillar 2 capital add-ons. Therefore, increases in MRC may be overstated and reductions may be understated.

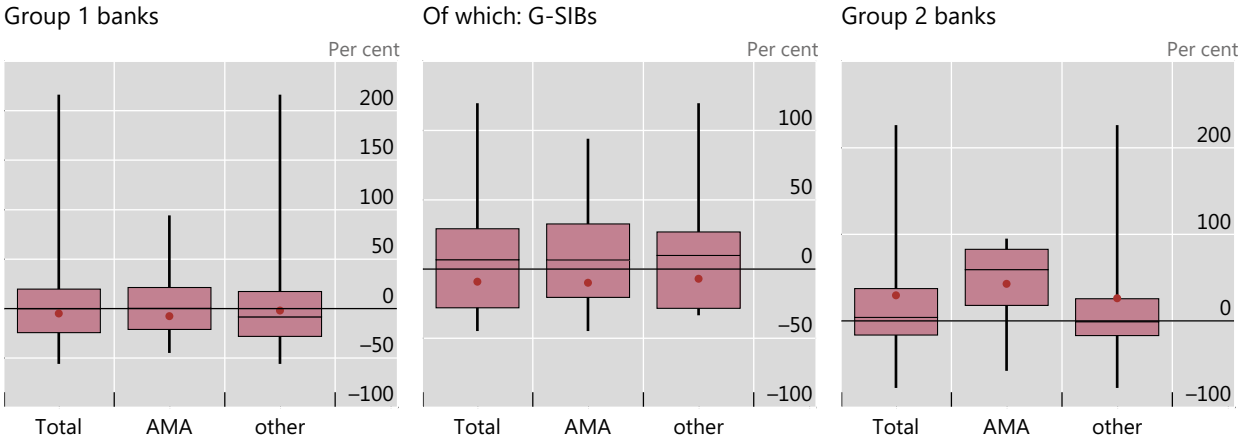
Source: Basel Committee on Banking Supervision.

Graph 76 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.

[32] 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).

[33] 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.

Changes in MRC for operational risk[1] Graph 76



[1] Figures do not show supervisor-imposed capital add-ons. Therefore, increases in MRC may be overstated and reductions may be understated. 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 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. The dots represent weighted averages. 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 also Table C.87.

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 fully phased-in initial Basel III standards

Graph 77 below shows the interaction between the fully phased-in Basel III Tier 1 leverage ratios (horizontal axis) and the fully phased-in 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%,[34] whereas the dashed vertical line represents a Basel III Tier 1 leverage ratio of 3%.

The diagonal line represents points where an 8.5% fully phased-in Basel III Tier 1 target risk-based capital ratio results in the same amount of required fully phased-in Basel III Tier 1 capital as a fully phased-in 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).[35] 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 1 capital ratio remains the constraining requirement).

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

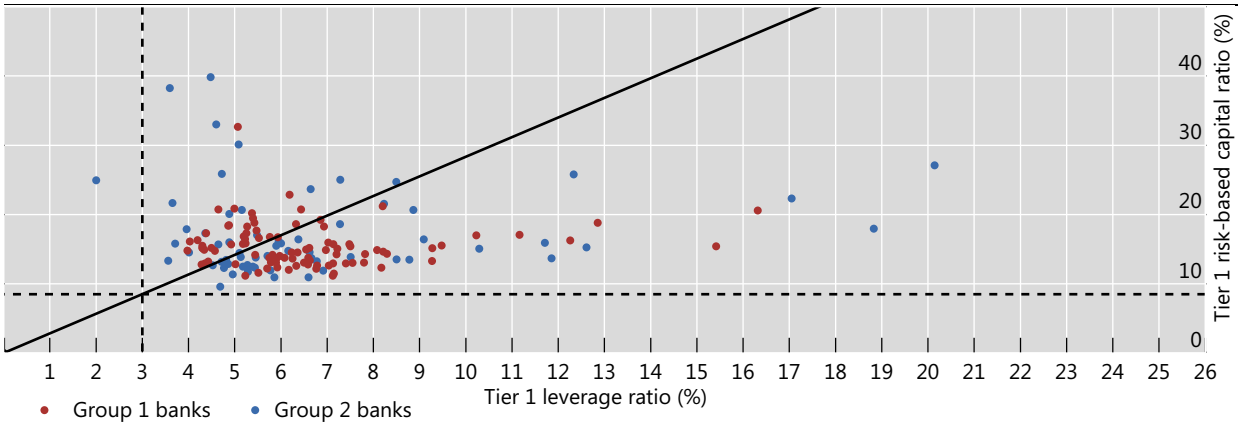
[35] Note that the effect of the G-SIB surcharge is not taken into account here. As the G-SIB surcharges only apply to the risk-based requirement under the initial Basel III framework, the relevant proportion between RWA and total leverage ratio exposure that determines whether the Basel III leverage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

As shown in Graph 77, one Group 2 bank does not meet the minimum fully phased-in Basel III Tier 1 leverage ratio of 3% (plotted left of the vertical dashed line). This graph also shows that the fully phased-in Basel III Tier 1 leverage ratio is constraining for 55 banks out of 157, including 34 Group 1 and 21 Group 2 banks (plotted above the diagonal line).

Fully phased-in initial Basel III Tier 1 risk-based capital and leverage ratios

Consistent sample of banks, in per cent

Graph 77



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 only results in a shortfall for very few of them.

Graph 78 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").[36] While some results in this sections have changed considerably compared to the previous report, these differences are to a significant extent driven by sample changes and changes in the impact of the current floor for some banks in the rest of the world region.

With the exception of Group 2 banks that only use the standardised approach, generally the risked-based capital measure shows similar levels of constraint across all groups and frameworks ranging between 40% and 60% and is generally less constraining under the fully phased-in final Basel III framework. Similarly, with the exception of Group 2 banks that use only the standardised approach and G-SIBs, the

[36] Graph 78 does not distinguish between IRB and "pure SA" Group 1 banks as out of the 92 Group 1 banks in the sample only 13 are "pure SA" banks.

fully phased-in constraints under the final Basel III framework results in higher level of constraint by the output floor in comparison to the current initial Basel III framework. This results in greater parity in the levels of constraint between the output floor and the leverage ratio in the final framework. For example, the proportion of Group 1 banks constrained by the output floor increases by 23.5 percentage points.

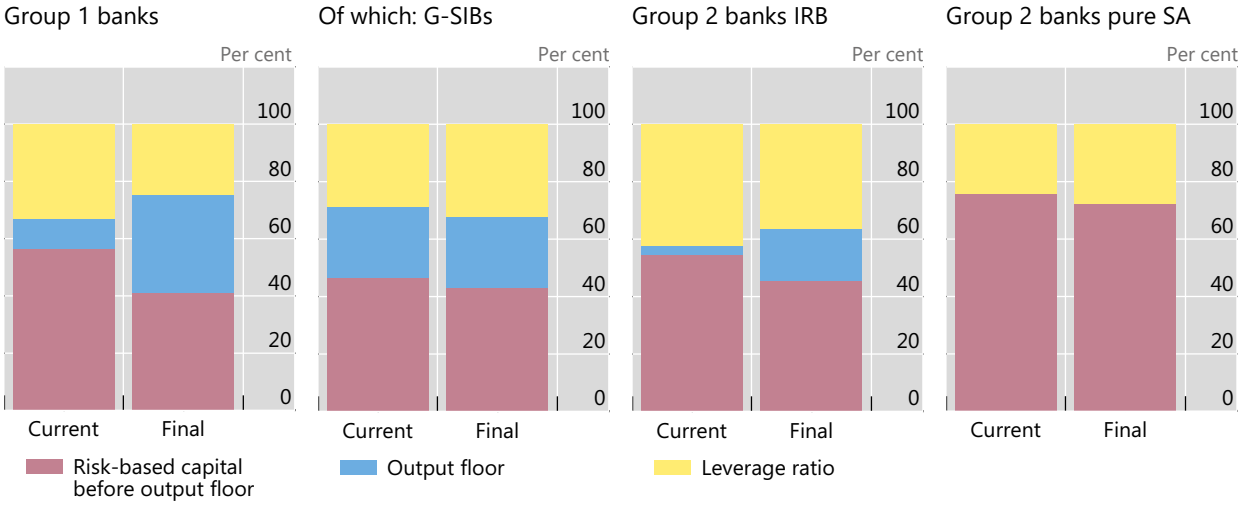
Under the current initial Basel III framework 32.9% of 84 Group 1 banks are constrained by the Basel III leverage ratio while 10.6% are constrained by current output floors such as the Basel I-based floor. With the introduction of somewhat stricter and more consistent output floor under the final framework, 34.1% of Group 1 banks will be constrained by the floor while 24.7% will be constrained by the Basel III leverage ratio. The share of Group 1 banks constrained by risk-based capital requirements before application of the respective output floor will decrease from 56.5% to 41.2%.

For the subset of 28 G-SIBs, the Basel III leverage ratio is currently constraining for a similar share of banks (28.6%) while the current output floors constrain a larger share of banks (25.0%) as compared to Group 1 as a whole. The remaining 46.4% of G-SIBs are constrained by the risk-based measure before application of the output floors. Under the final framework, 25.0% of the G-SIBs will be constrained by the output floor while the Basel III leverage ratio will be constraining for 32.1% of the G-SIBs. The remaining 42.9% of G-SIBs will be constrained by the risk-based capital requirements before application of the output floor.

Of the 33 Group 2 IRB banks in the sample, 54.5% are currently constrained by the Basel III leverage ratio while only 3.0% are constrained by current output floors. The share of Group 2 IRB banks constrained by risk-based capital requirements before application of the output floors under the current initial Basel III regime is 54.5% and similar to Group 1 banks. Under the fully phased-in final Basel III regime, the share of Group 2 IRB banks constrained by the risk-based capital requirements before application of the output floor notably decrease to 45.5% and is greater than the share of Group 1 banks constrained by the same requirement. The Basel III leverage ratio will be constraining on 36.4% of Group 2 IRB banks while the share of Group 2 IRB banks constrained by the output floor will significantly increase to 18.2% in comparison to the current output floors.

For the 29 Group 2 banks only using the standardised approach for credit risk, risk-based capital requirements before application of the respective output floors are currently constraining for 75.9% of the banks and decreases slightly for this reporting period to 72.4% under the fully phased-in final Basel III framework. The current initial Basel III leverage ratio is constraining for 24.1% of these banks and will increase to 27.6% under the final Basel III standards. The current output floors are constraining for none of the banks in the sample, reflecting the fact that the share of RWA from market or operational risk models is low for banks using the standardised approach for credit risk.

Percentage of banks constrained by different parts of the framework Graph 78



Source: Basel Committee on Banking Supervision. See also Table C.88.

Graph 79 shows the percentage of banks constrained by different parts of the framework, by region. In Europe, under the current initial Basel III framework, no bank is constrained by the transitional Basel I-based floor. The leverage ratio is the most constraining measure at 57.1%. Under the fully phased-in final Basel III framework, the output floor becomes more constraining (40.0%) than the risked-based capital (22.9%) while the leverage ratio remains the most constraining but to a smaller extent (37.1%).

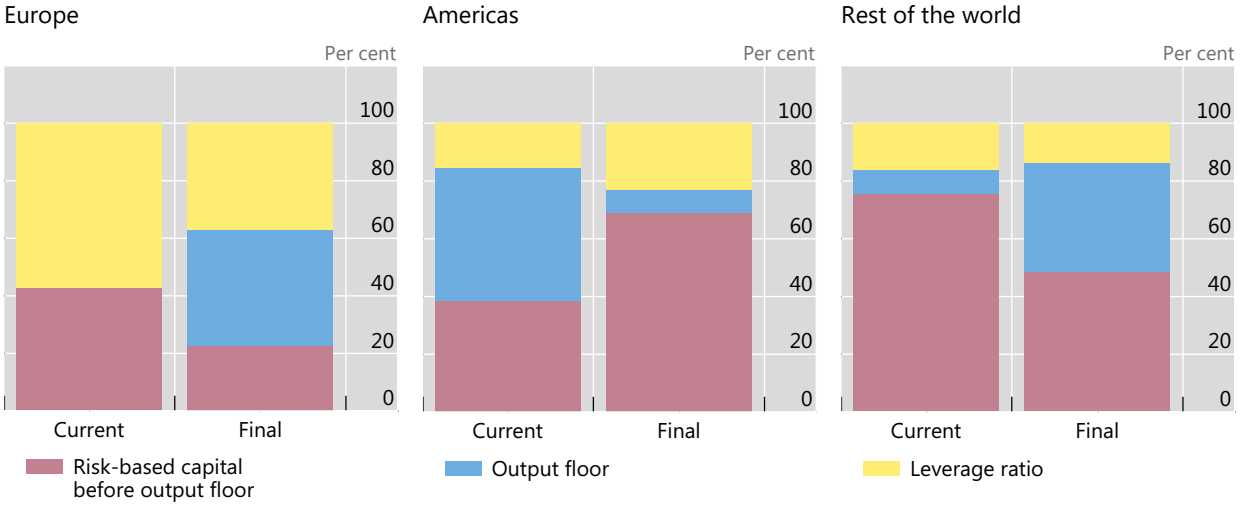
The development is somewhat different in the Americas, with a reduction of the impact of the output floor with implementation of the fully phased-in final Basel III framework. Indeed, the share of banks constrained by output floor decreases from 46.2% of the sample to 7.7%. Comparatively, risk-based capital becomes more stringent, with an increase of banks constrained by this measure from 38.5% for current framework to 69.2% for the final framework. The leverage ratio shows an increase from 15.4% to 23.1%.

For the rest of the world, the output floor constraint is the measure which experiences the most important change in terms of constraints between both frameworks. The share of banks constrained by the output floor increases from 8.1% to 37.8%. Risk-based capital is the measure which becomes less stringent with 48.6% of banks constrained under the final Basel III framework whereas under the current initial Basel III framework the share of banks constrained is 75.7%.

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

Group 1 banks

Graph 79



Source: Basel Committee on Banking Supervision. See also Table C.89.

6. Liquidity

6.1 Liquidity Coverage Ratio

One of the two liquidity standards introduced by the Committee is the 30-day Liquidity Coverage Ratio (LCR), which promotes short-term resilience against potential liquidity disruptions. The LCR requires global banks to have sufficient high-quality liquid assets to withstand a stressed 30-day funding scenario specified by supervisors. The LCR numerator consists of a stock of unencumbered, high-quality liquid assets (HQLAs) that must be available to cover any net outflow, while the denominator comprises cash outflows minus cash inflows (subject to a cap at 75% of outflows) that are expected to occur in a severe stress scenario. The LCR was revised by the Committee in January 2013 and came into effect on 1 January 2015. The minimum requirement is set at 90% in 2018. As of January 2019, it increased to 100%, which marks the end of the phase-in of the LCR minimum requirement.

Data provided by 172 banks (104 Group 1 banks and 68 Group 2 banks) was of sufficient quality and coverage to be incorporated in the LCR analysis in this report. As of the reporting date, banks within the LCR sample had total assets of approximately €70.6 trillion. Banks reported a total of €14.0 trillion in eligible liquid asset holdings (post-haircut and after cap).

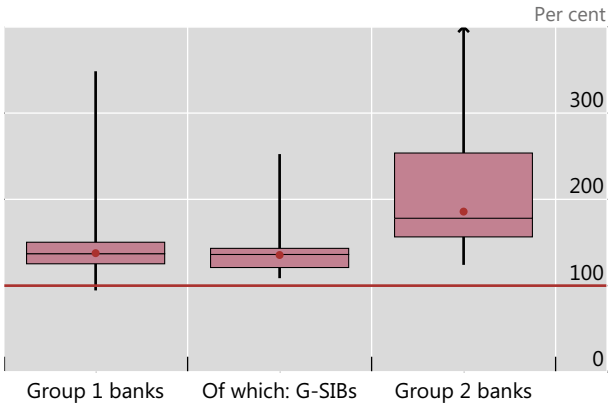
The weighted average LCR for the Group 1 banks reporting data for the December 2019 reporting date increased by 1.4 percentage points from the previous period to 137.6%. The weighted average LCR for Group 2 banks increased by 9 percentage points from 177.0% at end-June 2019 to 186.0 at the end of December 2019.

In the previous period, all banks in the sample except for one Group 1 bank and one Group 2 bank reported an LCR that exceeded a minimum requirement of 100%. In this period however, all but one Group 1 bank in the sample reported an LCR above the 100% minimum requirement.

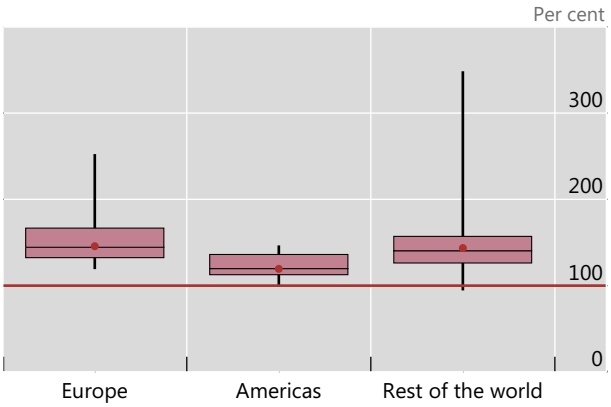
Liquidity Coverage Ratio[1]

Graph 80

By bank group



Group 1 banks, by region



[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 liquidity coverage ratios outside the range shown in the graph. The sample is capped at 400%, meaning that all banks with an LCR above 400% were set to 400%. The dots represent weighted averages. The horizontal line represents the 100% minimum (applicable as from 1 January 2019).

Source: Basel Committee on Banking Supervision. See Table C.90 and Table C.91 for underlying data.

As highlighted above, in the current reporting period there is a single Group 1 bank with an LCR below 100% and hence a shortfall (ie the difference between high quality liquid assets and net cash outflows) which amounts to €832 million.

The key components of outflows and inflows are shown in Table 17. Group 1 banks, and in particular G-SIBs, show a notably larger percentage of total outflows, when compared with balance sheet liabilities, than Group 2 banks. This can be explained by the relatively greater contribution of wholesale funding activities and commitments (both activities subject to comparably higher outflow rates) within the Group 1 sample, whereas Group 2 banks, as a whole, are less reliant on these types of activities.

LCR outflows and inflows (post-factor)

In per cent of balance sheet liabilities — Table 17

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Outflows to…			
Retail deposits run-off	2.3	2.4	2.6
Unsecured wholesale funding run-off	11.5	12.0	5.6
Secured funding and collateral swaps	1.7	2.2	0.3
Additional requirements run-off	3.6	3.9	1.7
Other contingent funding obligations	1.5	1.6	1.6
Total outflows[1]	20.9	22.5	11.7
Inflows from…			
Secured lending and collateral swaps	2.2	3.0	0.3
Contractual inflows from fully performing loans	2.6	2.5	1.3
Other cash inflows	1.9	2.0	1.1
Total inflows[1,2]	6.7	7.4	2.7

[1] May contain rounding differences as well as reporting differences between the total and individual line items. [2] The 75% cap is only applied to the "total inflow" category, which may lead the sum of the individual inflow categories to exceed the total inflow contribution on account of banks that report inflows that exceeded the cap.

Source: Basel Committee on Banking Supervision.

75% cap on total inflows

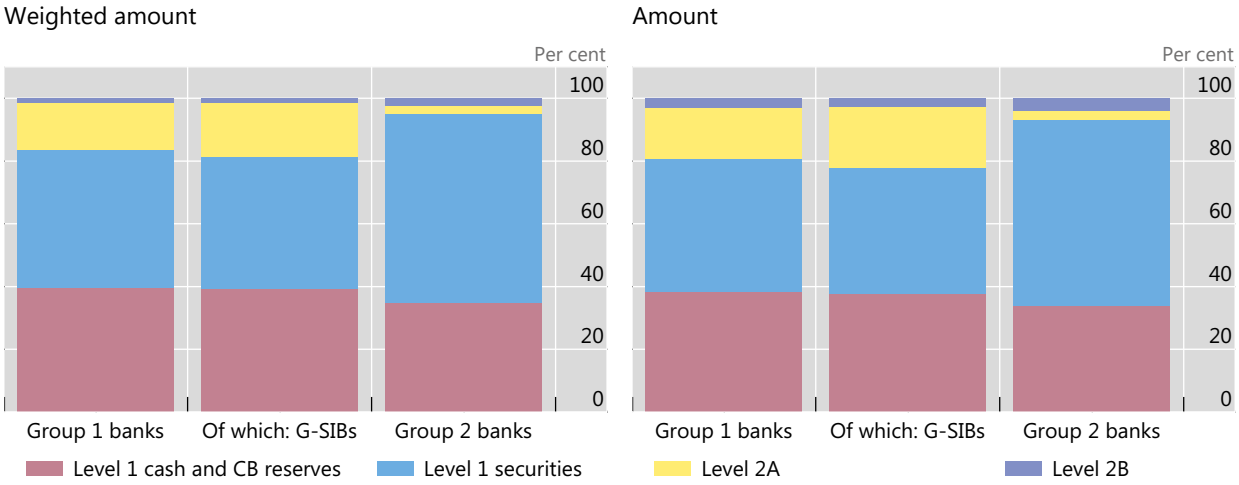
At end-December 2019, four Group 1 and three Group 2 banks are affected by the cap on inflows with a total amount of capped inflows of €8.8 billion for Group 1 banks and €0.5 billion for Group 2 banks.

Composition of high-quality liquid assets

The composition of high-quality liquid assets (measured after application of the LCR haircuts) currently held at banks is depicted in the left panel of Graph 81. The majority of Group 1 and Group 2 banks' holdings, in aggregate, are comprised of Level 1 assets, however, the sample as a whole shows diversity in their holdings of eligible liquid assets. Level 1 assets that include 0% and non-0% risk-weighted securities issued or guaranteed by sovereigns, central banks and public sector entities, and cash and withdrawable central bank reserves comprise the most significant portions of the qualifying pool for Group 1 banks (together accounting for 83.8% of all eligible liquid assets). Level 1 assets also represent a significant portion of eligible liquid assets for Group 2 banks as well (together accounting for 93.2% of total eligible liquid assets) with a relatively larger share of Level 1 securities compared to cash and central bank reserves.

Composition of holdings of eligible liquid assets

Graph 81



Source: Basel Committee on Banking Supervision. See Table C.92 for underlying data and sample size.

Caps on Level 2B and Level 2 assets

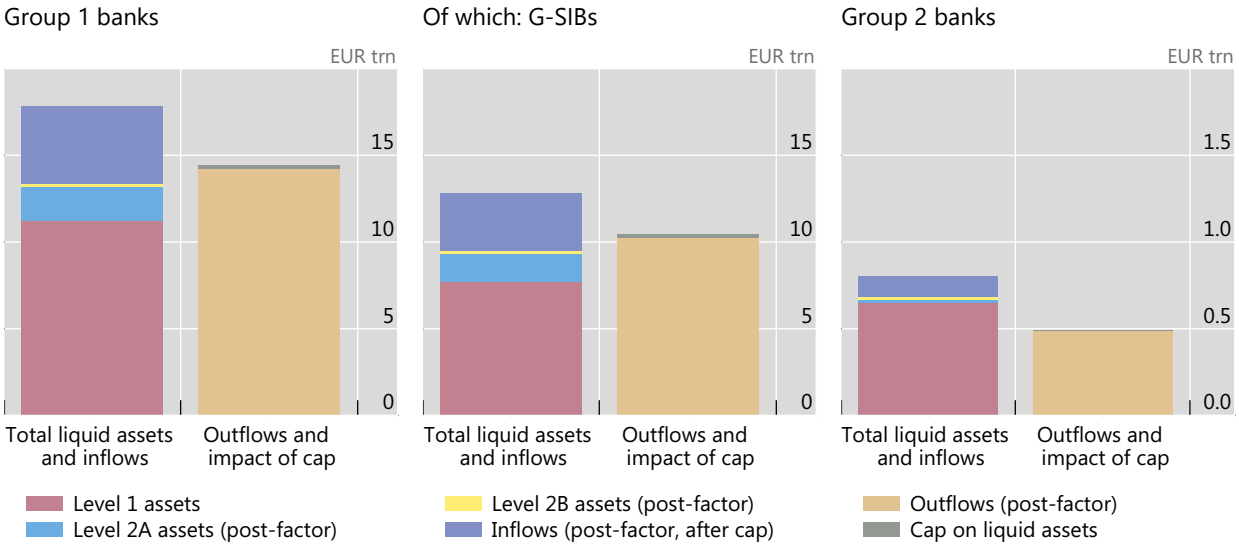
Due to the cap on liquid assets, overall €208.7 billion of liquid assets are excluded from high-quality liquid assets for Group 1 banks and €3.4 billion for Group 2 banks.

Comparison of liquid assets and inflows to outflows and caps

Graph 82 combines the above LCR components by comparing liquidity resources (pool of high-quality liquid assets and inflows) to outflows. For Group 1 banks, the gross surplus amounts to €3.42 trillion, of which G-SIBs have a gross surplus of €2.35 trillion, at end-December 2019. The gross surplus for Group 2 banks was €0.30 trillion.

Comparison of pool of high-quality liquid assets and inflows to outflows and caps

Graph 82



Source: Basel Committee on Banking Supervision. See Table C.93 for underlying data and sample size.

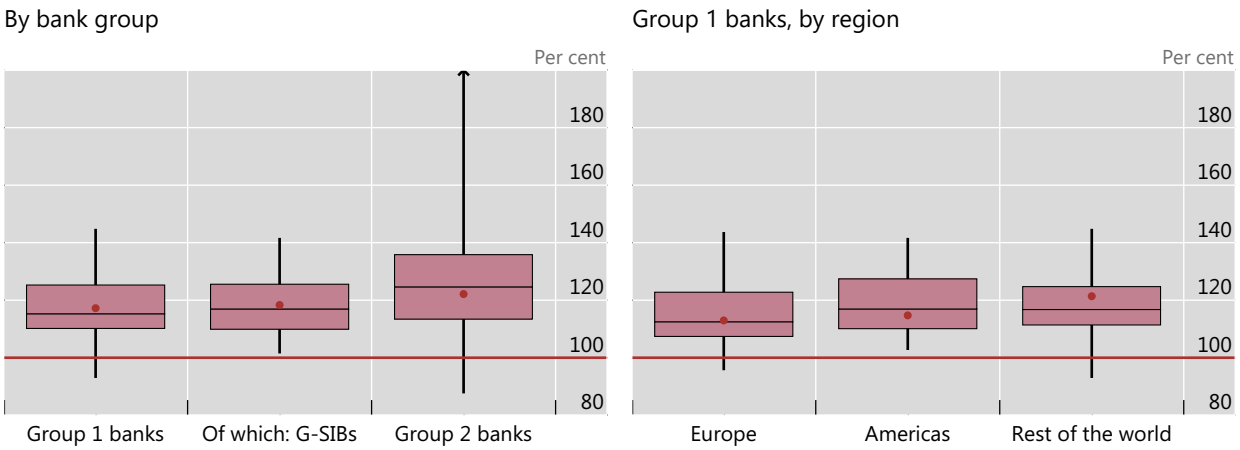
6.2 Net Stable Funding Ratio

The second liquidity standard introduced by the Basel III reforms is the Net Stable Funding Ratio (NSFR), a longer-term structural ratio designed to reduce funding risk over a longer time horizon by requiring banks to fund their activities with sufficiently stable sources of funding in order to mitigate the risk of future funding stress.

For the NSFR, data provided by 169 banks (102 Group 1 and 67 Group 2 banks) was of sufficient quality and coverage to be incorporated in the analysis in this report. As of the reporting date, these banks had total assets of approximately €69.5 trillion.

The weighted average NSFR was 117.2% for Group 1 banks and 122.1% for Group 2 banks at end-December 2019 compared with 116.3% and 120.0% respectively, at end-June 2019. Overall, 96.0% of Group 1 banks and 97.0% of Group 2 banks reported a ratio that met or exceeded 100% as of end-December 2019, while all Group 1 banks and all but a single Group 2 bank report a ratio at or above 90% as of the same date.

Net stable funding ratio[1] Graph 83



[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 net stable funding ratios outside the range shown in the graph. The dots represent weighted averages. NSFRs above 200% are not shown in the graph. The red line is set at 100% (minimum NSFR level).

Source: Basel Committee on Banking Supervision. See Table C.90 and Table C.91 for underlying data.

For the 102 Group 1 banks in the sample, the shortfall is €36.0 billion at end-December 2019 compared with €27.7 billion at end-June 2019. For the 67 Group 2 banks in the sample, there is a shortfall of €8.0 billion at end-December 2019 compared with €4.4 billion at end-June 2019. This number is reflective only of the aggregate shortfall for banks that are below the 100% NSFR requirement and does not reflect any surplus stable funding at banks above the 100% requirement.[37] It also does not take into account sample changes from the June 2019 to December 2019 reporting period. For the evolution of the shortfall for a consistent sample of banks, please refer to Section 6.3.

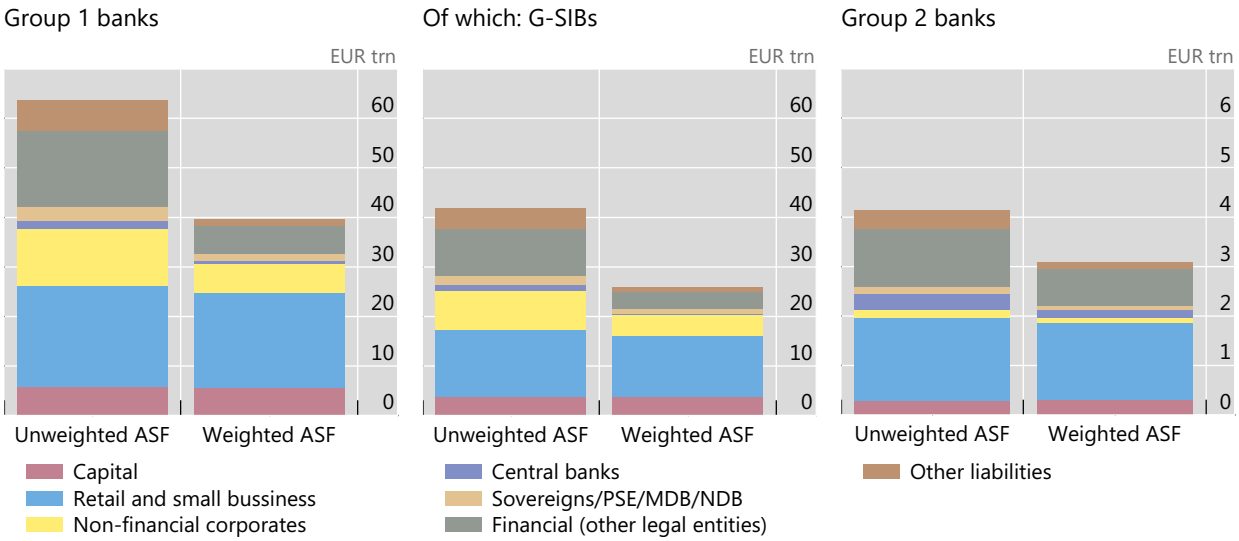
Stable funding sources

Deposits from retail and small business customers (ie "stable" and "less stable" deposits, as defined in the LCR) accounted for a significant portion of stable funding for banks in the sample, representing about half of total weighted available stable funding for both Group 1 banks (47.8%) and Group 2 banks (50.2%). To

[37] The shortfall in stable funding measures the difference between balance sheet positions after the application of available stable funding factors and the application of required stable funding factors for banks where the former is less than the latter.

a lesser degree, banks in the sample utilised funding from financial counterparties, which represented roughly 14.1% of total weighted available stable funding for Group 1 banks and 24.4% for Group 2 banks.

Aggregate available stable funding (ASF) by counterparty — Graph 84



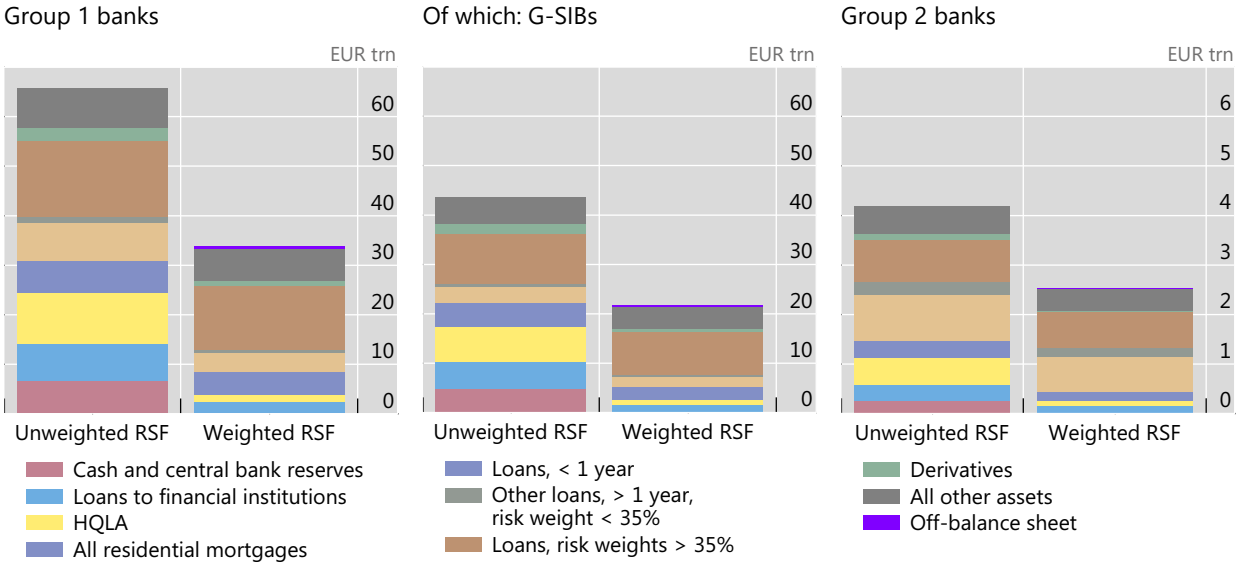
Source: Basel Committee on Banking Supervision. See Table C.94 for underlying data.

Funding requirements

The NSFR generally assumes short-dated (ie maturing in less than one year) and higher quality assets require a smaller proportion of stable funding relative to longer term and lower quality assets. Indeed, much of the stable funding requirement across all banks in the sample was the result of longer-term assets such as loans. Loans with longer terms, including mortgages and loans with a risk weight of more than 35%, represented 51.8% for Group 1 banks and 56.0% for Group 2 banks of the total weighted stable funding requirement. By comparison, HQLA securities represented less than 5% of the total weighted stable funding requirement at 4.4% for Group 1 banks and 3.4% for Group 2 banks.

Many banks in the sample do not incur a significant stable funding requirement associated with the current treatment for derivatives (ie encompassing net derivative asset exposure, RSF associated with gross derivative liabilities, initial margin and contributions to default funds of CCPs).

Aggregate required stable funding (RSF) by category Graph 85



Source: Basel Committee on Banking Supervision. See Table C.95 for underlying data.

6.3 Liquidity Coverage Ratio and Net Stable Funding Ratio shortfalls over time

Graph 86 below displays the weighted average LCR, weighted average NSFR and shortfalls associated with each standard for a consistent sample of banks across reporting periods since end-December 2012.[38] Given the different samples of banks, results for the end-June 2019 and end-December 2019 periods in this section may differ from the ones in Sections 6.1 and 6.2.

Group 1 banks that have reported LCR data for each of the reporting periods since end-December 2012 generally show ratios in recent periods that have increased from ratios reported in earlier periods. The weighted average LCR for these banks was 138.0% at end-December 2019. The ratio was 136.8% and 136.2% at end-June 2019 and end-December 2018, respectively. Group 2 banks that have reported LCR data for each of the reporting periods since end-December 2012 show generally stable ratios since 2017. As of end-December 2019, the weighted average LCR of these banks is 162.7%. Additionally, the overall level of ratios for Group 2 banks remains higher than the level observed for Group 1 banks.

The graph also displays NSFRs since end-December 2012.[39] The weighted average NSFR for Group 1 banks was 116.9% at end-December 2019, 116.6% at end-June 2019 and 116.4% at end-December 2018. The weighted average NSFR for Group 2 banks was 120.7% at end-December 2019, 119.5% at end-June 2019 and 117.9% at end-December 2018.

