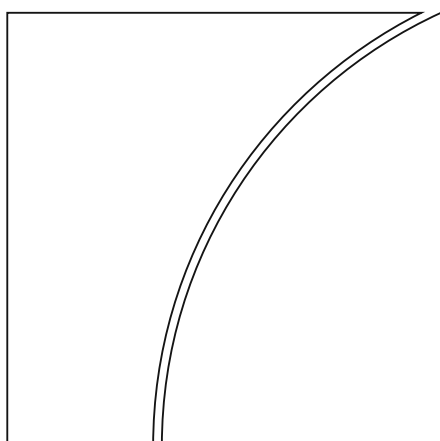


Basel Committee on Banking Supervision



Basel III Monitoring Report

April 2020



BANK FOR INTERNATIONAL SETTLEMENTS

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Basel III Monitoring Report

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Conventions used in this report

billion thousand million

trillion thousand billion

lhs, rhs left-hand scale, right-hand scale

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

Components may not sum to totals because of rounding.

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

All data, including for previous reporting dates, reflect revisions received up to 21 January 2020.

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Highlights of the Basel III monitoring exercise as of 30 June 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 remain stable compared with end-2018

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 30 June 2019.² Furthermore, this report includes a special feature on counterparty credit risk and credit valuation adjustment risk. Given the June 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 174 banks, including 105 large internationally active ("Group 1") banks, among them all 30 G-SIBs, and 69 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 phase-in of deductions and grandfathering arrangements. Rather, the estimates presented generally assume full implementation of the Basel III requirements based on data as of 30 June 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 II 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

	31 December 2018 ¹			30 June 2019		
	Group 1	Of which: G-SIBs	Group 2	Group 1	Of which: G-SIBs	Group 2
<i>Initial Basel III framework</i>						
CET1 ratio (%)	12.7	12.6	15.4	12.8	12.7	14.8
Target capital shortfalls (€ bn); ² of which:	1.9	0.0	1.1	1.7	0.0	1.1
CET1	0.2	0.0	0.0	0.4	0.0	0.0
Additional Tier 1	1.7	0.0	1.1	1.3	0.0	1.1
Tier 2	0.0	0.0	0.0	0.0	0.0	0.0
TLAC shortfall 2022 minimum (€ bn)	32.6	32.6		35.2	35.2	
Total accounting assets (€ bn)	64,271	43,849	4,064	65,855	47,174	3,581
Leverage ratio (%)	6.0	6.1	5.5	5.8	5.8	5.2
LCR (%)	136.2	134.0	177.2	136.2	134.3	177.0
NSFR (%)	116.3	117.8	120.0	116.4	117.8	120.1
<i>Fully phased-in final Basel III framework (2028), reduced estimation bias³</i>						
Change in Tier 1 MRC at the target level (%)	3.0	3.4	8.5	2.5	2.7	7.5
CET1 ratio (%)	12.2	12.1	13.0	12.3	12.3	12.2
Target capital shortfalls (€ bn); of which:	24.7	22.8	3.8	16.6	14.6	3.4
CET1	7.0	6.0	1.8	7.6	6.4	1.7
Additional Tier 1	10.1	9.2	1.1	5.6	4.7	0.7
Tier 2	7.6	7.6	0.9	3.4	3.4	1.0
TLAC shortfall 2022 minimum (€ bn)	78.0	78.0		42.7	42.7	
<i>Fully phased-in final Basel III framework (2028), conservative estimation</i>						
Change in Tier 1 MRC at the target level (%)	3.0	3.4	8.5	2.8	3.1	7.5
CET1 ratio (%)	12.2	12.1	13.0	12.3	12.2	12.2
Target capital shortfalls (€ bn); of which:	24.7	22.8	3.8	20.3	18.3	3.4
CET1	7.0	6.0	1.8	7.6	6.4	1.7
Additional Tier 1	10.1	9.2	1.1	5.6	4.7	0.7
Tier 2	7.6	7.6	0.9	7.1	7.1	1.0
TLAC shortfall 2022 minimum (€ bn)	78.0	78.0		46.5	46.5	

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-December 2018 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 two 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 30 June 2019 results. The two banks are included with their numbers as reported in the results for 31 December 2018.

Source: Basel Committee on Banking Supervision.

- Compared with the previous reporting period (end-December 2018) the average Common Equity Tier 1 (CET1) capital ratio under the initial Basel III framework has increased from 12.7% to 12.8% for Group 1 banks and it decreased from 15.4% to 14.8% for Group 2 banks.
- The average impact of the final Basel III framework on Group 1 banks is lower (+2.5%) when compared to the 3.0% increase at end-December 2018 (see the “reduced estimation bias” part of the table). For this calculation, for two G-SIBs that are outliers due to overly conservative assumptions under the revised market risk framework,⁵ zero change from the revised market risk framework has been assumed for the calculation of 30 June 2019 results.
- If these two banks are reflected with their overly conservative market risk numbers (see the “conservative estimation” part of the table), there is a 2.8% increase.
- The total capital shortfalls under the fully phased-in final Basel III framework as of the end-June 2019 reporting date for Group 1 banks decreased to €16.6 billion in comparison to the end-December 2018 at €24.7 billion. The decrease has not been affected by the changes in the overall sample (currently 92 banks compared to 87 in the previous period). The decrease was observed even though improved data provided in the Basel III monitoring exercise by one G-SIB led to its shortfall rising since end-December 2018. However, if the overly conservative assumptions of the two G-SIBs mentioned above are reflected throughout the available reference dates, the shortfall would have decreased only from €24.7 billion at end-2018 to €20.3 billion in June 2019.
- Applying the 2022 minimum TLAC requirements and the initial Basel III framework, three of the 25 G-SIBs reporting total loss-absorbing capacity (TLAC) data have a combined shortfall of €35.2 billion, compared with €32.6 billion at the end of December 2018. Considering the fully phased-in final Basel III framework, four banks report a shortfall of €42.7 billion, which is a decrease from €78.0 billion at the end of December 2018. With the overly conservative assumptions included, six banks show a shortfall of €46.5 billion.
- Group 1 banks’ average Liquidity Coverage Ratio (LCR) remained stable at 136.2%, while the average Net Stable Funding Ratio (NSFR) increased only slightly from 116.3% to 116.4%. For Group 2 banks, there was a small decrease for the LCR and a small increase for the NSFR.

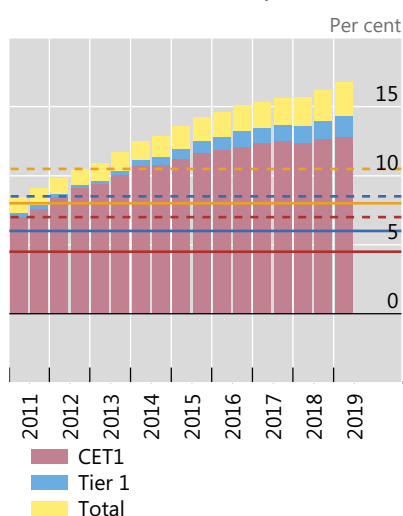
⁵ Specifically, the banks treated all trading book positions in equity investment in funds that may no longer be allowed to be modelled, using the most conservative standardised approach, ie the “other bucket” treatment subject to the highest applicable risk weights. They assumed that they are unable to use other treatments such as the index treatment or the mandate-based approach as set out in MAR21.36.

Initial Basel III capital ratios increase slightly

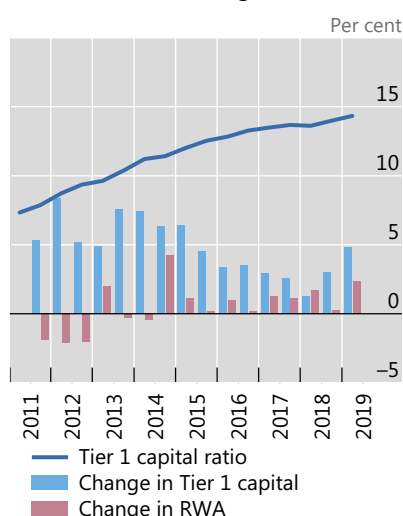
Consistent sample of Group 1 banks

Graph 1

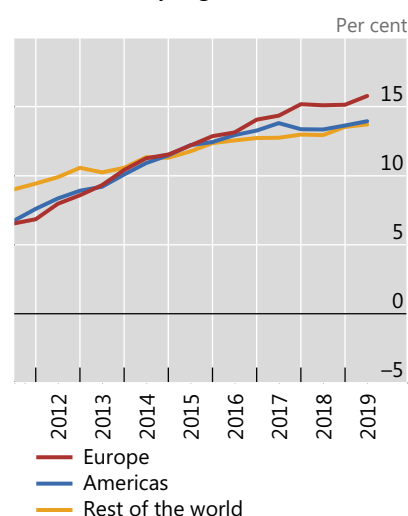
CET1, Tier 1 and total capital ratios¹



Determinants of changes²



Tier 1 ratios by region³



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.

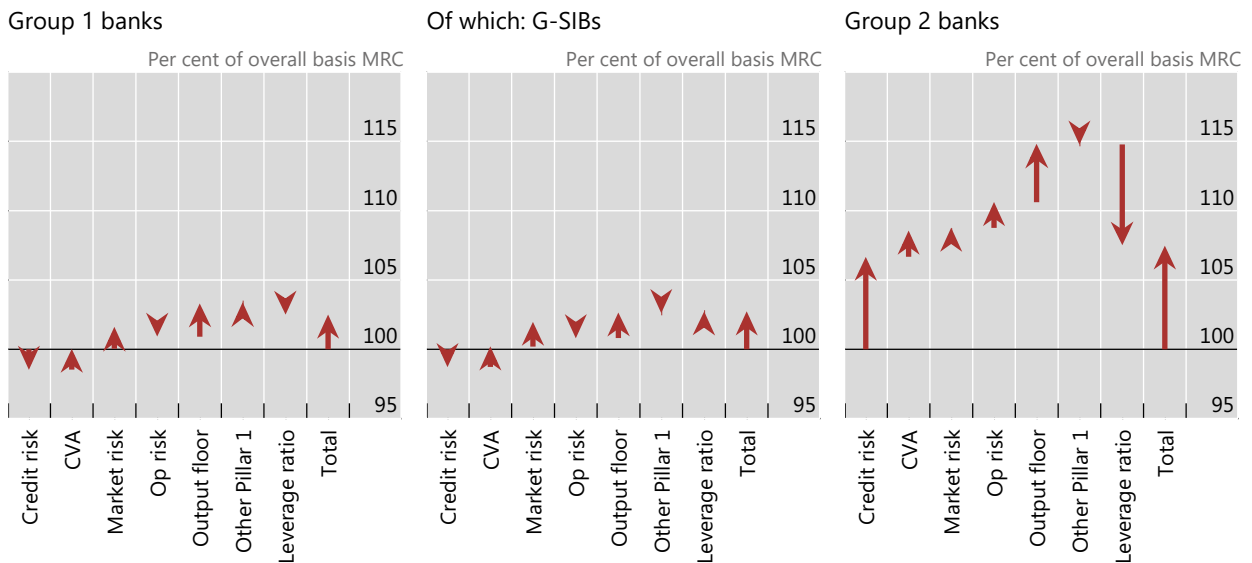
Source: Basel Committee on Banking Supervision. See Table C.2, Table C.3 and Table C.4 for underlying data and sample size.

- The overall CET1 capital ratios for Group 1 banks in the consistent sample have increased to 12.8% in June 2019 from 12.7% in December 2018. Overall Tier 1 and total capital ratios displayed slightly larger increases (+0.3 and +0.6 respectively) over this 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, the Americas and the rest of the world saw increases, with the largest improvement coming from Europe.