The aggregate shortfall for Group 1 that do not meet the 100% NSFR requirement generally declined for each of the respective standards from the end-June 2012 through end-December 2017. Since then, the aggregate shortfall has consistently been very small. The aggregate shortfall with regard to the 100% NSFR minimum requirement was €21.4 billion for Group 1 banks and €0.0 billion for Group 2 banks

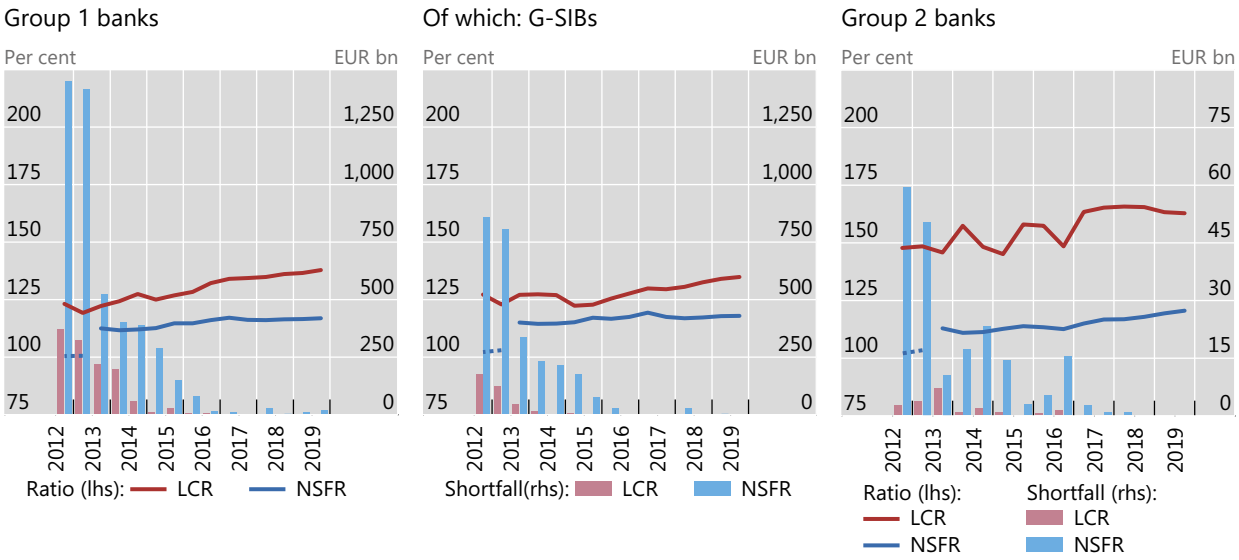
[38] Only those banks are included in this analysis that are reporting LCR and NSFR data for each reporting period since end-December 2012. LCR and NSFR samples are different.

[39] Graph 86 depicts the NSFR as calculated under different versions of the NSFR framework (released in December 2010, January 2014 and October 2014, respectively). 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.

at end-December 2019. This compares to shortfalls of €9.1 billion for Group 1 banks and €0.0 billion for Group 2 banks at end-June 2019.

LCR, NSFR and related shortfalls at a 100% minimum requirement[1]

Consistent sample of banks, exchange rates as at the reporting dates — Graph 86



[1] As described in the text, 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 Table C.96 and Table C.97 for underlying data and sample size.

Graph 87 displays the regional breakdown of the weighted average LCR and the weighted average NSFR[40] for a consistent sample of Group 1 banks across reporting periods since end-December 2012. The weighted average LCR at end-December 2019 for Europe and the rest of the world was in excess of 140%, while the average LCR of the Americas is around 120%. While Europe and the Americas had initially lower average LCRs compared with the rest of the world, the average LCRs of Europe and the rest of the world have tended to converge gradually. The regions with lower end-2012 average ratios saw important increases in particular between end-2012 and June 2014.

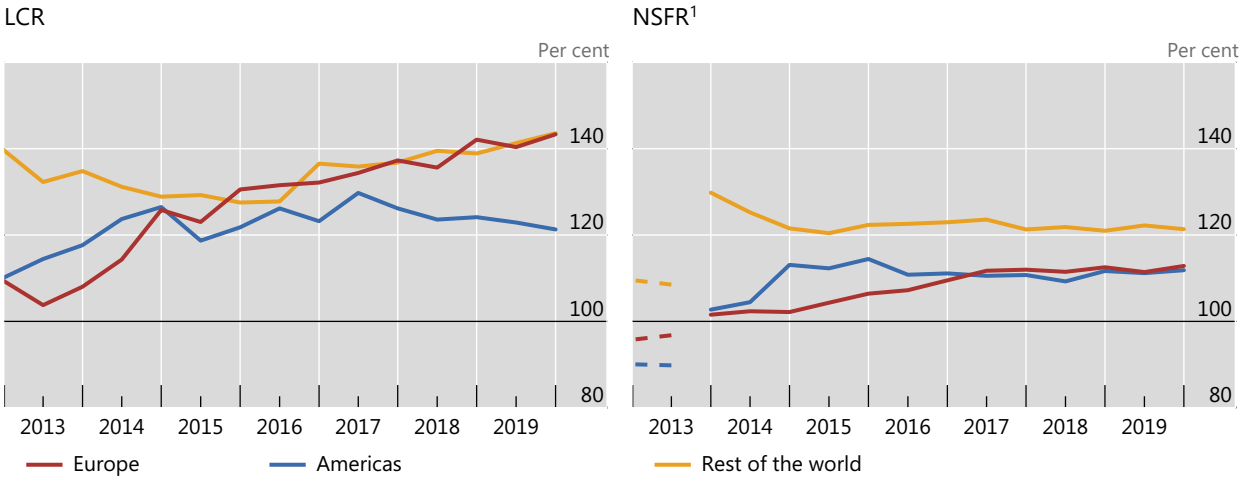
The weighted average NSFR at end-December 2019 for Group 1 banks in each of the three regions was well in excess of 100%. The average NSFRs of Europe and the Americas have slightly increased to 112.8% and 111.9% at end-December 2019, but these regions have lower average NSFRs compared with the rest of the world at 121.4%.

Graph 88 provides the same breakdown for G-SIBs.

[40] This graph depicts the NSFR as calculated under different versions of the NSFR framework (released in December 2010, January 2014 and October 2014, respectively). Calculations performed according to the final standard approved by the Committee in October 2014 start with the end-December 2014 reporting period.

LCR and NSFR by region

Consistent sample of Group 1 banks — Graph 87

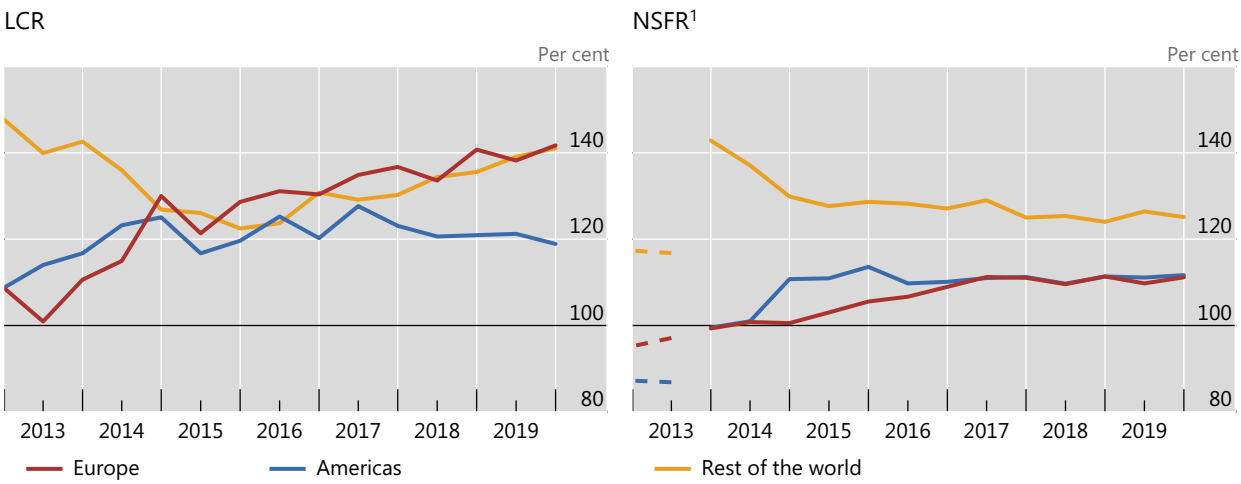


[1] As described in the text, the NSFR time series depicts data reflecting NSFR standards released in December 2010, January 2014 and October 2014.

Source: Basel Committee on Banking Supervision. See Table C.98 for underlying data and sample size.

LCR and NSFR by region

Consistent sample of G-SIBs banks — Graph 88



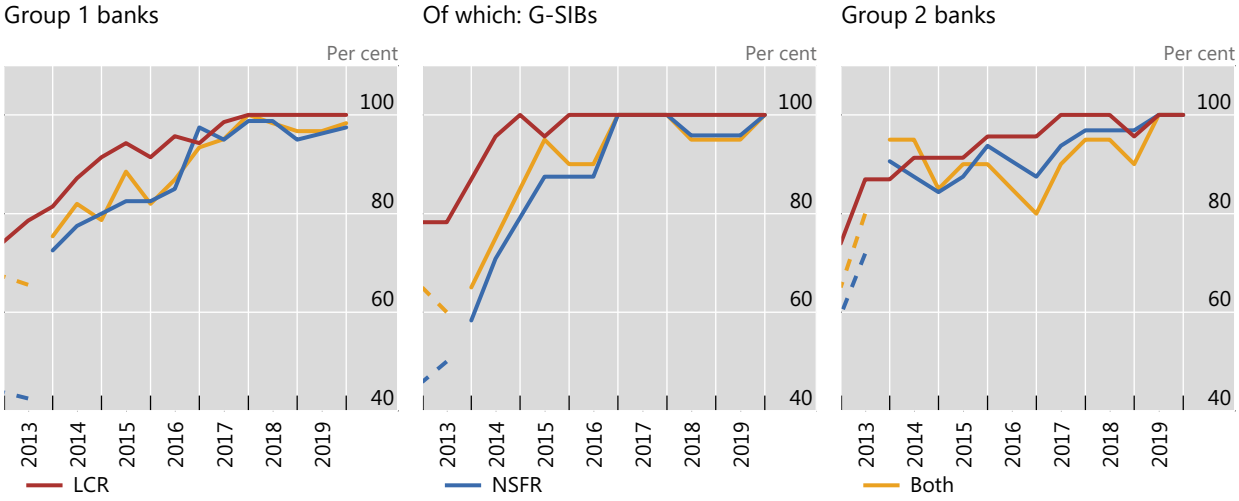
[1] As described in the text, the NSFR time series depicts data reflecting NSFR standards released in December 2010, January 2014 and October 2014.

Source: Basel Committee on Banking Supervision. See Table C.99 for underlying data and sample size.

Graph 89 displays the share of banks, in a consistent sample, that meet the 100% minimum LCR and NSFR requirements. The share of Group 1 banks meeting both requirements has increased from 66.7% at end-December 2012 to 98.3% at end-December 2019, while the share of Group 2 banks meeting both requirements increased from 65.0% to 100.0% during the same period.

Share of banks meeting the LCR and NSFR requirements[1]

Consistent sample of banks — Graph 89



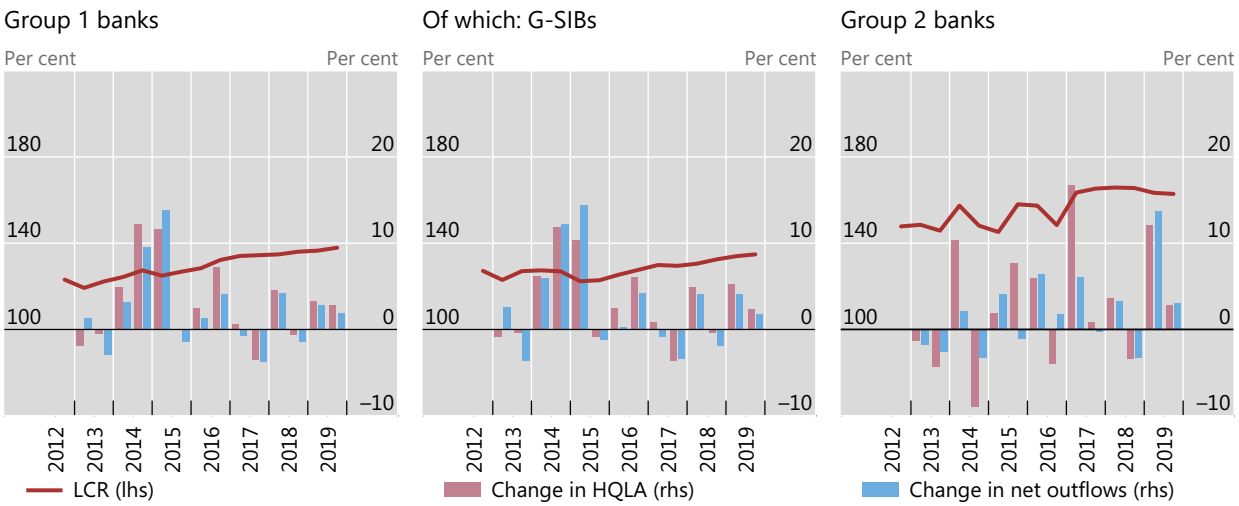
[1] As described in the text, the NSFR time series depicts data reflecting NSFR standards released in December 2010, January 2014 and October 2014. Samples for LCR and NSFR may differ.

Source: Basel Committee on Banking Supervision. See Table C.100 for underlying data.

Graph 90 displays the weighted average LCR for a consistent sample of banks across reporting periods since end-December 2012, along with a breakdown of the period-to-period changes of the LCR into changes in HQLA and changes in net outflows. This decomposition shows that the increase in the weighted average LCR for Group 1 banks is mainly driven by continuous increases in HQLA and often partially offset by increases in net outflows. For Group 2 banks, the changes in the weighted average LCR (increases as well as decreases compared with the relevant previous period) can also mainly be explained by higher volatility in HQLA, partially offset by changes in net outflows. In the similar trend observed during the last period, the increase in net outflows exceeds the increase in HQLA, which implies a decrease in the weighted average LCR for this group from 163.2% in the previous period to 162.7% at end-December 2019.

LCR and change in HQLA and net outflows

Consistent sample of banks, exchange rates as of the current reporting date — Graph 90

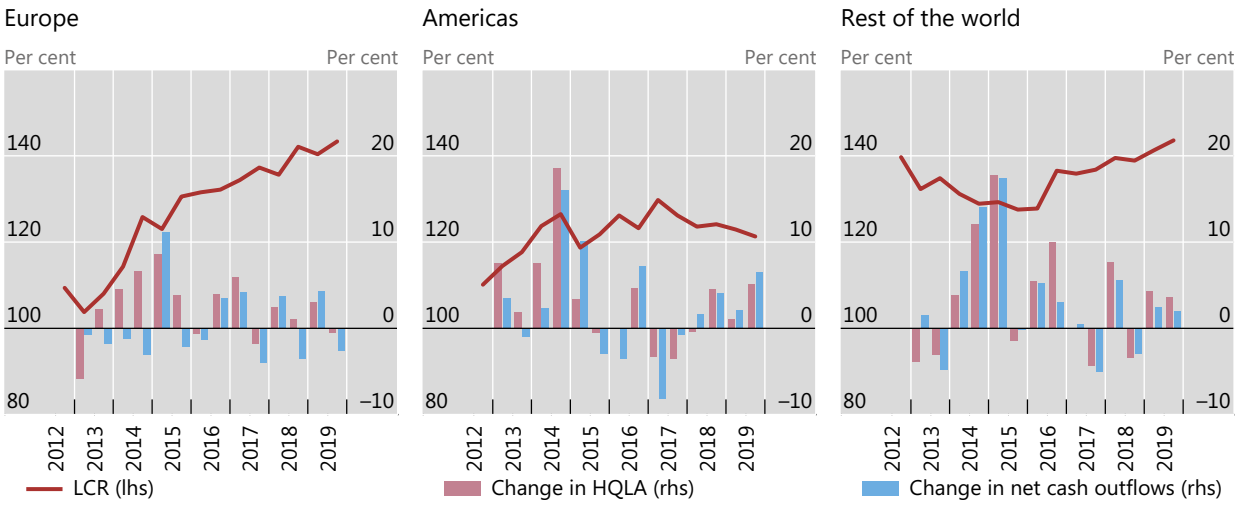


Source: Basel Committee on Banking Supervision. See Table C.101 for underlying data and sample size.

Graph 91 provides a breakdown by region of the results in Graph 90 for Group 1 banks. It displays the weighted average LCR and a decomposition of period-to-period LCR changes into changes in HQLA and net outflows. As can be seen in the graph, the weighted average LCR has slightly decreased in the Americas from 120.7% in the previous period to 118.4% because of a bigger increase in net outflows than in HQLA. For Europe, the weighted average LCR increased from 140.4% in the previous period to 143.3% in the current period as net outflows decreased more than HQLAs. For the rest of the world however, the LCR continued its trend upwards and increased to 143.6%, compared to the previous period of 141.3%, due to a stronger increase in HQLAs compared to net outflows.

LCR and change in HQLA and net outflows, by region

Consistent sample of Group 1 banks, exchange rates as of the current reporting date — Graph 91

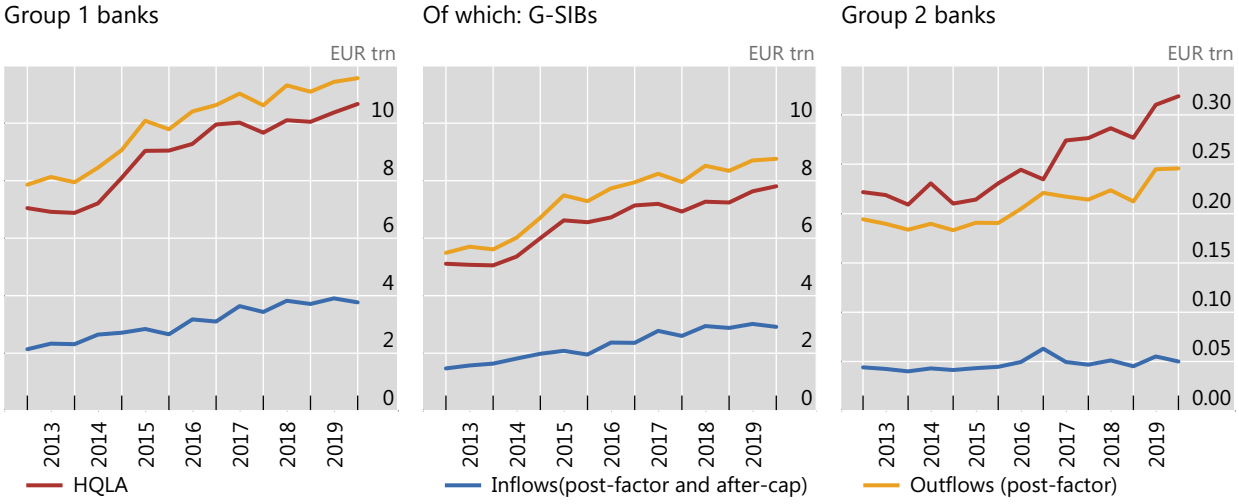


Source: Basel Committee on Banking Supervision. See Table C.102 for underlying data and sample size.

Graph 92 compares the trend in HQLA, inflows and outflows for a consistent sample of banks reporting LCR data since end-December 2012. This comparison displays the extent to which liquidity resources (ie HQLA and inflows) offset outflows for these banks. The balance of HQLA and inflows has substantially exceeded the balance of outflows for all periods since end-December 2012 for both Group 1 (by around 25% since 2017) and Group 2 banks (by around 50% since 2017). This difference reached €2.76 trillion and €0.12 trillion for Group 1 and Group 2 banks, respectively, at end-December 2019. Graph 93 and Graph 94 provide regional breakdowns for Group 1 banks and the subset of G-SIBs, respectively.

High quality liquid assets, inflows and outflows over time

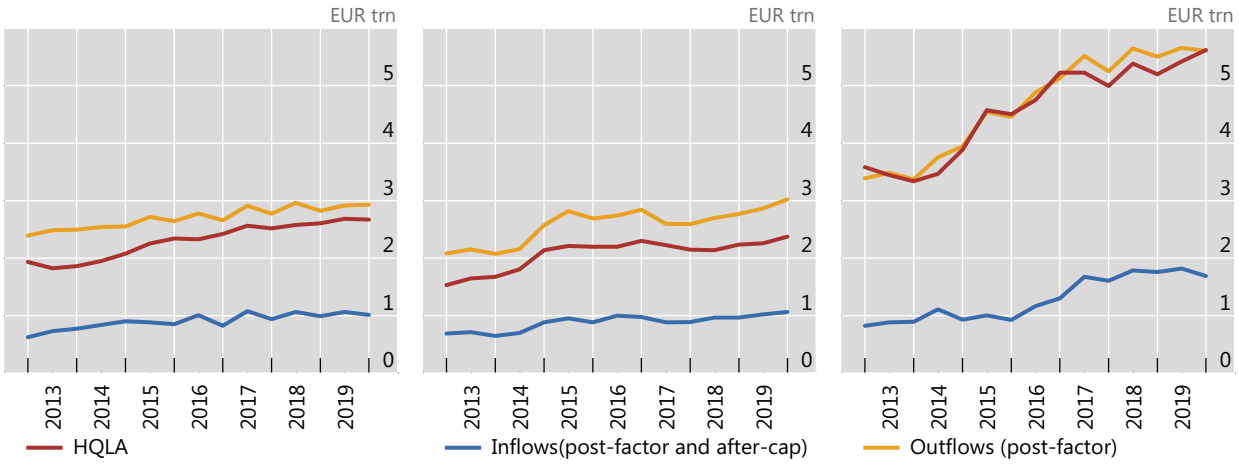
Consistent sample of banks, exchange rates as of the current reporting date — Graph 92



Source: Basel Committee on Banking Supervision. See Table C.103 for underlying data and sample size.

High quality liquid assets, inflows and outflows over time, by region

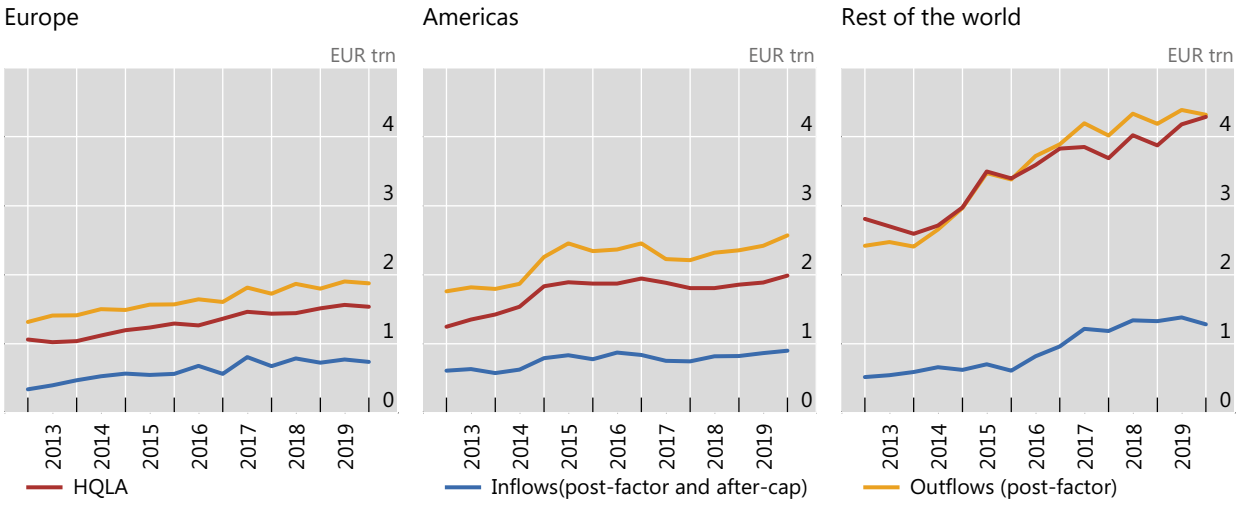
Consistent sample of Group 1 banks, exchange rates as of the current reporting date — Graph 93



Source: Basel Committee on Banking Supervision. See Table C.104 for underlying data and sample size.

High quality liquid assets, inflows and outflows over time, by region

Consistent sample of G-SIBs, exchange rates as of the current reporting date — Graph 94

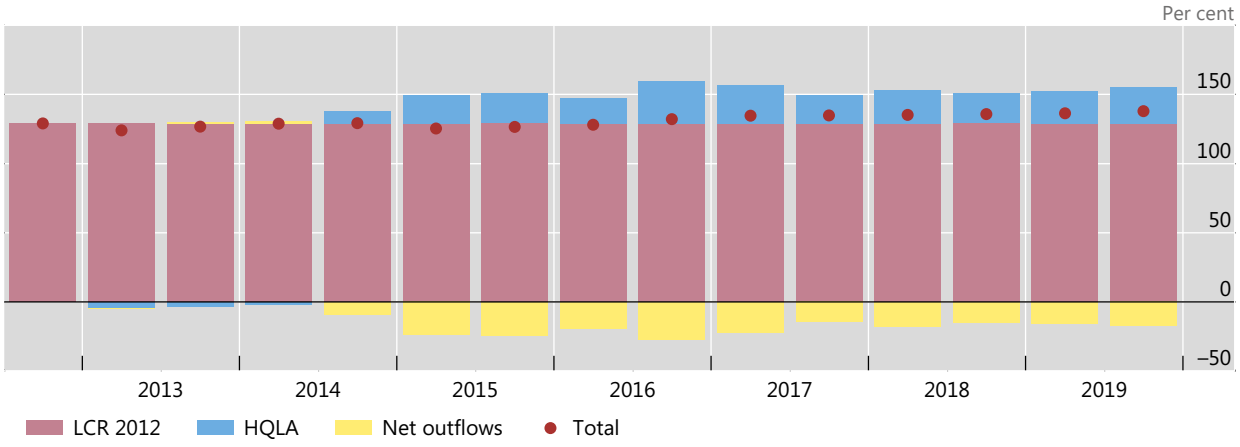


Source: Basel Committee on Banking Supervision. See Table C.105 for underlying data and sample size.

Graph 95 shows the evolution of the LCR and its drivers. Starting with the June 2012 LCR, the cumulative effect on the LCR of an increase in HQLA is added to the LCR, while the impact of cumulative increases in net outflows is subtracted from the baseline LCR. HQLA have grown faster over the years compared to the net outflows, which has resulted in an overall improvement in the LCR over time.

Evolution of the LCR and its drivers

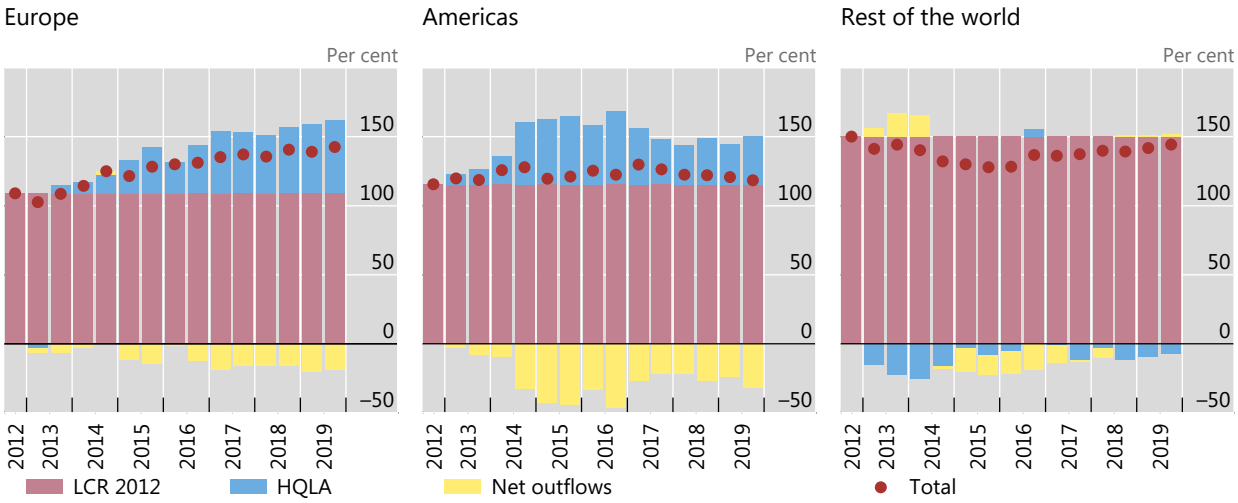
Consistent sample of Group 1 banks — Graph 95



Source: Basel Committee on Banking Supervision. See Table C.106 for underlying data and sample size.

Evolution of the LCR and its drivers, by region

Consistent sample of Group 1 banks — Graph 96

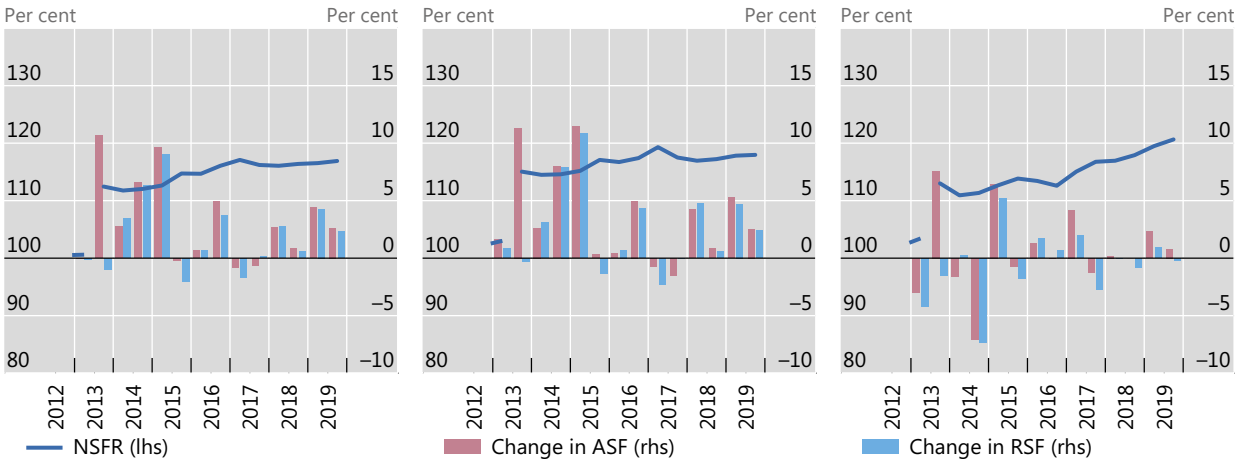


Source: Basel Committee on Banking Supervision. See Table C.107 for underlying data and sample size.

Graph 97 depicts the change in ASF and RSF over time. For all bank groups, there were significant positive changes in ASF of more than 7.5 percentage points for the end-December 2013 reporting date, also reflecting the changes to the definition of the NSFR standard. Since 2015, the change in ASF has generally stabilised for Group 1 banks to within 5% over a six-months period. Group 2 banks used to be more volatile, with changes in ASF ranging from -7.0% to 7.6%, but also stabilised since end-2015.

NSFR and change in ASF and RSF[1]

Consistent sample of banks, exchange rates as of the current reporting date — Graph 97



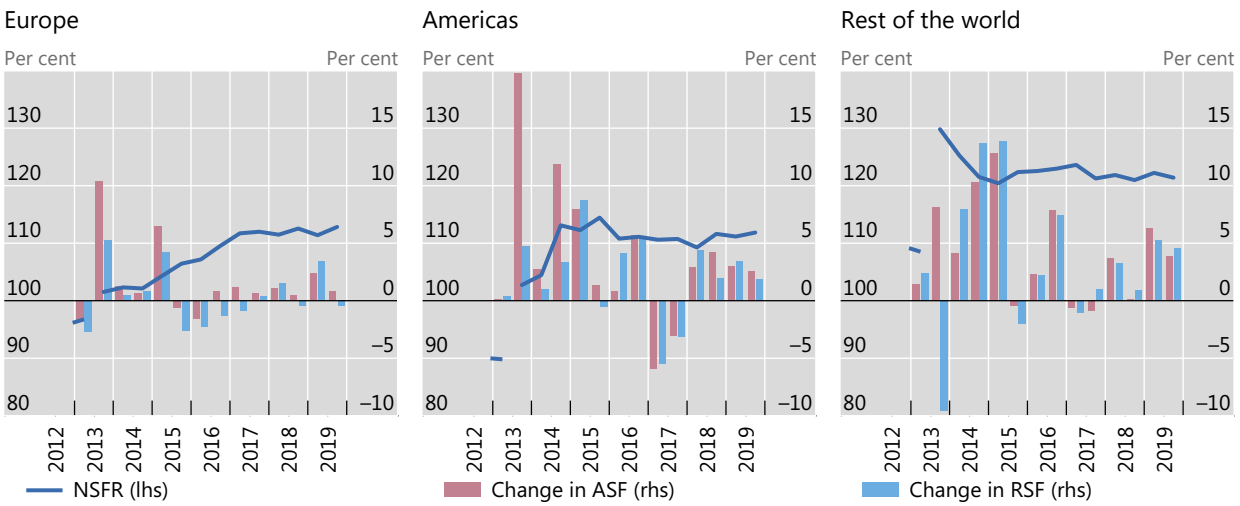
[1] As described in the text, the NSFR analysis is based on NSFR standard released in December 2010, January 2014 and October 2014.

Source: Basel Committee on Banking Supervision. See Table C.108 for underlying data and sample size.

Graph 98 illustrates a regional breakdown of the evolution of the weighted average NSFR and changes in ASF and RSF for Group 1 banks over time. For all regions, figures in 2013 reflect changes to the definition of the NSFR standard.

NSFR and change in ASF and RSF,[1] by region

Consistent sample of Group 1 banks, exchange rates as of the current reporting date — Graph 98



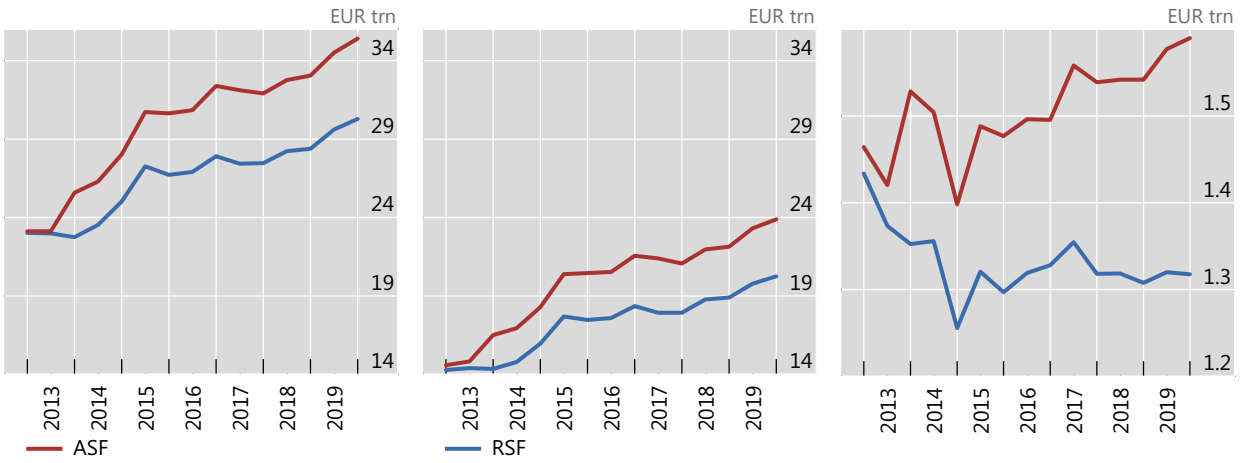
[1] As described in the text, the NSFR analysis is based on NSFR standard released in December 2010, January 2014 and October 2014.

Source: Basel Committee on Banking Supervision. See Table C.109 for underlying data and sample size.

Graph 99 compares the trend in ASF and RSF for a consistent sample of banks reporting NSFR data since end-December 2012. The graph for Group 1 banks shows steady increase in the difference between ASF and RSF. This difference reached €5.1 trillion and €0.3 trillion for Group 1 and Group 2 banks, respectively, at end-December 2019. Graph 100 and Graph 101 provide regional breakdowns for Group 1 banks and the subset of G-SIBs, respectively.

ASF and RSF over time

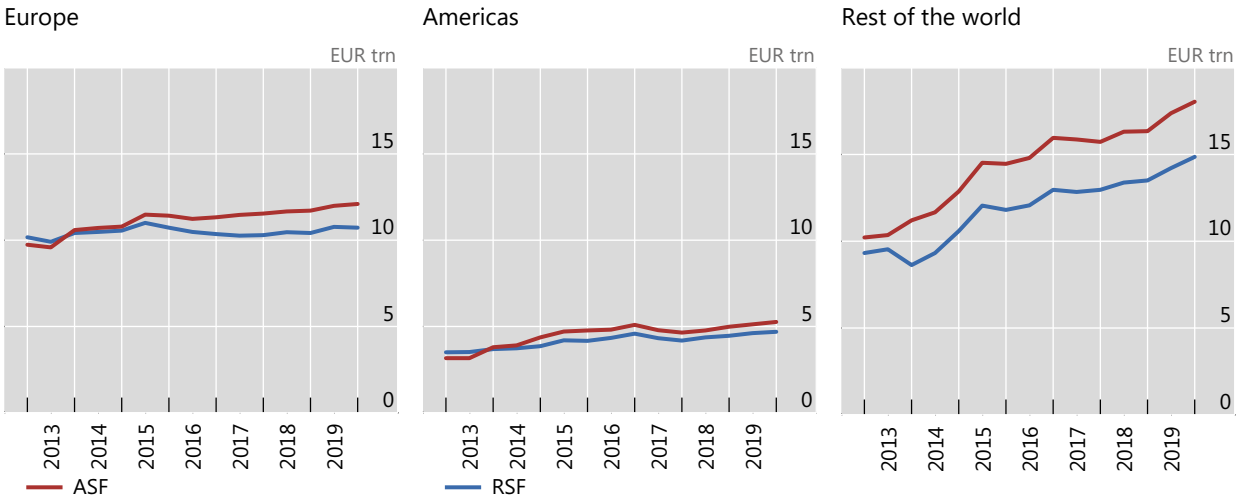
Consistent sample of banks, exchange rates as of the current reporting date — Graph 99



Source: Basel Committee on Banking Supervision. See Table C.110 for underlying data and sample size.

ASF and RSF over time, by region

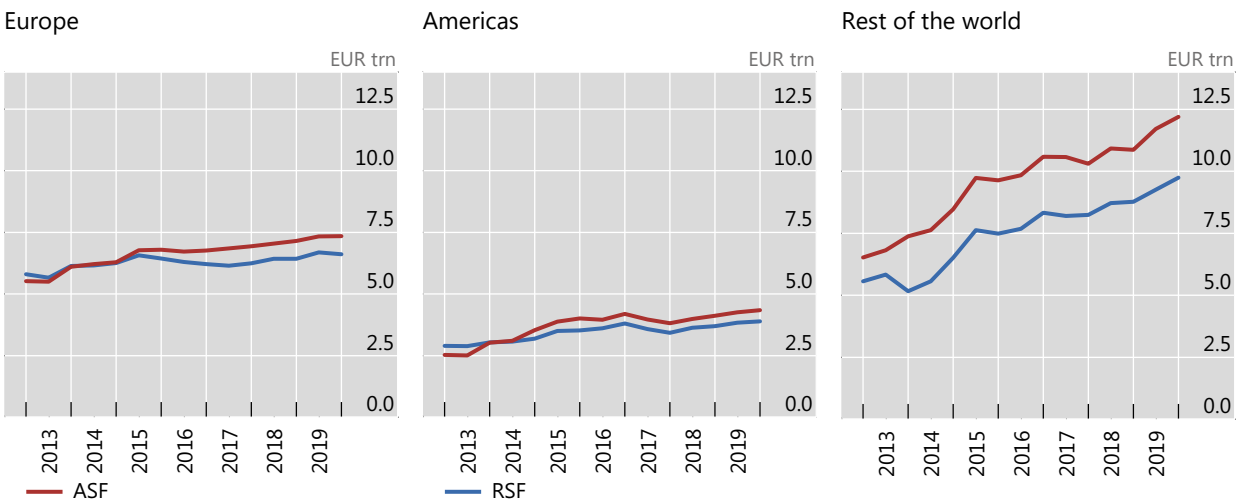
Consistent sample of Group 1 banks, exchange rates as of the current reporting date — Graph 100



Source: Basel Committee on Banking Supervision. See Table C.111 for underlying data and sample size.

ASF and RSF over time, by region

Consistent sample of G-SIBs, exchange rates as of the current reporting date — Graph 101

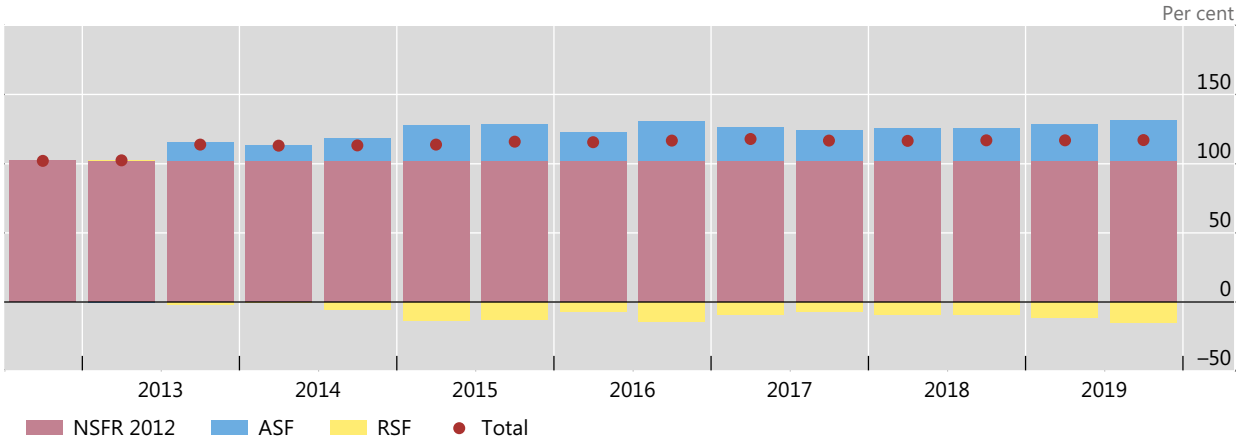


Source: Basel Committee on Banking Supervision. See Table C.112 for underlying data and sample size.

Graph 102 shows the evolution of the NSFR and its drivers. Starting with the June 2012 NSFR, the cumulative effect on the NSFR of an increase in ASF is added to the NSFR, while the impact of cumulative increases in RSF is subtracted from the baseline NSFR. ASF have grown faster over the years compared to RSF, which has resulted in an overall improvement in the NSFR over time. Graph 103 Shows the same evolution for the three regions.

Evolution of NSFR and its drivers[1]

Consistent sample of Group 1 banks — Graph 102

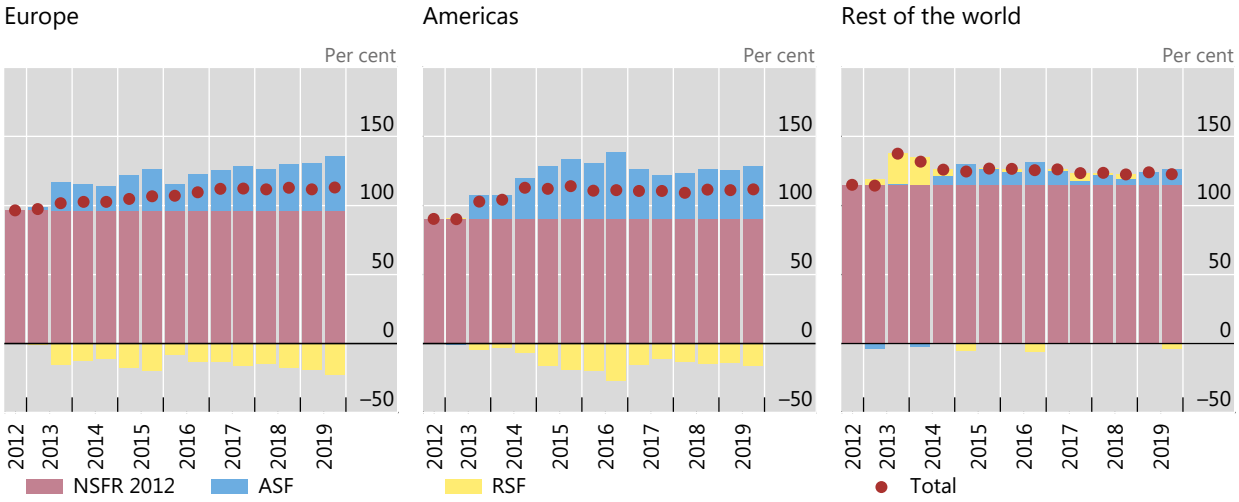


[1] As described in the text, the NSFR analysis is based on NSFR standard released in December 2010, January 2014 and October 2014.

Source: Basel Committee on Banking Supervision. See Table C.113 for underlying data and sample size.

Evolution of NSFR and its drivers,[1] by region

Consistent sample of Group 1 banks — Graph 103



[1] As described in the text, the NSFR analysis is based on NSFR standard released in December 2010, January 2014 and October 2014.

Source: Basel Committee on Banking Supervision. See Table C.114 for underlying data and sample size.

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Counterparty credit risk and credit valuation adjustment risk

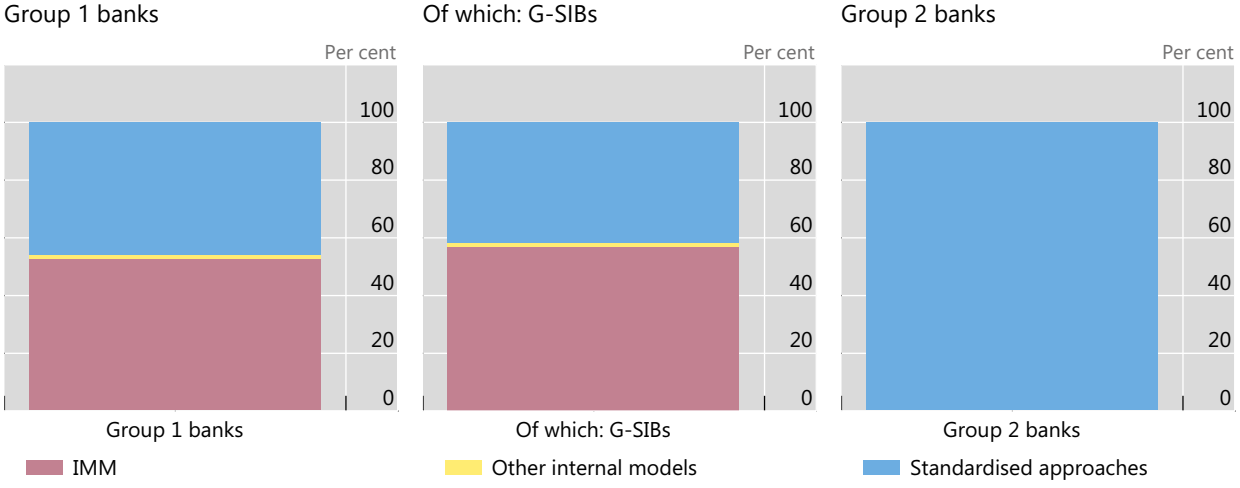
1. Counterparty credit risk

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.

1.1 Current rules for counterparty credit risk

Graph 1 shows the composition of counterparty credit risk capital by bank group at end-December 2019. A significant number of banks in the sample use standardised approaches (SA) to calculate CCR exposures. Amongst those, the current exposure method (CEM) is the most widely used. A large number of Group 1 banks also use internal model approaches, mainly the internal model method (IMM), to calculate CCR exposures for derivatives and securities financing transactions (SFTs). Group 2 banks in the sample do not apply the internal model approaches. For 60 Group 1 banks (of which 20 are using the IMM), CCR IMM capital requirements contribute 52.8% to total CCR capital requirements. CCR capital requirements calculated using standardised approaches contribute 46.0%. For G-SIBs, 56.9% of total CCR capital requirements come 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 portions of exposures (1.2% for Group 1 banks).

Contribution to current CCR capital requirements by approach to EAD calculation — Graph 1



Source: Basel Committee on Banking Supervision. See Table C.115 for underlying data.

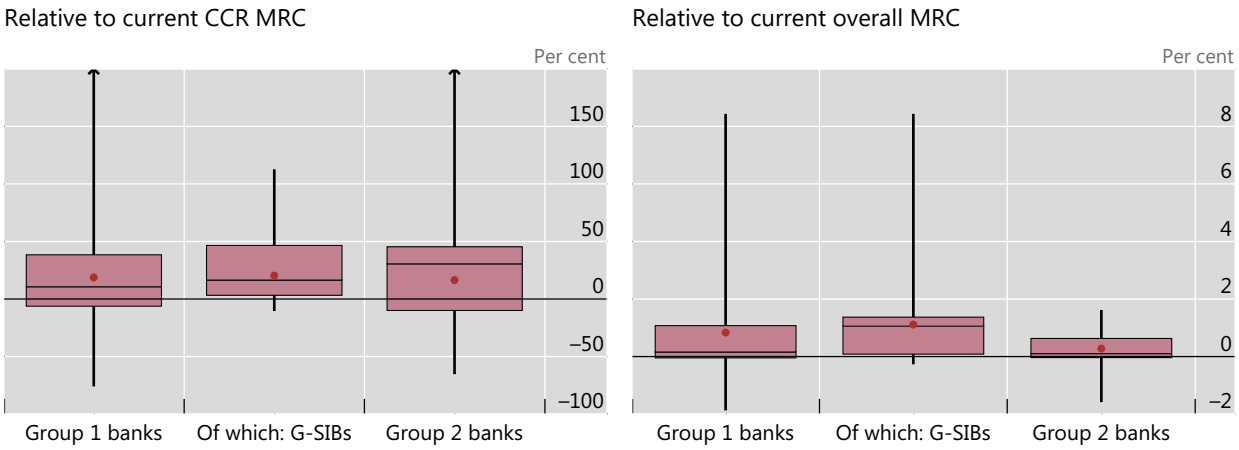
1.2 Overall impact of the revised minimum capital requirements for counterparty credit risk

This section shows the estimated impacts from the introduction of the revised minimum capital requirements for counterparty credit risk. Firstly, it reflects changes to the exposure calculation methodologies, with the introduction of the standardised approach to 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 impacts 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 92 banks, including 60 Group 1 banks, of which 18 G-SIBs, and 32 Group 2 banks, have provided consistent data on the revised minimum capital requirements for counterparty credit risk for the end-December 2019 reporting date.

The left-hand panel of Graph 2 shows the impact on capital requirements from the introduction of the revised CCR framework compared to the current rules. On the full sample, capital requirements increase on average by 18.8%. For Group 1 banks and G-SIBs, RWAs increase by 18.8% and 20.4%, respectively. For Group 2 banks, the average increase is slightly less pronounced (16.5%). There is higher variability across Group 1 and Group 2 banks than there is for G-SIBs. the right-hand panel of Graph 2 displays the average impact of the CCR revisions on overall MRC, which is 0.8% and 0.3% for Group 1 and Group 2 banks, respectively. For the middle 50% of Group 1 banks, the increase is between 0.0% and 1.1% of overall MRC, and between 0.0% and 0.6% for the middle 50% of Group 2 banks.

Impact of revised CCR capital requirements compared to current rules

All banks — Graph 2



Source: Basel Committee on Banking Supervision. See Table C.116 for underlying data and sample size.

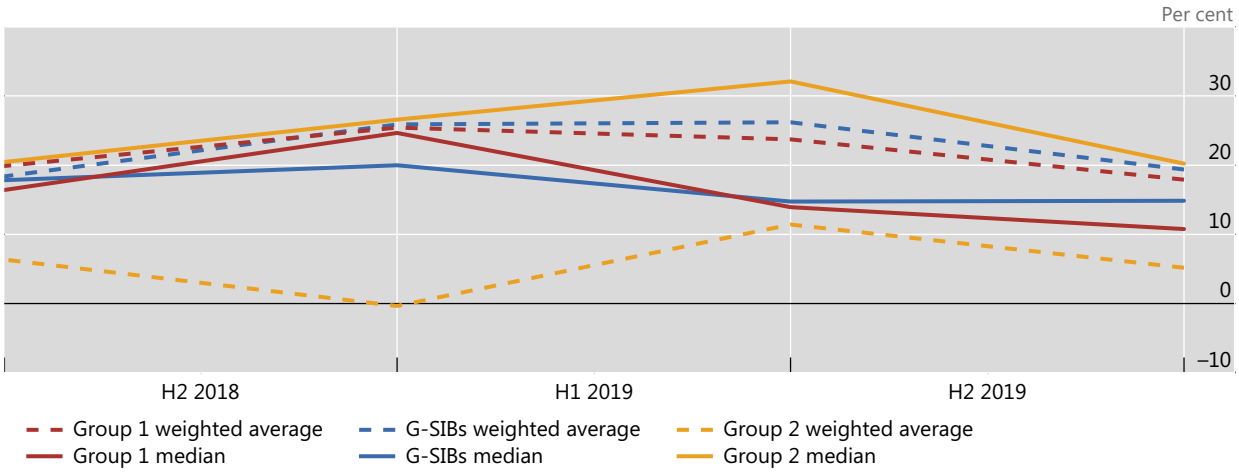
One of the factors that drives the changes between the current standardised approaches and SA-CCR include the treatment of margin collateral under the current rules (ie CEM or SM). In case banks currently do not recognise the margin collateral, while they do take it into account under the SA-CCR, SA-CCR exposures decrease significantly (sometimes leading to SA-CCR exposures and consequently capital requirements close to zero). In cases where banks have already accounted for margin collateral under CEM, banks see higher exposures due to the SA-CCR framework, with greater impacts if the banks' positions are more material in risk classes that are more significantly impacted by the SA-CCR framework. Changes in the credit risk framework can amplify these impacts. Haircuts will change for SFTs currently capitalised

under CA(SH), and CA(OE) will be removed from the framework. Some banks are not affected by the more conservative supervisory haircuts in the revised CA(SH), but others see their SFTs exposures (and hence capital requirements) increase significantly.

Graph 3 shows the average and median impacts of the revised CCR capital requirements relative to the current ones for a consistent sample of 47 Group 1 banks (of which 16 G-SIBs) and 22 Group 2 banks. The average impact for Group 1 banks and G-SIBs is less volatile across time than the one for Group 2 banks ranging between -0.3% (end-December 2018) and 11.4% (end-June 2019). Nevertheless, the impact of the framework changes are on average considerably higher for Group 1 banks and G-SIBs than they are for Group 2 banks.

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

Consistent sample of banks — Graph 3



Source: Basel Committee on Banking Supervision. See Table C.117 for underlying data and sample size.

2. Credit valuation adjustment risk

2.1 Current rules for credit valuation adjustment risk

The sample for the analysis of the CVA risk component consists of 86 banks, including 60 Group 1 banks, of which 20 G-SIBs, and 26 Group 2 banks that provided consistent data at the end-December 2019 reporting date.

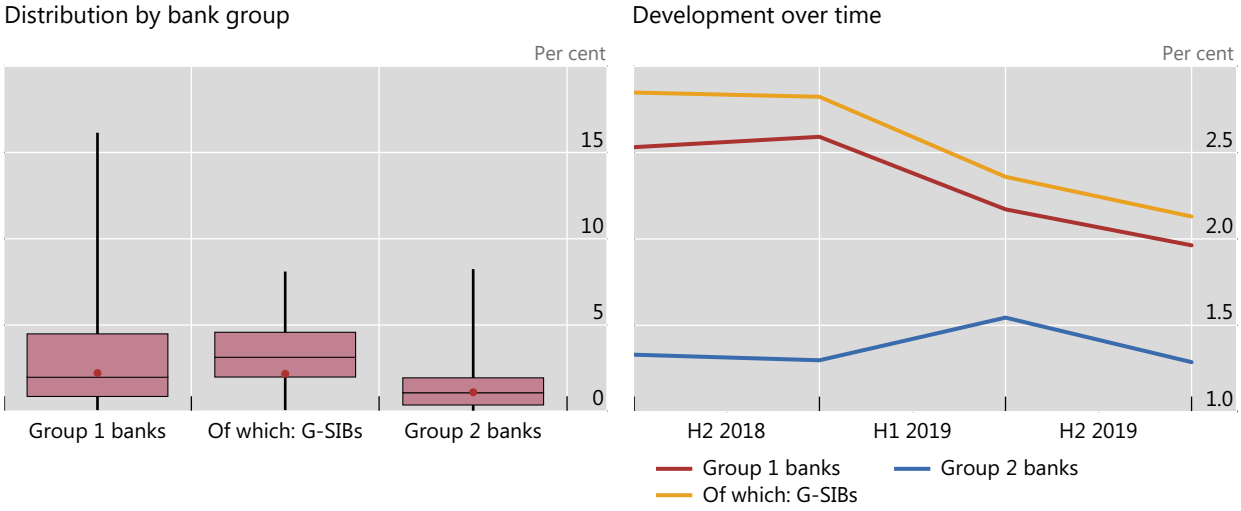
The left-hand side of Graph 4 shows that the average share of CVA capital requirements in total MRC is higher for Group 1 banks than for Group 2 banks, but even for G-SIBs the current share of CVA capital requirements is less than 5% for 85% of banks.

The right-hand side of Graph 4 displays for a consistent sample of 38 Group 1 banks (thereof 15 G-SIBs) and 16 Group 2 banks, the average share of current CVA capital requirements in the total MRC across time. The highest share is shown for the end-December 2018 exercise for Group 1 banks and G-SIBs. G-SIBs report the highest average share of CVA capital requirements in total MRC consistently across time compared to Group 1 and Group 2 banks. Although, the average share for all Group 1 banks is only slightly lower than for the G-SIBs. For Group 1 banks (including G-SIBs), a general trend towards a lower share of CVA capital requirements in total MRC can be observed. Firstly, a reduction in absolute CVA capital requirements was observed for the end-June 2019 data. Secondly, although absolute CVA capital

requirements increased again for the end-December 2019 exercise (comparable to end-December 2018), a simultaneous increase in total MRC compensated this effect leading to a reduction in the relative share of CVA capital requirements in total MRC.

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

All banks Graph 4



Source: Basel Committee on Banking Supervision. See Table C.118 for underlying data and sample size.

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

This section shows the estimated impacts from the introduction of the revised minimum capital requirements for credit valuation adjustment (CVA) risk published in December 2017.[1] The sample includes 14 banks that currently apply the advanced method for CVA (A-CVA), of which 13 indicate to use the standardised approach for CVA (SA-CVA) under the revised framework. The other 72 banks that currently apply only the standard method for CVA (S-CVA) include 11 banks that indicate to apply the SA-CVA and 57 banks that indicate to move to the reduced basic approach for CVA (reduced BA-CVA) under the revised minimum capital requirements for CVA. Overall, only four banks in the sample indicate to use only the full basic approach for CVA (full BA-CVA) in the future.

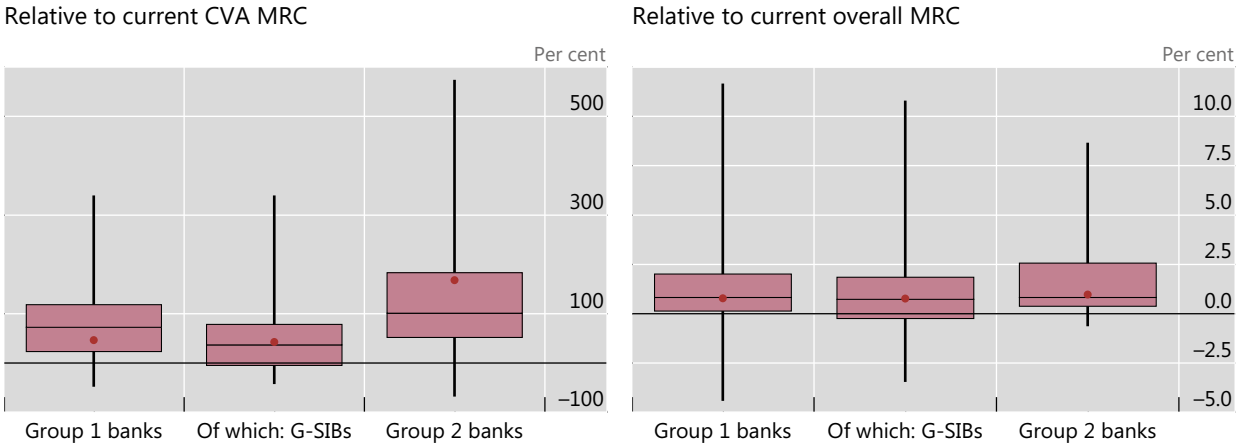
The left-hand side panel of Graph 5 shows that the impact when moving to the revised CVA framework differs substantially between Group 1 and Group 2 banks. The average increase for Group 1 banks is 46.3%, while the average increase for Group 2 banks is 168.0%. The average impact for G-SIBs (+42.6%) is in line with the impact for Group 1 banks. The variability in results is significant. Some banks report decreasing capital requirements when moving to the revised CVA framework with CVA capital requirements decreasing by as much as 68.3%. Other banks report significant increases in the CVA capital requirements relative to the current standards, up to about six times the current capital requirements. Very high increases appear more frequent for S-CVA banks that move to the reduced BA-CVA. This is explained by the combination of the increase in exposures from the application of the SA-CCR and the higher risk

[1] Targeted revisions to the revised CVA framework were published in July 2020 and, therefore, are not yet considered in the Basel III monitoring exercise as of end-December 2019. They will be reflected in the exercise on the end-2020 reporting date. See Basel Committee on Banking Supervision, *Targeted revisions to the credit valuation adjustment risk framework, July 2020*, www.bis.org/bcbs/publ/d507.htm.

weights in the BA-CVA compared to the current standardised approach. Capital requirements under the reduced BA-CVA are 96.9% higher than capital requirements under the current S-CVA for the median bank.

The right-hand side panel of Graph 5 provides the impact of the revised CVA capital requirements relative to current overall MRC. Given the small share of CVA capital requirements in overall MRC for most of the 86 banks in the sample, the average impact of the CVA revisions on overall MRC is approximately 1% for both Group 1 and Group 2 banks. Overall, the impact ranges between -4.4% and +11.7% for all banks in the sample.

Impact of revised CVA capital requirements compared to current rules — Graph 5



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.

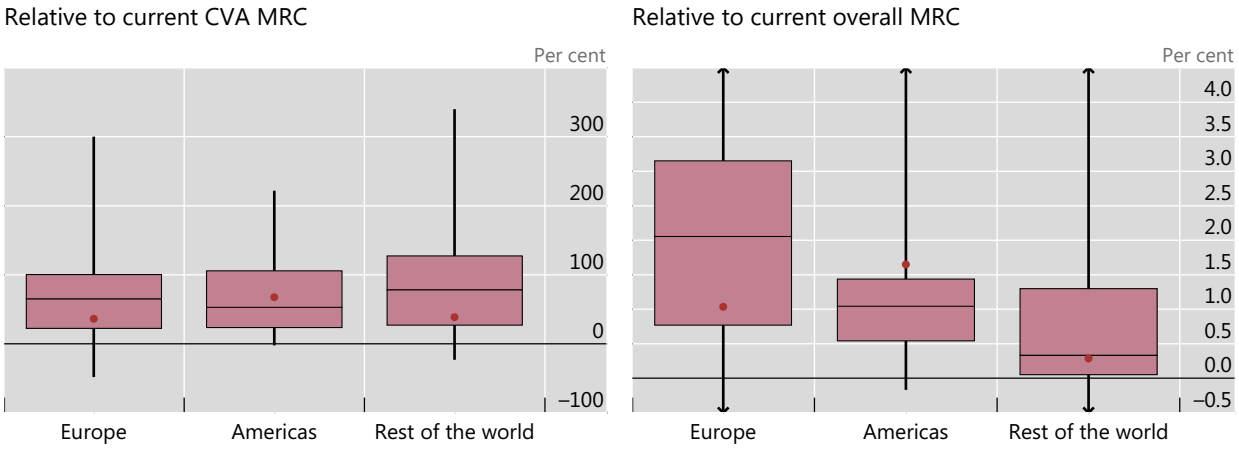
Source: Basel Committee on Banking Supervision. See Table C.119 for underlying data and sample size.

Graph 6 shows that results differ across regions. The average impacts of +36.1% and +38.5% in Europe and the rest of the world, respectively, are lower than in the Americas (+67.6%). The variability of results also differs across individual countries. In some countries, all banks show comparable impacts, and in others, the impact ranges from large reductions to very large increases in CVA capital requirements from the introduction of the revised minimum capital requirements for CVA risk.

Impact of revised CVA capital requirements compared to current rules, by region

Group 1 banks

Graph 6



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.

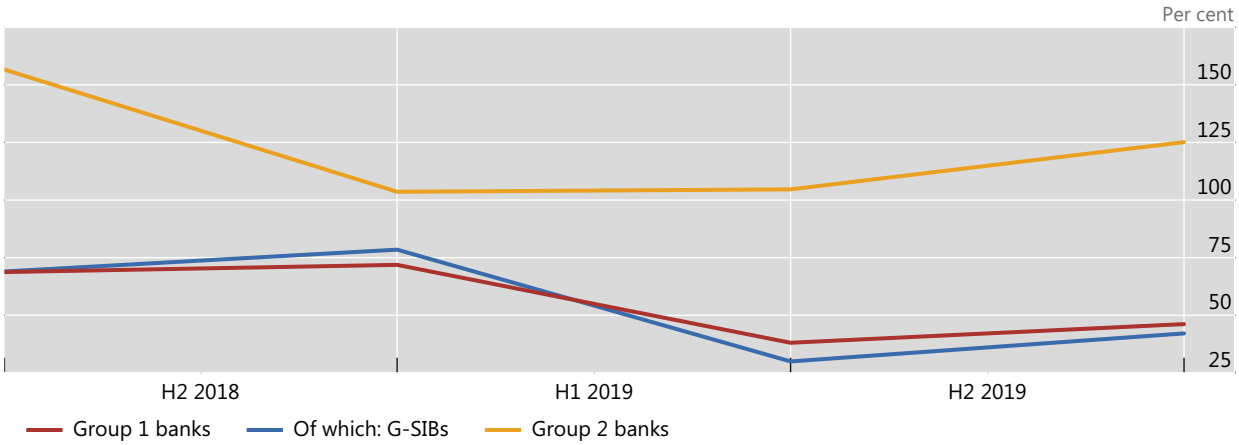
Source: Basel Committee on Banking Supervision. See Table C.120 for underlying data and sample size.

Graph 7 compares the average impact on CVA capital requirements under the revised framework to the current rules across time for a consistent sample of 52 Group 1 banks (thereof 19 G-SIBs) and 19 Group 2 banks. The observed impacts for Group 1 banks reduce from 68.8% in the end-June 2018 and end-December 2018 exercises to around 40% in the end-June 2019 and end-December 2019 exercises. The impacts for Group 2 banks ranges from 157% in the end-June 2018 exercise to 125% in the end-December 2019 exercise, reaching a minimum of 104% during the end-December 2018 exercise.

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

Consistent sample of banks

Graph 7



Source: Basel Committee on Banking Supervision. See Table C.121 for underlying data and sample size.

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 and additional results

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	Securitisation	All	RWA and capital	Leverage	LCR	NSFR	Securitisation
Argentina (AM)	0	0	0	0	0	0	2	2	2	2	2	2
Australia (RW)	4	4	4	4	4	2	1	1	1	1	1	0
Belgium (EU)	2	2	2	2	2	2	3	2	2	3	2	1
Brazil (AM)	2	2	2	2	2	2	0	0	0	0	0	0
Canada (AM)	6	2	2	6	2	2	0	0	0	0	0	0
China (RW)	6	6	6	6	6	0	0	0	0	0	0	0
Finland (EU)	1	1	1	1	1	1	0	0	0	0	0	0
France (EU)	5	5	5	5	5	5	2	2	2	2	2	2
Germany (EU)	7	6	6	7	6	5	21	21	21	21	20	2
India (RW)	9	9	9	9	9	1	1	1	1	1	1	1
Indonesia (RW)	0	0	0	0	0	0	2	2	2	1	2	2
Italy (EU)	2	2	2	2	2	2	11	10	10	11	10	10
Japan (RW)	16	16	16	16	15	15	3	3	3	3	3	3
Korea (RW)	8	8	0	0	8	8	0	0	0	0	0	0
Luxembourg (EU)	0	0	0	0	0	0	2	2	2	2	2	2
Mexico (AM)	1	1	1	1	1	0	5	5	5	5	5	0
Netherlands (EU)	4	4	4	4	4	3	4	4	4	4	4	1
Russia (EU)	1	1	1	1	1	1	0	0	0	0	0	0
Saudi Arabia (RW)	3	3	3	3	3	0	0	0	0	0	0	0
Singapore (RW)	3	3	3	3	3	2	0	0	0	0	0	0
South Africa (RW)	4	4	4	4	4	4	2	2	2	2	2	2
Spain (EU)	2	2	2	2	2	2	5	5	5	5	5	5
Sweden (EU)	3	3	3	3	3	1	3	3	3	3	3	1
Switzerland (EU)	2	2	2	2	2	2	0	0	0	0	0	0
Turkey (EU)	3	3	3	3	3	0	0	0	0	0	0	0
United Kingdom (EU)	5	5	5	5	4	5	3	3	3	3	3	2
United States (AM)	13	10	10	13	10	10	0	0	0	0	0	0
Total	112	104	96	104	102	75	70	68	68	69	67	36
Of which: G-SIBs	30	28	28	30	27	24	0	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

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	93	4,491	30,199	65,468	71,981
Of which: Europe	15	968	6,593	12,387	14,804
Of which: Americas	34	1,362	8,518	23,695	25,324
Of which: Rest of the world	44	2,160	15,088	29,387	31,853
Of which: G-SIBs	28	3,080	21,214	45,994	50,487
Group 2 banks	66	232	1,442	4,110	4,206

[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
Australia (RW)	4	0
Belgium (EU)	2	2
Brazil (AM)	2	0
Canada (AM)	2	0
China (RW)	6	0
Finland (EU)	1	0
France (EU)	5	2
Germany (EU)	6	20
India (RW)	4	0
Italy (EU)	2	9
Japan (RW)	12	3
Luxembourg (EU)	0	2
Mexico (AM)	1	5
Netherlands (EU)	4	4
Russia (EU)	1	0
Saudi Arabia (RW)	2	0
Singapore (RW)	3	0
South Africa (RW)	4	2
Spain (EU)	2	5
Sweden (EU)	3	3
Switzerland (EU)	2	0
Turkey (EU)	1	0
United Kingdom (EU)	5	3
United States (AM)	8	0
Total	82	60

[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.

Regulatory CET1 capital adjustments

Consistent sample of Group 1 banks, in per cent of CET1 capital prior to adjustments — Table B.4

	Number of banks	Goodwill	Intangibles	DTA[1]	Financials	DTA above threshold	Excess above 15%[2]	ECL provisioning	Other[3]	Total
H1 2011	80	–15.3	–3.7	–3.4	–2.9	–1.9	–2.2		–2.9	–32.4
H2 2011	80	–13.9	–3.6	–2.9	–1.8	–1.7	–1.7		–3.7	–29.3
H1 2012	80	–13.2	–3.3	–2.6	–1.6	–1.2	–1.4		–3.3	–26.8
H2 2012	80	–12.3	–3.1	–2.8	–2.3	–1.2	–1.2		–2.8	–25.7
H1 2013	80	–11.8	–2.8	–2.8	–2.4	–1.1	–1.0		–2.0	–23.9
H2 2013	80	–11.0	–2.6	–2.5	–1.3	–0.6	–0.4		–1.5	–19.8
H1 2014	80	–10.6	–2.6	–2.3	–1.2	–0.4	–0.1		–1.4	–18.7
H2 2014	80	–10.0	–2.4	–2.1	–1.0	–0.4	–0.2		–1.8	–18.1
H1 2015	80	–9.7	–2.3	–2.0	–0.7	–0.3	–0.1		–1.7	–17.1
H2 2015	80	–9.1	–2.2	–1.9	–0.7	–0.3	–0.1		–1.8	–16.5
H1 2016	80	–8.9	–2.2	–1.8	–0.7	–0.2	–0.1		–2.2	–16.4
H2 2016	80	–8.7	–2.2	–1.7	–0.7	–0.3	–0.1		–2.0	–15.8
H1 2017	80	–8.4	–2.2	–1.6	–0.8	–0.3	–0.1		–1.6	–15.0
H2 2017	80	–8.4	–2.2	–1.3	–0.7	–0.1	–0.1		–1.5	–14.4
H1 2018	80	–8.4	–2.2	–1.3	–0.7	–0.1	–0.1		–1.5	–14.3
H2 2018	80	–8.2	–2.2	–1.2	–0.7	–0.1	–0.1	0.0	–1.6	–14.2
H1 2019	80	–8.0	–2.1	–1.1	–0.7	–0.1	–0.2	0.0	–1.6	–13.7
H2 2019	80	–7.7	–2.2	–1.0	–0.6	–0.1	–0.1	0.0	–1.5	–13.1

[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.

Regulatory CET1 capital adjustments

Consistent sample of Group 2 banks, in per cent of CET1 capital prior to adjustments — Table B.5

	Number of banks	Goodwill	Intangibles	DTA[1]	Financials	DTA above threshold	Excess above 15%[2]	ECL provisioning	Other[3]	Total
H1 2011	28	–16.3	–4.0	–0.5	–5.2	–5.7	–2.8		–4.6	–39.2
H2 2011	28	–11.0	–4.1	–0.6	–5.9	–3.7	–2.0		–4.3	–31.7
H1 2012	28	–8.7	–4.0	–0.3	–5.6	–3.2	–2.2		–5.0	–29.1
H2 2012	28	–8.1	–3.9	–0.2	–6.6	–2.6	–1.8		–5.5	–28.7
H1 2013	28	–7.9	–3.7	–0.4	–6.3	–1.9	–1.6		–6.5	–28.3
H2 2013	28	–5.9	–3.6	–0.5	–4.8	–0.7	–1.0		–6.4	–22.9
H1 2014	28	–5.2	–3.2	–0.4	–3.2	0.0	–0.7		–2.0	–14.9
H2 2014	28	–3.3	–3.5	–0.6	–3.7	–0.5	–0.8		–3.4	–15.8
H1 2015	28	–3.2	–2.9	–0.5	–3.7	–0.1	–0.8		–2.7	–14.0
H2 2015	28	–3.3	–3.0	–0.5	–3.5	0.0	–0.2		–3.2	–13.6
H1 2016	28	–3.2	–3.0	–1.0	–2.9	0.0	–0.2		–2.8	–13.2
H2 2016	28	–3.2	–3.0	–1.0	–4.4	0.0	–0.5		–2.2	–14.3
H1 2017	28	–3.0	–2.8	–1.6	–3.4	0.0	–0.1		–2.2	–13.1
H2 2017	28	–3.0	–3.0	–1.8	–3.5	0.0	–0.4		–2.3	–13.8
H1 2018	28	–3.2	–3.0	–2.1	–3.5	0.0	–0.5		–1.8	–14.1
H2 2018	28	–3.0	–3.1	–2.1	–3.5	–0.3	–0.8	0.0	–1.8	–14.5
H1 2019	28	–3.1	–3.2	–2.2	–3.6	–0.2	–0.7	0.0	–2.1	–15.2
H2 2019	28	–3.1	–3.4	–1.2	–4.0	–0.1	–0.3	0.0	–2.0	–14.2

[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.