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-December 2018

Reduced estimation bias¹

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. ¹ For two 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 full estimation bias.

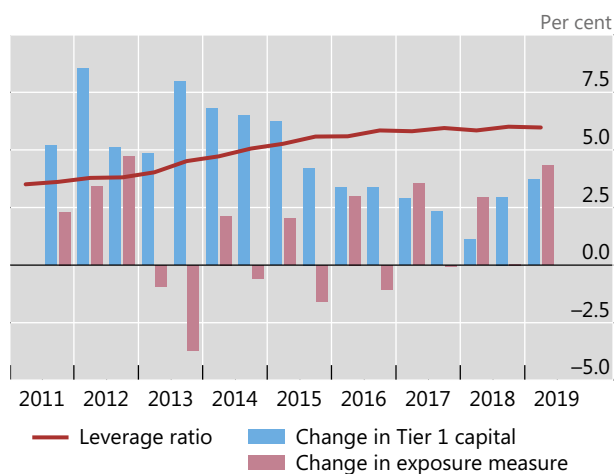
- For Group 1 banks, the Tier 1 minimum required capital (MRC) would increase by 2.5% with reduced estimation bias and by 2.8% with conservative estimation, following full phasing-in of the final Basel III standards. This increase is composed of a 3.4% (3.7%) increase for the risk-based components combined, driven by the positive contributions of output floor (2.4%), market risk (1.6% or 1.9%) and CVA (1.5%), as well as reductions in credit risk (-1.5%) and operational risk requirements (-0.7%). This increase is offset by a -0.9% (-1.0%) 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 (-0.5%), a moderate decrease in the rest of the world (-5.4%) and in contrast to this a strong increase in MRC for European banks (+17.3% with reduced estimation bias and +18.2% with conservative estimation).
- For Group 2 banks, the overall 7.5% increase in Tier 1 MRC is driven by an increase in the risk-based measure of 14.8%, mainly driven by credit risk (6.7%) and the output floor (4.2%). The change in Tier 1 MRC for the leverage ratio is partially offsetting this increase at -7.3%.
- The average impact of the final Basel III framework on Group 1 banks at +2.5% with reduced estimation bias and +2.8% with conservative estimation is lower when compared to end-December 2018 results (+3.0%).

Fully phased-in Basel III leverage ratios¹ remained stable for large banks in H1 2019

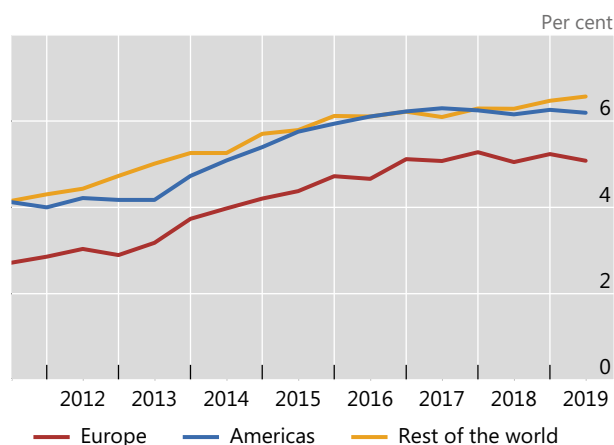
Consistent sample of Group 1 banks, exchange rates as of the current reporting date

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.

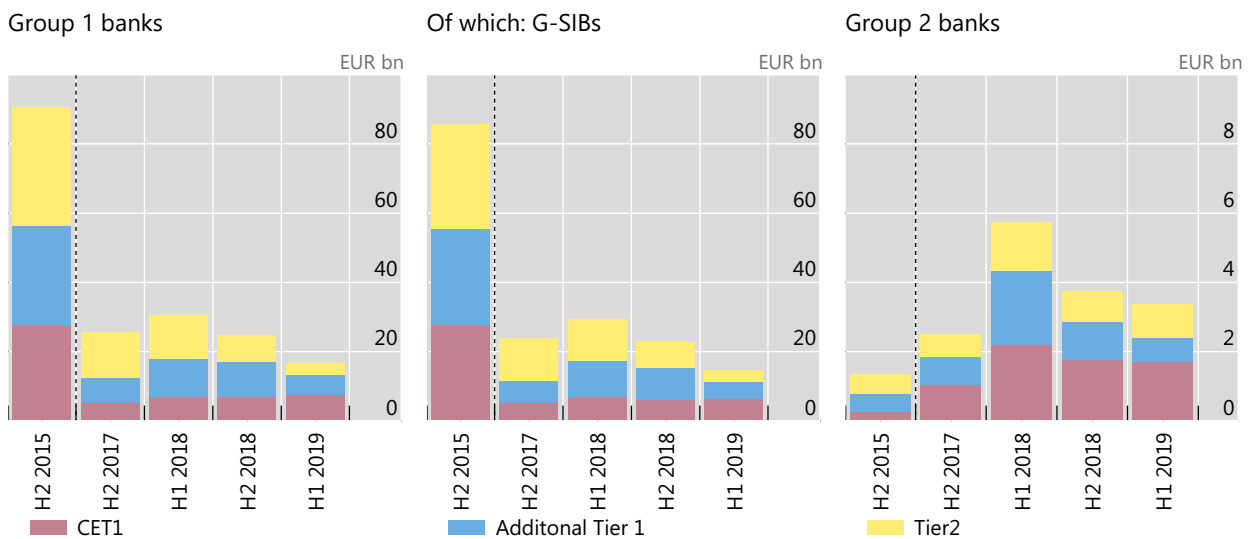
Source: Basel Committee on Banking Supervision. See Table C.15 and Table C.16 for underlying data and sample size.

- For the full sample at the end-June 2019 reporting date, the average fully phased-in Basel III Tier 1 leverage ratios are 6.0% for Group 1 banks and for G-SIBs, and 4.9% for Group 2 banks.
- For the consistent sample of Group 1 banks, the average fully phased-in Basel III leverage ratio remained stable at 6.0% in June 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 (5.1%) as compared to the Americas (6.2%) and the rest of the world (6.6%).

Combined capital shortfalls at the target level under the final Basel III standards lower for large banks compared with end-December 2018, driven by bank-specific effects

Fully phased-in final Basel III standards,¹ sample and exchange rates as at the reporting dates, reduced estimation bias²

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. ² For two 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 30 June 2019 results. The two banks are included with their numbers as reported in the results for earlier reporting dates.

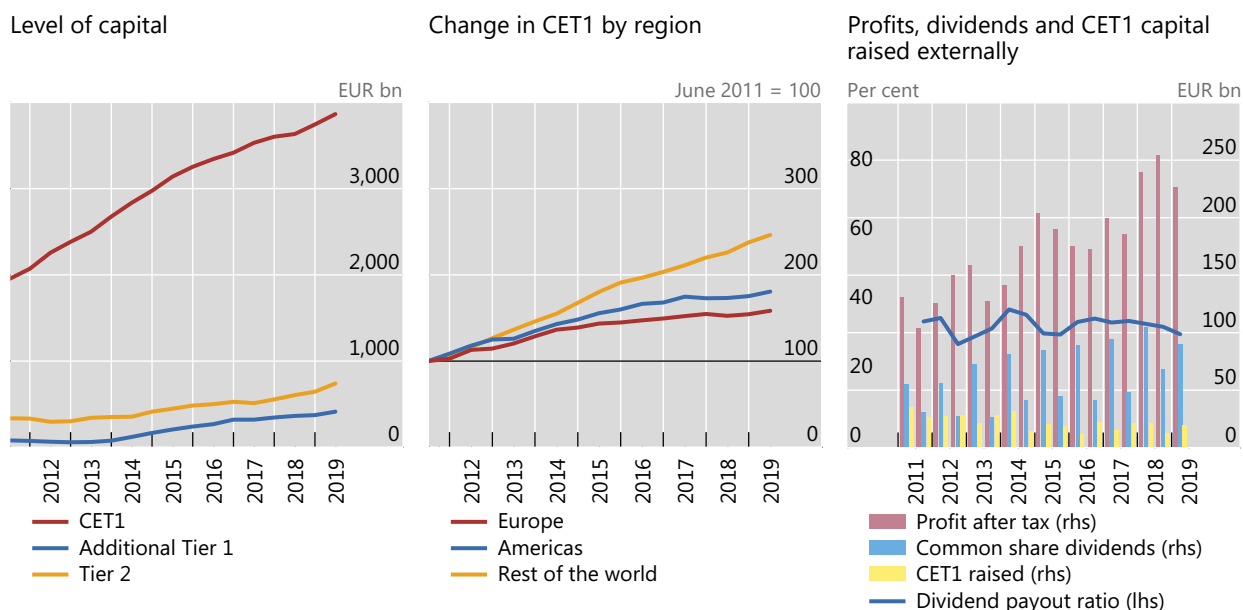
Source: Basel Committee on Banking Supervision. See also Table C.23; Table C.24 shows related results with full estimation bias.

- The total capital shortfalls for Group 1 banks at the end-June 2019 reporting date have decreased by €8.1 billion with reduced estimation bias and by €4.4 billion with conservative estimation since end-December 2018. The decrease has not been affected by the changes in the overall sample (currently 92 banks compared to 87 in the previous period). The decrease was observed even though improved data provided in the Basel III monitoring exercise by one G-SIB led to its shortfall rising since end-December 2018. However, if the overly conservative assumptions of the two G-SIBs mentioned above are reflected throughout the available reference dates, the shortfall would have decreased only from €24.7 billion at end-2018 to €20.3 billion in June 2019.
- Overall, almost 90% of the capital shortfalls for Group 1 banks are generated by G-SIBs at end-June 2019.
- For Group 2 banks, the amount of shortfalls has decreased for CET1 and additional Tier 1 capital, and it has slightly increased for Tier 2 capital. The variations are also driven by differences in the samples. Compared to end-December 2018, the number of Group 2 banks included in the analysis has declined from 64 to 60.

Fully phased-in regulatory CET1 capital increased by 97.9% 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.

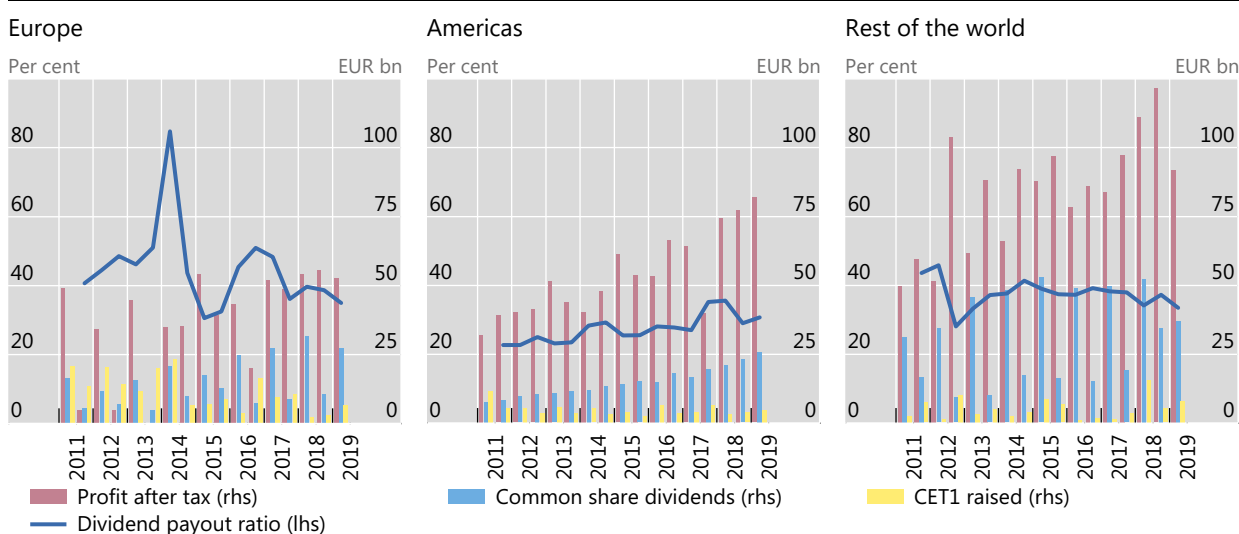
Source: Basel Committee on Banking Supervision. See Table C.25, Table C.28, Table C.29 and Table C.31 for underlying data and sample size. Table C.26, Table C.30 and Table C.32 provide an additional regional breakdown for Group 1 banks.