Fully phased-in initial Basel III CET1, Tier 1 and total capital ratios

In per cent

Table B.6

	Group 1 banks			Of which: G-SIBs			Group 2 banks		
	CET1	Tier 1	Total	CET1	Tier 1	Total	CET1	Tier 1	Total
Max	32.6	32.6	37.8	16.3	22.9	25.0	50.8	50.8	50.8
95th percentile	18.6	20.7	23.2	16.1	18.3	20.9	31.7	35.3	38.2
75th percentile	15.7	16.7	18.8	14.1	16.4	18.7	20.4	20.6	21.6
Median	13.2	14.7	16.6	13.1	14.9	17.1	14.6	15.2	16.4
25th percentile	11.7	13.1	15.0	11.6	13.2	15.3	12.7	13.2	14.9
5th percentile	11.0	12.0	13.4	11.2	12.6	14.4	10.9	11.0	12.4
Min	9.4	10.1	12.2	11.1	12.6	14.2	9.0	9.0	11.2
Weighted average	13.0	14.5	16.7	12.7	14.3	16.5	15.3	16.0	18.2

Source: Basel Committee on Banking Supervision.

Structure of regulatory capital under transitional initial Basel III rules

Consistent sample of banks, in per cent

Table B.7

	Group 1 banks				Of which: G-SIBs				Group 2 banks			
	Num. of banks	CET1	Add. Tier 1	Tier 2	Num. of banks	CET1	Add. Tier 1	Tier 2	Num. of banks	CET1	Add. Tier 1	Tier 2
H1 2011	83	71.8	9.5	18.7	28	69.3	11.4	19.4	29	68.3	8.3	23.4
H2 2011	83	73.1	9.0	17.9	28	70.7	10.7	18.6	29	70.4	6.8	22.7
H1 2012	83	75.0	8.1	16.8	28	73.4	9.6	17.0	29	72.0	4.3	23.8
H2 2012	83	75.5	7.6	16.9	28	74.3	9.0	16.7	29	72.0	4.0	24.0
H1 2013	83	75.5	6.8	17.7	28	75.5	7.2	17.3	29	71.9	3.8	24.3
H2 2013	83	76.1	6.6	17.4	28	76.2	6.9	16.9	29	73.3	3.1	23.6
H1 2014	83	76.6	5.7	17.7	28	77.0	5.8	17.2	29	74.8	3.4	21.8
H2 2014	83	76.3	6.3	17.4	28	76.3	6.7	17.0	29	76.8	3.7	19.5
H1 2015	83	76.7	6.7	16.6	28	76.6	7.3	16.1	29	78.7	3.8	17.4
H2 2015	83	76.5	7.3	16.2	28	76.5	7.9	15.6	29	80.3	4.3	15.4
H1 2016	83	76.9	7.5	15.6	28	77.0	8.2	14.8	29	81.0	4.1	15.0
H2 2016	83	77.0	7.8	15.3	28	77.1	8.3	14.6	29	81.2	3.8	15.0
H1 2017	83	77.1	8.2	14.6	28	77.3	8.8	13.9	29	80.6	3.5	15.9
H2 2017	83	77.0	8.3	14.7	28	77.0	8.7	14.3	29	80.2	3.4	16.4
H1 2018	83	76.8	8.8	14.4	28	76.9	9.2	14.0	29	79.8	5.2	14.9
H2 2018	83	76.9	8.6	14.6	28	76.8	8.9	14.3	29	80.4	5.3	14.3
H1 2019	83	76.4	8.9	14.7	28	75.9	9.2	14.9	29	81.5	3.9	14.5
H2 2019	83	76.1	9.4	14.5	28	75.6	9.7	14.7	29	81.2	4.8	14.0

Source: Basel Committee on Banking Supervision.

Annex C: Statistical Annex

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

Fully phased-in initial Basel III standards[1], consistent sample of Group 1 banks, exchange rates as of the current reporting date, in per cent

Table C.1

	Tier 1 capital			Risk-weighted assets			Accounting total assets		
	Europe	Americas	Rest of the world	Europe	Americas	Rest of the world	Europe	Americas	Rest of the world
H1 2011	35.8	29.7	34.4	40.4	32.1	27.5	49.3	21.5	29.1
H2 2011	35.0	29.8	35.2	40.6	30.6	28.9	50.0	20.8	29.2
H1 2012	35.2	29.5	35.4	38.8	30.5	30.7	49.5	20.4	30.1
H2 2012	33.7	29.6	36.7	37.1	30.8	32.1	48.1	21.1	30.8
H1 2013	33.8	28.3	37.9	35.3	29.6	35.1	46.2	21.1	32.7
H2 2013	34.0	28.3	37.7	34.3	29.0	36.7	44.2	21.6	34.2
H1 2014	34.6	28.3	37.1	34.6	29.0	36.4	43.7	21.4	34.9
H2 2014	33.4	27.8	38.8	33.3	27.8	38.9	43.9	21.1	35.0
H1 2015	32.6	27.8	39.5	32.5	27.2	40.3	42.4	20.8	36.7
H2 2015	32.1	27.5	40.5	31.6	27.5	40.8	41.3	20.9	37.8
H1 2016	31.7	27.8	40.5	31.3	27.3	41.4	42.2	20.6	37.3
H2 2016	32.1	27.2	40.7	30.7	27.0	42.3	40.3	21.0	38.8
H1 2017	31.4	27.4	41.2	29.9	26.4	43.7	39.3	21.0	39.7
H2 2017	31.3	26.3	42.4	28.6	26.3	45.1	38.4	21.0	40.6
H1 2018	30.9	26.0	43.1	28.1	26.6	45.4	38.6	20.9	40.4
H2 2018	30.5	25.4	44.1	28.4	26.0	45.7	37.7	21.0	41.4
H1 2019	30.5	24.8	44.7	28.1	25.6	46.3	37.4	21.1	41.5
H2 2019	30.2	23.8	46.0	27.4	25.4	47.2	36.4	21.1	42.4

[1] The table 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.

Initial Basel III CET1, Tier 1 and total capital ratios

In per cent

Table C.2

	Group 1 banks			Of which: G-SIBs			Group 2 banks		
	CET1	Tier 1	Total	CET1	Tier 1	Total	CET1	Tier 1	Total
Max	32.6	32.6	37.8	16.4	20.0	22.2	50.8	50.8	50.8
95th percentile	18.6	20.6	22.9	16.1	18.3	21.4	30.6	33.2	36.4
75th percentile	15.7	16.9	19.2	13.8	16.8	19.2	20.0	20.5	21.8
Median	13.2	14.9	17.4	12.9	15.0	17.5	14.9	15.4	17.2
25th percentile	11.8	13.0	15.2	11.8	13.6	15.6	13.1	13.6	15.5
5th percentile	10.9	12.0	13.8	11.2	12.7	14.7	11.4	11.5	13.2
Min	9.4	11.1	12.6	11.1	12.5	14.3	10.9	10.9	11.9
Weighted average	13.0	14.5	17.0	12.8	14.4	16.9	15.2	16.0	18.2

Source: Basel Committee on Banking Supervision.

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

Consistent sample of banks, in per cent

Table C.3

	Group 1 banks				Of which: G-SIBs				Group 2 banks			
	Number of banks	CET1	Tier 1	Total	Number of banks	CET1	Tier 1	Total	Number of banks	CET1	Tier 1	Total
H1 2011	78	7.1	7.4	8.6	28	6.7	7.1	8.5	29	6.9	7.5	9.8
H2 2011	78	7.6	7.9	9.1	28	7.3	7.6	9.0	29	6.6	7.3	9.6
H1 2012	78	8.5	8.7	9.8	28	8.2	8.5	9.8	29	7.2	8.1	9.9
H2 2012	78	9.1	9.4	10.5	28	8.9	9.2	10.5	29	6.7	7.4	9.2
H1 2013	78	9.4	9.7	11.0	28	9.2	9.5	10.9	29	6.9	7.7	9.8
H2 2013	78	10.1	10.4	11.8	28	9.9	10.3	11.7	29	8.8	9.7	11.7
H1 2014	78	10.8	11.3	12.6	28	10.5	11.1	12.3	29	10.9	11.2	13.2
H2 2014	78	10.9	11.5	13.0	28	10.7	11.4	12.9	29	10.8	11.2	12.8
H1 2015	78	11.3	12.1	13.7	28	11.1	11.9	13.6	29	11.6	11.9	13.4
H2 2015	78	11.7	12.6	14.4	28	11.5	12.5	14.2	29	11.6	12.0	13.6
H1 2016	78	11.9	12.9	14.7	28	11.7	12.8	14.5	29	11.6	12.1	13.7
H2 2016	78	12.2	13.3	15.2	28	12.1	13.3	15.2	29	11.7	12.2	13.9
H1 2017	78	12.4	13.6	15.4	28	12.2	13.5	15.2	29	12.5	13.0	15.3
H2 2017	78	12.7	13.9	15.9	28	12.5	13.8	15.8	29	13.9	14.6	17.3
H1 2018	78	12.4	13.7	15.7	28	12.2	13.5	15.5	29	13.8	14.7	17.2
H2 2018	78	12.8	14.1	16.3	28	12.6	13.9	16.1	29	14.1	15.0	17.4
H1 2019	78	12.8	14.4	16.8	28	12.7	14.3	16.8	29	14.7	15.4	18.0
H2 2019	78	12.9	14.5	17.0	28	12.8	14.4	16.9	29	14.7	15.6	18.1

[1] This table 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.

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

Consistent sample of Group 1 banks, in per cent — Table C.4

	Europe				Americas				Rest of the world			
	Number of banks	CET1	Tier 1	Total	Number of banks	CET1	Tier 1	Total	Number of banks	CET1	Tier 1	Total
H1 2011	28	6.4	6.5	7.3	14	6.1	6.8	9.3	36	8.9	9.0	9.6
H2 2011	28	6.7	6.9	7.6	14	7.1	7.7	10.2	36	9.3	9.4	10.1
H1 2012	28	7.8	8.0	8.6	14	7.8	8.4	10.7	36	9.7	9.8	10.5
H2 2012	28	8.5	8.6	9.5	14	8.4	9.0	11.1	36	10.4	10.4	11.1
H1 2013	28	9.2	9.3	10.8	14	8.6	9.3	11.2	36	10.2	10.2	11.0
H2 2013	28	10.2	10.4	12.1	14	9.5	10.3	12.0	36	10.5	10.6	11.3
H1 2014	28	10.8	11.3	13.4	14	10.1	11.1	12.6	36	11.2	11.4	12.0
H2 2014	28	11.0	11.7	13.7	14	10.5	11.6	13.3	36	11.0	11.3	12.4
H1 2015	28	11.5	12.2	14.5	14	11.0	12.5	14.3	36	11.4	11.8	12.9
H2 2015	28	11.9	12.9	15.5	14	11.2	12.7	14.5	36	11.9	12.4	13.5
H1 2016	28	12.1	13.2	15.9	14	11.6	13.2	15.1	36	12.0	12.6	13.6
H2 2016	28	12.6	14.1	17.3	14	11.8	13.5	15.4	36	12.1	12.8	13.8
H1 2017	28	13.0	14.4	17.1	14	12.4	14.1	16.1	36	12.1	12.8	13.9
H2 2017	28	13.8	15.3	18.1	14	12.2	14.0	15.9	36	12.3	13.1	14.6
H1 2018	28	13.5	15.1	18.0	14	11.8	13.5	15.3	36	12.1	13.0	14.7
H2 2018	28	13.5	15.2	18.0	14	12.1	13.8	15.7	36	12.7	13.5	15.5
H1 2019	28	13.7	15.8	18.7	14	12.3	14.0	15.9	36	12.6	13.7	16.2
H2 2019	28	14.1	16.2	19.0	14	12.0	13.7	15.6	36	12.7	14.1	16.6

[1] This table 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.

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

Consistent sample of G-SIBs, in per cent — Table C.5

	Europe				Americas				Rest of the world			
	Number of banks	CET1	Tier 1	Total	Number of banks	CET1	Tier 1	Total	Number of banks	CET1	Tier 1	Total
H1 2011	13	6.1	6.3	6.9	8	6.0	6.7	9.3	7	8.6	8.7	9.5
H2 2011	13	6.3	6.4	7.1	8	7.0	7.7	10.3	7	9.0	9.1	9.9
H1 2012	13	7.6	7.7	8.4	8	7.8	8.5	10.7	7	9.5	9.6	10.4
H2 2012	13	8.4	8.5	9.6	8	8.4	9.1	11.1	7	10.0	10.1	10.9
H1 2013	13	9.0	9.1	10.5	8	8.7	9.4	11.3	7	9.8	9.9	10.8
H2 2013	13	10.0	10.2	11.8	8	9.6	10.4	12.1	7	10.2	10.2	11.2
H1 2014	13	10.4	10.9	12.7	8	10.2	11.3	12.8	7	10.9	11.0	11.4
H2 2014	13	10.7	11.4	13.4	8	10.5	11.8	13.4	7	10.8	11.1	12.0
H1 2015	13	11.1	11.9	14.2	8	11.1	12.6	14.4	7	11.1	11.4	12.5
H2 2015	13	11.4	12.5	15.0	8	11.3	12.9	14.7	7	11.6	12.2	13.3
H1 2016	13	11.7	12.8	15.4	8	11.7	13.4	15.3	7	11.7	12.2	13.2
H2 2016	13	12.5	14.1	17.2	8	11.9	13.7	15.6	7	11.9	12.5	13.5
H1 2017	13	12.8	14.3	16.9	8	12.4	14.3	16.2	7	11.7	12.4	13.5
H2 2017	13	13.4	15.0	17.7	8	12.3	14.1	16.0	7	12.1	12.9	14.4
H1 2018	13	13.0	14.8	17.5	8	11.8	13.5	15.4	7	11.9	12.7	14.4
H2 2018	13	13.2	15.0	17.7	8	12.1	13.8	15.7	7	12.5	13.4	15.4
H1 2019	13	13.3	15.5	18.2	8	12.3	14.0	15.9	7	12.7	13.7	16.5
H2 2019	13	13.8	15.9	18.5	8	12.0	13.7	15.5	7	12.6	14.0	16.8

[1] This table 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.

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

Consistent sample of banks, exchange rates as of the current reporting date, in per cent — Table C.6

	Group 1 banks				Of which: G-SIBs				Group 2 banks			
			Change				Change				Change	
	Number of banks	Tier 1 ratio	Tier 1 capital	RWA	Number of banks	Tier 1 ratio	Tier 1 capital	RWA	Number of banks	Tier 1 ratio	Tier 1 capital	RWA
H1 2011	78	7.4			28	7.1			28	7.7		
H2 2011	78	7.9	5.4	–2.0	28	7.6	4.7	–2.6	28	7.6	–0.5	0.9
H1 2012	78	8.7	8.2	–1.9	28	8.5	9.1	–2.4	28	8.4	7.4	–2.6
H2 2012	78	9.4	5.0	–2.0	28	9.2	5.5	–2.0	28	7.6	–7.5	1.8
H1 2013	78	9.7	4.9	1.4	28	9.5	4.7	1.5	28	7.9	1.4	–2.2
H2 2013	78	10.4	7.6	–0.2	28	10.3	8.4	–0.2	28	9.9	19.5	–4.6
H1 2014	78	11.3	7.3	–0.5	28	11.1	7.4	0.0	28	11.3	13.9	–0.9
H2 2014	78	11.5	6.2	3.9	28	11.4	6.8	3.4	28	11.3	–1.2	–0.8
H1 2015	78	12.1	6.3	1.3	28	11.9	6.3	1.6	28	11.9	10.3	4.5
H2 2015	78	12.6	4.3	0.1	28	12.5	4.1	–0.4	28	12.0	2.9	2.0
H1 2016	78	12.9	3.4	1.0	28	12.8	3.5	1.3	28	12.1	–0.1	–0.4
H2 2016	78	13.3	3.3	0.0	28	13.3	3.2	–1.2	28	12.2	–1.5	–2.6
H1 2017	78	13.6	2.9	1.2	28	13.5	2.5	1.5	28	13.1	9.1	1.6
H2 2017	78	13.9	2.5	–0.2	28	13.8	2.4	–0.3	28	14.6	–0.5	–10.8
H1 2018	78	13.7	1.2	3.1	28	13.5	1.2	3.9	28	14.8	0.3	–1.1
H2 2018	78	14.1	2.9	0.2	28	13.9	2.8	–0.6	28	15.1	–0.1	–1.9
H1 2019	78	14.4	4.8	2.6	28	14.3	5.2	2.7	28	15.5	4.4	1.9
H2 2019	78	14.5	2.4	1.0	28	14.4	1.6	0.9	28	15.6	3.6	2.6

[1] This table 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.

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

Consistent sample of Group 1 banks, exchange rates as of the current reporting date, in per cent Table C.7

	Europe				Americas				Rest of the world			
			Change				Change				Change	
	Number of banks	Tier 1 ratio	Tier 1 capital	RWA	Number of banks	Tier 1 ratio	Tier 1 capital	RWA	Number of banks	Tier 1 ratio	Tier 1 capital	RWA
H1 2011	28	6.5			14	6.8			36	9.0		
H2 2011	28	6.9	3.2	–1.7	14	7.7	5.3	–7.2	36	9.4	7.5	2.49
H1 2012	28	8.0	9.0	–6.1	14	8.4	7.2	–2.4	36	9.8	8.3	3.82
H2 2012	28	8.6	0.6	–6.6	14	9.0	5.4	–1.1	36	10.4	8.8	2.5
H1 2013	28	9.3	5.0	–3.5	14	9.3	0.4	–3.1	36	10.2	8.0	9.9
H2 2013	28	10.4	8.0	–3.3	14	10.3	7.7	–2.3	36	10.6	7.3	4.1
H1 2014	28	11.3	8.6	0.2	14	11.1	7.4	–0.7	36	11.4	6.3	–1.1
H2 2014	28	11.7	3.1	–0.2	14	11.6	4.3	–0.7	36	11.3	10.1	10.3
H1 2015	28	12.2	3.9	–0.9	14	12.5	6.3	–0.7	36	11.8	8.3	4.1
H2 2015	28	12.9	2.3	–2.9	14	12.7	2.5	0.8	36	12.4	7.0	1.8
H1 2016	28	13.2	2.3	0.1	14	13.2	4.7	0.5	36	12.6	3.4	1.8
H2 2016	28	14.1	4.6	–2.3	14	13.5	0.5	–1.6	36	12.8	4.1	2.6
H1 2017	28	14.4	0.8	–1.1	14	14.1	3.6	–1.0	36	12.8	4.1	3.9
H2 2017	28	15.3	1.9	–4.4	14	14.0	–1.5	–0.4	36	13.1	5.3	2.4
H1 2018	28	15.1	–0.3	0.9	14	13.5	0.0	3.8	36	13.0	2.7	4.0
H2 2018	28	15.2	1.3	1.1	14	13.8	0.4	–2.0	36	13.5	5.2	0.7
H1 2019	28	15.8	5.3	1.5	14	14.0	2.9	1.2	36	13.7	5.4	4.0
H2 2019	28	16.2	1.5	–1.1	14	13.7	–2.1	0.3	36	14.1	5.0	2.5

[1] This table 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.

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

Group 1 banks, in per cent — Table C.8

	2009 CET1 capital ratio	2011 CET1 capital ratio	Retained earnings (cumulative contribution since 2011)	Risk-weighted assets (cumulative contribution since 2011)	CET1 raised (cumulative contribution since 2011)	Other changes to CET1 (cumulative contribution since 2011)
H2 2009	5.7					
H1 2011		7.1				
H2 2011		7.1	0.2	0.2	0.2	0.1
H1 2012		7.1	0.3	0.3	0.3	0.5
H2 2012		7.1	0.6	0.5	0.4	0.5
H1 2013		7.1	0.8	0.4	0.5	0.7
H2 2013		7.1	1.0	0.4	0.6	1.0
H1 2014		7.1	1.1	0.5	0.7	1.4
H2 2014		7.1	1.4	0.1	0.7	1.6
H1 2015		7.1	1.6	–0.1	0.8	1.9
H2 2015		7.1	2.0	–0.1	0.9	1.9
H1 2016		7.1	2.1	–0.2	0.9	2.0
H2 2016		7.1	2.4	–0.2	1.0	1.9
H1 2017		7.1	2.6	–0.4	1.1	2.1
H2 2017		7.1	2.8	–0.4	1.1	2.1
H1 2018		7.1	3.1	–0.8	1.2	1.8
H2 2018		7.1	3.5	–0.8	1.3	1.8
H1 2019		7.1	3.7	–1.2	1.3	2.0
H2 2019		7.1	3.9	–1.3	1.4	2.0

[1] This table 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.

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

Group 1 banks, region Europe, in per cent — Table C.9

	2009 CET1 capital ratio	2011 CET1 capital ratio	Retained earnings (cumulative contribution since 2011)	Risk-weighted assets (cumulative contribution since 2011)	CET1 raised (cumulative contribution since 2011)	Other changes to CET1 (cumulative contribution since 2011)
H2 2009	5.7					
H1 2011		6.3				
H2 2011		6.3	–0.1	0.1	0.2	0.1
H1 2012		6.3	–0.1	0.6	0.4	0.5
H2 2012		6.3	–0.3	1.1	0.6	0.5
H1 2013		6.3	–0.1	1.5	0.7	0.6
H2 2013		6.3	–0.4	2.0	0.9	1.3
H1 2014		6.3	–0.3	2.2	1.2	1.5
H2 2014		6.3	–0.2	2.2	1.2	1.5
H1 2015		6.3	0.0	2.4	1.3	1.5
H2 2015		6.3	0.1	2.8	1.4	1.4
H1 2016		6.3	0.1	2.8	1.4	1.4
H2 2016		6.3	0.1	3.1	1.6	1.4
H1 2017		6.3	0.2	3.4	1.7	1.4
H2 2017		6.3	0.4	4.2	1.8	1.2
H1 2018		6.3	0.5	4.0	1.9	0.9
H2 2018		6.3	0.8	3.9	1.9	0.7
H1 2019		6.3	1.0	3.8	2.0	0.7
H2 2019		6.3	1.1	4.1	2.0	0.8

[1] This table 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.

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

Group 1 banks, region Americas, in per cent — Table C.10

	2009 CET1 capital ratio	2011 CET1 capital ratio	Retained earnings (cumulative contribution since 2011)	Risk-weighted assets (cumulative contribution since 2011)	CET1 raised (cumulative contribution since 2011)	Other changes to CET1 (cumulative contribution since 2011)
H2 2009	5.7			0.0		
H1 2011		6.1		0.0		
H2 2011		6.1	0.1	0.5	0.2	0.2
H1 2012		6.1	0.2	0.7	0.3	0.6
H2 2012		6.1	0.3	0.9	0.3	0.8
H1 2013		6.1	0.5	1.1	0.4	0.6
H2 2013		6.1	0.6	1.4	0.4	1.0
H1 2014		6.1	0.7	1.6	0.5	1.3
H2 2014		6.1	0.6	1.7	0.5	1.6
H1 2015		6.1	0.7	1.9	0.5	1.9
H2 2015		6.1	0.8	1.8	0.6	2.0
H1 2016		6.1	0.8	1.8	0.6	2.3
H2 2016		6.1	0.8	2.0	0.7	2.2
H1 2017		6.1	0.9	2.2	0.7	2.5
H2 2017		6.1	0.5	2.2	0.8	2.7
H1 2018		6.1	0.6	1.8	0.8	2.5
H2 2018		6.1	0.4	2.0	0.9	2.8
H1 2019		6.1	0.3	2.0	0.9	3.1
H2 2019		6.1	–0.1	1.9	0.9	3.3

[1] This table 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.

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

Group 1 banks, region rest of the world, in per cent — Table C.11

	2009 CET1 capital ratio	2011 CET1 capital ratio	Retained earnings (cumulative contribution since 2011)	Risk-weighted assets (cumulative contribution since 2011)	CET1 raised (cumulative contribution since 2011)	Other changes to CET1 (cumulative contribution since 2011)
H2 2009	5.7			0.0		
H1 2011		8.9		0.0		
H2 2011	0.0	8.9	0.7	–0.2	0.1	–0.1
H1 2012	0.0	8.9	0.8	–0.6	0.1	0.5
H2 2012		8.9	2.0	–0.9	0.2	0.2
H1 2013		8.9	2.1	–2.0	0.3	0.9
H2 2013		8.9	3.0	–2.6	0.3	0.8
H1 2014		8.9	3.2	–2.6	0.4	1.4
H2 2014		8.9	4.1	–4.0	0.4	1.6
H1 2015		8.9	4.4	–4.8	0.5	2.3
H2 2015		8.9	5.4	–5.3	0.6	2.3
H1 2016		8.9	5.7	–5.6	0.6	2.5
H2 2016		8.9	6.5	–6.1	0.6	2.2
H1 2017		8.9	6.8	–6.8	0.6	2.5
H2 2017		8.9	7.7	–7.4	0.7	2.4
H1 2018		8.9	8.4	–8.1	0.9	2.1
H2 2018		8.9	9.4	–8.6	0.9	2.1
H1 2019		8.9	10.0	–9.4	1.0	2.2
H2 2019		8.9	10.8	–10.1	1.1	2.0

[1] This table 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.

Transitional CET1, Tier 1 and total capital ratios under the final Basel III standards

In per cent

Table C.12

	Group 1 banks			Of which: G-SIBs			Group 2 banks		
	CET1	Tier 1	Total	CET1	Tier 1	Total	CET1	Tier 1	Total
Max	32.9	32.9	38.1	16.8	20.1	22.1	143.5	143.5	143.5
95th percentile	19.1	20.0	22.1	15.8	18.0	20.9	27.9	32.9	33.9
75th percentile	15.5	16.8	18.9	14.0	16.0	18.5	17.9	18.9	21.0
Median	13.7	14.9	17.1	12.6	14.5	16.9	14.4	14.7	16.2
25th percentile	11.8	13.2	15.1	11.5	13.2	15.2	11.8	12.2	13.9
5th percentile	10.1	10.9	12.9	10.1	11.1	12.8	9.9	9.9	11.3
Min	8.6	9.7	11.4	9.3	10.5	12.1	3.7	3.7	3.8
Weighted average	13.1	14.6	16.9	12.9	14.5	16.9	13.5	14.1	16.0

Source: Basel Committee on Banking Supervision.

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

In per cent

Table C.13

	Group 1 banks			Of which: G-SIBs			Group 2 banks		
	CET1	Tier 1	Total	CET1	Tier 1	Total	CET1	Tier 1	Total
Max	25.9	25.9	30.0	16.8	17.7	20.8	143.5	143.5	143.5
95th percentile	16.8	17.7	20.2	15.8	17.4	19.7	26.9	29.1	29.7
75th percentile	14.1	15.5	17.6	13.7	14.9	17.3	16.6	17.1	20.6
Median	12.6	14.1	15.8	11.7	13.9	15.8	14.1	14.3	15.7
25th percentile	11.2	12.6	14.4	10.7	12.5	14.8	11.6	12.1	13.7
5th percentile	9.5	10.6	12.4	9.2	10.3	11.9	9.9	9.9	11.3
Min	7.9	8.7	10.1	7.9	8.7	10.1	3.7	3.7	3.8
Weighted average	12.5	13.9	16.1	12.4	14.0	16.2	13.0	13.7	15.5

Source: Basel Committee on Banking Supervision.

Total changes in Tier 1 MRC at the target level

Samples as at the reporting dates, reduced estimation bias

Table C.14

	Max	95th percentile	75th percentile	Median	25th percentile	5th percentile	Min	Number of banks	Weighted average
Group 1 banks									
H2 2015	52.2	38.0	12.9	1.0	–7.5	–17.0	–27.8	71	–0.5
H2 2017	51.4	33.3	18.0	4.6	–0.6	–14.4	–32.5	70	3.8
H1 2018	61.1	30.7	19.0	5.4	–2.3	–13.8	–16.0	79	5.3
H2 2018	60.4	29.2	14.5	2.3	–3.2	–14.8	–18.9	87	2.8
H1 2019	63.2	26.6	11.9	2.0	–4.5	–14.7	–19.9	91	2.4
H2 2019	62.9	28.4	15.1	3.4	–4.4	–16.1	–24.1	82	1.8
Of which: G-SIBs									
H2 2015	43.4	39.1	17.3	7.7	–9.1	–22.6	–27.8	27	–1.7
H2 2017	51.4	41.3	25.1	13.5	–2.7	–15.4	–16.1	27	3.2
H1 2018	61.1	33.2	25.7	15.2	–2.4	–12.6	–15.4	29	5.7
H2 2018	60.4	39.8	21.7	14.0	–1.8	–16.8	–17.2	29	3.4
H1 2019	63.2	29.9	21.1	16.4	–3.6	–14.9	–16.9	29	2.7
H2 2019	62.9	32.6	21.7	14.6	–2.9	–17.9	–20.1	28	1.8
Group 2 banks									
H2 2015	36.7	15.8	4.7	1.2	–0.3	–11.4	–46.5	42	3.8
H2 2017	45.4	23.1	12.8	3.2	0.5	–10.1	–56.0	52	6.0
H1 2018	113.6	33.5	17.4	2.6	–0.2	–7.2	–40.4	67	9.3
H2 2018	84.1	36.8	15.5	5.3	0.0	–9.9	–32.8	62	8.5
H1 2019	77.8	32.8	13.9	5.2	–0.1	–8.7	–47.3	59	7.6
H2 2019	59.8	24.8	13.4	6.1	0.1	–7.3	–53.9	60	8.4

[1] For three G-SIBs that are outliers due to overly conservative assumptions under the revised market risk framework, zero change from the revised market risk framework has been assumed for the calculation results since 30 June 2019. The banks are included with their numbers as reported in the results for earlier reporting dates.

Source: Basel Committee on Banking Supervision.

Total changes in Tier 1 MRC at the target level

Samples as at the reporting dates, conservative estimation

Table C.15

	Max	95th percentile	75th percentile	Median	25th percentile	5th percentile	Min	Number of banks	Weighted average
Group 1 banks									
H2 2015	52.2	38.0	12.9	1.0	–7.5	–17.0	–27.8	71	–0.5
H2 2017	51.4	33.3	18.0	4.6	–0.6	–14.4	–32.5	70	3.8
H1 2018	61.1	30.7	19.0	5.4	–2.3	–13.8	–16.0	79	5.3
H2 2018	60.4	29.2	14.5	2.3	–3.2	–14.8	–18.9	87	2.8
H1 2019	63.2	28.0	11.9	2.0	–4.5	–14.7	–19.9	91	2.7
H2 2019	62.9	29.5	16.4	3.4	–4.4	–16.1	–24.1	82	2.1
Of which: G-SIBs									
H2 2015	43.4	39.1	17.3	7.7	–9.1	–22.6	–27.8	27	–1.7
H2 2017	51.4	41.3	25.1	13.5	–2.7	–15.4	–16.1	27	3.2
H1 2018	61.1	33.2	25.7	15.2	–2.4	–12.6	–15.4	29	5.7
H2 2018	60.4	39.8	21.7	14.0	–1.8	–16.8	–17.2	29	3.4
H1 2019	63.2	34.2	21.6	16.4	–3.6	–14.9	–16.9	29	3.1
H2 2019	62.9	36.6	22.4	15.9	–2.9	–17.9	–20.1	28	2.2

Source: Basel Committee on Banking Supervision.

Transitional initial and fully phased-in final Basel III Tier 1 leverage ratios

In per cent

Table C.16

	Group 1 banks		Of which: G-SIBs		Group 2 banks	
	Transitional	Fully phased-in	Transitional	Fully phased-in	Transitional	Fully phased-in
Number of banks	95	95	28	28	66	66
Max	16.3	16.3	8.3	8.3	19.5	20.1
95th percentile	10.6	11.1	8.3	8.2	14.7	14.7
75th percentile	7.2	7.2	6.3	6.6	7.5	7.3
Median	6.1	6.2	5.5	5.6	5.9	5.5
25th percentile	5.2	5.2	4.8	4.9	5.0	4.8
5th percentile	4.3	4.3	4.3	4.3	3.5	3.6
Min	4.1	4.0	4.3	4.2	2.0	2.0
Weighted average	6.2	6.2	6.1	6.1	5.6	5.5

Source: Basel Committee on Banking Supervision.

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

Consistent sample of banks, exchange rates as of the current reporting date, in per cent — Table C.17

	Group 1 banks				Of which: G-SIBs				Group 2 banks			
			Change				Change				Change	
	Number of banks	Leverage ratio	Tier 1 capital	Exposure measure	Number of banks	Leverage ratio	Tier 1 capital	Exposure measure	Number of banks	Leverage ratio	Tier 1 capital	Exposure measure
H1 2011	62	3.5			27	3.4			23	3.0		
H2 2011	62	3.6	5.2	2.4	27	3.4	4.6	3.1	23	2.9	–2.2	2.0
H1 2012	62	3.7	8.4	3.3	27	3.6	9.1	3.5	23	3.2	10.1	0.6
H2 2012	62	3.8	4.9	4.4	27	3.7	5.6	4.5	23	2.8	–9.2	1.8
H1 2013	62	4.0	5.1	–1.4	27	3.9	4.9	–0.7	23	3.0	1.0	–5.1
H2 2013	62	4.5	7.9	–4.1	27	4.4	8.6	–4.5	23	3.9	24.1	–4.2
H1 2014	62	4.7	7.3	1.9	27	4.7	7.5	1.7	23	4.3	11.7	1.2
H2 2014	62	5.1	6.3	–0.7	27	5.0	6.7	–0.9	23	4.4	–2.3	–3.8
H1 2015	62	5.3	6.1	1.8	27	5.2	6.3	1.7	23	4.8	12.2	2.2
H2 2015	62	5.6	3.9	–1.8	27	5.6	4.1	–2.2	23	5.0	2.1	–1.1
H1 2016	62	5.6	3.3	3.1	27	5.6	3.4	3.2	23	4.9	–0.6	1.7
H2 2016	62	5.9	3.0	–1.4	27	5.9	3.1	–1.9	23	4.8	–1.9	–0.4
H1 2017	62	5.8	2.8	3.5	27	5.8	2.6	3.8	23	5.1	9.8	3.7
H2 2017	62	6.0	2.4	0.0	27	5.9	2.5	0.3	23	5.1	–0.7	–2.4
H1 2018	62	5.9	1.0	2.5	27	5.9	1.2	2.2	23	5.0	–0.5	1.5
H2 2018	62	6.1	2.8	–0.1	27	6.1	2.9	–0.3	23	5.0	–0.1	1.8
H1 2019	62	6.0	3.7	4.1	27	6.0	3.4	4.7	23	4.8	0.0	2.5
H2 2019	62	6.2	3.3	0.3	27	6.2	2.8	0.1	23	5.1	4.7	–0.1

[1] 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.

Source: Basel Committee on Banking Supervision.

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

Consistent sample of Group 1 banks, exchange rates as of the current reporting date, in per cent Table C.18

	Europe				Americas				Rest of the world			
			Change				Change				Change	
	Number of banks	Leverage ratio	Tier 1 capital	Exposure measure	Number of banks	Leverage ratio	Tier 1 capital	Exposure measure	Number of banks	Leverage ratio	Tier 1 capital	Exposure measure
H1 2011	24	2.6			13	4.3			25	4.1		
H2 2011	24	2.7	2.8	–2.0	13	4.2	5.3	9.7	25	4.3	7.5	3.6
H1 2012	24	2.9	9.0	2.9	13	4.4	7.3	1.1	25	4.4	8.8	5.7
H2 2012	24	2.8	0.3	4.4	13	4.4	5.4	6.9	25	4.7	9.0	2.2
H1 2013	24	3.1	5.6	–5.0	13	4.3	0.4	0.8	25	5.0	8.4	2.2
H2 2013	24	3.6	8.8	–7.4	13	5.0	7.7	–6.0	25	5.2	7.2	2.1
H1 2014	24	3.9	8.9	0.5	13	5.4	7.4	–0.4	25	5.2	5.7	5.6
H2 2014	24	4.2	2.7	–2.8	13	5.7	4.3	–1.8	25	5.7	11.0	2.5
H1 2015	24	4.3	3.6	–0.2	13	6.1	6.3	–1.1	25	5.8	8.0	6.2
H2 2015	24	4.6	2.1	–4.9	13	6.3	2.6	–0.9	25	6.1	6.3	0.8
H1 2016	24	4.6	2.0	3.7	13	6.5	4.7	1.5	25	6.1	3.4	3.5
H2 2016	24	5.0	4.4	–4.7	13	6.7	0.5	–1.2	25	6.2	3.7	1.9
H1 2017	24	5.0	0.7	1.9	13	6.8	3.6	1.9	25	6.1	3.9	6.0
H2 2017	24	5.2	2.0	–2.6	13	6.6	–1.6	0.5	25	6.3	5.4	2.1
H1 2018	24	5.0	–0.3	3.3	13	6.6	0.0	1.0	25	6.3	2.5	2.6
H2 2018	24	5.2	1.4	–1.8	13	6.7	0.4	–1.6	25	6.4	5.2	2.2
H1 2019	24	5.0	2.9	5.4	13	6.6	2.9	4.3	25	6.6	4.6	2.8
H2 2019	24	5.3	2.5	–2.5	13	6.4	–2.1	0.6	25	6.8	6.8	2.5

[1] 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.