- From end-June 2011 to end-June 2019, the level of Group 1 banks' CET1 capital has increased by 97.9% from €1,954 billion to €3,866 billion. Since end-December 2018, Group 1 CET1 capital has increased by €122 billion (or 3.3%).
- At a regional level, while CET1 capital has more than doubled in the rest of the world since 2011, the increase in Europe and in the Americas was more limited at 58.4% and 80.7%, respectively.
- The rise in overall CET1 capital among Group 1 banks in the current reporting period is largely due to profits, primarily generated by the G-SIBs.
- Group 1 banks' profits after tax saw a slight decline over the last six months and reached €226.6 billion over the first half of 2019, which is a decrease of 10.4% compared to end-December 2018. More than 70% of the profits after tax of Group 1 banks have been realised by G-SIBs.

Profits recorded a decline in most regions in the last reporting period, 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.

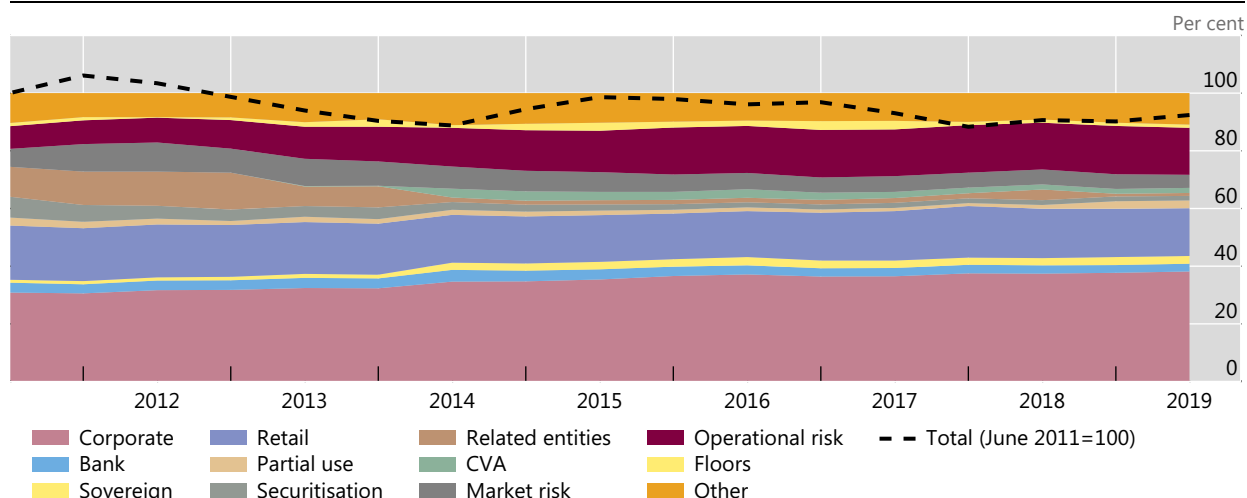
Source: Basel Committee on Banking Supervision. See Table C.30 and Table C.32 for underlying data and sample size.

- Since 2011, annual profits after tax recorded have always been higher in the Americas and the rest of the world than in Europe. While profits continued to increase in the Americas, the rest of the world recorded a significant decrease in profits in the current period.
- The share of profits of European banks tends to be two to three percentage points lower than their share in Tier 1 capital or RWA (see also Table B.2). Conversely, the share of profits of banks in the Americas and the rest of the world tends to be in line with or higher than their share in Tier 1 capital or RWA.

Analysis of share of MRC by asset class¹ according to current rules shows increase in operational risk MRC and decrease in credit risk MRC

Consistent sample of Group 1 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.34 for underlying data and sample size.

- As of end-June 2019, overall credit risk continues to compose the dominant portion of overall minimum required capital (MRC), with this category on average comprising 65.4% of total MRC for Group 1 banks.⁶ 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 38.1% between June 2011 and June 2019, while the share of MRC for securitisation exposures declined from 7.2% to 1.6%.

⁶ 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.

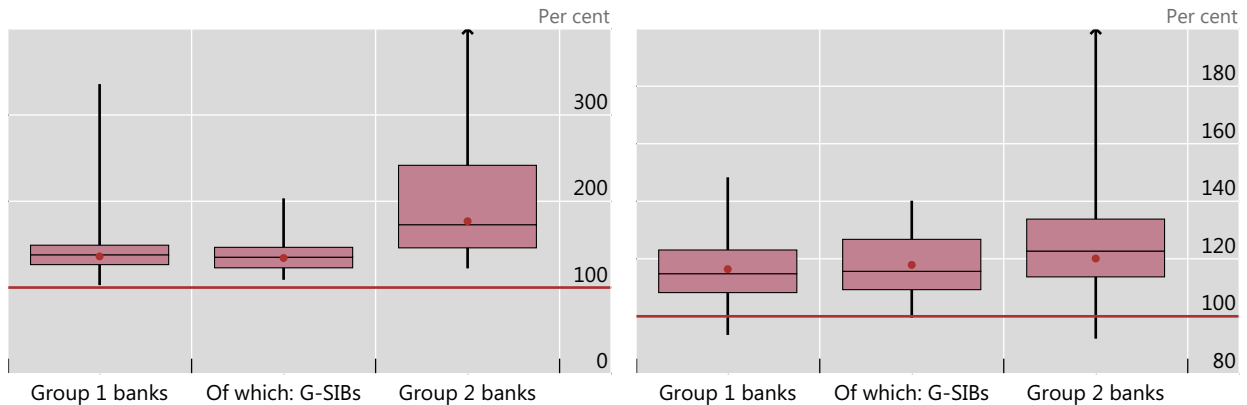
All banks meet the fully phased-in liquidity coverage ratio (LCR) and almost all banks the net stable funding ratio (NSFR)¹

Overall distribution

Graph 8

Liquidity coverage ratio²

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).

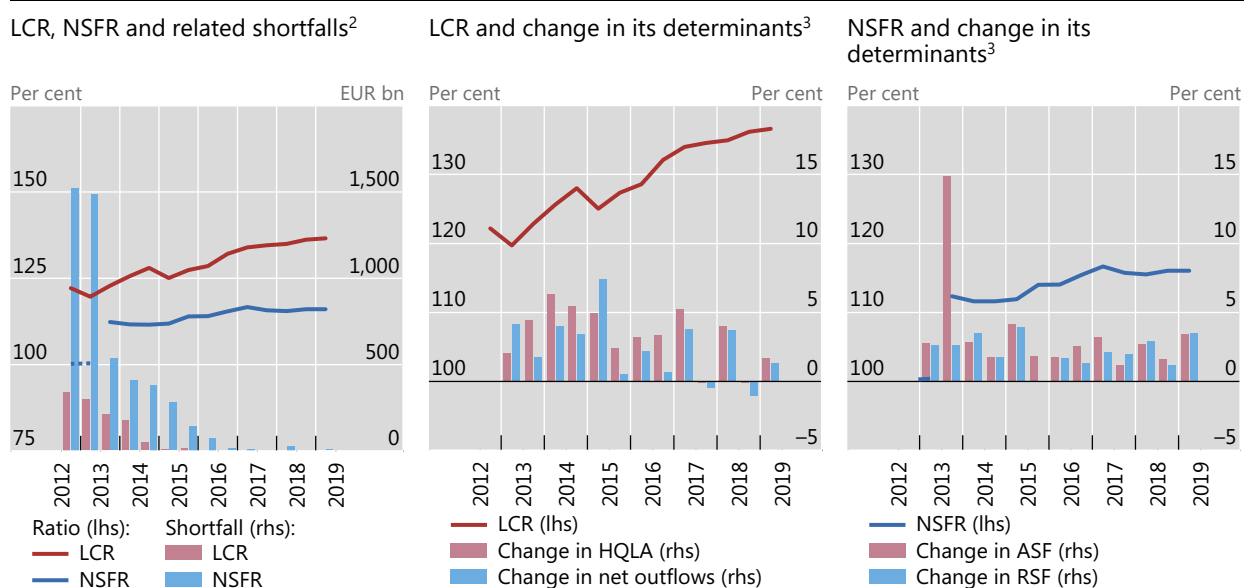
Source: Basel Committee on Banking Supervision. See Table C.79 for underlying data and sample size.

- The average LCR for Group 1 banks is 136.2% and for Group 2 banks 177.0% while at the end of December 2018, it was 136.2% and 177.2%, respectively. However, the decline for Group 2 banks is due to a change in the sample of banks.
- The average NSFR is 116.4% for Group 1 banks and 120.1% for Group 2 banks at end-June 2019 compared with 116.3% and 120.0% respectively, at end-December 2018.
- All Group 1 and Group 2 banks in the full sample of banks at the end-June 2019 reporting date exceed the final LCR minimum requirement of 100%.
- Some 96.1% of Group 1 banks and 95.6% of Group 2 banks meet or exceed the 100% minimum NSFR requirement, with all Group 1 and Group 2 banks at an NSFR of 90% or higher as of end-June 2019.

LCRs and NSFRs tend to stabilise while NSFR shortfall for Group 1 banks slightly increased in the current period

Consistent sample of Group 1 banks¹

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.85, Table C.86, Table C.89 and Table C.94 for underlying data and sample size. Table C.87, Table C.90 and Table C.95 provide additional regional breakdowns for Group 1 banks.

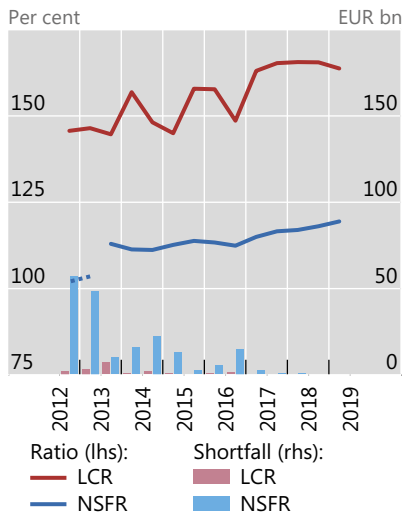
- For a consistent sample of Group 1 banks, all banks continue to comply with the 100% LCR minimum requirement at end-June 2019.
- The aggregate NSFR shortfall was €9.1 billion for a consistent sample of Group 1 banks, compared with €3.7 billion at end-December 2018. The average NSFR for the same sample of banks remained constant at 116.0%.

LCR and NSFR shortfalls for Group 2 banks at zero

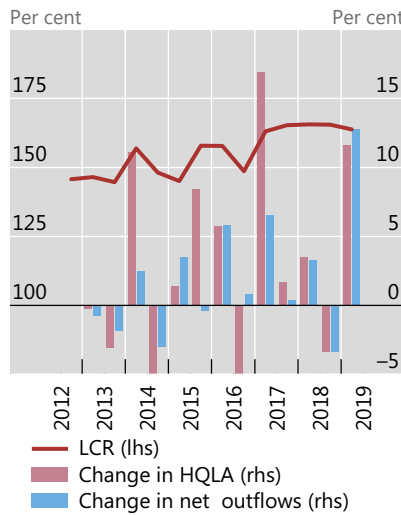
Consistent sample of Group 2 banks¹

Graph 10

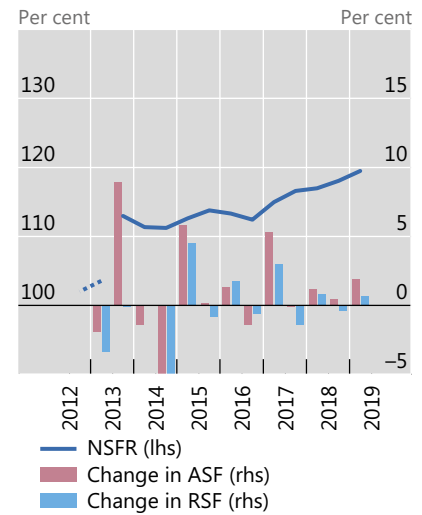
LCR, NSFR and related shortfalls²



LCR and change in its determinants³



NSFR and change in its determinants³



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.

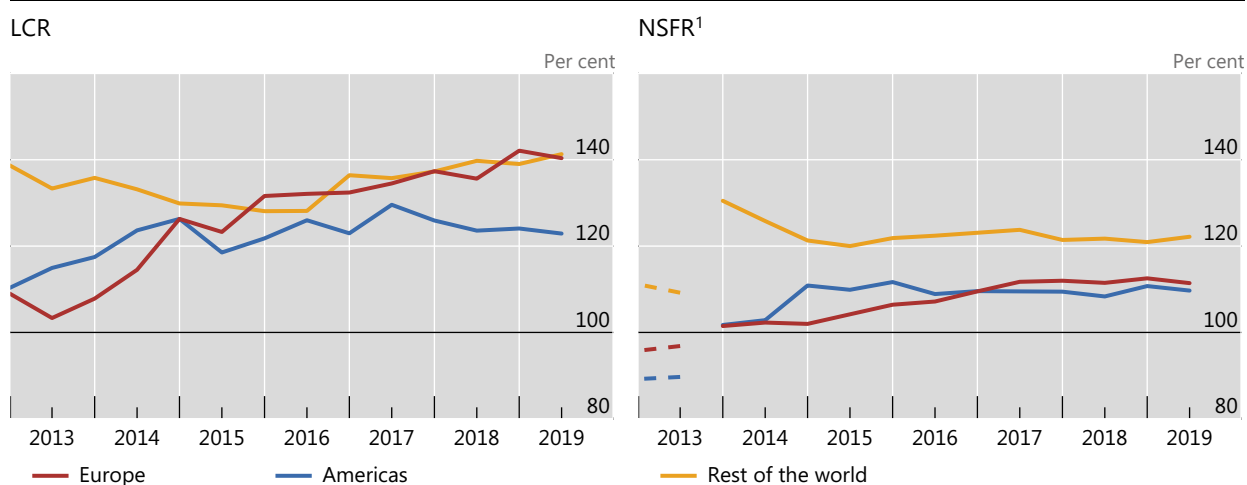
Source: Basel Committee on Banking Supervision. See Table C.85, Table C.86, Table C.89 and Table C.94 for underlying data and sample size.

- For a consistent sample of Group 2 banks, the LCR shortfall decreased from €0.1 billion to no shortfall over the first half of 2019.
- The aggregate NSFR shortfall decreased from €0.1 billion at end-December 2018 to no shortfall also for a consistent sample of Group 2 banks. The average NSFR for the same sample of banks increased by 1.5 percentage points to 119.5%.

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.87 for underlying data and sample size.

- The weighted average LCR at end-June 2019 for each of the three regions was in excess of 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-June 2019 for Group 1 banks in each of the three regions was well in excess of 100%. Europe and the Americas at 111.4% and 109.7% at end-June 2019 have lower average NSFRs compared with the rest of the world at 122.2%.

Detailed results of the Basel III monitoring exercise as of 30 June 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, responded to the core of the global financial reform agenda presented to the Seoul G20 Leaders summit in November 2010. Collectively, these reforms are 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 reforms² 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 30 June 2019.⁴ Given the June 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.

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 March 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 30 April 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.

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 30 June 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 21 January 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.

1.2 Sample of participating banks

Data on the initial Basel III framework were included for a total of 174 banks, including 105 Group 1 banks and 69 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 larger sample of 150 banks, among which 91 Group 1 banks and 59 Group 2 banks.⁹

Banks were asked to provide data at the consolidated level as of 30 June 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 sample represents only those banks that reported necessary data at the June 2011 (labelled "H1 2011") through June 2019 ("H1 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 82 Group 1 banks, of which 30 are G-SIBs, and around 31 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.

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

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 some other aspects of the final framework.

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;
- 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.

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 June 2019 reporting date may differ from the H1 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 30 June 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 two 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 30 June 2019 results. These two 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 level¹

Reduced estimation bias²

Table 2

	Basel III capital ratios, in per cent			Combined risk-based capital and leverage ratio shortfalls at the target level, in billions of euros ²		
	Initial		Final	Initial		Final
	Current	Transitional	Fully phased-in	Current	Transitional	Fully phased-in
Group 1 banks						
CET1 capital	12.8	12.9	12.3	0.4	0.0	7.6
Tier 1 capital ⁴	14.3	14.2	13.6	1.3	1.7	5.6
Total capital ⁵	16.7	16.5	15.8	0.0	0.0	3.4
Sum				1.7	1.7	16.6
Of which: G-SIBs						
CET1 capital	12.7	12.7	12.3	0.0	0.0	6.4
Tier 1 capital ⁴	14.2	14.1	13.6	0.0	0.0	4.7
Total capital ⁵	16.7	16.5	15.9	0.0	0.0	3.4
Sum				0.0	0.0	14.6
Group 2 banks						
CET1 capital	14.8	12.6	12.2	0.0	1.7	1.7
Tier 1 capital ⁴	15.4	13.2	12.7	1.1	0.7	0.7
Total capital ⁵	17.5	15.0	14.5	0.0	1.0	1.0
Sum				1.1	3.4	3.4

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 two 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 level¹

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	12.8	12.8	12.3	0.4	0.0	7.6
Tier 1 capital ³	14.3	14.2	13.6	1.3	1.7	5.6
Total capital ⁴	16.7	16.4	15.7	0.0	3.7	7.1
Sum				1.7	5.4	20.3
Of which: G-SIBs						
CET1 capital	12.7	12.7	12.2	0.0	0.0	6.4
Tier 1 capital ³	14.2	14.1	13.6	0.0	0.0	4.7
Total capital ⁴	16.7	16.4	15.8	0.0	3.7	7.1
Sum				0.0	3.7	18.3

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 bias¹, 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	104	12.8	92	12.9	12.3
Of which: Europe	35	13.7	35	12.1	11.3
Of which: Americas	18	12.2	16	12.6	12.4
Of which: RW	51	12.6	41	13.6	13.1
Of which: G-SIBs	30	12.7	29	12.7	12.3
Group 2 banks	66	14.8	62	12.6	12.2

¹ For two 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	104	12.8	92	12.8	12.3
Of which: Europe	35	13.7	35	12.0	11.2
Of which: Americas	18	12.2	16	12.6	12.4
Of which: RW	51	12.6	41	13.6	13.1
Of which: G-SIBs	30	12.7	29	12.7	12.2
Group 2 banks	66	14.8	62	12.6	12.2

Source: Basel Committee on Banking Supervision.

2.1 Risk-based capital ratios

2.1.1 Initial Basel III standards

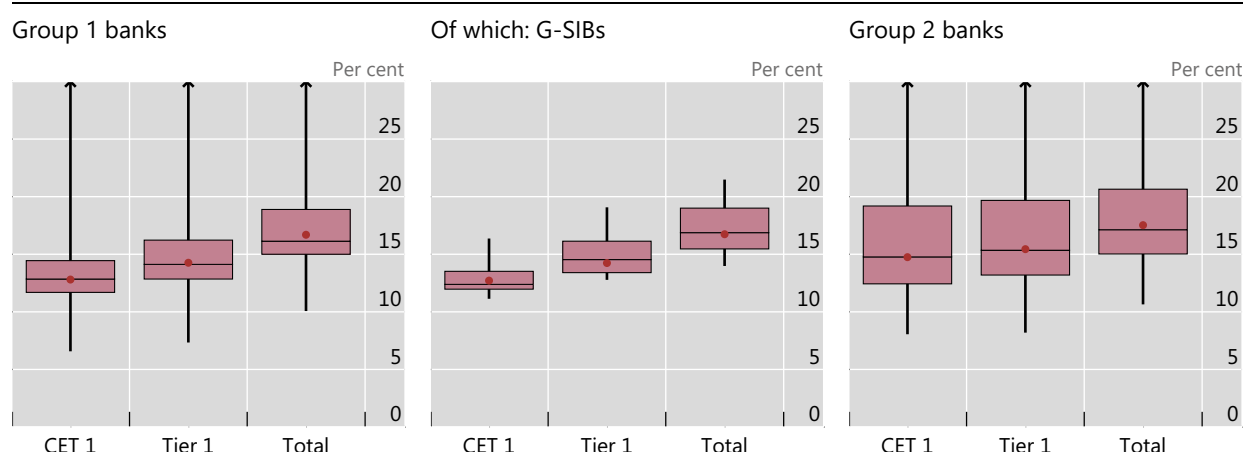
Regarding initial Basel III capital ratios, results continue to show quite significant dispersion across banks as shown in Graph 12 both for Group 1 and Group 2 banks.

For example, for Group 1 banks, the lowest initial Basel III CET1 capital ratio stands to 6.6% below the 7% target ratio whereas the highest ratio stands to 37.1%. 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, none of them experiences an initial Basel III CET1 capital ratio below the 7% target.

Furthermore, 94% of the Group 1 banks show an initial CET1 capital ratio above 10%. These banks represent more than 98% of both total RWA and CET1 of the sample. For Group 2 banks, the proportion of banks with an initial CET1 capital ratio above 10% is similar (94%), and they represent 94% of the total RWA and 97% of the total CET1 of the sample.

Initial Basel III CET1, Tier 1 and total capital ratios¹

Graph 12



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.