Source: Basel Committee on Banking Supervision.

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

Consistent sample of Group 1 banks, exchange rates as of the current reporting date, in per cent Table C.19

	Europe				Americas				Rest of the world			
			Change				Change				Change	
	Number of banks	Leverage ratio	Tier 1 capital	Exposure measure	Number of banks	Leverage ratio	Tier 1 capital	Exposure measure	Number of banks	Leverage ratio	Tier 1 capital	Exposure measure
H1 2011	12	2.4			8	4.5			7	3.8		
H2 2011	12	2.5	0.8	–1.4	8	4.2	4.9	10.2	7	4.0	7.9	3.0
H1 2012	12	2.7	11.4	3.6	8	4.5	7.2	0.6	7	4.1	9.2	6.3
H2 2012	12	2.6	2.3	5.4	8	4.5	5.3	6.8	7	4.4	8.8	1.3
H1 2013	12	2.8	5.5	–3.9	8	4.4	0.7	1.9	7	4.7	8.6	1.3
H2 2013	12	3.4	11.1	–8.0	8	5.1	6.8	–6.8	7	5.0	8.3	2.5
H1 2014	12	3.7	9.0	–0.2	8	5.5	7.9	–0.8	7	5.0	5.8	6.2
H2 2014	12	3.9	2.9	–2.3	8	5.8	3.7	–2.4	7	5.5	12.6	2.0
H1 2015	12	4.1	3.7	–0.7	8	6.3	6.1	–1.6	7	5.6	8.5	7.0
H2 2015	12	4.4	1.5	–5.3	8	6.6	2.5	–1.4	7	6.0	7.3	0.4
H1 2016	12	4.3	2.4	3.6	8	6.7	4.2	1.5	7	5.9	3.5	4.0
H2 2016	12	4.8	5.3	–5.4	8	6.9	0.2	–1.9	7	6.1	4.1	1.4
H1 2017	12	4.8	0.3	1.9	8	7.0	3.1	1.8	7	5.9	3.7	6.9
H2 2017	12	5.0	2.6	–2.3	8	6.7	–2.2	1.1	7	6.2	5.9	2.0
H1 2018	12	4.8	–0.6	2.7	8	6.7	–0.4	–0.1	7	6.2	3.6	3.3
H2 2018	12	5.0	1.7	–1.9	8	6.8	–0.5	–2.2	7	6.4	5.9	2.1
H1 2019	12	4.9	3.5	6.6	8	6.7	2.6	4.4	7	6.4	4.0	3.4
H2 2019	12	5.1	1.5	–3.0	8	6.5	–2.6	0.1	7	6.7	7.1	2.6

[1] 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.

Source: Basel Committee on Banking Supervision.

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

Consistent sample of banks,[2] exchange rates as of the current reporting date, June 2011 = 100 Table C.20

	Group 1 banks				Of which: G-SIBs				Group 2 banks			
	Tier 1 capital	Risk-weighted assets	Leverage total exposure	Accounting total assets	Tier 1 capital	Risk-weighted assets	Leverage total exposure	Accounting total assets	Tier 1 capital	Risk-weighted assets	Leverage total exposure	Accounting total assets
H1 2011	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
H2 2011	105.2	97.5	102.4	102.4	104.6	97.3	103.1	102.4	97.8	101.2	102.0	102.9
H1 2012	114.1	95.5	105.8	106.1	114.2	95.2	106.7	106.7	107.7	99.3	102.6	102.3
H2 2012	119.7	92.8	110.4	105.2	120.6	92.5	111.5	105.9	97.8	100.8	104.5	103.5
H1 2013	125.7	94.0	108.9	105.8	126.5	94.3	110.7	106.7	98.7	98.5	99.2	101.6
H2 2013	135.6	93.3	104.5	103.9	137.3	93.8	105.7	104.9	122.5	92.6	95.0	98.0
H1 2014	145.5	93.6	106.5	107.6	147.6	94.7	107.5	108.6	136.9	91.7	96.2	99.4
H2 2014	154.6	94.6	105.7	110.1	157.4	95.7	106.5	111.0	133.7	87.6	92.6	97.1
H1 2015	164.1	96.3	107.6	112.1	167.3	97.3	108.3	113.1	150.0	87.8	94.7	98.2
H2 2015	170.5	96.6	105.6	110.5	174.1	97.8	106.0	111.2	153.1	87.3	93.6	96.7
H1 2016	176.1	98.3	108.9	116.3	180.0	99.6	109.3	117.3	152.1	85.9	95.2	99.0
H2 2016	181.5	97.2	107.4	114.4	185.7	98.2	107.3	115.1	149.3	82.8	94.8	97.5
H1 2017	186.6	98.7	111.1	117.0	190.5	99.7	111.3	117.8	163.9	84.5	98.3	100.4
H2 2017	191.1	97.4	111.1	118.0	195.1	98.2	111.7	118.8	162.7	80.6	95.9	99.0
H1 2018	193.0	100.4	113.9	120.4	197.6	101.6	114.2	121.3	161.9	80.7	97.3	100.2
H2 2018	198.3	100.8	113.8	121.0	203.2	101.6	113.8	122.0	161.6	80.5	99.1	100.3
H1 2019	205.6	104.2	118.4	124.3	210.2	104.9	119.1	127.3	161.6	80.5	101.6	105.0
H2 2019	212.3	105.6	118.7	124.6	216.2	106.2	119.3	127.3	169.1	82.2	101.5	104.2

[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. [2] For sample size please refer to Table C.14.

Source: Basel Committee on Banking Supervision.

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

Consistent sample of Group 1 banks[2], exchange rates as of the current reporting date, June 2011 = 100

Table C.21

	Europe				Americas				Rest of the world			
	Tier 1 capital	Risk-weighted assets	Leverage total exposure	Accounting total assets	Tier 1 capital	Risk-weighted assets	Leverage total exposure	Accounting total assets	Tier 1 capital	Risk-weighted assets	Leverage total exposure	Accounting total assets
H1 2011	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
H2 2011	102.8	97.9	98.0	103.5	105.3	92.7	109.7	99.1	107.5	102.4	103.6	102.9
H1 2012	112.1	92.4	100.9	106.2	112.9	90.5	110.9	100.8	117.0	105.7	109.5	109.8
H2 2012	112.4	86.4	105.3	102.5	119.0	88.0	118.5	103.0	127.6	107.4	111.9	111.3
H1 2013	118.7	83.4	100.1	98.8	119.5	84.5	119.4	103.7	138.3	120.3	114.4	118.8
H2 2013	129.1	80.2	92.7	92.8	128.6	82.5	112.2	104.3	148.3	124.6	116.8	121.9
H1 2014	140.6	80.5	93.1	95.1	138.2	84.1	111.8	106.8	156.7	123.5	123.4	129.1
H2 2014	144.4	77.5	90.5	97.4	144.1	83.5	109.7	108.1	174.0	132.1	126.5	132.4
H1 2015	149.7	78.1	90.3	95.9	153.2	80.9	108.6	108.6	188.0	140.2	134.4	141.4
H2 2015	152.8	75.6	85.9	92.0	157.2	83.0	107.6	107.5	199.8	142.5	135.4	143.5
H1 2016	155.9	75.8	89.1	99.1	164.5	83.4	109.2	111.0	206.5	147.6	140.1	148.8
H2 2016	162.8	72.9	84.9	93.0	165.4	81.7	107.9	111.2	214.2	150.1	142.7	152.2
H1 2017	164.0	72.2	86.5	92.7	171.3	80.7	110.0	114.0	222.6	157.3	151.3	159.6
H2 2017	167.3	70.7	84.3	91.4	168.6	77.7	110.5	115.0	234.6	158.3	154.5	164.1
H1 2018	166.7	71.8	87.0	94.0	168.5	80.9	111.7	116.7	240.6	164.1	158.6	166.9
H2 2018	169.0	71.9	85.4	92.1	169.2	79.6	109.9	117.6	253.1	166.8	162.1	171.5
H1 2019	173.9	73.5	90.0	93.9	174.2	81.1	114.6	121.4	264.8	174.9	166.7	176.8
H2 2019	178.3	72.8	87.8	91.6	170.5	81.7	115.3	122.0	282.7	180.1	170.9	180.9

[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. [2] For sample size please refer to Table C.14.

Source: Basel Committee on Banking Supervision.

Changes in leverage ratio MRC at the target level due to revisions in the final standards[1]

In per cent — Table C.22

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Max	45.2	45.2	10.8
95th percentile	25.6	36.7	4.4
75th percentile	12.1	24.7	0.3
Median	0.6	18.2	0.0
25th percentile	–0.1	15.9	–0.4
5th percentile	–2.6	8.9	–2.2
Min	–14.9	8.8	–8.7
Weighted average	15.8	22.8	0.3

[1] To the extent a bank could not provide a component under the 2017 exposure measure, the relevant component of the 2014 measure was used.

Source: Basel Committee on Banking Supervision.

Changes in leverage ratio MRC at the target level due to revisions to the exposure measure in the final standards[1]

In per cent — Table C.23

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Max	8.9	8.9	10.8
95th percentile	5.6	7.0	4.4
75th percentile	0.9	0.9	0.3
Median	0.0	0.0	0.0
25th percentile	–0.3	–1.8	–0.4
5th percentile	–7.5	–12.4	–2.2
Min	–14.9	–12.9	–8.7
Weighted average	–0.2	–0.2	0.3

[1] To the extent a bank could not provide a component under the 2017 exposure measure, the relevant component of the 2014 measure was used.

Source: Basel Committee on Banking Supervision.

Estimated combined capital shortfalls at the minimum level[1]

Initial Basel III standards, sample and exchange rates as at the reporting dates, in billions of euros

Table C.24

	Group 1 banks				Of which: G-SIBs				Group 2 banks			
	Number of banks	CET1	Add. Tier 1	Tier 2	Number of banks	CET1	Add. Tier 1	Tier 2	Number of banks	CET1	Add. Tier 1	Tier 2
H1 2011	108	38.8	226.8	47.1	30	31.7	178.5	10.4	99	8.6	17.6	3.4
H2 2011	108	11.9	196.5	39.5	30	7.6	158.2	11.6	97	7.6	16.6	3.2
H1 2012	107	3.7	173.4	17.7	30	0.1	145.8	0.0	94	4.8	16.0	4.1
H2 2012	107	2.2	180.9	13.6	30	0.0	155.7	0.3	105	11.7	16.4	6.5
H1 2013	108	3.3	111.8	11.5	30	0.0	97.3	7.6	108	12.5	16.2	7.6
H2 2013	108	0.1	39.8	3.2	30	0.0	33.4	0.0	103	2.3	7.2	3.7
H1 2014	102	0.0	7.0	0.0	29	0.0	4.7	0.0	100	0.1	3.3	3.1
H2 2014	102	0.0	3.1	1.3	30	0.0	2.7	0.0	91	0.0	4.3	1.8
H1 2015	106	0.0	0.0	0.0	30	0.0	0.0	0.0	95	0.0	4.3	0.3
H2 2015	106	0.0	0.0	0.0	30	0.0	0.0	0.0	92	0.0	1.5	0.2
H1 2016	106	0.0	0.0	0.0	30	0.0	0.0	0.0	93	0.0	2.9	0.0
H2 2016	106	0.0	0.0	0.0	30	0.0	0.0	0.0	82	0.0	2.0	0.0
H1 2017	103	0.0	0.0	0.0	30	0.0	0.0	0.0	79	0.0	1.9	0.0
H2 2017	82	0.0	0.0	0.0	30	0.0	0.0	0.0	70	0.0	1.1	0.0
H1 2018	93	0.0	0.0	0.0	30	0.0	0.0	0.0	75	0.0	1.6	0.0
H2 2018	96	0.0	1.9	0.0	30	0.0	0.0	0.0	68	0.0	1.1	0.0
H1 2019	97	0.0	1.4	0.0	30	0.0	0.0	0.0	64	0.0	1.1	0.0
H2 2019	92	0.0	0.0	0.0	28	0.0	0.0	0.0	66	0.0	0.9	0.0

[1] This table 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.

Estimated combined capital shortfalls at the target level[1]

Initial Basel III standards, sample and exchange rates as at the reporting dates, in billions of euros

Table C.25

	Group 1 banks				Of which: G-SIBs				Group 2 banks			
	Number of banks	CET1	Add. Tier 1	Tier 2	Number of banks	CET1	Add. Tier 1	Tier 2	Number of banks	CET1	Add. Tier 1	Tier 2
H1 2011	108	493.5	235.5	215.8	30	396.5	161.2	141.0	97	29.7	22.8	9.6
H2 2011	108	391.7	244.2	226.2	30	318.3	175.6	145.6	97	21.2	23.6	7.1
H1 2012	107	197.9	240.6	214.4	30	159.4	183.8	130.4	94	16.1	18.9	9.2
H2 2012	107	123.2	236.9	163.6	30	90.1	186.5	97.7	105	25.6	18.0	11.8
H1 2013	108	62.5	171.2	144.5	30	44.0	137.5	101.5	108	27.9	18.2	10.2
H2 2013	108	15.4	81.6	104.2	30	11.8	63.6	76.6	103	9.6	11.3	7.0
H1 2014	102	4.7	26.2	75.9	29	3.9	17.8	66.8	100	1.6	7.1	5.2
H2 2014	102	0.7	16.5	70.4	30	0.0	6.8	60.6	91	1.4	7.0	5.1
H1 2015	106	0.0	6.9	15.0	30	0.0	2.8	14.0	95	0.2	6.6	5.0
H2 2015	106	0.0	6.4	4.7	30	0.0	2.4	1.8	92	0.2	2.5	4.3
H1 2016	106	1.3	4.3	2.7	30	1.3	2.9	0.9	93	0.0	4.0	4.1
H2 2016	106	0.0	2.3	0.3	30	0.0	1.9	0.0	82	0.0	3.2	1.3
H1 2017	103	0.0	2.8	0.0	30	0.0	2.3	0.0	79	0.0	2.1	0.2
H2 2017	82	0.0	0.0	0.3	30	0.0	0.0	0.0	70	0.0	1.1	0.0
H1 2018	93	0.0	0.0	0.0	30	0.0	0.0	0.0	75	0.3	1.7	0.2
H2 2018	96	0.2	1.7	0.0	30	0.0	0.0	0.0	68	0.0	1.1	0.0
H1 2019	97	0.2	1.3	0.0	30	0.0	0.0	0.0	64	0.0	1.1	0.0
H2 2019	92	0.0	0.0	0.0	28	0.0	0.0	0.0	66	0.0	0.9	0.0

[1] This table 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.

Combined capital shortfalls at the target level

Fully phased-in final Basel III standards[1], sample and exchange rates as at the reporting dates, in billions of euros

Table C.26

	Group 1 banks				Of which: G-SIBs				Group 2 banks			
	Number of banks	CET1	Add. Tier 1	Tier 2	Number of banks	CET1	Add. Tier 1	Tier 2	Number of banks	CET1	Add. Tier 1	Tier 2
H2 2015	73	27.6	28.8	34.3	27	27.6	27.8	30.3	40	0.3	0.5	0.6
H2 2017	72	4.1	6.8	9.1	27	4.1	5.9	9.1	53	0.8	0.8	0.6
H1 2018	83	7.0	10.8	12.6	29	7.0	10.3	12.0	71	2.9	1.9	1.4
H2 2018	87	7.0	10.1	7.6	29	6.0	9.2	7.6	64	1.8	1.1	0.9
H1 2019	93	7.6	5.6	3.4	29	6.4	4.7	3.4	59	1.7	0.6	1.0
H2 2019	85	3.3	3.8	3.6	28	3.3	3.8	3.6	62	1.3	0.8	0.9

[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 to 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.

Level of capital[1]

Consistent sample of banks, exchange rates as of the current reporting date, in billions of euros Table C.27

	Group 1 banks				Of which: G-SIBs				Group 2 banks			
	Number of banks	CET1	Add. Tier 1	Tier 2	Number of banks	CET1	Add. Tier 1	Tier 2	Number of banks	CET1	Add. Tier 1	Tier 2
H1 2011	83	1,944	82	339	28	1,354	73	283	29	64	6	22
H2 2011	83	2,057	73	336	28	1,432	62	274	29	62	7	21
H1 2012	83	2,240	66	299	28	1,573	57	249	29	66	9	16
H2 2012	83	2,362	60	304	28	1,670	50	253	29	63	7	16
H1 2013	83	2,479	61	344	28	1,750	51	265	29	63	8	18
H2 2013	83	2,653	79	354	28	1,886	67	262	29	77	8	17
H1 2014	83	2,808	123	358	28	1,997	101	234	29	94	2	18
H2 2014	83	2,944	166	414	28	2,097	143	290	29	92	3	13
H1 2015	83	3,103	206	448	28	2,206	175	326	29	103	3	13
H2 2015	83	3,210	241	483	28	2,277	201	350	29	105	4	14
H1 2016	83	3,300	266	494	28	2,348	217	345	29	105	4	15
H2 2016	83	3,368	317	520	28	2,398	249	367	29	102	4	15
H1 2017	83	3,475	317	506	28	2,467	247	355	29	112	5	20
H2 2017	83	3,547	343	548	28	2,517	264	388	29	110	5	21
H1 2018	83	3,572	360	596	28	2,540	274	419	29	109	7	20
H2 2018	83	3,678	368	636	28	2,615	279	451	29	108	7	19
H1 2019	83	3,797	409	730	28	2,717	303	533	29	115	5	20
H2 2019	83	3,865	454	737	28	2,744	336	535	29	118	7	20

[1] This table 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.

Level of capital,[1] by region

Consistent sample of Group 1 banks, exchange rates as of the current reporting date, in billions of euros

Table C.28

	Europe				Americas				Rest of the world			
	Number of banks	CET1	Add. Tier 1	Tier 2	Number of banks	CET1	Add. Tier 1	Tier 2	Number of banks	CET1	Add. Tier 1	Tier 2
H1 2011	30	702	19	84	14	487	57	200	39	755	6	55
H2 2011	30	721	20	81	14	527	45	192	39	809	8	62
H1 2012	30	792	16	68	14	571	43	166	39	877	7	65
H2 2012	30	803	11	90	14	603	44	150	39	956	5	64
H1 2013	30	844	10	135	14	604	45	132	39	1,031	6	77
H2 2013	30	903	18	153	14	648	52	120	39	1,103	9	81
H1 2014	30	955	42	186	14	683	69	105	39	1,170	11	67
H2 2014	30	973	55	182	14	705	80	114	39	1,267	32	119
H1 2015	30	1,004	65	200	14	737	96	119	39	1,362	45	129
H2 2015	30	1,014	80	217	14	753	101	125	39	1,443	59	141
H1 2016	30	1,029	88	231	14	786	109	131	39	1,485	69	132
H2 2016	30	1,046	122	264	14	787	112	125	39	1,535	83	131
H1 2017	30	1,064	113	223	14	818	114	129	39	1,593	91	154
H2 2017	30	1,081	119	215	14	804	113	129	39	1,662	110	205
H1 2018	30	1,066	128	225	14	802	115	128	39	1,704	116	243
H2 2018	30	1,079	132	225	14	808	114	128	39	1,792	122	283
H1 2019	30	1,108	142	234	14	832	119	129	39	1,858	148	367
H2 2019	30	1,131	145	227	14	815	116	126	39	1,919	193	384

[1] This table 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.

Evolution of Basel III capital

Consistent sample of banks, exchange rates as of the current reporting date, June 2011 = 100 Table C.29

	Group 1 banks				Of which: G-SIBs				Group 2 banks			
	Number of banks	CET1	Add.Tier1	Tier 2	Number of banks	CET1	Add.Tier1	Tier 2	Number of banks	CET1	Add.Tier1	Tier 2
H1 2011	83	100.0	100.0	100.0	28	100.0	100.0	100.0	29	100.0	100.0	100.0
H2 2011	83	105.8	89.4	98.8	28	105.8	83.8	97.0	29	96.9	110.0	97.8
H1 2012	83	115.2	80.6	88.0	28	116.2	78.1	88.1	29	102.9	144.7	74.3
H2 2012	83	121.5	72.8	89.5	28	123.3	68.5	89.4	29	98.2	110.4	75.2
H1 2013	83	127.5	74.9	101.3	28	129.3	69.7	93.9	29	97.8	134.0	85.7
H2 2013	83	136.5	96.0	104.3	28	139.3	90.9	92.6	29	120.4	127.8	80.0
H1 2014	83	144.4	149.6	105.4	28	147.5	137.2	83.0	29	146.3	41.7	82.5
H2 2014	83	151.5	202.7	122.1	28	154.9	194.5	102.5	29	144.1	54.1	61.9
H1 2015	83	159.6	251.4	132.0	28	163.0	238.3	115.2	29	160.8	53.8	62.5
H2 2015	83	165.1	294.3	142.4	28	168.2	274.2	123.9	29	164.6	61.3	66.2
H1 2016	83	169.7	324.6	145.6	28	173.5	295.3	122.3	29	163.6	64.8	67.9
H2 2016	83	173.3	387.0	153.2	28	177.2	339.6	129.9	29	160.0	74.9	70.4
H1 2017	83	178.8	386.7	149.0	28	182.3	336.5	125.7	29	174.5	75.4	93.4
H2 2017	83	182.4	417.7	161.4	28	185.9	359.4	137.3	29	172.8	88.5	99.2
H1 2018	83	183.8	438.6	175.5	28	187.6	373.5	148.3	29	170.4	114.1	91.0
H2 2018	83	189.2	448.8	187.3	28	193.2	380.4	159.7	29	169.6	116.3	87.4
H1 2019	83	195.3	498.5	214.9	28	200.7	412.4	188.7	29	179.5	83.4	94.9
H2 2019	83	198.8	553.2	217.2	28	202.7	457.9	189.5	29	184.3	109.9	94.3

[1] This table 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.

Evolution of Basel III capital,[1] by region

Consistent sample of Group 1 banks, exchange rates as of the current reporting date, June 2011 = 100

Table C.30

	Europe				Americas				Rest of the world			
	Number of banks	CET1	Add. Tier 1	Tier 2	Number of banks	CET1	Add. Tier 1	Tier 2	Number of banks	CET1	Add. Tier 1	Tier 2
H1 2011	30	100.0	100.0	100.0	14	100.0	100.0	100.0	39	100.0	100.0	100.0
H2 2011	30	102.8	104.3	95.8	14	108.3	79.6	96.2	39	107.1	137.8	113.0
H1 2012	30	112.9	82.9	80.4	14	117.3	75.3	83.3	39	116.1	125.8	117.0
H2 2012	30	114.5	56.5	106.3	14	123.9	77.4	75.3	39	126.6	81.7	115.4
H1 2013	30	120.3	53.4	160.0	14	124.2	79.6	65.9	39	136.5	101.1	139.6
H2 2013	30	128.6	93.3	181.1	14	133.1	91.0	59.9	39	146.0	156.2	147.5
H1 2014	30	136.1	219.4	220.2	14	140.3	121.1	52.7	39	154.9	198.3	121.1
H2 2014	30	138.6	282.4	215.8	14	144.8	139.5	56.9	39	167.7	565.1	214.9
H1 2015	30	143.1	337.4	237.2	14	151.5	168.7	59.4	39	180.3	788.3	233.9
H2 2015	30	144.5	416.5	257.6	14	154.7	177.9	62.4	39	191.0	1,046.0	255.8
H1 2016	30	146.7	456.5	274.5	14	161.4	191.7	65.3	39	196.5	1,209.0	239.3
H2 2016	30	149.0	632.9	312.7	14	161.8	196.6	62.6	39	203.2	1,460.7	237.5
H1 2017	30	151.6	582.8	264.3	14	168.1	199.4	64.7	39	210.9	1,598.5	278.3
H2 2017	30	154.0	617.5	254.7	14	165.2	198.7	64.3	39	220.0	1,935.0	370.4
H1 2018	30	152.0	664.4	266.8	14	164.8	202.4	64.0	39	225.5	2,040.7	439.7
H2 2018	30	153.7	682.0	267.1	14	165.9	199.8	63.8	39	237.2	2,152.9	512.6
H1 2019	30	157.8	733.4	276.9	14	170.8	208.4	64.6	39	245.9	2,610.1	664.5
H2 2019	30	161.2	749.2	269.4	14	167.6	203.2	63.2	39	254.0	3,397.7	695.0

[1] This table 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.

Profits, dividends and dividend payout ratio[1]

Consistent sample of banks, exchange rates as of the current reporting date, in billions of euros Table C.31

	Group 1 banks					Of which: G-SIBs					Group 2 banks				
	Number of banks	Profit after tax	Common share dividend	Div. payout ratio (%) 6m	Div. payout ratio (%) 12m	Number of banks	Profit after tax	Common share dividend	Div. payout ratio (%) 6m	Div. payout ratio (%) 12m	Number of banks	Profit after tax	Common share dividend	Div. payout ratio (%) 6m	Div. payout ratio (%) 12m
H1 2011	80	125.4	53.0	42.3		27	89.6	39.5	44.1		29	3.6	0.7	19.9	
H2 2011	80	100.3	28.3	28.2	36.0	27	77.1	16.5	21.4	33.6	29	0.3	1.0	335.7	43.8
H1 2012	80	120.2	53.3	44.4	37.0	27	87.7	39.1	44.5	33.7	29	2.4	0.7	28.4	62.3
H2 2012	80	141.5	23.7	16.8	29.4	27	104.2	12.4	11.9	26.8	29	1.5	0.6	38.8	32.4
H1 2013	80	152.7	69.6	45.6	31.7	27	108.9	51.7	47.4	30.1	29	2.3	0.5	22.6	29.0
H2 2013	80	121.0	23.5	19.4	34.0	27	96.6	12.1	12.5	31.0	29	1.7	0.8	48.8	33.5
H1 2014	80	135.1	78.3	58.0	39.7	27	88.1	60.6	68.7	39.3	29	3.9	0.9	22.6	30.5
H2 2014	80	168.5	37.5	22.2	38.1	27	120.7	18.8	15.5	38.0	29	0.8	0.5	64.3	29.8
H1 2015	80	197.3	81.6	41.4	32.6	27	142.0	57.3	40.3	28.9	29	5.0	1.4	27.6	32.7
H2 2015	80	184.4	40.7	22.1	32.1	27	132.4	21.3	16.1	28.6	29	4.3	0.8	17.5	22.9
H1 2016	80	169.4	85.4	50.4	35.6	27	125.9	60.0	47.6	31.5	29	3.1	1.7	54.0	32.6
H2 2016	80	158.5	35.8	22.6	37.0	27	113.6	17.1	15.1	32.2	29	3.1	1.1	36.9	45.4
H1 2017	80	191.8	90.2	47.0	36.0	27	134.9	61.6	45.7	31.7	29	5.1	1.9	37.9	37.5
H2 2017	80	173.5	43.8	25.2	36.7	27	107.3	21.6	20.2	34.4	29	5.6	1.6	28.8	33.2
H1 2018	80	231.5	100.9	43.6	35.7	27	169.7	69.1	40.7	32.8	29	6.1	2.5	41.5	35.4
H2 2018	80	245.2	64.0	26.1	34.6	27	182.7	42.6	23.3	31.7	29	5.2	1.4	27.2	34.9
H1 2019	80	216.9	85.5	39.4	32.4	27	154.1	50.8	33.0	27.8	29	4.8	3.5	73.5	49.3
H2 2019	80	207.8	57.3	27.6	33.6	27	131.7	30.6	23.2	28.5	29	5.0	1.0	20.4	46.4

[1] The dividend payout ratio is also calculated based on profits after tax and common share dividends for a full calendar year to improve comparability across countries with different dividend payment patterns.

Source: Basel Committee on Banking Supervision.

Profits, dividends and dividend payout ratio[1], by region

Consistent sample of Group 1 banks, exchange rates as of the current reporting date, in billions of euros

Table C.32

	Europe					Americas					Rest of the world				
	Number of banks	Profit after tax	Common share dividend	Div. payout ratio (%) 6m	Div. payout ratio (%) 12m	Number of banks	Profit after tax	Common share dividend	Div. payout ratio (%) 6m	Div. payout ratio (%) 12m	Number of banks	Profit after tax	Common share dividend	Div. payout ratio (%) 6m	Div. payout ratio (%) 12m
H1 2011	29	49.1	16.3	33.3		14	26.0	5.3	20.4		37	50.3	31.4	62.4	
H2 2011	29	4.9	5.6	113.4	40.6	14	34.7	5.7	16.5	18.2	37	60.7	16.9	27.9	43.5
H1 2012	29	34.1	11.8	34.6	44.6	14	33.9	6.9	20.3	18.4	37	52.3	34.7	66.3	45.7
H2 2012	29	4.4	7.2	161.2	49.2	14	32.2	7.0	21.6	20.9	37	104.9	9.6	9.1	28.2
H1 2013	29	45.3	15.9	35.1	46.3	14	44.7	7.6	17.0	19.0	37	62.8	46.1	73.5	33.2
H2 2013	29	–5.0	4.8	–96.0	51.5	14	36.5	8.3	22.8	19.7	37	89.5	10.3	11.5	37.0
H1 2014	29	35.3	21.0	59.7	85.6	14	32.5	8.7	26.6	24.6	37	67.3	48.6	72.2	37.6
H2 2014	29	35.1	9.8	27.9	43.8	14	39.8	9.9	25.0	25.7	37	93.6	17.7	19.0	41.2
H1 2015	29	54.7	17.8	32.6	30.8	14	53.3	10.4	19.5	21.8	37	89.2	53.4	59.8	38.9
H2 2015	29	39.2	12.9	32.8	32.7	14	46.9	11.2	23.9	21.6	37	98.2	16.6	16.9	37.3
H1 2016	29	43.5	25.0	57.4	45.8	14	46.3	10.8	23.3	23.6	37	79.6	49.6	62.2	37.2
H2 2016	29	20.1	7.6	37.8	51.2	14	51.2	12.5	24.5	23.9	37	87.2	15.7	18.0	39.1
H1 2017	29	52.2	27.5	52.7	48.6	14	54.4	12.4	22.9	23.6	37	85.3	50.2	58.9	38.2
H2 2017	29	48.7	9.1	18.7	36.3	14	26.1	15.3	58.6	34.4	37	98.8	19.4	19.6	37.8
H1 2018	29	54.4	32.0	58.7	39.8	14	64.1	16.2	25.3	35.0	37	113.0	52.7	46.6	34.0
H2 2018	29	56.1	10.9	19.3	38.7	14	66.2	18.2	27.5	26.4	37	122.9	34.9	28.4	37.1
H1 2019	29	53.4	27.5	51.5	35.0	14	70.8	20.5	29.0	28.3	37	92.7	37.5	40.4	33.6
H2 2019	29	41.2	16.3	39.6	46.3	14	69.3	22.7	32.8	30.9	37	97.3	18.2	18.7	29.3

[1] The dividend payout ratio is also calculated based on profits after tax and common share dividends for a full calendar year to improve comparability across countries with different dividend payment patterns.

Source: Basel Committee on Banking Supervision.

Profits, dividends and dividend payout ratio[1], by region

Consistent sample of G-SIBs, exchange rates as of the current reporting date, in billions of euros

Table C.33

	Europe					Americas					Rest of the world				
	Number of banks	Profit after tax	Common share dividend	Div. payout ratio (%) 6m	Div. payout ratio (%) 12m	Number of banks	Profit after tax	Common share dividend	Div. payout ratio (%) 6m	Div. payout ratio (%) 12m	Number of banks	Profit after tax	Common share dividend	Div. payout ratio (%) 6m	Div. payout ratio (%) 12m
H1 2011	12	39.0	11.7	29.9		8	21.5	4.0	18.6		7	29.2	23.9	81.9	
H2 2011	12	8.7	3.0	33.8	30.6	8	30.5	4.3	14.1	16.0	7	37.8	9.2	24.4	49.4
H1 2012	12	26.7	7.7	28.7	29.9	8	28.9	5.5	18.9	16.5	7	32.1	25.9	80.8	50.3
H2 2012	12	0.9	5.0	567.6	46.0	8	27.1	5.5	20.2	19.5	7	76.2	1.9	2.5	25.7
H1 2013	12	30.6	11.3	37.0	51.9	8	39.8	6.3	15.8	17.6	7	38.5	34.1	88.5	31.4
H2 2013	12	4.6	3.0	66.2	40.8	8	31.1	6.8	21.9	18.5	7	61.0	2.3	3.7	36.5
H1 2014	12	22.9	15.3	66.9	66.8	8	26.3	7.2	27.5	24.5	7	38.9	38.0	97.7	40.3
H2 2014	12	25.1	7.8	31.2	48.2	8	33.2	8.4	25.1	26.2	7	62.3	2.6	4.1	40.0
H1 2015	12	37.9	9.8	25.9	28.0	8	46.7	8.8	18.8	21.4	7	57.5	38.7	67.3	34.4
H2 2015	12	27.4	9.1	33.4	29.1	8	40.2	9.4	23.4	20.9	7	64.8	2.8	4.3	33.9
H1 2016	12	29.4	15.0	50.9	42.4	8	40.2	9.2	23.0	23.2	7	56.4	35.8	63.5	31.9
H2 2016	12	8.6	4.3	50.3	50.7	8	45.0	10.1	22.3	22.6	7	60.0	2.7	4.6	33.1
H1 2017	12	30.3	15.6	51.6	51.3	8	47.5	10.2	21.4	21.9	7	57.1	35.8	62.8	33.0
H2 2017	12	25.0	5.6	22.6	38.4	8	19.7	13.3	67.4	34.9	7	62.6	2.7	4.4	32.2
H1 2018	12	33.2	19.3	58.2	42.9	8	57.3	12.5	21.9	33.5	7	79.3	37.3	47.0	28.2
H2 2018	12	37.6	8.0	21.4	38.7	8	56.6	15.6	27.5	24.7	7	88.5	19.0	21.5	33.6
H1 2019	12	32.7	15.9	48.6	34.0	8	60.1	15.1	25.1	26.3	7	61.3	19.8	32.4	25.9
H2 2019	12	18.8	10.3	54.6	50.7	8	58.4	17.2	29.5	27.3	7	54.5	3.1	5.8	19.8

[1] The dividend payout ratio is also calculated based on profits after tax and common share dividends for a full calendar year to improve comparability across countries with different dividend payment patterns.

Source: Basel Committee on Banking Supervision.

Capital raised externally

Consistent sample of banks, exchange rates as of the current reporting date, in billions of euros

Table C.34

	Group 1 banks				Of which: G-SIBs				Group 2 banks			
	Number of banks	CET1	Add. Tier 1	Tier 2	Number of banks	CET1	Add. Tier 1	Tier 2	Number of banks	CET1	Add. Tier 1	Tier 2
H1 2011	80	34.8	3.3	10.9	27	13.9	1.7	5.3	29	2.3	1.5	2.2
H2 2011	80	25.8	5.2	4.8	27	10.2	3.7	1.1	29	2.8	0.0	3.0
H1 2012	80	26.9	1.0	9.8	27	20.1	1.0	2.4	29	1.3	1.5	0.2
H2 2012	80	27.8	5.2	12.0	27	15.0	3.9	7.3	29	1.7	0.0	1.9
H1 2013	80	20.6	7.3	12.3	27	13.4	5.5	10.8	29	0.5	0.0	1.9
H2 2013	80	28.4	22.4	29.9	27	14.0	17.9	19.2	29	1.0	0.8	0.1
H1 2014	80	30.7	41.4	45.6	27	18.2	30.5	15.2	29	2.7	1.2	1.3
H2 2014	80	13.8	45.9	48.6	27	6.4	41.8	40.0	29	3.4	0.7	0.1
H1 2015	80	19.9	41.6	45.6	27	11.4	33.7	37.0	29	1.3	0.0	1.3
H2 2015	80	18.3	30.7	48.2	27	10.2	23.6	33.0	29	0.4	0.4	1.1
H1 2016	80	9.3	24.6	38.8	27	7.4	16.2	22.2	29	0.4	0.4	0.2
H2 2016	80	21.9	24.0	29.9	27	19.0	9.6	20.5	29	0.1	0.3	1.5
H1 2017	80	14.8	18.5	25.6	27	10.9	12.6	15.6	29	0.7	0.6	2.0
H2 2017	80	20.6	31.8	41.5	27	14.0	18.7	33.2	29	1.6	1.0	3.4
H1 2018	80	20.8	20.3	24.5	27	17.2	14.2	13.7	29	1.3	1.6	1.0
H2 2018	80	10.0	23.1	25.5	27	4.6	15.1	17.1	29	0.7	0.0	0.4
H1 2019	80	19.5	34.1	21.0	27	7.8	16.9	16.0	29	1.6	0.0	0.0
H2 2019	80	12.8	49.5	30.3	27	4.9	37.6	11.7	29	2.0	0.9	0.2

Source: Basel Committee on Banking Supervision.