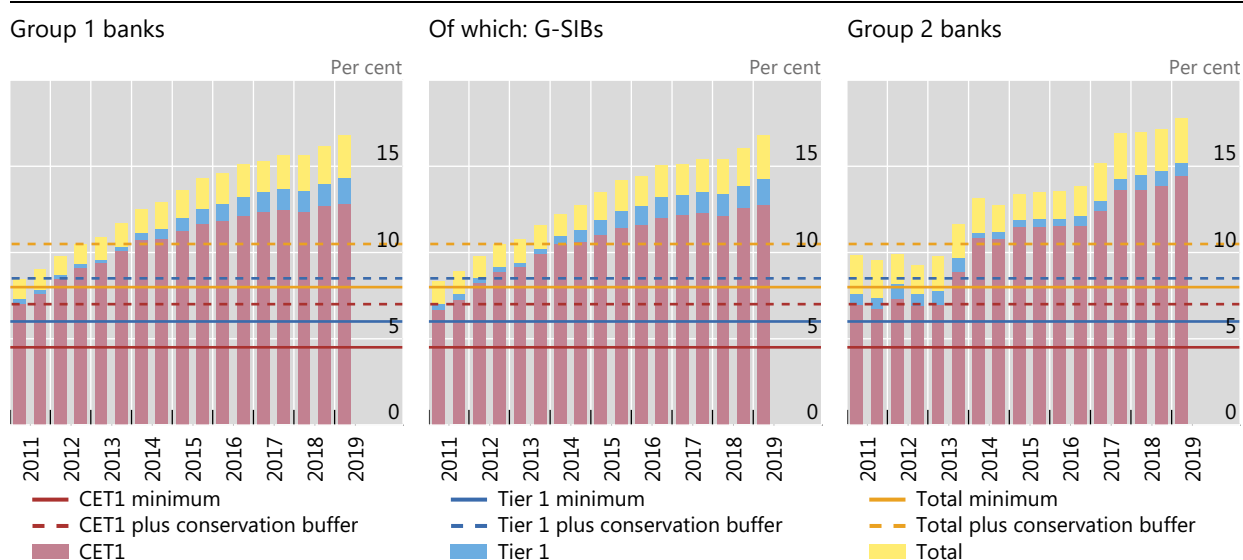
Source: Basel Committee on Banking Supervision. See Table C.1 for underlying data and sample size. Table B.6 provides related information for the fully phased-in initial Basel III capital ratios.

Initial Basel III capital ratios of Group 1 and Group 2 banks have continued to increase compared with prior periods. More particularly, for Group 1 banks, the Tier 1 capital ratios increased by 30 basis points, by 40 basis points for G-SIBs and by 50 basis points for Group 2 banks. For each group, the rationale of this strengthening is similar: the increase in CET1 (eg +4.8% for Group 1 banks) represents at least the double of the increase in total RWA (eg +2.4% for Group 1 banks).

Initial Basel III CET1, Tier 1 and total capital ratios¹

Consistent sample of banks

Graph 13



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.2 for underlying data and sample size.

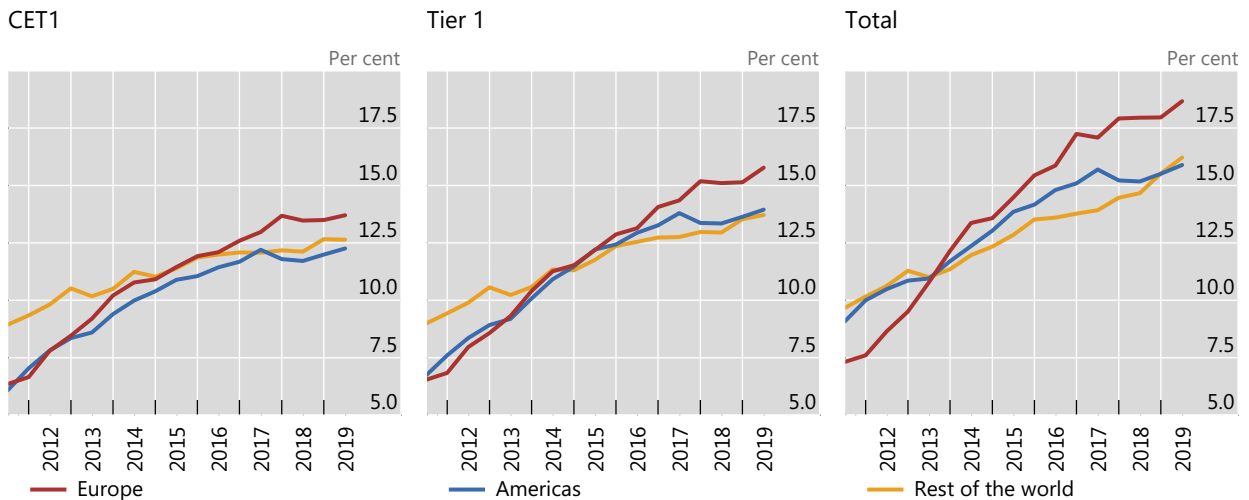
Initial Tier 1 capital ratios were more than two percentage points lower in the Americas and in Europe than in the rest of the world region in 2011 (Graph 14). However, this relationship reversed around 2014, notably for European banks, when these started reporting higher average capital ratios than banks in the Americas and the rest of the world.

Capital ratios of these consistent samples generally increased across all regions compared to the end of 2018 – except for CET1 ratios for the rest of the world, with a three basis points decrease. Different from the previous report, the greatest increase is recorded for initial Basel III total capital ratios for each region: European banks (+71 basis points), banks in the rest of the world (+69 basis points) and American banks (+38 basis points). This suggests a continued shift towards lower tier capital.

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

Consistent sample of Group 1 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.

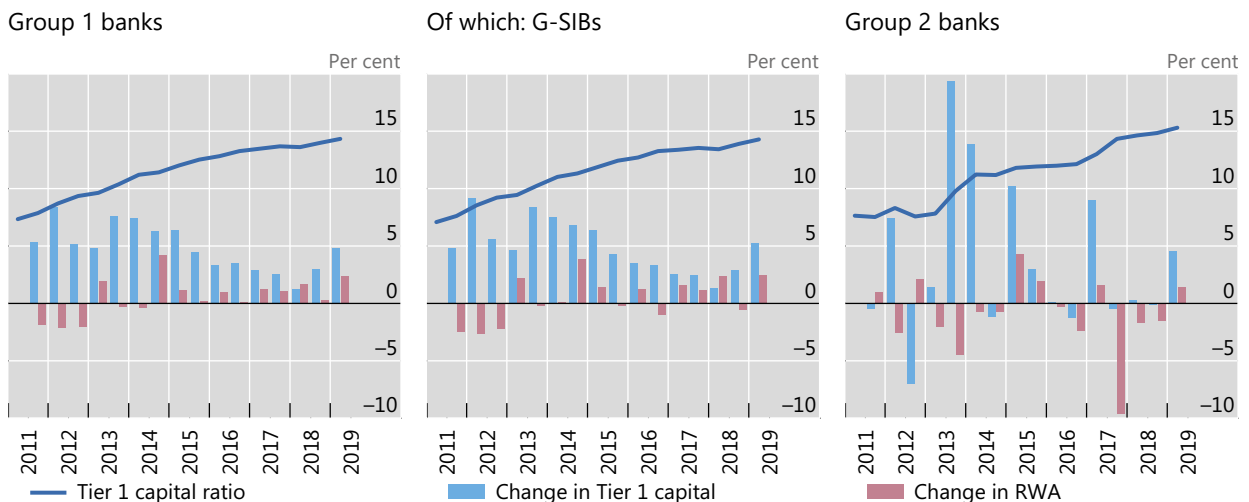
Source: Basel Committee on Banking Supervision. See Table C.3 for underlying data and sample size.

Over the prior period, RWA increased by 2.4% for Group 1 banks, roughly the same for G-SIBs, but only 1.5% for Group 2 banks. At the same time, Tier 1 capital in the first half of 2019 increased by 4.8% for Group 1 banks, by more than 5% for G-SIBs and by 4.6% for Group 2 banks (see Graph 15).

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 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.

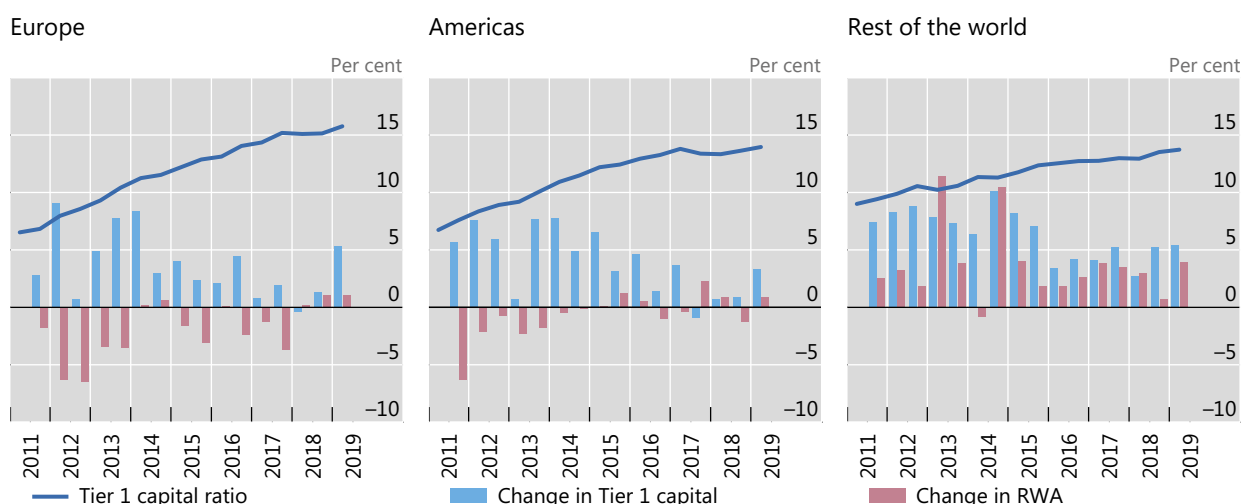
For this last period, each region records a higher increase in Tier 1 capital than in RWA: for European banks and banks in the rest of the world, the increase in Tier 1 capital is of the same order of magnitude, respectively (+5.3% and +5.4%), whereas American banks show a +3.3% increase. Banks in the

rest of the world region experience the highest increase in RWA with +3.9%, while for European and American banks the increase is roughly the same, around +1%.

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 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.

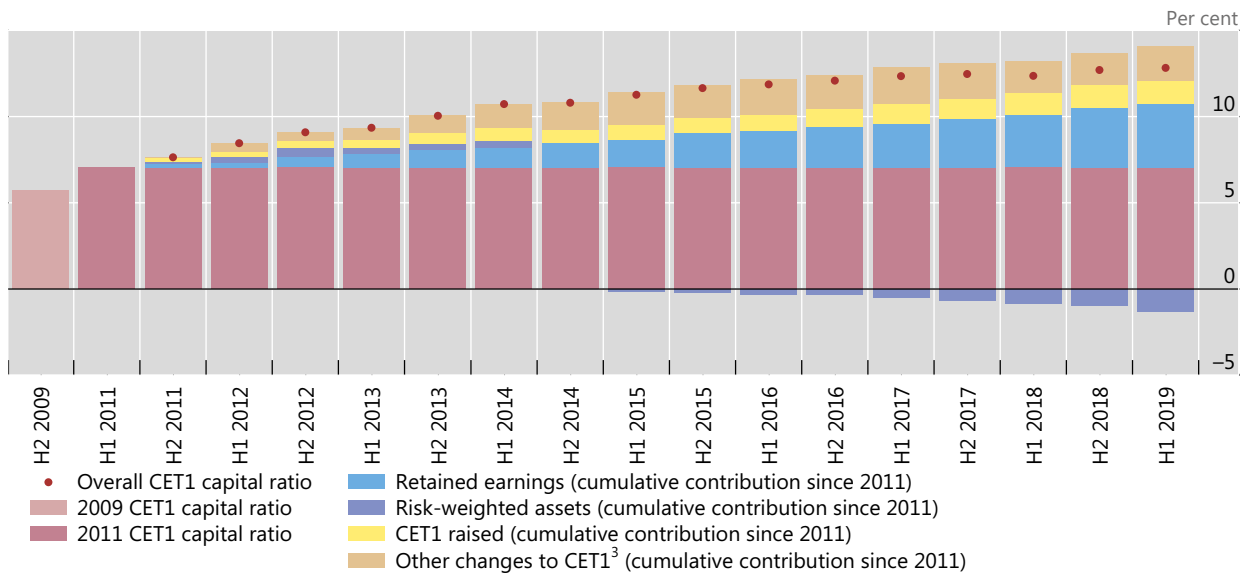
Graph 17 and Graph 18 below show the evolution of initial Basel III CET1 capital ratios and their drivers. Starting with the June 2011 CET1 capital ratio, the cumulative effect on the ratio of CET1 capital raised, retained earnings and other increases in CET1 capital (such as any reduction in regulatory 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. This general comment needs to be adapted for each region. Indeed, in Europe, the improvement of CET1 capital ratios stems mainly from a reduction in total RWA. In the Americas, the main contributor of the strengthening of the CET1 ratio are "Other changes to CET1". Finally, for the rest of the world, there is 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 drivers¹

Consistent² sample of Group 1 banks

Graph 17



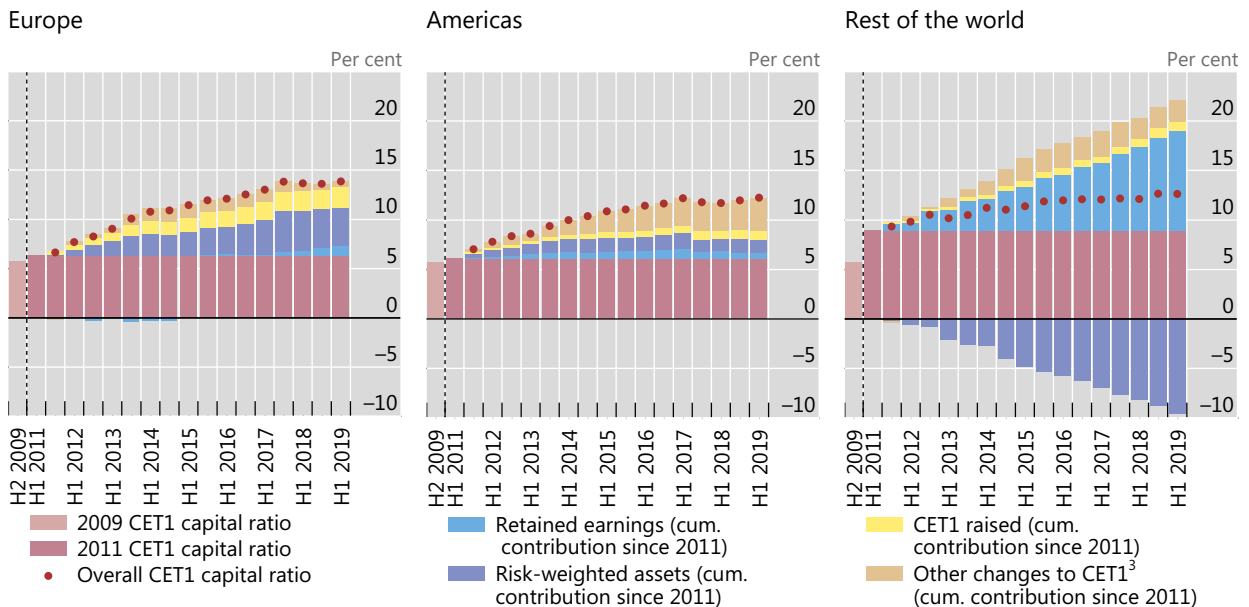
¹ The graph shows the fully phased-in initial Basel III framework for the data points up to and including the end of 2018 and the actual framework in place at the reporting date for all data points thereafter. ² Except the ratio for H2 2009, which is based on the different sample of the Committee's comprehensive 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.6 for underlying data.

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

Consistent² sample of Group 1 banks

Graph 18



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

Source: Basel Committee on Banking Supervision. See Table C.7, Table C.8 and Table C.9 for underlying data.

2.1.2 Final Basel III standards

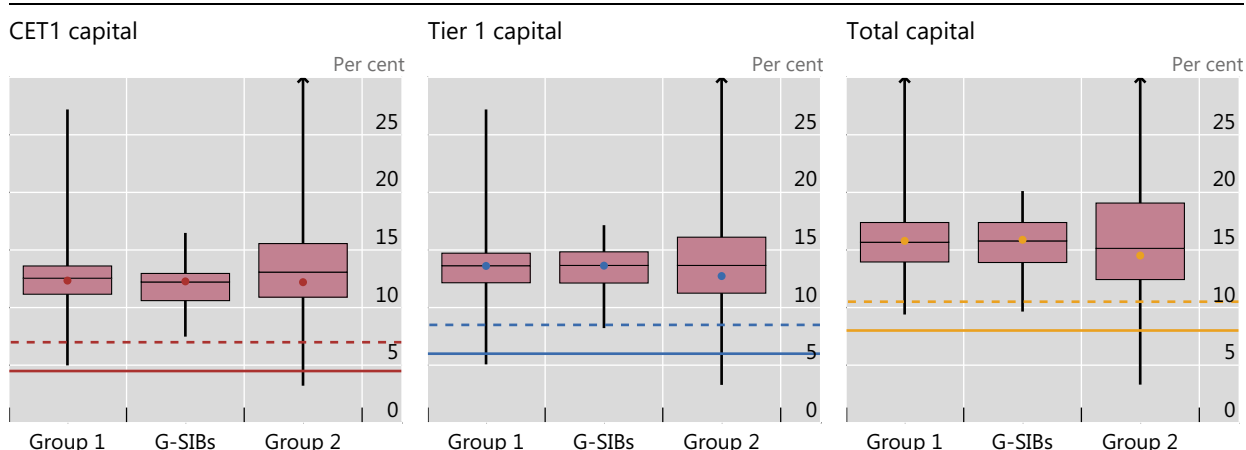
On average, the initial Basel III CET1 capital ratio of Group 1 banks (Graph 12) compared to the fully phased-in final Basel III CET1 capital ratio (Graph 19) would decline by 0.5 percentage points from 12.8% to 12.3%. G-SIBs would see equivalent similar decrease of 0.4 percentage points from 12.7% to 12.3%. Group 2 banks report a larger CET1 capital ratio decline by 2.6 percentage points from 14.8% to a low of 12.2%. There is also a wider dispersion in the ratios for Group 2 banks under final Basel III compared to initial Basel III standards.

Similar to CET1 capital ratios, Tier 1 capital ratios of Group 1 and Group 2 banks decline respectively by 0.7 and 2.7 percentage points. Total capital ratios would also decrease for both groups, with a more pronounced decline of 3.0 percentage points for Group 2 bank compared to Group 1 banks with a 0.9 percentage points drop.

Fully phased-in CET1, Tier 1 and total capital ratios under the final Basel III standards¹

Reduced estimation bias²

Graph 19



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 two 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.11 for underlying data and sample size. Table C.10 provides the same information for the transitional final Basel III standards.

Under fully phased-in final Basel III, all Group 1 banks in the sample meet the 4.5% CET1 minimum ratio and only one Group 1 bank reports a CET1 ratio below the 7.0% target ratio. Over 36% of Group 1 banks have a CET1 ratio higher than 13% and over 88% have a CET1 ratio that is larger 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. The majority (85%) of Group 2 banks have a CET1 capital ratio that is higher than 10% and more than a half (53%) has a capital ratio higher than 13%.

Distribution of fully phased-in final Basel III CET1 ratios

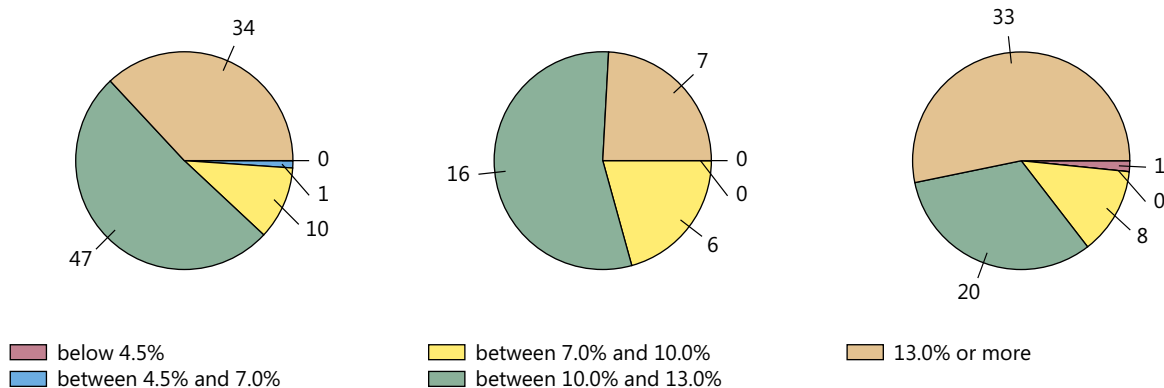
Reduced estimation bias¹

Graph 20

Group 1 banks

Of which: G-SIBs

Group 2 banks



¹ For two 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, the total change in Tier 1 MRC at the target level from the final Basel III framework is +2.5% for Group 1 banks, +2.7% for G-SIBs and +7.5% for Group 2 banks (see Graph 21). 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. For this calculation, for two G-SIBs that are outliers due to overly conservative assumptions under the revised market risk framework,¹² zero change from the revised market risk framework has been assumed for the calculation of 30 June 2019 results. If these two banks are reflected with their overly conservative market risk numbers (see the "conservative estimation" part of the table), there is a 2.8% increase.

Graph 21 also 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 +11.9%, with a median of 2.7%. The distribution for G-SIBs is wider with a higher median of 16.8%, while the median for Group 2 banks shows a 5.2% increase with 50% of the banks within an interval from -0.1% to a +13.9% increase in Tier 1 MRC.

The average impact of the final Basel III framework on most of the banks is slightly lower compared to the previous reporting date. On average, the total change in Tier 1 MRC at the target level at end-December 2018 was 3.0% for Group 1 banks, 3.4% for G-SIBs and 8.5% for Group 2 banks.

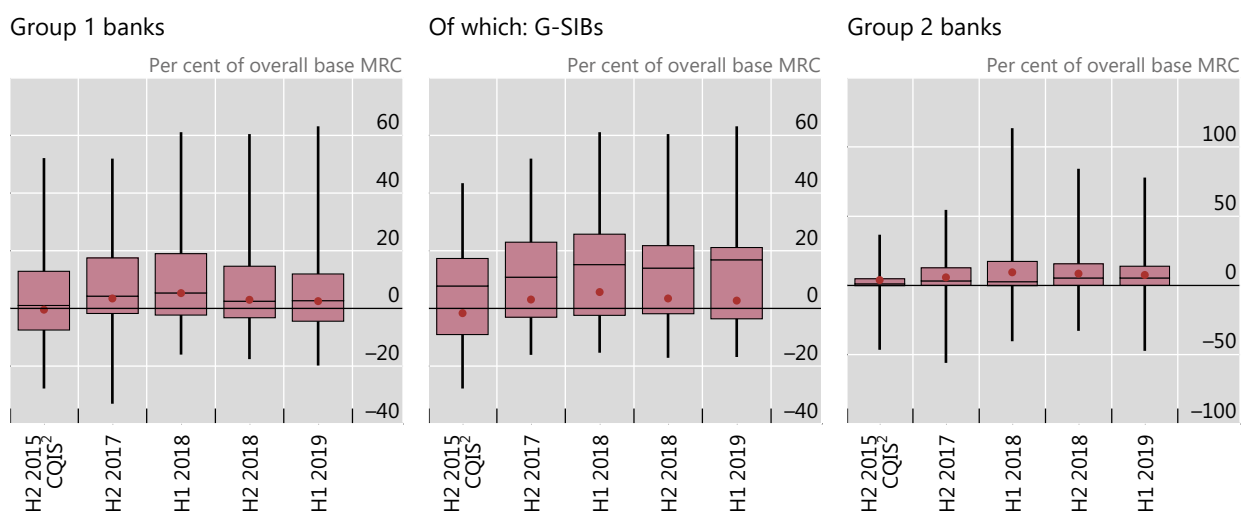
¹¹ In the cumulative QIS, all changes from the revised market risk framework were already added to MRC under the current rules such that they were not reflected in the *change* in MRC.