Capital raised externally, by region

Consistent sample of Group 1 banks, exchange rates as of the current reporting date, in billions of euros

Table C.35

	Europe				Americas				Rest of the world			
	Number of banks	CET1	Add. Tier 1	Tier 2	Number of banks	CET1	Add. Tier 1	Tier 2	Number of banks	CET1	Add. Tier 1	Tier 2
H1 2011	29	20.9	1.4	9.3	14	11.2	1.9	1.5	37	2.7	0.0	0.0
H2 2011	29	13.6	3.4	1.1	14	4.5	1.7	2.7	37	7.7	0.1	1.0
H1 2012	29	20.6	0.0	3.5	14	5.0	1.0	4.9	37	1.3	0.0	1.4
H2 2012	29	14.3	1.4	6.6	14	3.3	2.5	5.4	37	10.2	1.3	0.0
H1 2013	29	12.0	0.0	8.0	14	5.2	5.5	4.3	37	3.3	1.8	0.0
H2 2013	29	20.4	11.4	20.2	14	2.9	7.7	8.8	37	5.1	3.3	0.9
H1 2014	29	23.4	26.1	23.8	14	4.8	13.5	2.2	37	2.6	1.8	19.6
H2 2014	29	6.7	15.2	11.7	14	3.0	9.7	14.2	37	4.1	21.0	22.7
H1 2015	29	7.2	14.4	25.9	14	3.9	15.6	13.2	37	8.8	11.7	6.4
H2 2015	29	9.1	10.1	22.2	14	2.3	5.0	9.7	37	6.9	15.6	16.3
H1 2016	29	3.8	9.1	21.5	14	4.3	6.8	7.6	37	1.2	8.8	9.6
H2 2016	29	16.5	7.7	12.0	14	3.4	2.4	6.9	37	1.9	13.9	11.0
H1 2017	29	9.7	10.3	13.2	14	3.8	1.0	7.6	37	1.3	7.2	4.9
H2 2017	29	10.8	9.8	6.3	14	6.3	3.0	1.0	37	3.6	18.9	34.3
H1 2018	29	2.4	8.0	10.4	14	2.9	6.1	2.6	37	15.5	6.2	11.5
H2 2018	29	3.0	12.6	4.2	14	2.0	3.5	4.2	37	5.0	7.1	17.1
H1 2019	29	6.6	14.4	8.2	14	4.7	5.2	7.5	37	8.1	14.5	5.3
H2 2019	29	6.4	9.8	6.6	14	1.8	4.4	5.4	37	4.6	35.2	18.2

Source: Basel Committee on Banking Supervision.

Capital raised externally, by region

Consistent sample of G-SIBs, exchange rates as of the current reporting date, in billions of euros

Table C.36

	Europe				Americas				Rest of the world			
	Number of banks	CET1	Add. Tier 1	Tier 2	Number of banks	CET1	Add. Tier 1	Tier 2	Number of banks	CET1	Add. Tier 1	Tier 2
H1 2011	12	3.3	0.0	5.3	8	10.6	1.7	0.0	7	0.0	0.0	0.0
H2 2011	12	3.9	2.0	1.1	8	4.2	1.7	0.0	7	2.1	0.0	0.0
H1 2012	12	15.5	0.0	2.4	8	4.6	1.0	0.0	7	0.0	0.0	0.0
H2 2012	12	12.1	1.4	5.5	8	2.9	2.5	1.8	7	0.0	0.0	0.0
H1 2013	12	8.3	0.0	6.4	8	5.1	5.5	4.3	7	0.0	0.0	0.0
H2 2013	12	11.2	10.2	10.5	8	2.8	7.7	8.8	7	0.0	0.0	0.0
H1 2014	12	13.5	17.3	11.7	8	4.7	13.2	2.2	7	0.0	0.0	1.3
H2 2014	12	3.6	14.0	7.7	8	2.8	9.0	12.9	7	0.0	18.8	19.4
H1 2015	12	5.4	8.9	21.1	8	3.8	15.2	13.2	7	2.1	9.6	2.6
H2 2015	12	7.9	5.9	12.9	8	2.3	4.4	8.4	7	0.0	13.4	11.7
H1 2016	12	3.2	5.6	13.5	8	4.2	6.8	5.8	7	0.0	3.8	2.8
H2 2016	12	15.9	4.8	8.6	8	3.1	0.9	5.9	7	0.0	3.9	6.1
H1 2017	12	7.8	7.3	6.5	8	3.1	0.6	6.2	7	0.0	4.7	2.8
H2 2017	12	10.5	5.7	4.2	8	3.5	1.3	0.3	7	0.0	11.6	28.7
H1 2018	12	1.9	7.0	6.4	8	2.4	3.3	0.5	7	12.9	4.0	6.8
H2 2018	12	2.8	9.9	1.8	8	1.8	2.3	1.9	7	0.0	3.0	13.4
H1 2019	12	3.6	11.9	6.1	8	4.2	3.7	7.5	7	0.0	1.3	2.4
H2 2019	12	3.1	6.7	4.9	8	1.7	3.8	3.7	7	0.0	27.1	3.0

Source: Basel Committee on Banking Supervision.

Structure of regulatory capital under initial Basel III[1]

Consistent sample of banks, in per cent — Table C.37

	Group 1 banks				Of which: G-SIBs				Group 2 banks			
	Num. of banks	CET1	Add. Tier 1	Tier 2	Num. of banks	CET1	Add. Tier 1	Tier 2	Num. of banks	CET1	Add. Tier 1	Tier 2
H1 2011	83	83.0	3.3	13.8	28	79.9	4.2	16.0	29	70.5	6.4	23.1
H2 2011	83	83.9	2.9	13.2	28	81.6	3.4	15.0	29	70.1	7.1	22.8
H1 2012	83	86.4	2.4	11.2	28	84.1	3.0	12.9	29	73.7	9.2	17.1
H2 2012	83	87.0	2.0	11.0	28	85.0	2.4	12.6	29	74.3	7.4	18.3
H1 2013	83	86.0	2.0	12.0	28	84.9	2.3	12.8	29	70.8	8.8	20.4
H2 2013	83	86.0	2.4	11.6	28	85.3	2.8	11.8	29	75.7	7.4	16.9
H1 2014	83	85.3	3.6	11.1	28	85.7	4.2	10.1	29	82.2	2.2	15.6
H2 2014	83	83.5	4.6	11.9	28	82.9	5.6	11.5	29	84.7	3.0	12.3
H1 2015	83	82.6	5.4	12.0	28	81.5	6.4	12.1	29	85.9	2.8	11.3
H2 2015	83	81.5	6.2	12.3	28	80.4	7.1	12.4	29	85.3	3.1	11.6
H1 2016	83	81.3	6.5	12.2	28	80.7	7.5	11.8	29	84.9	3.2	11.9
H2 2016	83	80.2	7.5	12.3	28	79.6	8.3	12.1	29	83.9	3.7	12.4
H1 2017	83	80.8	7.3	11.8	28	80.4	8.0	11.6	29	82.0	3.3	14.7
H2 2017	83	79.9	7.7	12.4	28	79.5	8.2	12.3	29	80.5	3.9	15.6
H1 2018	83	78.9	7.9	13.2	28	78.6	8.4	13.0	29	80.4	5.1	14.5
H2 2018	83	78.5	7.8	13.6	28	78.2	8.3	13.5	29	80.7	5.2	14.1
H1 2019	83	76.4	8.9	14.7	28	75.9	9.2	14.9	29	81.5	3.9	14.5
H2 2019	83	76.1	9.4	14.5	28	75.6	9.7	14.7	29	81.2	4.8	14.0

[1] This table 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.

Share of MRC by asset class[1]

Consistent sample of Group 1 banks, in per cent of total MRC — Table C.38

	Number	Corporate	Bank	Sovereign	Retail	Partial use	Securitisation	Related entities	CVA MRC	Market risk	Operational risk	Floors	Other	Total	Total (June 2011 = 100)
H1 2011	33	30.8	3.4	1.1	18.7	2.8	7.2	10.4	0.0	6.2	7.9	1.1	10.3	100.0	100.0
H2 2011	33	30.5	3.2	1.1	18.4	2.1	5.9	11.5	0.0	9.6	8.2	1.1	8.3	100.0	106.1
H1 2012	33	31.7	3.3	1.2	18.3	2.0	4.4	11.9	0.0	10.1	8.7	0.2	8.3	100.0	103.4
H2 2012	33	31.8	3.3	1.2	18.0	1.4	3.9	12.8	0.0	8.3	9.9	0.9	8.4	100.0	98.7
H1 2013	33	32.4	3.6	1.4	18.1	1.8	3.7	6.7	0.2	9.4	11.1	1.6	10.1	100.0	94.0
H2 2013	33	32.3	3.4	1.3	17.6	1.6	4.1	7.2	0.2	8.4	12.0	2.6	9.1	100.0	90.3
H1 2014	33	33.9	4.0	2.4	16.3	1.7	2.6	3.7	3.0	7.5	13.1	0.9	10.9	100.0	90.8
H2 2014	33	34.1	3.7	2.5	16.0	1.7	2.3	3.1	3.1	7.0	13.8	2.3	10.4	100.0	96.0
H1 2015	33	34.8	3.4	2.5	15.9	1.6	2.2	3.0	2.8	6.7	14.1	2.8	10.1	100.0	100.3
H2 2015	33	35.9	3.2	2.6	15.5	1.3	2.1	3.1	2.7	5.9	16.0	1.9	9.7	100.0	99.6
H1 2016	33	36.4	3.1	2.8	15.6	1.3	1.9	3.3	2.9	5.4	16.1	1.8	9.4	100.0	97.9
H2 2016	33	35.7	2.8	2.6	16.3	1.1	1.9	3.3	2.5	5.2	16.1	3.0	9.5	100.0	98.8
H1 2017	33	35.8	2.8	2.5	16.8	1.1	1.8	3.6	2.1	5.3	15.9	2.9	9.4	100.0	95.0
H2 2017	33	36.7	2.8	2.5	17.4	1.0	1.7	3.9	1.9	5.1	16.1	1.1	9.8	100.0	90.3
H1 2018	33	37.5	2.8	2.6	17.1	1.3	1.6	3.7	1.8	5.1	16.3	1.0	9.2	100.0	90.6
H2 2018	33	37.7	2.7	2.7	16.8	2.6	1.7	0.9	1.7	5.0	16.8	1.2	10.3	100.0	90.2
H1 2019	33	38.1	2.7	2.7	16.6	2.7	1.6	1.0	1.8	4.6	16.3	1.1	10.9	100.0	92.4
H2 2019	33	37.4	2.5	2.6	16.7	2.7	1.7	1.0	1.8	4.2	16.5	1.6	11.3	100.0	93.7

[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; 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.

Share of MRC by asset class[1]

Consistent sample of G-SIBs, in per cent of total MRC

Table C.39

	Number	Corporate	Bank	Sovereign	Retail	Partial use	Securitisation	Related entities	CVA MRC	Market risk	Operational risk	Floors	Other	Total	Total (June 2011=100)
H1 2011	14	28.2	3.3	1.2	19.8	2.7	7.4	9.1	0.0	6.9	8.3	1.2	11.9	100.0	100.0
H2 2011	14	28.4	3.1	1.2	19.6	2.3	6.1	8.9	0.0	10.1	8.9	1.1	10.4	100.0	105.7
H1 2012	14	29.5	3.4	1.3	19.1	2.2	4.4	9.5	0.0	10.9	9.4	0.1	10.3	100.0	102.2
H2 2012	14	29.2	3.3	1.4	18.6	1.4	4.7	10.6	0.0	8.4	11.0	1.4	10.1	100.0	97.4
H1 2013	14	28.7	3.2	1.5	18.0	2.0	4.3	5.5	0.0	11.1	12.4	2.2	11.1	100.0	97.3
H2 2013	14	28.7	3.0	1.5	17.1	1.8	5.0	6.3	0.0	10.1	13.5	2.8	10.2	100.0	94.4
H1 2014	14	30.2	3.6	2.7	15.4	1.3	2.8	4.0	3.4	9.2	15.1	0.7	11.5	100.0	96.3
H2 2014	14	30.7	3.3	2.8	15.0	1.3	2.6	3.3	3.6	8.7	15.9	1.9	10.9	100.0	104.0
H1 2015	14	31.4	3.0	2.8	14.8	1.2	2.4	3.2	3.2	8.2	16.3	3.0	10.5	100.0	109.4
H2 2015	14	33.3	2.8	2.8	14.3	1.1	2.3	3.2	3.1	6.9	18.8	1.4	10.1	100.0	110.2
H1 2016	14	33.7	2.8	3.0	14.3	1.2	2.1	3.5	3.4	6.3	18.8	1.2	9.9	100.0	108.5
H2 2016	14	33.6	2.4	2.8	14.5	0.9	2.1	3.6	2.9	6.2	19.3	1.6	10.1	100.0	107.6
H1 2017	14	33.8	2.4	2.7	14.4	1.0	2.0	3.9	2.4	6.4	19.0	1.7	10.2	100.0	102.7
H2 2017	14	34.6	2.5	2.7	14.8	1.0	1.8	4.1	2.1	6.1	18.9	1.3	10.2	100.0	98.8
H1 2018	14	35.6	2.4	2.7	14.3	1.2	1.7	3.9	2.0	5.9	18.9	1.4	10.0	100.0	99.8
H2 2018	14	35.6	2.3	2.9	13.9	2.8	1.8	0.7	1.9	5.8	19.5	1.6	11.2	100.0	99.3
H1 2019	14	36.3	2.3	2.9	13.6	3.0	1.8	0.8	1.9	5.2	18.8	1.6	11.9	100.0	101.9
H2 2019	14	35.5	2.1	2.9	13.8	3.1	1.9	0.8	2.0	4.9	19.0	2.2	12.0	100.0	102.4

[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; 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.

Share of credit exposure

Consistent sample of Group 1 banks, in per cent of total exposure

Table C.40

	Number of banks	Corporate	Retail	Sovereign	Bank	Other credit	Partial use	Securitisation	Total	Total (June 2011=100)
H1 2011	35	27.8	28.0	12.3	10.3	13.0	5.0	3.6	100.0	100.0
H2 2011	35	28.2	27.8	13.3	9.4	13.4	4.4	3.5	100.0	105.0
H1 2012	35	28.3	27.9	14.2	9.3	12.8	4.2	3.3	100.0	107.0
H2 2012	35	28.5	28.6	14.8	8.9	11.5	4.6	3.1	100.0	102.3
H1 2013	35	28.5	28.3	15.3	8.7	11.8	4.6	2.9	100.0	101.7
H2 2013	35	28.6	29.1	15.8	8.4	10.9	4.5	2.7	100.0	97.6
H1 2014	35	30.2	28.7	18.0	8.5	10.0	2.0	2.7	100.0	101.1
H2 2014	35	30.3	28.3	18.4	8.2	10.4	1.9	2.6	100.0	107.3
H1 2015	35	30.7	28.2	18.3	7.9	10.4	1.9	2.7	100.0	114.0
H2 2015	35	31.0	28.4	18.8	7.3	10.0	1.6	2.8	100.0	113.4
H1 2016	35	30.8	28.1	19.3	7.0	10.1	2.0	2.8	100.0	114.4
H2 2016	35	30.6	28.7	19.6	6.6	9.8	1.9	2.8	100.0	115.4
H1 2017	35	30.3	29.2	20.7	6.6	8.5	1.9	2.8	100.0	112.9
H2 2017	35	30.5	29.9	20.7	6.3	8.0	1.8	2.8	100.0	110.7
H1 2018	35	30.8	29.6	20.5	6.3	8.2	1.9	2.7	100.0	112.8
H2 2018	35	30.8	29.3	19.9	6.1	8.2	2.8	3.0	100.0	114.4
H1 2019	35	31.1	29.2	19.8	6.9	7.5	2.8	2.8	100.0	117.0
H2 2019	35	31.1	29.9	19.9	6.4	7.3	2.8	2.6	100.0	119.0

Source: Basel Committee on Banking Supervision.

Share of credit exposure

Consistent sample of G-SIBs, in per cent of total exposure — Table C.41

	Number of banks	Corporate	Retail	Sovereign	Bank	Other credit	Partial use	Securitisation	Total	Total (June 2011=100)
H1 2011	15	27.2	25.8	12.1	9.5	16.7	4.7	4.1	100.0	100.0
H2 2011	15	27.5	24.9	13.4	9.1	17.0	4.2	3.9	100.0	106.6
H1 2012	15	27.8	24.7	14.2	9.1	16.4	4.1	3.8	100.0	108.3
H2 2012	15	28.2	25.4	15.3	8.7	14.4	4.5	3.6	100.0	102.6
H1 2013	15	28.2	25.1	15.8	8.4	14.9	4.3	3.3	100.0	103.6
H2 2013	15	28.7	25.8	16.6	8.2	13.4	4.1	3.1	100.0	98.7
H1 2014	15	30.3	25.4	18.5	7.9	13.0	1.7	3.1	100.0	102.8
H2 2014	15	30.0	24.7	19.0	7.7	13.9	1.6	3.0	100.0	111.9
H1 2015	15	30.9	24.7	18.6	7.4	13.7	1.6	3.1	100.0	119.1
H2 2015	15	31.4	24.8	19.2	6.8	13.1	1.5	3.2	100.0	119.6
H1 2016	15	31.1	24.4	19.8	6.6	13.3	1.8	3.1	100.0	122.1
H2 2016	15	31.0	24.9	20.3	6.2	12.9	1.7	3.1	100.0	123.6
H1 2017	15	30.9	25.4	21.6	6.3	11.1	1.7	3.1	100.0	119.2
H2 2017	15	31.2	26.1	21.5	6.1	10.3	1.7	3.1	100.0	116.3
H1 2018	15	31.8	25.7	21.2	6.0	10.6	1.7	3.0	100.0	119.4
H2 2018	15	31.7	25.3	20.4	5.8	10.4	3.1	3.2	100.0	121.9
H1 2019	15	32.1	25.3	20.1	6.7	9.6	3.2	3.1	100.0	124.7
H2 2019	15	31.9	26.1	20.5	6.1	9.3	3.1	3.0	100.0	126.8

Source: Basel Committee on Banking Supervision.

Changes in Tier 1 MRC for credit risk due to the final Basel III standards

In per cent — Table C.42

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Max	82.0	27.6	672.4
95th percentile	21.2	24.0	27.4
75th percentile	6.2	8.2	10.1
Median	–1.5	5.2	5.5
25th percentile	–10.6	0.4	–0.5
5th percentile	–22.5	–17.1	–10.9
Min	–27.5	–19.7	–15.4
Weighted average	–2.7	–2.1	7.8

Source: Basel Committee on Banking Supervision.

Changes in Tier 1 MRC for credit risk due to the final Basel III standards, by asset class[1]

In per cent — Table C.43

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Sovereign	0.0	–0.1	0.0
Bank and covered bonds	0.9	0.9	3.7
Retail	–0.8	–0.5	1.0
Real estate	0.1	0.1	0.5
Defaulted	0.0	0.0	0.0
Corporate / financial institutions treated as corporate	–3.7	–3.4	–0.3
Equity / subordinated debt / funds	0.7	0.7	2.6
Other assets / failed trades / eligible purchased receivables	–0.1	–0.2	0.1
Total	–2.7	–2.1	7.8

[1] The difference between the sum of the asset classes and the total shown in this table stems from the EL minus provisions part of the MRC calculation which is calculated only at the total level, and not the level of individual asset classes.

Source: Basel Committee on Banking Supervision.

Changes in Tier 1 MRC for credit risk due to the final Basel III standards, by region[1]

Group 1 banks, in per cent — Table C.44

	Europe	Americas	Rest of the world
Max	26.0	12.1	82.0
95th percentile	22.9	11.9	19.4
75th percentile	8.8	6.7	–1.7
Median	3.3	3.1	–8.7
25th percentile	–1.7	–1.4	–13.6
5th percentile	–14.1	–20.4	–24.5
Min	–23.7	–23.4	–27.5
Weighted average	3.7	3.5	–8.0

Source: Basel Committee on Banking Supervision.

Changes in Tier 1 MRC for credit risk due to the final Basel III standards, by region[1]

Group 1 banks, in per cent — Table C.45

	Europe	Americas	Rest of the world
Sovereign	0.0	0.0	0.0
Bank and covered bonds	1.2	0.7	0.8
Retail	0.5	–1.0	–1.4
Real estate	0.2	–0.2	0.1
Defaulted	0.0	0.0	0.0
Corporate / financial institutions treated as corporate	0.9	–0.3	–7.2
Equity / subordinated debt / funds	–0.2	4.6	–0.1
Other assets / failed trades / eligible purchased receivables	0.0	–0.4	–0.1
Total	3.7	3.5	–8.0

[1] The difference between the sum of the asset classes and the total shown in this table stems from the EL minus provisions part of the MRC calculation which is calculated only at the total level, and not the level of individual asset classes.

Source: Basel Committee on Banking Supervision.

Changes in Tier 1 MRC for exposures subject to the standardised approach for credit risk due to the final Basel III standards[1]

In per cent — Table C.46

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Max	139.5	53.9	28.3
95th percentile	47.5	40.2	25.8
75th percentile	13.0	9.6	12.2
Median	4.5	6.2	6.0
25th percentile	–0.9	2.6	0.6
5th percentile	–10.0	–9.6	–6.3
Min	–29.1	–17.6	–21.9
Weighted average	4.1	3.9	7.4

[1] These data include all banks' exposures currently subject to the standardised approach for credit risk, including the SA exposures of IRB banks using partial use. It does not include exposures currently under the IRB that migrate to the SA under the revised approach (eg IRB equity exposures). The change is calculated based on total current MRC for exposures currently under the SA.

Source: Basel Committee on Banking Supervision.

Changes in Tier 1 MRC for exposures subject to the standardised approach for credit risk due to the final Basel III standards[1]

In per cent — Table C.47

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Sovereign	0.0	0.0	0.1
Retail	1.1	1.1	1.4
Defaulted	0.1	0.1	0.0
Corporate	2.5	4.3	–0.4
Bank and covered bonds	1.4	1.3	1.5
Equity / subordinated debt / funds	–1.1	–3.0	3.8
Other assets / failed trades	–0.1	–0.2	0.2
Real estate	0.2	0.5	0.8
Total	4.1	3.9	7.4

[1] These data include all banks' exposures currently subject to the standardised approach for credit risk, including the SA exposures of IRB banks using partial use. It does not include exposures currently under the IRB that migrate to the SA under the revised approach (eg IRB equity exposures). The change is calculated based on total current MRC for exposures currently under the SA. The negative change for equity exposures for Group 1 banks is driven by superequivalent treatment of equity in certain jurisdictions, which is assumed not to be carried over under the revised framework.

Source: Basel Committee on Banking Supervision.

Changes in Tier 1 MRC for exposures subject to the standardised approach for credit risk due to the final Basel III standards,[1] by region

Group 1 banks, in per cent — Table C.48

	Europe	Americas	Rest of the world
Max	139.5	10.8	84.4
95th percentile	35.5	10.8	60.9
75th percentile	14.7	5.6	11.3
Median	7.8	3.1	1.3
25th percentile	2.2	–0.6	–3.1
5th percentile	–6.0	–29.1	–11.2
Min	–9.7	–29.1	–17.6
Weighted average	7.3	4.5	2.5

[1] These data include all banks' exposures currently subject to the standardised approach for credit risk, including the SA exposures of IRB banks using partial use. It does not include exposures currently under the IRB that migrate to the SA under the revised approach (eg IRB equity exposures).

Source: Basel Committee on Banking Supervision.

Changes in Tier 1 MRC for exposures subject to the standardised approach for credit risk due to the final Basel III standards, by region

Group 1 banks, in per cent — Table C.49

	Europe	Americas	Rest of the world
Sovereign	0.2	0.0	0.0
Retail	2.0	–1.7	0.9
Defaulted	0.1	0.0	0.1
Corporate	1.7	0.5	3.0
Bank and covered bonds	0.5	2.7	1.7
Equity / subordinated debt / funds	1.9	4.8	–3.2
Other assets / failed trades	0.1	0.1	–0.2
Real estate	0.6	–1.9	0.2
Total	7.3	4.5	2.5

Source: Basel Committee on Banking Supervision.

Standardised approach risk weights under the current standard and the final Basel III standards

In per cent

Table C.50

	Group 1 banks			Of which: G-SIBs			Group 2 banks		
	Contrib. to total current RWA	Current	Final	Contrib. to total current RWA	Current	Final	Contrib. to total current RWA	Current	Final
Sovereign	8.8	9.0	9.1	10.2	10.3	10.3	6.6	4.6	4.6
Bank	6.7	28.6	34.4	8.2	30.8	35.4	8.7	26.1	30.4
Covered bonds	0.0	17.2	14.6	0.0	11.7	11.8	0.7	11.5	13.2
General corporate	33.3	88.4	93.3	33.0	89.0	98.1	18.5	88.7	87.4
Corporate SME	4.0	93.6	84.7	2.2	91.0	84.0	7.9	93.9	85.1
Specialised lending	0.9	93.3	107.0	0.4	100.6	106.6	2.3	100.2	103.5
Equity	7.7	329.4	264.3	9.5	405.7	253.7	4.7	147.1	235.8
Subordinated debt	0.7	113.5	161.5	1.1	111.8	160.0	0.3	62.3	138.2
Equity investments in funds	0.3	160.5	218.6	0.1	155.7	246.4	1.6	80.1	106.9
Retail	15.6	74.4	76.2	14.2	72.2	74.0	15.4	72.9	77.9
Real estate (total)	6.5	52.5	53.3	5.6	51.5	54.1	18.5	43.7	45.2
Of which: General residential	3.5	41.3	38.2	3.0	40.6	39.0	12.1	37.7	35.5
Of which: General commercial	1.2	67.0	73.1	1.0	62.3	72.1	3.2	60.4	63.8
Of which: Income-producing residential	0.4	60.2	67.2	0.4	67.3	82.1	1.3	41.3	59.9
Of which: Income-producing commercial	0.5	82.5	93.3	0.4	72.6	88.4	0.4	80.9	113.4
Of which: Land acquisition	0.9	111.8	131.8	0.8	113.4	128.1	1.5	109.6	141.4
Failed trades	0.0	94.6	94.6	0.0	154.4	154.4	0.0		
Other assets	14.3	39.7	38.3	14.3	38.0	36.0	11.8	61.8	62.1
Defaulted	1.2	98.2	105.2	1.1	97.0	105.7	2.8	108.5	108.5
Total	100.0	42.1	43.3	100.0	41.9	42.8	100.0	32.6	34.8

Source: Basel Committee on Banking Supervision.

Standardised approach risk weights under the current rules and the final Basel III standards, by region

Group 1 banks, in per cent — Table C.51

	Europe		Americas		Rest of the world	
	Current	Final	Current	Final	Current	Final
Sovereign	8.0	8.1	1.7	1.7	10.1	10.0
Bank	16.3	19.6	25.0	51.9	31.9	37.7
Covered bonds	17.0	14.9			20.0	10.0
General corporate	93.1	94.1	86.8	89.8	86.6	93.2
Corporate SME	90.9	84.3	98.8	85.0	95.7	85.0
Specialised lending	102.1	108.6	69.5	92.5	92.1	109.3
Equity	199.9	262.5	112.3	250.0	430.1	267.4
Subordinated debt	102.9	167.5	100.0	100.0	114.7	160.8
Equity investments in funds	111.1	206.4	1,250.0	1,250.0	201.0	216.6
Retail	72.9	75.5	73.2	68.8	75.9	78.4
Real estate (total)	47.6	49.9	54.6	37.3	59.9	60.5
Of which: General residential	36.8	33.3	50.6	30.5	46.2	46.5
Of which: General commercial	53.4	64.6	102.5	97.2	96.5	91.2
Of which: Income-producing residential	62.1	74.8	35.2	34.3	54.8	45.0
Of which: Income-producing commercial	70.8	90.3	100.3	94.7	96.1	96.9
Of which: Land acquisition	122.4	138.6	87.7	112.8	102.3	125.7
Failed trades	154.4	154.4	164.6	163.1	18.1	18.1
Other assets	76.5	76.4	31.9	32.1	34.2	32.7
Defaulted	107.7	117.3	54.6	54.3	89.6	94.3
Total	42.0	44.2	44.9	46.9	42.0	42.5

Source: Basel Committee on Banking Supervision.

Changes in Tier 1 MRC for exposures subject to the IRB approach for credit risk due to the final Basel III standards

In per cent — Table C.52

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Max	25.1	25.1	1,042.4
95th percentile	22.3	24.8	19.0
75th percentile	5.9	9.3	9.6
Median	–3.3	4.1	–0.6
25th percentile	–12.8	–1.9	–6.4
5th percentile	–27.0	–24.1	–16.6
Min	–32.0	–25.7	–17.8
Weighted average	–5.5	–4.3	8.4

Source: Basel Committee on Banking Supervision.

Changes in Tier 1 MRC for exposures subject to the IRB approach for credit risk due to the final Basel III standards[1]

In per cent — Table C.53

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Banks	0.7	0.8	6.8
Corporate	–3.8	–3.8	–0.4
Corporate SME	–2.1	–2.4	0.4
Others	1.2	1.9	0.9
Retail	–0.1	–0.1	1.0
Retail res. mortgages	–1.5	–1.0	–0.5
Sovereigns	0.0	–0.1	–0.1
Specialised lending	–0.3	–0.1	–0.2
Total	–5.5	–4.3	8.4

[1] The difference between the sum of the asset classes and the total shown in this table stems from the EL minus provisions part of the MRC calculation which is calculated only at the total level, and not the level of individual asset classes.

Source: Basel Committee on Banking Supervision.

Changes in Tier 1 MRC for exposures subject to the IRB approach for credit risk due to the final Basel III standards, by region

Group 1 banks, in per cent — Table C.54

	Europe	Americas	Rest of the world
Max	25.1	12.1	24.7
95th percentile	24.1	11.9	15.0
75th percentile	10.1	5.7	–2.9
Median	1.5	3.1	–12.3
25th percentile	–7.1	–2.0	–21.4
5th percentile	–15.6	–5.5	–28.1
Min	–28.6	–5.7	–32.0
Weighted average	2.0	3.4	–13.2

Source: Basel Committee on Banking Supervision.

Changes in Tier 1 MRC for exposures subject to the IRB approach for credit risk due to the final Basel III standards, by region[1]

Group 1 banks, in per cent — Table C.55

	Europe	Americas	Rest of the world
Banks	1.5	0.4	0.4
Corporate	–0.4	0.2	–7.3
Corporate SME	0.0	–0.2	–4.0
Others	–1.2	4.1	1.4
Retail	0.4	–0.4	–0.2
Retail res. mortgages	–0.6	–0.5	–2.4
Sovereigns	–0.1	0.0	0.0
Specialised lending	1.0	–0.4	–0.9
Total	2.0	3.4	–13.2

[1] The difference between the sum of the asset classes and the total shown in this table stems from the EL minus provisions part of the MRC calculation which is calculated only at the total level, and not the level of individual asset classes.

Source: Basel Committee on Banking Supervision.

IRB approach risk weights under the current and the final Basel III standards

In per cent

Table C.56

	Group 1 banks			Of which: G-SIBs			Group 2 banks		
	Contrib. to total RWA	Current	Final	Contrib. to total RWA	Current	Final	Contrib. to total RWA	Current	Final
Large and mid-market general corporates	39.2	54.5	48.7	41.1	54.1	48.0	29.5	52.3	50.6
Specialised lending	6.4	60.2	57.9	5.5	55.0	54.3	10.7	51.6	51.9
SME treated as corporate	13.5	72.3	61.2	13.1	83.5	67.9	15.2	47.6	48.0
Financial institutions treated as corporates	3.2	35.2	37.7	3.5	36.0	38.7	0.5	53.8	56.9
Sovereigns	2.1	4.4	4.3	2.5	4.6	4.5	1.0	5.8	5.4
Banks	4.3	24.9	28.8	4.1	26.3	30.5	3.1	13.7	45.4
Retail residential mortgages	11.7	19.5	17.1	10.7	21.3	19.2	18.6	11.0	10.7
Other retail	5.5	33.7	34.0	4.4	34.7	34.9	10.3	34.1	37.5
Qualifying revolving retail exposures	3.8	31.4	30.6	4.0	33.3	32.0	2.1	27.8	27.5
Equity	5.4	199.0	247.0	5.5	177.8	243.4	6.6	231.9	253.1
Equity investments in funds	0.8	145.3	147.5	0.6	118.1	139.9	0.3	349.8	746.5
Eligible purchased receivables	0.3	31.0	30.1	0.3	29.0	28.7	0.0	89.7	77.5
Failed trades and non-DVP transactions	0.0	79.7	77.6	0.0	79.7	77.6	0.0		
Other assets	3.8	64.4	62.6	4.5	69.1	66.9	2.1	90.6	89.6
Total	100.0	36.6	34.4	100.0	37.3	35.3	100.0	27.6	29.9

Source: Basel Committee on Banking Supervision.

IRB approach risk weights under the current and the final Basel III standards, by region

Group 1 banks, in per cent — Table C.57

	Europe			Americas			Rest of the world		
	Contrib. to total RWA	Current	Final	Contrib. to total RWA	Current	Final	Contrib. to total RWA	Current	Final
Large and mid-market general corporates	37.0	47.9	48.2	34.6	46.1	42.2	41.8	62.6	52.3
Specialised lending	7.5	45.4	51.1	7.0	61.6	58.2	5.8	77.4	66.0
SME treated as corporate	9.6	48.7	49.3	3.4	79.7	75.1	20.0	81.3	64.9
Financial institutions treated as corporates	3.0	28.0	32.6	7.6	43.1	43.2	1.4	33.1	35.8
Sovereigns	2.5	5.1	4.8	5.2	7.3	7.4	0.5	1.5	1.4
Banks	4.8	19.5	28.0	4.9	26.6	27.8	3.7	29.2	31.8
Retail residential mortgages	13.1	13.0	12.4	6.8	20.7	19.2	13.3	25.2	20.7
Other retail	9.0	29.5	31.3	4.5	44.6	42.6	4.1	36.9	35.7
Qualifying revolving retail exposures	2.0	27.8	27.9	9.8	37.2	35.4	2.3	26.0	25.8
Equity	8.4	304.4	263.4	5.4	121.3	222.9	3.7	184.9	254.8
Equity investments in funds	0.2	257.2	345.7	1.1	90.3	106.9	1.0	192.6	177.6
Eligible purchased receivables	0.3	29.1	27.4	0.2	32.3	31.4	0.3	31.8	31.5
Failed trades and non-DVP transactions	0.0	4.2	4.2	0.2	95.9	93.4	0.0	96.0	90.6
Other assets	2.7	65.9	65.4	9.3	55.7	53.4	2.2	87.9	85.7
Total	100.0	29.0	29.7	100.0	34.4	34.5	100.0	43.5	38.0

Source: Basel Committee on Banking Supervision.

Exposure-weighted average PD for non-defaulted exposures by main asset classes

Group 1 IRB banks, in per cent — Table C.58

	Corporate			Sovereign			Bank			Retail[1]		
	FIRB	AIRB	All	FIRB	AIRB	All	FIRB	AIRB	All	FIRB	AIRB	All
Number of banks	18	52	70	18	48	66	17	53	70	16	52	68
Max	2.52	1.97	2.52	0.70	0.81	0.81	0.76	3.12	3.12	2.18	5.08	5.08
95th percentile	1.97	1.62	1.70	0.28	0.58	0.59	0.46	1.45	1.10	1.77	3.90	3.53
75th percentile	1.10	1.19	1.18	0.03	0.11	0.10	0.16	0.41	0.33	0.95	1.53	1.46
Median	0.76	0.83	0.82	0.01	0.03	0.02	0.10	0.18	0.16	0.73	1.10	1.00
25th percentile	0.64	0.61	0.62	0.01	0.01	0.01	0.08	0.12	0.10	0.65	0.76	0.68
5th percentile	0.45	0.38	0.38	0.00	0.00	0.00	0.06	0.06	0.05	0.45	0.44	0.44
Min	0.44	0.19	0.19	0.00	0.00	0.00	0.03	0.05	0.03	0.38	0.32	0.32
Weighted average	0.82	0.79	0.79	0.13	0.12	0.12	0.22	0.25	0.25	1.21	1.25	1.24

[1] While there is only one IRB approach for retail, the table distinguishes between banks using foundation and advanced IRB approach for their non-retail portfolios.

Source: Basel Committee on Banking Supervision.

Exposure-weighted average LGD for non-defaulted exposures by main asset classes

Group 1 IRB banks, in per cent — Table C.59

	Corporate			Sovereign			Bank			Retail[1]		
	FIRB	AIRB	All	FIRB	AIRB	All	FIRB	AIRB	All	FIRB	AIRB	All
Number of banks	18	52	70	18	48	66	17	53	70	16	52	68
Max	49.5	50.7	50.7	45.0	51.2	51.2	45.2	63.4	63.4	49.9	70.9	70.9
95th percentile	45.0	44.3	44.8	45.0	44.9	45.0	44.3	59.0	57.3	49.4	63.9	61.6
75th percentile	43.2	37.0	41.6	45.0	35.7	44.4	37.8	42.7	41.1	40.4	37.5	39.7
Median	41.9	33.5	35.8	44.9	23.6	33.7	35.2	30.9	33.0	27.6	25.0	26.9
25th percentile	40.9	29.4	31.4	44.4	9.9	18.3	30.8	23.9	24.0	20.3	19.6	19.6
5th percentile	39.1	22.6	23.5	41.8	4.8	6.4	20.0	12.9	14.0	16.2	13.9	14.6
Min	37.7	16.2	16.2	36.8	0.0	0.0	15.6	8.0	8.0	15.8	12.0	12.0
Weighted average	41.9	32.7	33.5	43.8	29.6	30.5	33.8	28.1	28.9	20.7	32.9	32.0

[1] While there is only one IRB approach for retail, the table distinguishes between banks using foundation and advanced IRB approach for their non-retail portfolios.

Source: Basel Committee on Banking Supervision.