¹² 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.

Total change in Tier 1 MRC at the target level¹

Samples as at the reporting dates, reduced estimation bias

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. The dots represent weighted averages. For two 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.12 for details on the distribution; Table C.13 shows related results with conservative estimation.

The results are summarised in Table 6 and Graph 22 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.¹³
- *CVA* shows the change in Tier 1 MRC due to the revisions to the CVA framework.
- *Market risk* shows the change in Tier 1 MRC due to the revisions to the market risk framework.
- *Operational risk* shows the change in Tier 1 MRC due to the revisions to the operational risk standards.
- *Output floor* presents the change in the level of Tier 1 MRC due to the aggregate output floor when the total RWA fall below the threshold level of 72.5%. The impact is measured relative to the current national implementation of the Basel I-based transitional floor set out in the Basel II framework, as reported by member countries.

¹³ 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.

- *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

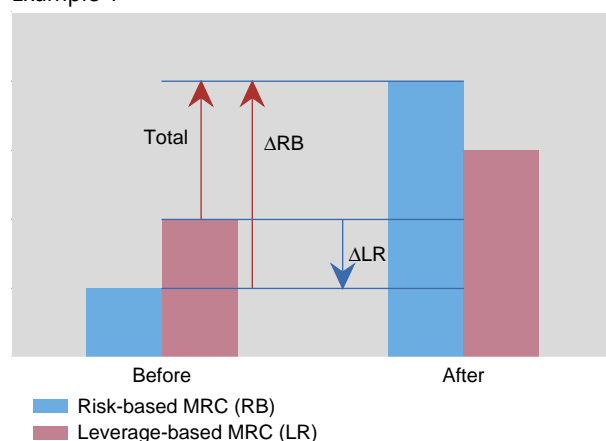
Example 1 shows an illustrative bank that is currently constrained^① by the Basel III leverage ratio. This additional Tier 1 MRC currently imposed by the Basel III leverage ratio requirement is instead “charged” by the risk-based Tier 1 MRC under the revised framework with the total change indicated by $-\Delta RB$. 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 ($\Delta LR'$); 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.

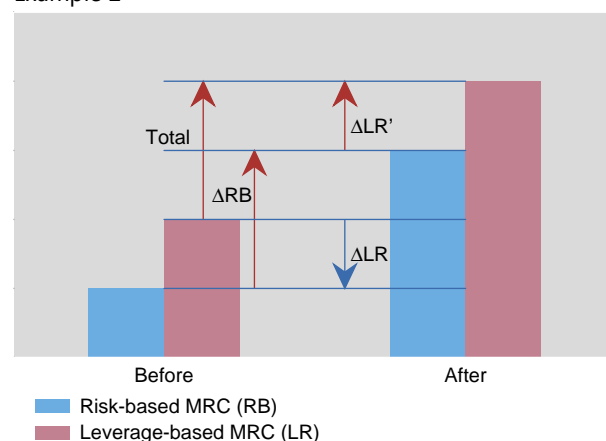
Aggregation of changes in risk-based and leverage ratio MRC

Graph A

Example 1



Example 2



For Group 1 banks, the Tier 1 MRC would increase by 2.5% with reduced estimation bias and by 2.8% with conservative estimation, applying a fully phased-in definition of the final Basel III standards. This increase is composed of a 3.4% (3.7%) rise in the risk-based components combined, driven by the positive contributions of the output floor (+2.4%), market risk (+1.6% or 1.9%), CVA (+1.5%), and a reduction in credit risk (-1.5%) and operational risk (-0.7%). This overall increase is lowered by a -0.9% (-1.0%) 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 decrease shown in the rest of the world (-5.4%), a moderate decrease in the Americas (-0.5%) and, in contrast to this, a strong increase in MRC for European banks (+17.3% with reduced estimation bias and +18.2% with conservative estimation). The largest impact for the sample of European banks stems from the output floor (+7.6%) followed by changes in CVA (+3.9%), operational risk (+3.4%) and credit risk (+3.2%). For banks in the Americas increases for market risk (+4.6%) and CVA (+0.9%) are partially offset by MRC reductions in operational risk (-4.6%) and the output floor (-2.3%). For banks in the rest of the world, reductions in MRC for credit risk (-5.2%), operational risk (-1.2%) and the leverage ratio (-1.1%) are higher than the rises for CVA (+0.3%) and the output floor (+1.7%).

For Group 2 banks, the overall 7.5% increase in Tier 1 MRC is driven by an increase in the risk-based measure of 14.8% contributed mainly by credit risk (+6.7%) and the output floor (+4.2%), while the leverage ratio measure partially offsets this increase at -7.3%.

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 bias¹, 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	91	2.5	3.4	−1.5	1.5	1.6	−0.7	2.4	0.1	−0.9
Of which: Europe	34	17.3	19.5	3.2	3.9	1.3	3.4	7.6	0.0	−2.2
Of which: AM	16	−0.5	−1.5	−0.2	0.9	4.6	−4.6	−2.3	0.1	1.0
Of which: RW	41	−5.4	−4.2	−5.2	0.3	0.1	−1.2	1.7	0.1	−1.1
Of which: G-SIBs	29	2.7	2.6	−1.3	1.5	1.8	−1.2	1.8	0.0	0.1
Group 2 banks	59	7.5	14.8	6.7	1.9	0.2	1.8	4.2	−0.1	−7.3

¹ For two 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	91	2.8	3.7	−1.5	1.5	1.9	−0.7	2.4	0.1	−1.0
Of which: Europe	34	18.2	20.6	3.2	3.9	2.5	3.4	7.6	0.0	−2.4
Of which: AM	16	−0.5	−1.5	−0.2	0.9	4.6	−4.6	−2.3	0.1	1.0
Of which: RW	41	−5.4	−4.2	−5.2	0.3	0.1	−1.2	1.7	0.1	−1.1
Of which: G-SIBs	29	3.1	3.1	−1.3	1.5	2.2	−1.2	1.8	0.0	0.0
Group 2 banks	59	7.5	14.8	6.7	1.9	0.2	1.8	4.2	−0.1	−7.3

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.

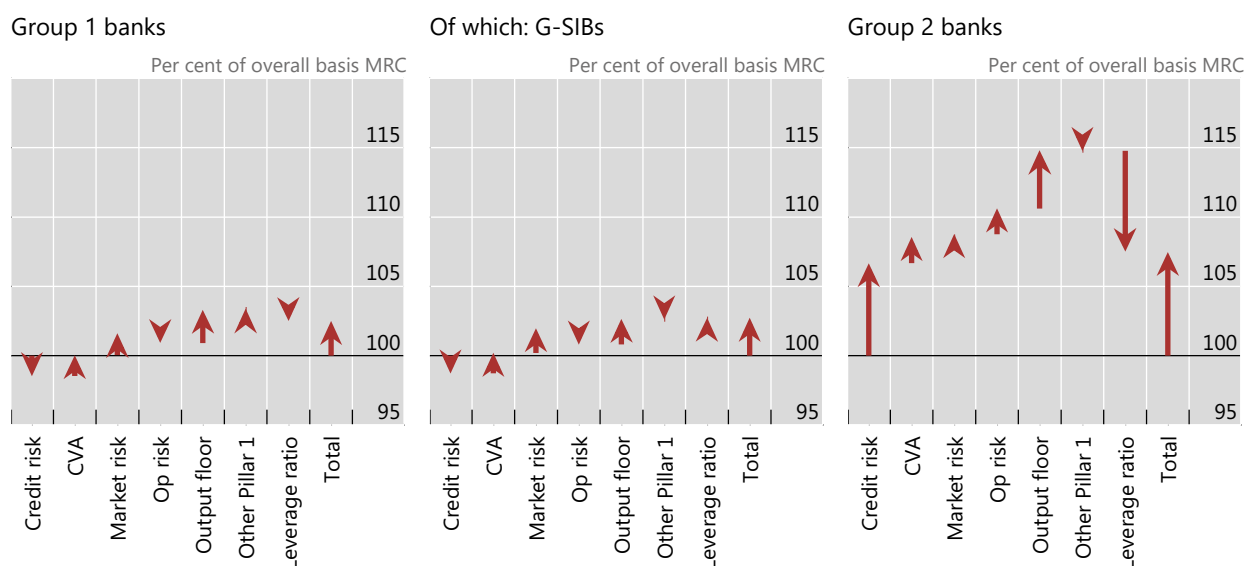
Source: Basel Committee on Banking Supervision.

Graph 22 displays the contributions of each MRC component relative to the current basis for Group 1 banks, G-SIBs and Group 2 banks, respectively. The 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 23 provides the regional breakdown for Group 1 banks.

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

Reduced estimation bias¹

Graph 22



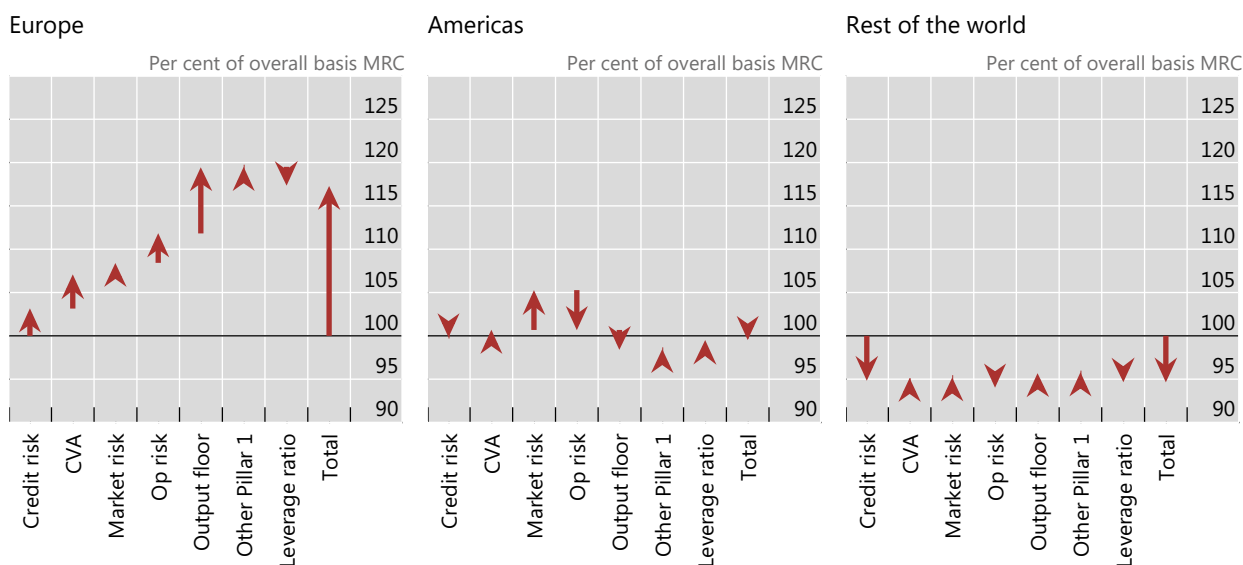
Credit risk shows the change in MRC due to revised standardised and IRB approaches, including securitisation. Operational risk figures may not show supervisor-imposed capital add-ons. Therefore, increases in MRC may be overstated and reductions may be understated. Output floor results are net of the existing Basel I-based floor according to national implementation of the Basel II framework. ¹ For two 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 bias¹

Graph 23



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 two 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).