Exposure-weighted average risk weights for non-defaulted exposures by main asset classes

Group 1 IRB banks, in per cent — Table C.60

	Corporate			Sovereign			Bank			Retail[1]		
	FIRB	AIRB	All	FIRB	AIRB	All	FIRB	AIRB	All	FIRB	AIRB	All
Number of banks	18	52	70	18	48	66	17	53	70	16	52	68
Max	73.8	66.6	73.8	53.3	49.5	53.3	35.0	60.1	60.1	33.3	57.7	57.7
95th percentile	71.7	56.3	66.6	17.0	36.7	37.4	32.5	46.4	45.2	31.4	42.6	41.2
75th percentile	65.2	50.6	53.3	5.5	12.1	7.5	21.7	32.1	30.3	20.3	28.2	26.5
Median	55.1	44.5	46.0	3.7	3.0	3.2	20.1	22.2	21.0	17.7	19.7	19.1
25th percentile	45.5	31.7	39.6	2.0	1.6	1.7	14.1	17.3	16.1	14.9	14.5	14.5
5th percentile	42.5	23.2	24.9	1.1	0.6	0.7	9.6	6.3	6.6	12.3	9.0	9.7
Min	39.6	17.5	17.5	1.0	0.3	0.3	9.1	2.7	2.7	12.2	6.4	6.4
Weighted average	54.4	40.3	41.5	10.2	7.8	8.0	20.6	18.4	18.8	14.7	21.6	21.0

[1] While there is only one IRB approach for retail, the table distinguishes between banks using foundation and advanced IRB approach for their non-retail portfolios.

Source: Basel Committee on Banking Supervision.

Exposure-weighted average risk parameter values by sub-asset classes of retail exposures

Group 1 IRB banks, in per cent — Table C.61

	Number of banks	Average PD non-defaulted exposures	Share of defaulted exposures	Average LGD non-defaulted exposures
Retail mortgages	70	0.9	1.3	20.9
Other retail	63	1.9	2.6	39.5
Retail QRE	59	2.1	0.5	84.2

Source: Basel Committee on Banking Supervision.

Share of defaulted exposures by asset class

Consistent sample of Group 1 banks, in per cent

Table C.62

	Corporate		Retail		Sovereign		Bank	
	Number of banks	Share	Number of banks	Share	Number of banks	Share	Number of banks	Share
H1 2011	19	2.88	22	3.31	11	0.02	16	0.50
H2 2011	19	2.64	22	3.46	11	0.65	16	0.45
H1 2012	19	2.66	22	3.02	11	0.07	16	0.48
H2 2012	19	2.82	22	2.54	11	0.06	16	0.48
H1 2013	19	2.79	22	2.67	11	0.04	16	0.52
H2 2013	19	2.88	22	3.15	11	0.05	16	0.53
H1 2014	19	2.54	22	2.75	11	0.02	16	0.73
H2 2014	19	2.24	22	2.63	11	0.02	16	0.34
H1 2015	19	2.00	22	2.53	11	0.02	16	0.36
H2 2015	19	1.85	22	2.07	11	0.02	16	0.37
H1 2016	19	2.02	22	2.30	11	0.07	16	0.28
H2 2016	19	2.00	22	2.19	11	0.03	16	0.36
H1 2017	19	1.89	22	2.09	11	0.01	16	0.31
H2 2017	19	1.61	22	1.82	11	0.02	16	0.23
H1 2018	19	1.36	22	1.82	11	0.02	16	0.21
H2 2018	19	1.31	22	1.71	11	0.02	16	0.20
H1 2019	19	1.38	22	1.64	11	0.01	16	0.17
H2 2019	19	1.25	22	1.43	11	0.01	16	0.18

Source: Basel Committee on Banking Supervision.

PDs for non-defaulted exposures by asset class

Consistent sample of Group 1 banks, in per cent — Table C.63

	Corporate		Retail		Sovereign		Bank	
	Number of banks	PD	Number of banks	PD	Number of banks	PD	Number of banks	PD
H1 2011	20	1.45	22	2.35	23	0.11	23	0.26
H2 2011	20	1.38	22	2.30	23	0.08	23	0.23
H1 2012	20	1.32	22	2.20	23	0.10	23	0.23
H2 2012	20	1.25	22	2.07	23	0.10	23	0.25
H1 2013	20	1.24	22	1.94	23	0.09	23	0.26
H2 2013	20	1.16	22	1.82	23	0.08	23	0.25
H1 2014	20	1.05	22	1.65	23	0.10	23	0.27
H2 2014	20	1.04	22	1.59	23	0.05	23	0.23
H1 2015	20	1.03	22	1.49	23	0.05	23	0.22
H2 2015	20	1.03	22	1.47	23	0.05	23	0.24
H1 2016	20	1.05	22	1.40	23	0.06	23	0.26
H2 2016	20	1.06	22	1.39	23	0.06	23	0.27
H1 2017	20	1.03	22	1.35	23	0.05	23	0.23
H2 2017	20	0.98	22	1.30	23	0.05	23	0.20
H1 2018	20	1.06	22	1.25	23	0.05	23	0.20
H2 2018	20	0.93	22	1.31	23	0.06	23	0.21
H1 2019	20	0.95	22	1.30	23	0.06	23	0.19
H2 2019	20	0.96	22	1.28	23	0.13	23	0.23

Source: Basel Committee on Banking Supervision.

Share of defaulted exposures by retail sub-asset classes

Consistent sample of Group 1 banks, in per cent

Table C.64

	Retail mortgages		Other retail		Retail QRE	
	Number of banks	Share	Number of banks	Share	Number of banks	Share
H1 2011	15	3.77	13	3.18	16	1.05
H2 2011	15	4.03	13	2.92	16	1.06
H1 2012	15	3.05	13	2.72	16	1.07
H2 2012	15	2.11	13	2.89	16	1.07
H1 2013	15	2.34	13	2.70	16	1.07
H2 2013	15	3.30	13	2.77	16	1.04
H1 2014	15	2.67	13	2.53	16	1.04
H2 2014	15	2.51	13	2.72	16	0.90
H1 2015	15	2.34	13	2.73	16	0.83
H2 2015	15	2.26	13	3.01	16	0.74
H1 2016	15	2.17	13	2.81	16	0.70
H2 2016	15	2.07	13	2.69	16	0.70
H1 2017	15	1.93	13	2.57	16	0.64
H2 2017	15	1.77	13	2.46	16	0.62
H1 2018	15	1.74	13	2.55	16	0.57
H2 2018	15	1.58	13	3.28	16	0.53
H1 2019	15	1.54	13	3.25	16	0.53
H2 2019	15	1.43	13	2.90	16	0.37

Source: Basel Committee on Banking Supervision.

PDs for non-defaulted exposures by retail sub-asset classes

Consistent sample of Group 1 banks, in per cent

Table C.65

	Retail mortgages		Other retail		Retail QRE	
	Number of banks	PD	Number of banks	PD	Number of banks	PD
H1 2011	17	2.03	15	3.85	15	3.00
H2 2011	17	1.97	15	3.68	15	2.99
H1 2012	17	1.93	15	3.48	15	2.65
H2 2012	17	1.80	15	3.40	15	2.65
H1 2013	17	1.66	15	3.17	15	2.50
H2 2013	17	1.48	15	3.22	15	2.45
H1 2014	17	1.36	15	3.23	15	2.25
H2 2014	17	1.33	15	3.01	15	2.25
H1 2015	17	1.29	15	2.91	15	2.14
H2 2015	17	1.22	15	2.79	15	2.10
H1 2016	17	1.15	15	2.80	15	2.06
H2 2016	17	1.13	15	2.74	15	2.08
H1 2017	17	1.10	15	2.74	15	2.02
H2 2017	17	0.89	15	2.58	15	2.12
H1 2018	17	1.03	15	2.33	15	2.06
H2 2018	17	1.10	15	2.18	15	2.14
H1 2019	17	1.10	15	2.15	15	2.07
H2 2019	17	1.09	15	2.02	15	2.17

Source: Basel Committee on Banking Supervision.

LGDs for non-defaulted exposures by asset class

Consistent sample of Group 1 banks, in per cent — Table C.66

	Corporate		Retail		Sovereign		Bank	
	Number of banks	LGD	Number of banks	LGD	Number of banks	LGD	Number of banks	LGD
H1 2011	20	35.7	21	34.7	21	24.2	21	31.6
H2 2011	20	35.4	21	34.5	21	24.0	21	32.8
H1 2012	20	34.6	21	33.3	21	23.3	21	34.3
H2 2012	20	34.0	21	31.6	21	23.8	21	35.3
H1 2013	20	33.2	21	31.7	21	22.0	21	36.9
H2 2013	20	33.2	21	30.9	21	22.3	21	36.4
H1 2014	20	34.3	21	30.6	21	22.9	21	35.6
H2 2014	20	34.8	21	31.7	21	23.4	21	33.9
H1 2015	20	34.1	21	32.0	21	23.0	21	35.4
H2 2015	20	35.8	21	35.1	21	22.0	21	35.5
H1 2016	20	36.0	21	31.9	21	22.0	21	36.4
H2 2016	20	35.8	21	32.5	21	23.4	21	35.8
H1 2017	20	36.4	21	31.5	21	20.4	21	36.2
H2 2017	20	36.1	21	30.9	21	21.2	21	36.0
H1 2018	20	35.9	21	31.2	21	20.3	21	36.2
H2 2018	20	35.7	21	31.1	21	20.8	21	35.7
H1 2019	20	35.6	21	30.9	21	21.9	21	34.3
H2 2019	20	34.9	21	32.0	21	22.0	21	33.5

Source: Basel Committee on Banking Supervision.

LGDs for non-defaulted exposures by retail sub-asset classes

Consistent sample of Group 1 banks, in per cent — Table C.67

	Retail mortgages		Other retail		Retail QRE	
	Number of banks	LGD	Number of banks	LGD	Number of banks	LGD
H1 2011	17	24.6	15	40.1	14	87.0
H2 2011	17	24.9	15	41.7	14	86.9
H1 2012	17	24.7	15	36.7	14	86.3
H2 2012	17	22.9	15	36.1	14	84.4
H1 2013	17	22.8	15	39.6	14	84.6
H2 2013	17	21.8	15	39.4	14	84.6
H1 2014	17	21.5	15	37.3	14	84.5
H2 2014	17	22.1	15	38.0	14	85.2
H1 2015	17	22.3	15	38.8	14	85.3
H2 2015	17	22.1	15	38.6	14	85.7
H1 2016	17	22.1	15	39.2	14	85.8
H2 2016	17	22.1	15	39.6	14	86.7
H1 2017	17	21.5	15	39.3	14	85.9
H2 2017	17	21.5	15	39.1	14	83.8
H1 2018	17	20.8	15	41.0	14	86.2
H2 2018	17	20.0	15	35.3	14	86.4
H1 2019	17	19.9	15	34.8	14	85.8
H2 2019	17	19.9	15	35.1	14	86.7

Source: Basel Committee on Banking Supervision.

Distribution of EAD by approach under the current rules and the final Basel III standards

In per cent — Table C.68

	Group 1 banks		Of which: G-SIBs		Group 2 banks	
	Current	Final	Current	Final	Current	Final
Advanced IRB	56.6	43.4	60.6	44.0	36.4	32.6
Foundation IRB	13.8	27.2	11.5	27.8	6.3	10.0
Other[1]	2.5	1.6	2.9	1.8	0.6	0.3
Standardised approach	26.8	27.4	25.1	26.4	56.4	56.9
Slotting	0.3	0.3	0.0	0.0	0.3	0.3

[1] "Other IRB" includes equity exposures, equity investments in funds, failed trades and non-DVP transactions and other assets under the IRB approach for credit risk.

Source: Basel Committee on Banking Supervision.

Distribution of RWA by approach under the current rules and the final Basel III standards

In per cent

Table C.69

	Group 1 banks		Of which: G-SIBs		Group 2 banks	
	Current	Final	Current	Final	Current	Final
Advanced IRB	38.7	26.8	40.8	26.4	27.0	22.1
Foundation IRB	23.8	32.9	24.0	35.0	7.3	12.3
Other[1]	7.1	2.9	7.8	3.4	3.4	1.0
Standardised approach	29.6	36.7	27.3	35.2	61.5	63.9
Slotting	0.7	0.7	0.0	0.1	0.8	0.8

[1] "Other IRB" includes equity exposures, equity investments in funds, failed trades and non-DVP transactions and other assets under the IRB approach for credit risk.

Source: Basel Committee on Banking Supervision.

Distribution of EAD by approach under the current rules and the final Basel III standards, by region

In per cent

Table C.70

	Europe		Americas		Rest of the world	
	Current	Final	Current	Final	Current	Final
Advanced IRB	62.1	47.4	84.5	58.8	39.9	33.2
Foundation IRB	7.7	22.0	0.1	26.3	22.6	29.6
Other[1]	1.4	0.7	7.1	5.3	1.4	0.8
Standardised approach	28.5	29.7	8.2	9.7	35.7	35.9
Slotting	0.3	0.3	0.0	0.0	0.5	0.4

[1] "Other IRB" includes equity exposures, equity investments in funds, failed trades and non-DVP transactions and other assets under the IRB approach for credit risk.

Source: Basel Committee on Banking Supervision.

Distribution of RWA by approach under the current rules and the final Basel III standards, by region

In per cent — Table C.71

	Europe		Americas		Rest of the world	
	Current	Final	Current	Final	Current	Final
Advanced IRB	47.4	32.1	74.9	43.9	22.1	17.2
Foundation IRB	9.9	24.8	0.2	27.9	37.4	37.8
Other[1]	7.3	1.4	14.3	8.1	4.5	2.1
Standardised approach	34.8	41.1	10.6	20.0	35.0	42.0
Slotting	0.6	0.6	0.0	0.0	1.0	0.9

[1] "Other IRB" includes equity exposures, equity investments in funds, failed trades and non-DVP transactions and other assets under the IRB approach for credit risk.

Source: Basel Committee on Banking Supervision.

Average risk weight by approach

In per cent — Table C.72

	IRBA	ERBA	IAA	SA	Total
STC securitisations					
Current framework	81.7	106.0		29.5	29.8
Final standard	91.4	120.0		20.2	20.6
Non-STC securitisations					
Current framework	27.9	48.7		37.0	34.0
Final standard	36.2	74.3		40.5	39.7

Source: Basel Committee on Banking Supervision.

Average risk weight, final standards

In per cent — Table C.73

	IRBA	ERBA	IAA	SA	Total
STC securitisations	27.7	14.2	13.6	15.7	17.2
Non-STC securitisations	26.7	27.2	28.4	35.4	31.2

Source: Basel Committee on Banking Supervision.

Share of market risk MRC in total MRC

In per cent

Table C.74

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Max	32.6	13.2	33.1
95th percentile	11.1	11.1	9.6
75th percentile	5.4	5.2	1.8
Median	3.3	3.5	0.4
25th percentile	1.8	2.5	0.0
5th percentile	0.0	1.2	0.0
Min	0.0	1.0	0.0
Weighted average	3.8	3.6	2.5
Number of banks	99	29	69

Source: Basel Committee on Banking Supervision.

Share of market risk MRC in total MRC

Consistent sample of banks, in per cent

Table C.75

	Group 1 banks		Of which: G-SIBs		Group 2 banks	
	Number of banks	Share	Number of banks	Share	Number of banks	Share
H1 2011	35	5.9	15	6.5	15	2.7
H2 2011	35	9.1	15	9.5	15	3.1
H1 2012	35	9.5	15	10.2	15	2.7
H2 2012	35	7.9	15	7.9	15	2.5
H1 2013	35	8.9	15	10.5	15	2.8
H2 2013	35	8.0	15	9.6	15	3.2
H1 2014	35	7.6	15	9.2	15	4.3
H2 2014	35	7.0	15	8.5	15	3.7
H1 2015	35	6.6	15	8.0	15	3.6
H2 2015	35	5.8	15	6.8	15	3.3
H1 2016	35	5.5	15	6.2	15	3.3
H2 2016	35	5.1	15	6.1	15	2.1
H1 2017	35	5.3	15	6.3	15	2.6
H2 2017	35	5.1	15	5.9	15	2.3
H1 2018	35	5.0	15	5.8	15	2.3
H2 2018	35	4.9	15	5.7	15	2.5
H1 2019	35	4.5	15	5.2	15	2.8
H2 2019	35	4.2	15	4.8	15	3.0

Source: Basel Committee on Banking Supervision.

Components of minimum capital requirements for market risk under the current rules

Consistent sample of Group 1 banks, in per cent

Table C.76

		Standard measurement method				Internal models approach				
	Number of banks	General position risk	Specific position risk	FX and commodity risk	Unassigned	VaR and stressed VaR	Incremental risk charge	Unassigned	Correlation trading portfolios	Other and unassigned
H1 2015	97	5.9	7.4	7.5	0.7	48.7	10.6	1.6	15.2	2.3
H2 2015	97	6.5	6.9	7.6	0.8	50.8	9.5	1.7	13.2	2.9
H1 2016	97	7.1	6.7	8.7	0.8	53.1	9.5	1.4	9.8	2.9
H2 2016	97	6.3	6.9	9.1	0.6	54.0	8.8	2.1	9.4	2.8
H1 2017	97	5.1	8.4	8.1	0.6	54.2	9.5	1.5	9.7	2.9
H2 2017	97	4.8	8.6	7.1	1.7	56.1	9.0	1.7	8.4	2.6
H1 2018	97	7.0	9.9	6.3	0.6	56.7	8.1	1.5	7.2	2.7
H2 2018	97	6.4	9.1	6.8	0.7	57.9	8.0	2.0	7.0	2.1
H1 2019	97	6.8	10.0	8.3	1.4	56.7	7.4	1.3	6.1	2.1
H2 2019	97	6.5	10.0	9.3	1.1	56.2	7.3	1.2	6.5	2.1

Source: Basel Committee on Banking Supervision.

Components of minimum capital requirements for market risk under the current rules

Consistent sample of G-SIBs, in per cent

Table C.77

		Standard measurement method				Internal models approach				
	Number of banks	General position risk	Specific position risk	FX and commodity risk	Unassigned	VaR and stressed VaR	Incremental risk charge	Unassigned	Correlation trading portfolios	Other and unassigned
H1 2015	30	3.4	6.1	3.8	0.3	52.2	11.0	2.2	17.9	3.1
H2 2015	30	3.8	5.7	4.4	0.4	53.9	10.0	2.3	15.8	3.7
H1 2016	30	3.5	5.9	4.9	0.4	57.2	9.9	2.0	12.1	4.0
H2 2016	30	3.2	6.1	5.6	0.2	58.1	9.1	2.4	11.5	3.9
H1 2017	30	2.7	7.7	3.9	0.2	58.0	9.7	2.0	11.8	4.0
H2 2017	30	2.8	7.5	3.9	1.2	59.2	9.7	2.0	10.2	3.6
H1 2018	30	3.2	8.2	4.1	0.3	61.0	8.8	1.8	8.8	3.8
H2 2018	30	3.3	7.7	4.1	0.3	62.6	8.7	2.2	8.2	2.9
H1 2019	30	3.1	8.2	4.5	0.4	63.4	8.2	1.8	7.4	3.0
H2 2019	30	3.0	8.6	4.6	0.6	63.4	7.7	1.6	7.9	2.6

Source: Basel Committee on Banking Supervision.

Components of minimum capital requirements for market risk under the current rules

Consistent sample of Group 2 banks, in per cent

Table C.78

		Standard measurement method				Internal models approach				
	Number of banks	General position risk	Specific position risk	FX and commodity risk	Unassigned	VaR and stressed VaR	Incremental risk charge	Unassigned	Correlation trading portfolios	Other and unassigned
H1 2015	55	36.8	17.9	20.1	7.9	14.8	2.2	0.0	0.2	0.0
H2 2015	55	33.3	19.6	11.0	20.8	13.2	1.8	0.0	0.2	0.0
H1 2016	55	32.5	22.0	12.7	21.3	10.1	1.2	0.0	0.3	0.0
H2 2016	55	21.7	20.6	16.0	19.4	20.7	1.3	0.0	0.3	0.0
H1 2017	55	18.3	21.3	15.9	18.8	23.9	1.4	0.0	0.3	0.0
H2 2017	55	20.5	23.5	11.5	23.3	18.8	1.7	0.0	0.6	0.0
H1 2018	55	20.5	19.6	9.7	28.7	19.4	1.0	0.0	1.1	0.0
H2 2018	55	20.8	20.0	7.0	24.6	25.3	0.7	0.0	1.5	0.0
H1 2019	55	23.6	22.4	6.5	24.9	20.6	1.0	0.0	1.0	0.0
H2 2019	55	19.8	19.1	9.1	24.4	26.1	0.5	0.0	1.0	0.0

Source: Basel Committee on Banking Supervision.

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

Consistent sample of Group 1 banks, in per cent — Table C.79

	Number of banks	Banks reporting since end-2011	Number of banks	Banks reporting since June 2015
H2 2011	24	198.1		
H1 2012	24	170.7		
H2 2012	24	199.7		
H1 2013	24	191.2		
H2 2013	24	203.8		
H1 2014	24	247.9		
H2 2014	24	183.5		
H1 2015	24	214.9	49	196.9
H2 2015	24	193.7	49	170.9
H1 2016	24	211.9	49	215.3
H2 2016	24	288.0	49	249.9
H1 2017	24	245.5	49	239.2
H2 2017	24	237.5	49	244.4
H1 2018	24	246.6	49	277.3
H2 2018	24	251.4	49	252.6
H1 2019	24	262.8	49	269.6
H2 2019	24	271.2	49	271.2

Source: Basel Committee on Banking Supervision.

Impact of revised minimum capital requirements for market risk

Reduced estimation bias[1], in per cent — Table C.80

	Change relative to total current market risk MRC			Change relative to total current MRC		
	Group 1	Of which: G-SIBs	Group 2	Group 1	Of which: G-SIBs	Group 2
Max	187.5	150.6	134.8	21.5	19.0	7.5
95th percentile	151.3	142.5	122.2	8.6	7.9	6.8
75th percentile	77.8	81.5	67.2	4.5	5.0	1.1
Median	32.0	13.9	19.5	1.3	0.5	0.1
25th percentile	–1.8	–11.7	–40.6	–0.1	–0.2	–0.9
5th percentile	–47.2	–48.6	–71.8	–1.0	–0.6	–1.1
Min	–72.4	–72.4	–90.5	–1.5	–0.7	–1.1
Weighted average	47.9	53.1	30.9	1.7	1.7	0.8
Number of banks	49	20	12	49	20	11

[1] Three G-SIBs that are outliers due to overly conservative assumptions under the revised market risk framework are excluded from the analysis.

Source: Basel Committee on Banking Supervision.

Impact of revised minimum capital requirements for market risk

Conservative estimation, in per cent

Table C.81

	Change relative to total current market risk MRC			Change relative to total current MRC		
	Group 1	Of which: G-SIBs	Group 2	Group 1	Of which: G-SIBs	Group 2
Max	530.6	530.6	134.8	21.5	19.9	7.5
95th percentile	182.1	248.0	122.2	13.7	17.8	6.8
75th percentile	92.7	125.0	67.2	4.8	5.0	1.1
Median	42.1	19.6	19.5	1.5	0.7	0.1
25th percentile	2.7	–10.5	–40.6	0.0	–0.2	–0.9
5th percentile	–47.1	–45.0	–71.8	–0.9	–0.6	–1.1
Min	–72.4	–72.4	–90.5	–1.5	–0.7	–1.1
Weighted average	59.6	68.8	30.9	2.1	2.2	0.8
Number of banks	52	23	12	52	23	11

Source: Basel Committee on Banking Supervision.

Breakdown of minimum capital requirements for market risk by approach and risk component under the current rules and the revised standard

Reduced estimation bias, in per cent

Table C.82

	Group 1 banks		Of which: G-SIBs		Group 2 banks	
	Number of banks	Mean	Number of banks	Mean	Number of banks	Mean
Current rules						
Standardised approach	49	48.1	20	41.9	12	83.5
Internal models approach	49	51.3	20	57.2	12	16.5
Other	48	0.6	20	0.9	10	0.0
Revised standard						
Standardised approach						
Sensitivities-based method	49	34.8	20	29.0	12	62.0
Default risk capital requirement	49	18.5	20	18.8	12	35.1
Residual risk add-on	49	2.9	20	3.8	12	0.8
Internal models approach						
Modellable risk factors	49	19.3	20	21.1	12	1.8
Non-modellable risk factors	49	11.4	20	13.7	12	0.4
Default risk capital requirement	49	13.3	20	13.8	12	0.0

Source: Basel Committee on Banking Supervision.

Total MRC for operational risk and share of approaches under the current rules

Consistent sample of Group 1 banks, in per cent

Table C.83

	Number of banks	Total June 2011=100	Basic indicator approach	Standardised approach	Alternative standardised approach	Advanced measurement approach
H1 2011	78	100.0	3.4	36.0	2.0	58.7
H2 2011	78	110.7	3.4	35.0	1.9	59.7
H1 2012	78	114.5	4.4	32.4	1.9	61.4
H2 2012	78	122.4	4.5	30.2	1.6	63.7
H1 2013	78	147.7	17.3	24.0	0.9	57.8
H2 2013	78	156.2	17.5	22.0	0.8	59.7
H1 2014	78	171.3	3.1	32.5	0.9	63.4
H2 2014	78	191.2	2.6	32.4	0.8	64.3
H1 2015	78	209.5	2.9	31.8	0.7	64.7
H2 2015	78	223.5	2.7	29.7	0.5	67.1
H1 2016	78	224.0	3.1	27.3	2.2	67.4
H2 2016	78	231.2	3.1	24.4	3.1	69.5
H1 2017	78	222.0	4.5	24.3	2.4	68.8
H2 2017	78	212.8	3.4	25.1	2.6	68.9
H1 2018	78	216.9	3.2	21.4	7.5	67.9
H2 2018	78	220.6	3.0	26.4	2.4	68.1
H1 2019	78	223.5	3.4	26.1	2.5	67.9
H2 2019	78	232.0	3.3	26.4	2.4	67.9

Source: Basel Committee on Banking Supervision.

Total MRC for operational risk and share of approaches under the current rules

Consistent sample of Group 2 banks, in per cent — Table C.84

	Number of banks	Total June 2011=100	Basic indicator approach	Standardised approach	Alternative standardised approach	Advanced measurement approach
H1 2011	28	100.0	23.5	57.9	0.1	18.5
H2 2011	28	97.7	24.2	53.7	0.1	22.0
H1 2012	28	96.2	24.3	48.0	0.1	27.5
H2 2012	28	102.0	21.3	50.4	0.2	28.2
H1 2013	28	103.0	20.3	50.4	0.1	29.1
H2 2013	28	97.5	15.8	56.9	0.2	27.2
H1 2014	28	96.8	16.1	55.4	1.1	27.4
H2 2014	28	99.5	14.8	57.9	0.2	27.0
H1 2015	28	103.8	14.2	58.6	0.3	27.0
H2 2015	28	103.2	12.2	60.2	0.2	27.3
H1 2016	28	103.1	12.4	60.8	0.5	26.3
H2 2016	28	103.6	12.1	60.9	0.3	26.7
H1 2017	28	107.6	13.7	59.9	0.6	25.8
H2 2017	28	109.8	11.6	61.2	0.5	26.7
H1 2018	28	108.3	10.0	62.7	0.2	27.2
H2 2018	28	109.2	9.9	63.4	0.6	26.1
H1 2019	28	109.0	10.0	63.8	0.7	25.5
H2 2019	28	113.4	9.6	63.4	0.9	26.1

Source: Basel Committee on Banking Supervision.

Loss evolution over the past 10 years

Exchange rates as of the current reporting date, in billions of euros — Table C.85

	Number of banks	Net losses	Gross losses
2010	153	34.6	36.5
2011	157	69.4	73.0
2012	160	62.3	67.5
2013	164	61.9	65.8
2014	164	74.6	79.2
2015	166	54.4	60.4
2016	166	40.4	45.9
2017	166	33.2	40.3
2018	166	33.1	39.6
2019	166	32.5	41.2

Source: Basel Committee on Banking Supervision.

Distribution of share of MRC for operational risk in total MRC under the current rules

In per cent

Table C.86

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Max	46.0	46.0	95.1
95th percentile	27.0	36.4	33.7
75th percentile	13.2	26.1	11.8
Median	10.4	11.5	9.4
25th percentile	7.4	9.3	6.9
5th percentile	3.8	6.7	3.9
Min	1.3	5.1	3.2
Weighted average	14.0	16.1	9.7
Number of banks	99	29	69

Source: Basel Committee on Banking Supervision.

Changes in operational risk capital requirements[1]

In per cent

Table C.87

	Group 1 banks			Of which: G-SIBs			Group 2 banks		
		Migration from…			Migration from…			Migration from…	
	Total	AMA	Other	Total	AMA	Other	Total	AMA	Other
Max	216.2	94.3	216.2	119.7	94.1	119.7	226.3	95.1	226.3
95th percentile	94.3	75.9	120.3	87.4	76.8	83.3	101.2	92.4	103.7
75th percentile	19.7	21.4	17.2	29.1	32.6	26.8	37.5	82.7	25.5
Median	0.0	0.3	–8.5	6.7	6.4	9.8	3.9	59.2	–0.8
25th percentile	–24.4	–21.1	–28.1	–28.1	–20.6	–28.5	–16.4	17.9	–16.9
5th percentile	–40.7	–40.8	–38.9	–40.1	–41.1	–32.6	–47.8	–40.6	–42.7
Min	–55.9	–44.8	–55.9	–44.8	–44.8	–33.4	–77.6	–57.7	–77.6
Weighted average	–4.9	–7.7	–1.9	–9.1	–9.9	–7.0	29.5	43.1	26.2

[1] Figures do not show supervisor-imposed Pillar 2 capital add-ons. Therefore, increases in MRC may be overstated and reductions may be understated. For the purpose of this table, AMA banks are banks that currently calculate some part of their operational risk capital requirements using the AMA.

Source: Basel Committee on Banking Supervision.

Banks constrained by different parts of the framework

In per cent

Table C.88

	Group 1 banks			Of which: G-SIBs			Group 2 banks IRB			Group 2 banks pure SA		
	Number of banks	Current	Final	Number of banks	Current	Final	Number of banks	Current	Final	Number of banks	Current	Final
Risk-based capital	85	56.5	41.2	28	46.4	42.9	33	54.5	45.5	29	75.9	72.4
Output floors	85	10.6	34.1	28	25.0	25.0	33	3.0	18.2	29	0.0	0.0
Leverage ratio	85	32.9	24.7	28	28.6	32.1	33	42.4	36.4	29	24.1	27.6

Source: Basel Committee on Banking Supervision.

Banks constrained by different parts of the framework, by region

Group 1 banks, in per cent

Table C.89

	Europe			Americas			Rest of the world		
	Number of banks	Current	Final	Number of banks	Current	Final	Number of banks	Current	Final
Risk-based capital	35	42.9	22.9	13	38.5	69.2	37	75.7	48.6
Output floors	35	0.0	40.0	13	46.2	7.7	37	8.1	37.8
Leverage ratio	35	57.1	37.1	13	15.4	23.1	37	16.2	13.5

Source: Basel Committee on Banking Supervision.

Liquidity coverage ratio and net stable funding ratio

In per cent

Table C.90

	Liquidity coverage ratio			Net stable funding ratio		
	Group 1	Of which: G-SIBs	Group 2	Group 1	Of which: G-SIBs	Group 2
Max	348.5	252.6	2,257.3	144.8	141.6	3,921.8
95th percentile	220.0	189.7	786.3	138.3	138.7	194.0
75th percentile	150.5	143.1	253.7	125.2	125.6	135.9
Median	137.1	136.2	178.2	115.2	116.9	124.7
25th percentile	125.5	121.1	156.6	110.2	109.9	113.5
5th percentile	108.3	112.4	134.5	101.1	102.5	102.2
Min	94.5	108.8	124.0	93.0	101.5	87.6
Weighted average	137.6	135.6	186.0	117.2	118.3	122.1
Number of banks	104	30	68	102	27	67

Source: Basel Committee on Banking Supervision.

Liquidity coverage ratio and net stable funding ratio, by region

Group 1 banks, in per cent

Table C.91

	Liquidity coverage ratio			Net stable funding ration		
	Europe	Americas	Rest of the world	Europe	Americas	Rest of the world
Max	252.6	146.5	348.5	143.8	141.6	144.8
95th percentile	223.3	146.2	233.2	135.0	140.8	138.1
75th percentile	166.5	136.1	157.2	122.8	127.4	124.8
Median	144.6	119.8	140.5	112.5	116.9	116.8
25th percentile	132.5	112.6	126.2	107.5	110.1	111.4
5th percentile	123.8	103.9	119.4	98.4	102.8	101.7
Min	119.2	100.7	94.5	95.6	102.7	93.0
Weighted average	145.6	119.6	143.6	113.0	114.7	121.4
Number of banks	37	22	45	35	15	52

Source: Basel Committee on Banking Supervision.

Composition of holdings of eligible liquid assets

In per cent

Table C.92

	Group 1 banks		Of which: G-SIBS		Group 2 banks	
	Amount	Weighted amount	Amount	Weighted amount	Amount	Weighted amount
Level 1 cash and CB reserves	38.4	39.8	37.8	39.3	33.9	34.8
Level 1 securities	42.2	44.0	40.2	42.1	59.3	60.3
Level 2A	16.5	14.7	19.3	17.1	2.7	2.4
Level 2B	2.9	1.6	2.7	1.5	4.0	2.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Basel Committee on Banking Supervision.

Comparison of pool of high-quality liquid assets and inflows to outflows and cap

In trillions of euros

Table C.93

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Total liquid assets and inflows			
Level 1 assets	11.20	7.73	0.65
Level 2A assets (post-factor)	1.96	1.63	0.02
Level 2B assets (post-factor)	0.21	0.14	0.02
Inflows (post-factor, after cap)	4.49	3.33	0.12
Total	17.86	12.83	0.80
Outflows and impact of cap			
Outflows (post-factor)	14.24	10.27	0.49
Cap	0.21	0.21	0.00
Total	14.44	10.47	0.49

Source: Basel Committee on Banking Supervision.

Aggregate available stable funding (ASF) by counterparty

In trillions of euros

Table C.94

	Group 1 banks		Of which: G-SIBs		Group 2 banks	
	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
Capital	5.7	5.7	3.8	3.8	0.3	0.3
Retail and small business	20.6	19.0	13.5	12.4	1.7	1.6
Non-financial corporates	11.3	5.8	8.0	4.1	0.3	0.2
Central banks	1.7	0.5	1.1	0.4	0.2	0.1
Sovereigns/PSEs/MDBs/NDBs	2.9	1.6	1.9	1.0	0.1	0.1
Financials (other legal entities)	15.2	5.6	9.5	3.3	1.2	0.8
Other liabilities	6.2	1.4	4.2	0.8	0.4	0.1
Total	63.6	39.7	41.9	25.8	4.1	3.1

Source: Basel Committee on Banking Supervision.

Aggregate required stable funding (RSF) by category

In trillions of euros

Table C.95

	Group 1 banks		Of which: G-SIBs		Group 2 banks	
	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
Cash and central banks reserves	6.7	0.0	4.9	0.0	0.3	0.0
Loans to financial institutions	7.5	2.3	5.4	1.6	0.3	0.2
HQLA	10.2	1.5	7.2	1.1	0.5	0.1
All residential mortgages	6.4	4.6	3.0	2.2	0.9	0.7
Loans, < 1 year	7.8	3.8	4.9	2.4	0.3	0.2
Other loans, > 1 year, risk weight < 35%	1.1	0.8	0.5	0.4	0.3	0.2
Loans, risk weights > 35%	15.4	13.0	10.3	8.7	0.8	0.7
Derivative	2.7	0.8	2.0	0.6	0.1	0.0
All other assets	8.0	6.6	5.4	4.6	0.6	0.4
Off-balance sheet		0.5		0.3		0.0
Total	65.8	33.9	43.7	21.8	4.2	2.5

Source: Basel Committee on Banking Supervision.

LCR and related shortfalls at 100% minimum requirement

Consistent sample of banks, exchange rates as at the reporting dates Table C.96

	Group 1 banks		Of which: G-SIBs		Group 2 banks	
	Ratio (%)	Shortfall (€ bn)	Ratio (%)	Shortfall (€ bn)	Ratio (%)	Shortfall (€ bn)
H2 2012	123.2	372.3	127.2	177.4	147.8	2.6
H1 2013	119.2	321.5	122.9	123.4	148.6	3.7
H2 2013	122.3	219.1	127.1	44.4	145.8	7.2
H1 2014	124.4	196.3	127.4	16.3	157.5	0.9
H2 2014	127.5	56.6	126.9	0.0	148.2	2.0
H1 2015	125.0	10.3	122.4	5.7	145.2	0.9
H2 2015	126.9	25.7	122.8	0.0	158.1	0.0
H1 2016	128.3	4.4	125.5	0.0	157.4	0.7
H2 2016	132.2	4.3	127.7	0.0	148.5	1.4
H1 2017	134.1	0.1	129.9	0.0	163.4	0.0
H2 2017	134.4	0.0	129.6	0.0	165.3	0.0
H1 2018	134.9	0.0	130.5	0.0	165.8	0.0
H2 2018	136.1	0.0	132.5	0.0	165.6	0.1
H1 2019	136.6	0.0	134.0	0.0	163.3	0.0
H2 2019	137.9	0.0	134.8	0.0	162.9	0.0

Source: Basel Committee on Banking Supervision.

NSFR and related shortfalls at 100% minimum requirement

Consistent sample of banks, exchange rates as at the reporting dates — Table C.97

	Group 1 banks		Of which: G-SIBs		Group 2 banks	
	Ratio (%)	Shortfall (€ bn)	Ratio (%)	Shortfall (€ bn)	Ratio (%)	Shortfall (€ bn)
H2 2012	100.5	1,451.0	102.2	856.2	102.1	59.3
H1 2013	100.6	1,412.7	103.0	805.6	103.4	50.4
H2 2013	112.5	524.5	115.0	336.8	113.0	10.6
H1 2014	111.7	400.4	114.5	232.6	111.0	17.3
H2 2014	112.0	387.4	114.6	215.6	111.4	23.2
H1 2015	112.7	287.7	115.2	174.0	112.7	14.4
H2 2015	114.7	148.7	117.1	74.6	113.9	2.9
H1 2016	114.7	77.1	116.7	27.3	113.4	5.3
H2 2016	116.1	13.9	117.4	0.0	112.6	15.4
H1 2017	117.1	11.2	119.3	0.0	115.0	2.6
H2 2017	116.2	2.7	117.5	0.0	116.8	0.9
H1 2018	116.1	28.9	116.9	28.9	116.9	0.8
H2 2018	116.4	3.7	117.2	0.8	117.9	0.1
H1 2019	116.6	9.1	117.8	3.9	119.5	0.0
H2 2019	116.9	21.4	118.0	0.0	120.7	0.0

Source: Basel Committee on Banking Supervision.

LCR and NSFR, by region

Consistent sample of Group 1 banks, in per cent — Table C.98

	Europe				Americas				Rest of the world			
	Number of banks	LCR	Number of banks	NSFR	Number of banks	LCR	Number of banks	NSFR	Number of banks	LCR	Number of banks	NSFR
H2 2012	24	109.4	29	95.8	14	110.2	11	90.1	32	139.7	40	109.6
H1 2013	24	103.8	29	96.8	14	114.4	11	89.8	32	132.3	40	108.5
H2 2013	24	108.0	29	101.5	14	117.7	11	102.7	32	134.8	40	129.8
H1 2014	24	114.3	29	102.3	14	123.7	11	104.5	32	131.2	40	125.2
H2 2014	24	125.8	29	102.1	14	126.5	11	113.1	32	128.9	40	121.5
H1 2015	24	123.0	29	104.3	14	118.7	11	112.3	32	129.2	40	120.4
H2 2015	24	130.6	29	106.4	14	121.8	11	114.4	32	127.5	40	122.4
H1 2016	24	131.6	29	107.2	14	126.2	11	110.8	32	127.8	40	122.6
H2 2016	24	132.2	29	109.5	14	123.2	11	111.1	32	136.5	40	123.0
H1 2017	24	134.4	29	111.7	14	129.8	11	110.6	32	135.8	40	123.6
H2 2017	24	137.3	29	112.0	14	126.2	11	110.7	32	136.8	40	121.3
H1 2018	24	135.6	29	111.5	14	123.6	11	109.3	32	139.5	40	121.9
H2 2018	24	142.1	29	112.5	14	124.1	11	111.6	32	138.9	40	121.0
H1 2019	24	140.4	29	111.4	14	122.9	11	111.2	32	141.3	40	122.2
H2 2019	24	143.3	29	112.8	14	121.3	11	111.9	32	143.6	40	121.4

Source: Basel Committee on Banking Supervision.

LCR and NSFR, by region

Consistent sample of G-SIBs, in per cent — Table C.99

	Europe				Americas				Rest of the world			
	Number of banks	LCR	Number of banks	NSFR	Number of banks	LCR	Number of banks	NSFR	Number of banks	LCR	Number of banks	NSFR
H2 2012	8	108.8	11	95.2	8	108.7	6	87.2	7	147.8	7	117.4
H1 2013	8	100.9	11	97.1	8	114.0	6	86.9	7	139.9	7	116.8
H2 2013	8	110.6	11	99.3	8	116.7	6	99.5	7	142.6	7	142.9
H1 2014	8	115.0	11	100.8	8	123.2	6	101.0	7	136.0	7	137.1
H2 2014	8	130.0	11	100.6	8	125.1	6	110.8	7	126.8	7	129.9
H1 2015	8	121.4	11	103.0	8	116.7	6	110.9	7	126.1	7	127.6
H2 2015	8	128.7	11	105.6	8	119.6	6	113.6	7	122.5	7	128.7
H1 2016	8	131.1	11	106.7	8	125.2	6	109.8	7	123.7	7	128.2
H2 2016	8	130.4	11	108.9	8	120.2	6	110.1	7	130.8	7	127.1
H1 2017	8	134.9	11	111.3	8	127.7	6	111.0	7	129.2	7	129.0
H2 2017	8	136.7	11	111.1	8	123.1	6	111.2	7	130.2	7	125.0
H1 2018	8	133.6	11	109.6	8	120.6	6	109.7	7	134.4	7	125.4
H2 2018	8	140.7	11	111.3	8	121.0	6	111.4	7	135.6	7	124.0
H1 2019	8	138.2	11	109.8	8	121.2	6	111.1	7	139.1	7	126.4
H2 2019	8	141.7	11	111.2	8	118.9	6	111.7	7	141.1	7	125.1

Source: Basel Committee on Banking Supervision.

Share of banks meeting the LCR and NSFR requirements

Consistent sample of banks,[1] in per cent — Table C.100

	Group 1 banks			Of-which: G-SIBs			Group 2 banks		
	LCR	NSFR	Both	LCR	NSFR	Both	LCR	NSFR	Both
H2 2012	74.3	43.8	67.2	78.3	45.8	65.0	73.9	59.4	65.0
H1 2013	78.6	42.5	65.6	78.3	50.0	60.0	87.0	71.9	80.0
H2 2013	81.4	72.5	75.4	87.0	58.3	65.0	87.0	90.6	95.0
H1 2014	87.1	77.5	82.0	95.7	70.8	75.0	91.3	87.5	95.0
H2 2014	91.4	80.0	78.7	100.0	79.2	85.0	91.3	84.4	85.0
H1 2015	94.3	82.5	88.5	95.7	87.5	95.0	91.3	87.5	90.0
H2 2015	91.4	82.5	82.0	100.0	87.5	90.0	95.7	93.8	90.0
H1 2016	95.7	85.0	86.9	100.0	87.5	90.0	95.7	90.6	85.0
H2 2016	94.3	97.5	93.4	100.0	100.0	100.0	95.7	87.5	80.0
H1 2017	98.6	95.0	95.1	100.0	100.0	100.0	100.0	93.8	90.0
H2 2017	100.0	98.8	100.0	100.0	100.0	100.0	100.0	96.9	95.0
H1 2018	100.0	98.8	98.4	100.0	95.8	95.0	100.0	96.9	95.0
H2 2018	100.0	95.0	96.7	100.0	95.8	95.0	95.7	96.9	90.0
H1 2019	100.0	96.3	96.7	100.0	95.8	95.0	100.0	100.0	100.0
H2 2019	100.0	97.5	98.4	100.0	100.0	100.0	100.0	100.0	100.0

[1] Samples for LCR and NSFR may differ. In particular, the bank showing an NSFR shortfall at the current reporting date is not included in the consistent LCR and combined time series.

Source: Basel Committee on Banking Supervision.

LCR and change in HQLA and net outflows

Consistent sample of banks, exchange rates as of the current reporting date, in per cent Table C.101

	Group 1 banks				Of-which: G-SIBs				Group 2 banks			
			Change				Change				Change	
	Number of banks	LCR	HQLA	Net outflows	Number of banks	LCR	HQLA	Net outflows	Number of banks	LCR	HQLA	Net outflows
H2 2012	70	123.2			23	127.2			23	147.8		
H1 2013	70	119.2	–1.9	1.3	23	122.9	–0.8	2.6	23	148.6	–1.3	–1.9
H2 2013	70	122.3	–0.5	–3.0	23	127.1	–0.4	–3.7	23	145.8	–4.4	–2.6
H1 2014	70	124.4	4.9	3.2	23	127.4	6.1	5.9	23	157.5	10.3	2.2
H2 2014	70	127.5	12.2	9.5	23	126.9	11.9	12.3	23	148.2	–9.0	–3.3
H1 2015	70	125.0	11.6	13.9	23	122.4	10.3	14.4	23	145.2	1.9	4.1
H2 2015	70	126.9	0.1	–1.4	23	122.8	–0.9	–1.3	23	158.1	7.7	–1.1
H1 2016	70	128.3	2.5	1.3	23	125.5	2.5	0.4	23	157.4	6.0	6.5
H2 2016	70	132.2	7.2	4.1	23	127.7	6.1	4.3	23	148.5	–4.0	1.8
H1 2017	70	134.1	0.7	–0.8	23	129.9	0.9	–0.9	23	163.4	16.8	6.1
H2 2017	70	134.4	–3.5	–3.8	23	129.6	–3.7	–3.5	23	165.3	0.9	–0.3
H1 2018	70	134.9	4.5	4.2	23	130.5	4.9	4.1	23	165.8	3.6	3.3
H2 2018	70	136.1	–0.6	–1.5	23	132.5	–0.4	–1.9	23	165.6	–3.4	–3.3
H1 2019	70	136.6	3.3	2.9	23	134.0	5.3	4.1	23	163.3	12.1	13.7
H2 2019	70	137.9	2.9	1.9	23	134.8	2.4	1.8	23	162.9	2.8	3.1

Source: Basel Committee on Banking Supervision.

LCR and change in HQLA and net outflows, by region

Consistent sample of banks, exchange rates as of the current reporting date, in per cent Table C.102

	Europe				Americas				Rest of the world			
			Change				Change				Change	
	Number of banks	LCR	HQLA	Net outflows	Number of banks	LCR	HQLA	Net outflows	Number of banks	LCR	HQLA	Net outflows
H2 2012	24	109.4			14	110.2			32	139.7		
H1 2013	24	103.8	–5.8	–0.7	14	114.4	7.5	3.5	32	132.3	–3.9	1.5
H2 2013	24	108.0	2.2	–1.8	14	117.7	1.8	–1.0	32	134.8	–3.0	–4.8
H1 2014	24	114.3	4.6	–1.2	14	123.7	7.5	2.3	32	131.2	3.8	6.7
H2 2014	24	125.8	6.6	–3.1	14	126.5	18.6	16.0	32	128.9	12.1	14.0
H1 2015	24	123.0	8.6	11.1	14	118.7	3.4	10.2	32	129.2	17.7	17.4
H2 2015	24	130.6	3.8	–2.2	14	121.8	–0.5	–3.0	32	127.5	–1.5	–0.2
H1 2016	24	131.6	–0.6	–1.3	14	126.2	–0.1	–3.6	32	127.8	5.4	5.2
H2 2016	24	132.2	4.0	3.5	14	123.2	4.7	7.2	32	136.5	10.0	3.0
H1 2017	24	134.4	6.0	4.2	14	129.8	–3.3	–8.2	32	135.8	0.0	0.5
H2 2017	24	137.3	–1.9	–4.0	14	126.2	–3.5	–0.8	32	136.8	–4.4	–5.0
H1 2018	24	135.6	2.4	3.7	14	123.6	–0.4	1.7	32	139.5	7.7	5.6
H2 2018	24	142.1	1.1	–3.5	14	124.1	4.5	4.0	32	138.9	–3.4	–3.0
H1 2019	24	140.4	3.0	4.3	14	122.9	1.1	2.1	32	141.3	4.3	2.5
H2 2019	24	143.3	–0.5	–2.6	14	121.3	5.1	6.5	32	143.6	3.6	2.0

Source: Basel Committee on Banking Supervision.

High-quality liquid assets, inflows and outflows over time

Consistent sample of banks,[1] exchange rates as of the current reporting date, in trillions of euros Table C.103

	Group 1 banks			Of-which: G-SIBs			Group 2 banks		
	HQLA	Inflows	Outflows	HQLA	Inflows	Outflows	HQLA	Inflows	Outflows
H2 2012	7.1	2.1	7.9	5.1	1.5	5.5	0.2	0.0	0.2
H1 2013	6.9	2.3	8.1	5.1	1.6	5.7	0.2	0.0	0.2
H2 2013	6.9	2.3	7.9	5.1	1.6	5.6	0.2	0.0	0.2
H1 2014	7.2	2.6	8.5	5.4	1.8	6.0	0.2	0.0	0.2
H2 2014	8.1	2.7	9.1	6.0	2.0	6.7	0.2	0.0	0.2
H1 2015	9.0	2.8	10.1	6.6	2.1	7.5	0.2	0.0	0.2
H2 2015	9.1	2.7	9.8	6.6	2.0	7.3	0.2	0.0	0.2
H1 2016	9.3	3.2	10.4	6.7	2.4	7.7	0.2	0.0	0.2
H2 2016	10.0	3.1	10.6	7.1	2.4	7.9	0.2	0.1	0.2
H1 2017	10.0	3.6	11.0	7.2	2.8	8.2	0.3	0.0	0.2
H2 2017	9.7	3.4	10.6	6.9	2.6	8.0	0.3	0.0	0.2
H1 2018	10.1	3.8	11.3	7.3	2.9	8.5	0.3	0.1	0.2
H2 2018	10.0	3.7	11.1	7.2	2.9	8.3	0.3	0.0	0.2
H1 2019	10.4	3.9	11.4	7.6	3.0	8.7	0.3	0.1	0.2
H2 2019	10.7	3.8	11.6	7.8	2.9	8.8	0.3	0.1	0.2

[1] Group 1 includes 70 banks, G-SIBs include 23 banks and Group 2 includes 24 banks. Inflows shown are post-factor and after-cap, while outflows are post-factor.

Source: Basel Committee on Banking Supervision.

High-quality liquid assets, inflows and outflows over time, by region

Consistent sample of Group 1 banks,[1] exchange rates as of the current reporting date, in trillions of euros

Table C.104

	Europe			Americas			Rest of the world		
	HQLA	Inflows	Outflows	HQLA	Inflows	Outflows	HQLA	Inflows	Outflows
H2 2012	1.9	0.6	2.4	1.5	0.7	2.1	3.6	0.8	3.4
H1 2013	1.8	0.7	2.5	1.6	0.7	2.2	3.4	0.9	3.5
H2 2013	1.9	0.8	2.5	1.7	0.6	2.1	3.3	0.9	3.4
H1 2014	1.9	0.8	2.5	1.8	0.7	2.2	3.5	1.1	3.8
H2 2014	2.1	0.9	2.6	2.1	0.9	2.6	3.9	0.9	3.9
H1 2015	2.3	0.9	2.7	2.2	1.0	2.8	4.6	1.0	4.5
H2 2015	2.3	0.9	2.6	2.2	0.9	2.7	4.5	0.9	4.5
H1 2016	2.3	1.0	2.8	2.2	1.0	2.7	4.8	1.2	4.9
H2 2016	2.4	0.8	2.7	2.3	1.0	2.8	5.2	1.3	5.1
H1 2017	2.6	1.1	2.9	2.2	0.9	2.6	5.2	1.7	5.5
H2 2017	2.5	0.9	2.8	2.1	0.9	2.6	5.0	1.6	5.3
H1 2018	2.6	1.1	3.0	2.1	1.0	2.7	5.4	1.8	5.6
H2 2018	2.6	1.0	2.8	2.2	1.0	2.8	5.2	1.8	5.5
H1 2019	2.7	1.1	2.9	2.3	1.0	2.9	5.4	1.8	5.7
H2 2019	2.7	1.0	2.9	2.4	1.1	3.0	5.6	1.7	5.6

[1] Group 1 includes 70 banks. Inflows shown are post-factor and after-cap, while outflows are post-factor.

Source: Basel Committee on Banking Supervision.

High-quality liquid assets and inflows versus outflows over time, by region

Consistent sample of G-SIBs,[1] exchange rates as of the current reporting date, in trillions of euros

Table C.105

	Europe			Americas			Rest of the world		
	HQLA	Inflows	Outflows	HQLA	Inflows	Outflows	HQLA	Inflows	Outflows
H2 2012	1.1	0.3	1.3	1.2	0.6	1.8	2.8	0.5	2.4
H1 2013	1.0	0.4	1.4	1.4	0.6	1.8	2.7	0.5	2.5
H2 2013	1.0	0.5	1.4	1.4	0.6	1.8	2.6	0.6	2.4
H1 2014	1.1	0.5	1.5	1.5	0.6	1.9	2.7	0.7	2.7
H2 2014	1.2	0.6	1.5	1.8	0.8	2.3	3.0	0.6	3.0
H1 2015	1.2	0.5	1.6	1.9	0.8	2.5	3.5	0.7	3.5
H2 2015	1.3	0.6	1.6	1.9	0.8	2.3	3.4	0.6	3.4
H1 2016	1.3	0.7	1.6	1.9	0.9	2.4	3.6	0.8	3.7
H2 2016	1.4	0.6	1.6	1.9	0.8	2.5	3.8	1.0	3.9
H1 2017	1.5	0.8	1.8	1.9	0.8	2.2	3.9	1.2	4.2
H2 2017	1.4	0.7	1.7	1.8	0.7	2.2	3.7	1.2	4.0
H1 2018	1.4	0.8	1.9	1.8	0.8	2.3	4.0	1.3	4.3
H2 2018	1.5	0.7	1.8	1.9	0.8	2.4	3.9	1.3	4.2
H1 2019	1.6	0.8	1.9	1.9	0.9	2.4	4.2	1.4	4.4
H2 2019	1.5	0.7	1.9	2.0	0.9	2.6	4.3	1.3	4.3

[1] G-SIBs include 23 banks. Inflows shown are post-factor and after-cap, while outflows are post-factor.

Source: Basel Committee on Banking Supervision.

Evolution of the LCR and its drivers

Consistent sample of Group 1 banks, in per cent — Table C.106

	Number of banks	LCR 2012	HQLA	Net outflows
H2 2012	58	129.1		
H1 2013	58	129.1	–4.9	–0.3
H2 2013	58	129.1	–3.5	1.2
H1 2014	58	129.1	–1.9	1.7
H2 2014	58	129.1	9.1	–9.1
H1 2015	58	129.1	20.2	–24.0
H2 2015	58	129.1	21.5	–24.2
H1 2016	58	129.1	18.1	–19.1
H2 2016	58	129.1	30.4	–27.5
H1 2017	58	129.1	27.6	–22.2
H2 2017	58	129.1	20.2	–14.4
H1 2018	58	129.1	23.8	–17.7
H2 2018	58	129.1	21.6	–14.9
H1 2019	58	129.1	23.1	–15.7
H2 2019	58	129.1	26.3	–17.4

Source: Basel Committee on Banking Supervision.

Evolution of the LCR and its drivers, by region

Consistent sample of Group 1 banks, in per cent

Table C.107

	Europe				Americas				Rest of the world			
	Number of banks	LCR 2012	HQLA	Net outflows	Number of banks	LCR 2012	HQLA	Net outflows	Number of banks	LCR 2012	HQLA	Net outflows
H2 2012	21	109.0			10	115.6			27	150.2		
H1 2013	21	109.0	–3.3	–3.2	10	115.6	7.2	–3.0	27	150.2	–15.1	6.1
H2 2013	21	109.0	6.2	–6.6	10	115.6	11.0	–8.0	27	150.2	–22.6	16.6
H1 2014	21	109.0	8.3	–2.9	10	115.6	19.9	–9.7	27	150.2	–25.1	15.1
H2 2014	21	109.0	13.1	2.9	10	115.6	45.1	–32.7	27	150.2	–16.3	–1.7
H1 2015	21	109.0	24.0	–11.5	10	115.6	46.8	–42.9	27	150.2	–3.3	–16.8
H2 2015	21	109.0	33.6	–14.3	10	115.6	49.5	–43.9	27	150.2	–8.2	–14.1
H1 2016	21	109.0	22.5	–1.6	10	115.6	42.7	–33.0	27	150.2	–5.2	–16.6
H2 2016	21	109.0	34.7	–12.6	10	115.6	52.9	–46.1	27	150.2	5.5	–18.9
H1 2017	21	109.0	45.1	–18.9	10	115.6	40.6	–26.4	27	150.2	–1.3	–12.7
H2 2017	21	109.0	44.1	–16.0	10	115.6	32.4	–21.8	27	150.2	–11.8	–1.0
H1 2018	21	109.0	42.5	–15.8	10	115.6	28.5	–21.7	27	150.2	–3.1	–7.1
H2 2018	21	109.0	47.6	–15.9	10	115.6	33.3	–26.8	27	150.2	–11.7	0.7
H1 2019	21	109.0	50.0	–20.0	10	115.6	29.2	–24.0	27	150.2	–9.0	0.6
H2 2019	21	109.0	52.6	–19.0	10	115.6	34.9	–32.1	27	150.2	–7.3	1.5

Source: Basel Committee on Banking Supervision.

NSFR and change in ASF and RSF

Consistent sample of banks, exchange rates as of the current reporting date, in per cent — Table C.108

	Group 1 banks				Of which: G-SIBs				Group 2 banks			
			Change				Change				Change	
	Number of banks	NSFR	ASF	RSF	Number of banks	NSFR	ASF	RSF	Number of banks	NSFR	ASF	RSF
H2 2012	80	100.5			24	102.2			32	102.1		
H1 2013	80	100.6	0.0	–0.1	24	103.0	1.6	0.8	32	103.4	–3.0	–4.2
H2 2013	80	112.5	10.7	–1.0	24	115.0	11.3	–0.3	32	113.0	7.6	–1.5
H1 2014	80	111.7	2.8	3.4	24	114.5	2.6	3.1	32	111.0	–1.6	0.3
H2 2014	80	112.0	6.6	6.3	24	114.6	8.0	7.9	32	111.4	–7.0	–7.4
H1 2015	80	112.7	9.6	9.0	24	115.2	11.5	10.9	32	112.7	6.4	5.2
H2 2015	80	114.7	–0.2	–2.0	24	117.1	0.3	–1.3	32	113.9	–0.8	–1.8
H1 2016	80	114.7	0.7	0.7	24	116.7	0.4	0.7	32	113.4	1.3	1.7
H2 2016	80	116.1	5.0	3.7	24	117.4	5.0	4.3	32	112.6	0.0	0.7
H1 2017	80	117.1	–0.8	–1.7	24	119.3	–0.7	–2.3	32	115.0	4.2	2.0
H2 2017	80	116.2	–0.6	0.1	24	117.5	–1.5	0.0	32	116.8	–1.2	–2.7
H1 2018	80	116.1	2.7	2.8	24	116.9	4.2	4.8	32	116.9	0.2	0.0
H2 2018	80	116.4	0.9	0.6	24	117.2	0.8	0.6	32	117.9	0.0	–0.8
H1 2019	80	116.6	4.4	4.3	24	117.8	5.2	4.7	32	119.5	2.3	0.9
H2 2019	80	116.9	2.6	2.3	24	118.0	2.5	2.4	32	120.7	0.8	–0.2

Source: Basel Committee on Banking Supervision.

NSFR and change in ASF and RSF, by region

Consistent sample of Group 1 banks, exchange rates as of the current reporting date, in per cent Table C.109

	Europe				Americas				Rest of the world			
			Change				Change				Change	
	Number of banks	NSFR	ASF	RSF	Number of banks	NSFR	ASF	RSF	Number of banks	NSFR	ASF	RSF
H2 2012	29	95.8			11	90.1			40	109.6		
H1 2013	29	96.8	–1.6	–2.7	11	89.8	0.1	0.4	40	108.5	1.4	2.4
H2 2013	29	101.5	10.4	5.3	11	102.7	19.8	4.8	40	129.8	8.1	–9.6
H1 2014	29	102.3	1.3	0.5	11	104.5	2.7	1.1	40	125.2	4.2	8.0
H2 2014	29	102.1	0.6	0.8	11	113.1	11.9	3.3	40	121.5	10.3	13.7
H1 2015	29	104.3	6.5	4.3	11	112.3	7.9	8.7	40	120.4	12.8	13.8
H2 2015	29	106.4	–0.6	–2.6	11	114.4	1.4	–0.5	40	122.4	–0.5	–2.0
H1 2016	29	107.2	–1.5	–2.2	11	110.8	0.9	4.2	40	122.6	2.3	2.2
H2 2016	29	109.5	0.9	–1.3	11	111.1	5.7	5.4	40	123.0	7.8	7.5
H1 2017	29	111.7	1.1	–0.9	11	110.6	–6.0	–5.5	40	123.6	–0.6	–1.1
H2 2017	29	112.0	0.6	0.4	11	110.7	–3.0	–3.2	40	121.3	–0.8	1.1
H1 2018	29	111.5	1.1	1.5	11	109.3	2.9	4.3	40	121.9	3.7	3.2
H2 2018	29	112.5	0.5	–0.4	11	111.6	4.2	2.0	40	121.0	0.2	0.9
H1 2019	29	111.4	2.4	3.4	11	111.2	3.0	3.4	40	122.2	6.3	5.3
H2 2019	29	112.8	0.8	–0.5	11	111.9	2.5	1.9	40	121.4	3.9	4.6

Source: Basel Committee on Banking Supervision.

ASF and RSF over time

Consistent sample of banks,[1] exchange rates as of the current reporting date, in trillions of euros Table C.110

	Group 1 banks		Of which: G-SIBs		Group 2 banks	
	ASF	RSF	ASF	RSF	ASF	RSF
H2 2012	23.1	23.0	14.6	14.3	1.5	1.4
H1 2013	23.1	23.0	14.8	14.4	1.4	1.4
H2 2013	25.6	22.7	16.5	14.3	1.5	1.4
H1 2014	26.3	23.5	16.9	14.8	1.5	1.4
H2 2014	28.0	25.0	18.3	16.0	1.4	1.3
H1 2015	30.7	27.3	20.4	17.7	1.5	1.3
H2 2015	30.6	26.7	20.4	17.5	1.5	1.3
H1 2016	30.8	26.9	20.5	17.6	1.5	1.3
H2 2016	32.4	27.9	21.5	18.3	1.5	1.3
H1 2017	32.1	27.4	21.4	17.9	1.6	1.4
H2 2017	31.9	27.5	21.1	17.9	1.5	1.3
H1 2018	32.8	28.2	22.0	18.8	1.5	1.3
H2 2018	33.0	28.4	22.1	18.9	1.5	1.3
H1 2019	34.5	29.6	23.3	19.8	1.6	1.3
H2 2019	35.4	30.3	23.9	20.2	1.6	1.3

[1] Group 1 includes 70 banks, G-SIBs include 23 banks and Group 2 includes 24 banks.

Source: Basel Committee on Banking Supervision.

ASF and RSF over time, by region

Consistent sample of Group 1 banks,[1] exchange rates as of the current reporting date, in trillions of euros

Table C.111

	Europe			Americas			Rest of world		
	Number of banks	ASF	RSF	Number of banks	ASF	RSF	Number of banks	ASF	RSF
H2 2012	29	9.7	10.2	11	3.2	3.5	40	10.2	9.3
H1 2013	29	9.6	9.9	11	3.2	3.5	40	10.4	9.5
H2 2013	29	10.6	10.4	11	3.8	3.7	40	11.2	8.6
H1 2014	29	10.7	10.5	11	3.9	3.7	40	11.7	9.3
H2 2014	29	10.8	10.6	11	4.4	3.9	40	12.9	10.6
H1 2015	29	11.5	11.0	11	4.7	4.2	40	14.5	12.1
H2 2015	29	11.4	10.7	11	4.8	4.2	40	14.5	11.8
H1 2016	29	11.2	10.5	11	4.8	4.3	40	14.8	12.1
H2 2016	29	11.3	10.3	11	5.1	4.6	40	16.0	13.0
H1 2017	29	11.5	10.3	11	4.8	4.3	40	15.9	12.8
H2 2017	29	11.5	10.3	11	4.6	4.2	40	15.7	13.0
H1 2018	29	11.7	10.5	11	4.8	4.4	40	16.3	13.4
H2 2018	29	11.7	10.4	11	5.0	4.5	40	16.3	13.5
H1 2019	29	12.0	10.8	11	5.1	4.6	40	17.4	14.2
H2 2019	29	12.1	10.7	11	5.3	4.7	40	18.0	14.9

Source: Basel Committee on Banking Supervision.

ASF and RSF over time, by region

Consistent sample of G-SIBs,[1] exchange rates as of the current reporting date, in trillions of euros

Table C.112

	Europe			Americas			Rest of world		
	Number of banks	ASF	RSF	Number of banks	ASF	RSF	Number of banks	ASF	RSF
H2 2012	11	5.5	5.8	6	2.5	2.9	7	6.5	5.6
H1 2013	11	5.5	5.7	6	2.5	2.9	7	6.8	5.8
H2 2013	11	6.1	6.1	6	3.0	3.0	7	7.4	5.2
H1 2014	11	6.2	6.2	6	3.1	3.1	7	7.6	5.6
H2 2014	11	6.3	6.3	6	3.5	3.2	7	8.5	6.5
H1 2015	11	6.8	6.6	6	3.9	3.5	7	9.7	7.6
H2 2015	11	6.8	6.4	6	4.0	3.5	7	9.6	7.5
H1 2016	11	6.7	6.3	6	4.0	3.6	7	9.8	7.7
H2 2016	11	6.8	6.2	6	4.2	3.8	7	10.6	8.3
H1 2017	11	6.8	6.2	6	4.0	3.6	7	10.6	8.2
H2 2017	11	6.9	6.2	6	3.8	3.4	7	10.3	8.2
H1 2018	11	7.0	6.4	6	4.0	3.6	7	10.9	8.7
H2 2018	11	7.2	6.4	6	4.1	3.7	7	10.9	8.8
H1 2019	11	7.3	6.7	6	4.3	3.8	7	11.7	9.3
H2 2019	11	7.4	6.6	6	4.3	3.9	7	12.2	9.7

Source: Basel Committee on Banking Supervision.

Evolution of the NSFR and its drivers

Consistent sample of Group 1 banks, in per cent

Table C.113

	Number of banks	NSFR 2012	ASF	RSF
H2 2012	60	102.1		
H1 2013	60	102.1	–0.2	0.6
H2 2013	60	102.1	13.3	–1.5
H1 2014	60	102.1	11.2	–0.3
H2 2014	60	102.1	16.4	–5.3
H1 2015	60	102.1	25.4	–13.6
H2 2015	60	102.1	26.4	–12.6
H1 2016	60	102.1	20.8	–7.2
H2 2016	60	102.1	28.5	–13.9
H1 2017	60	102.1	24.5	–8.8
H2 2017	60	102.1	22.0	–7.3
H1 2018	60	102.1	23.3	–9.0
H2 2018	60	102.1	23.7	–9.0
H1 2019	60	102.1	26.1	–11.2
H2 2019	60	102.1	29.5	–14.5

Source: Basel Committee on Banking Supervision.

Evolution of the NSFR and its drivers, by region

Consistent sample of Group 1 banks, in per cent — Table C.114

	Europe				Americas				Rest of the world			
	Number of banks	NSFR 2012	ASF	RSF	Number of banks	NSFR 2012	ASF	RSF	Number of banks	NSFR 2012	ASF	RSF
H2 2012	25	96.5			10	90.3			25	115.0		
H1 2013	25	96.5	2.1	–1.2	10	90.3	–0.7	0.5	25	115.0	–4.3	3.7
H2 2013	25	96.5	20.7	–15.5	10	90.3	17.0	–4.4	25	115.0	0.8	21.7
H1 2014	25	96.5	19.1	–13.0	10	90.3	16.7	–2.9	25	115.0	–2.7	19.6
H2 2014	25	96.5	17.5	–11.3	10	90.3	29.1	–6.6	25	115.0	6.4	4.6
H1 2015	25	96.5	25.8	–17.6	10	90.3	38.4	–16.7	25	115.0	14.8	–5.3
H2 2015	25	96.5	29.8	–19.7	10	90.3	42.9	–19.1	25	115.0	11.4	0.3
H1 2016	25	96.5	19.1	–8.5	10	90.3	40.4	–20.0	25	115.0	9.6	1.9
H2 2016	25	96.5	26.6	–13.4	10	90.3	48.1	–27.3	25	115.0	16.4	–5.9
H1 2017	25	96.5	29.0	–13.5	10	90.3	35.9	–15.8	25	115.0	9.8	1.4
H2 2017	25	96.5	32.3	–16.4	10	90.3	31.7	–11.4	25	115.0	3.1	5.3
H1 2018	25	96.5	30.1	–15.0	10	90.3	32.6	–13.7	25	115.0	7.4	1.2
H2 2018	25	96.5	33.8	–17.4	10	90.3	35.8	–14.6	25	115.0	4.1	3.3
H1 2019	25	96.5	34.1	–19.0	10	90.3	35.0	–14.2	25	115.0	9.3	–0.3
H2 2019	25	96.5	39.1	–22.6	10	90.3	37.9	–16.5	25	115.0	11.5	–3.9

Source: Basel Committee on Banking Supervision.

Contribution to current CCR capital requirements by approach to EAD calculation

All banks, in per cent — Table C.115

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Internal models method	52.8	56.9	0.0
Other internal models	1.2	1.4	0.0
Standardised approach	46.0	41.8	100.0
Number of banks	60	18	32

Source: Basel Committee on Banking Supervision.

Impact of revised CCR capital requirements compared to current rules

In per cent

Table C.116

	Relative to current CCR MRC			Relative to current overall MRC		
	Group 1	Of which: G-SIBs	Group 2	Group 1	Of which: G-SIBs	Group 2
Max	417.0	112.9	326.8	8.4	8.4	1.6
95th percentile	133.6	96.8	118.7	4.9	7.1	1.6
75th percentile	38.5	46.6	45.5	1.1	1.4	0.6
Median	10.8	16.5	30.6	0.2	1.1	0.1
25th percentile	–6.1	3.3	–10.0	0.0	0.1	0.0
5th percentile	–27.5	–6.5	–46.7	–0.8	–0.2	–1.5
Min	–75.8	–10.4	–65.2	–1.9	–0.3	–1.6
Weighted average	18.8	20.4	16.5	0.8	1.1	0.3
Number of banks	60	18	32	58	18	31

Source: Basel Committee on Banking Supervision.

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

Consistent sample of banks, in per cent

Table C.117

	Group 1 banks		Of which: G-SIBs		Group 2 banks	
	Number of banks	Impact	Number of banks	Impact	Number of banks	Impact
H1 2018	47	19.9	16	18.3	22	6.4
H2 2018	47	25.4	16	25.9	22	–0.3
H1 2019	47	23.7	16	26.2	22	11.4
H2 2019	47	17.9	16	19.4	22	5.2

Source: Basel Committee on Banking Supervision.

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

Consistent sample, in per cent

Table C.118

	Group 1 banks		Of which: G-SIBs		Group 2 banks	
	Number of banks	Weighted average	Number of banks	Weighted average	Number of banks	Weighted average
H1 2018	38	2.53	15	2.85	16	1.33
H2 2018	38	2.59	15	2.82	16	1.30
H1 2019	38	2.17	15	2.36	16	1.54
H2 2019	38	1.96	15	2.13	16	1.29

Source: Basel Committee on Banking Supervision.

Impact of revised CVA requirements compared to current rules

In per cent

Table C.119

	Relative to current CVA MRC			Relative to current overall MRC		
	Group 1	Of which: G-SIBs	Group 2	Group 1	Of which: G-SIBs	Group 2
Max	339.9	339.9	574.3	11.7	10.8	8.7
95th percentile	249.4	280.8	466.9	6.4	7.1	5.3
75th percentile	118.4	78.1	183.1	2.0	1.8	2.6
Median	72.3	36.6	101.0	0.8	0.7	0.8
25th percentile	23.1	–4.7	51.6	0.1	–0.3	0.4
5th percentile	–23.9	–33.7	–31.4	–0.8	–2.2	–0.4
Min	–48.3	–42.8	–68.3	–4.4	–3.5	–0.6
Weighted average	46.3	42.6	168.0	0.8	0.8	1.0
Number of banks	60	20	26	59	20	26

Source: Basel Committee on Banking Supervision.

Impact of revised CVA requirements compared to current rules, by region

Group 1 banks, in per cent

Table C.120

	Relative to current CVA MRC			Relative to current overall MRC		
	Europe	Americas	Rest of the world	Europe	Americas	Rest of the world
Max	300.3	221.7	339.9	7.1	10.8	11.7
95th percentile	204.1	221.7	283.4	6.1	10.8	3.1
75th percentile	100.2	105.7	127.3	3.2	1.4	1.3
Median	65.2	52.6	78.4	2.1	1.0	0.3
25th percentile	22.3	23.5	27.0	0.8	0.5	0.1
5th percentile	–44.5	–2.4	–21.3	–3.8	–0.2	–0.6
Min	–48.3	–2.4	–23.3	–4.4	–0.2	–0.8
Weighted average	36.1	67.6	38.5	1.0	1.6	0.3
Number of banks	24	8	28	23	8	28

Source: Basel Committee on Banking Supervision.

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

Consistent sample, in per cent

Table C.121

	Group 1 banks		Of which: G-SIBs		Group 2 banks	
	Number of banks	Weighted average	Number of banks	Weighted average	Number of banks	Weighted average
H1 2018	52	68.79	19	69.00	19	156.69
H2 2018	52	71.88	19	78.52	19	103.55
H1 2019	52	38.09	19	29.96	19	104.69
H2 2019	52	46.18	19	42.08	19	125.11

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
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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