Basel III leverage ratio framework

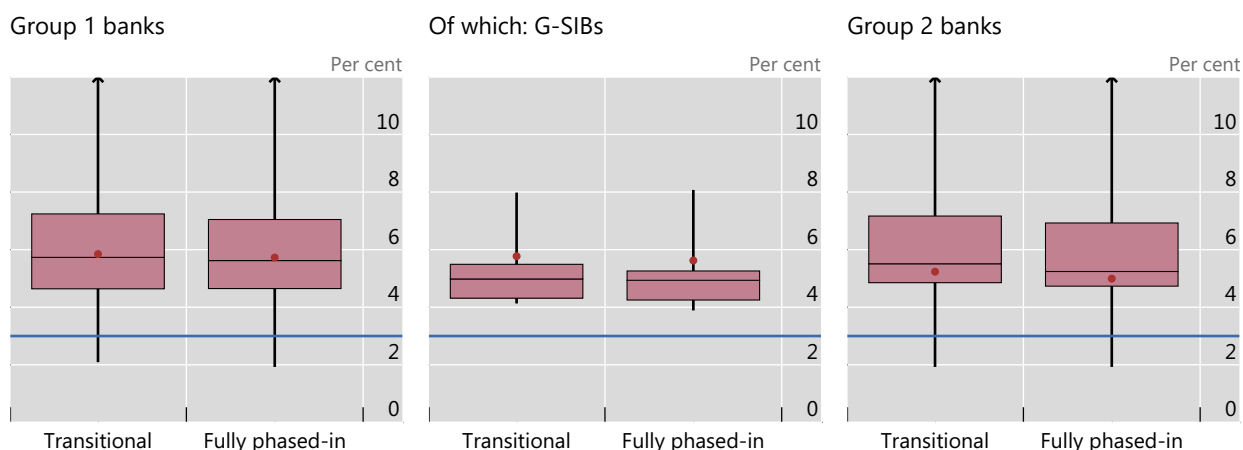
Under the January 2014 and December 2017 versions of the Basel III leverage ratio framework,^① the Basel III leverage ratio exposure measure (the denominator of the Basel III leverage ratio) includes:

- 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 24 presents summary statistics related to the distribution of Basel III leverage ratios based on initial and fully phased-in final Basel III Tier 1 capital for Group 1 banks, G-SIBs and Group 2 banks. The weighted average of initial Basel III leverage ratios is 5.8% for Group 1 banks and 5.8% for G-SIBs, while it equals 5.2% for Group 2 banks. The weighted average of fully phased-in final Basel III leverage ratios is 5.7% for Group 1 banks, 5.6% for G-SIBs and 5.0% for Group 2 banks. Group 2 banks show a greater dispersion compared to Group 1 banks.

Under both the initial and the fully phased-in final Basel III leverage frameworks, three banks in the sample would not meet the 3% ratio level, one Group 1 bank and two Group 2 banks. The aggregate leverage incremental shortfall under the initial framework is €0.9 billion for Group 1 banks and €1.1 billion for Group 2 banks.



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.14 for underlying data.

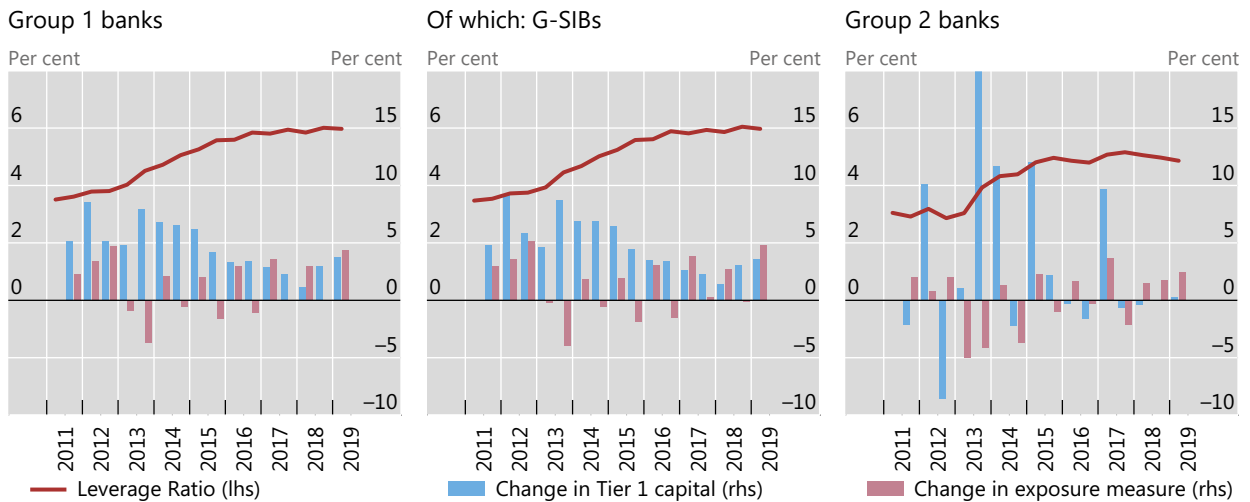
Graph 25 shows how the fully phased-in final Basel III leverage ratios have evolved over time for a consistent sample of 63 Group 1 banks (including 28 G-SIBs) and 25 Group 2 banks, all of which provided leverage ratio data for all reporting dates from June 2011 to June 2019. For Group 1 banks, the leverage ratio remained stable at 6.0% over the prior period whereas the leverage ratio for G-SIBs and Group 2 banks decreased from 6.1% to 6.0% and from 5.0% to 4.9%, respectively. In both cases, the decline in the leverage ratio is due to a significant increase in the leverage exposure measure (4.8% for G-SIBs and 2.4% for Group 2 banks) that is accompanied by only slight increases in Tier 1 capital.

Graph 26 shows the same information as Graph 25 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. In Europe, leverage ratios started from a low base of 2.7% and increased to 5.1% at end-June 2019. In the Americas, the leverage ratio increased from 4.1% to 6.2% as at June 2019. For the rest of the world, the leverage ratio increased from 4.1% in 2011 to 6.6% as at end-June 2019. Over the last period, however, leverage ratios decreased by 0.1 percentage points in both Europe and the Americas while the leverage ratio in the rest of the world further increased by 0.1 percentage points.

Fully phased-in final Basel III Tier 1 leverage ratios and component changes¹

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

Graph 25



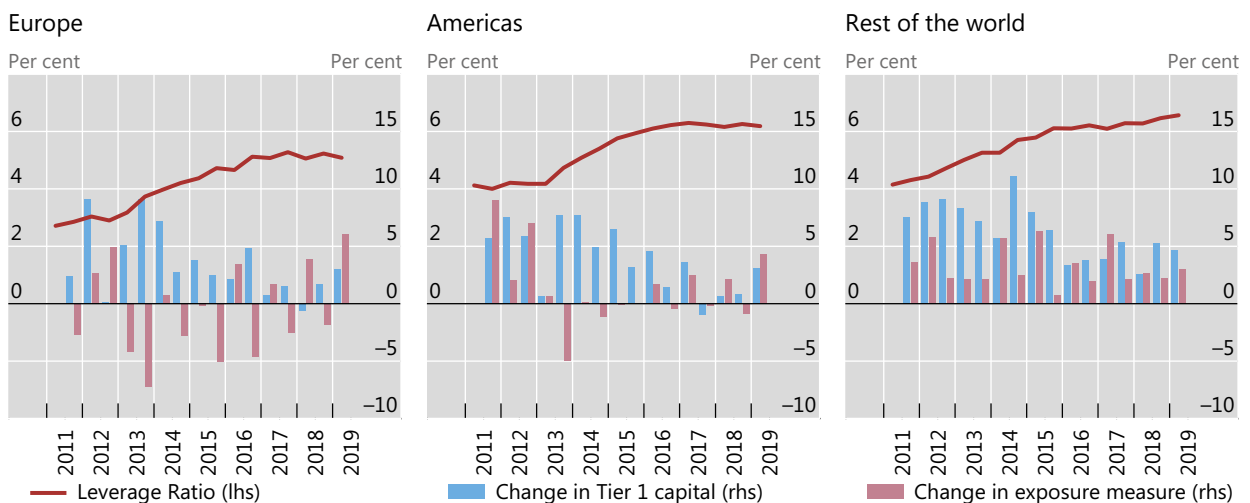
¹ Data points from H1 2011 to H2 2012 use the original definition of the leverage ratio. Data points from H1 2013 to H1 2017 use the definition of the leverage ratio set out in the 2014 version of the framework. Note that the data points for H1 2013 use an approximation for the initial definition of the Basel III leverage ratio exposure where gross instead of adjusted gross securities financing transaction values are used. Data points from H2 2017 onwards use the final definition of the leverage ratio to the extent data are available.

Source: Basel Committee on Banking Supervision. See Table C.15 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 26



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.16 for underlying data and sample size.

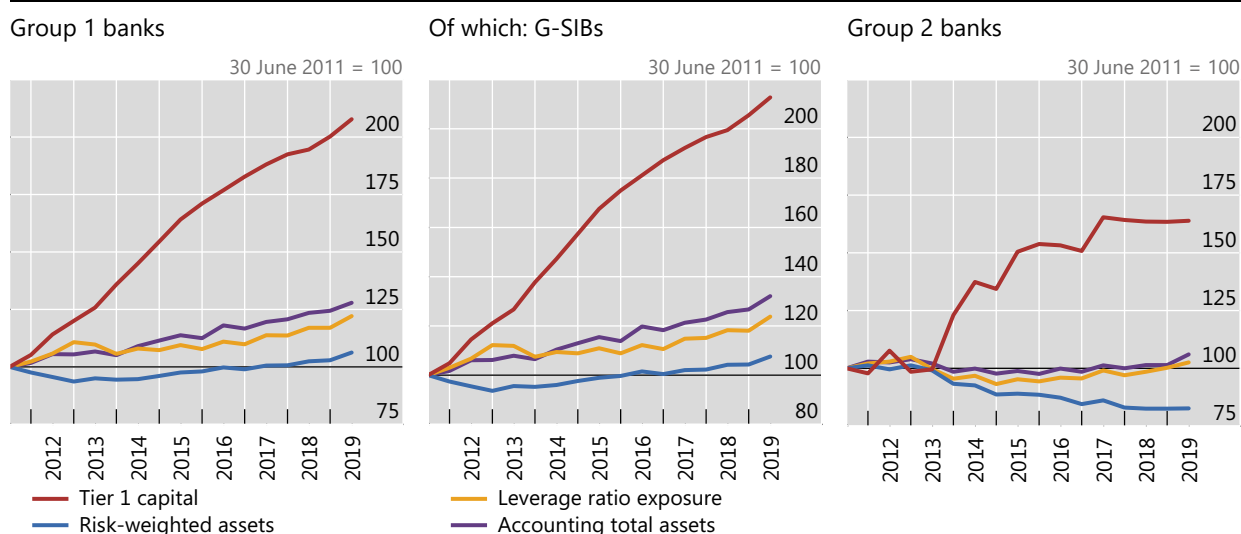
Graph 27 shows the evolution of the components of the risk-based capital and leverage ratios over time for a consistent sample of banks, ie banks that have consistently been providing the four data

series for the period June 2011 to June 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. The RWA decreased slightly in 2012 and then began to increase since 2014. The leverage ratio exposure dropped in 2013, but began to rise steadily afterwards. For Group 2 banks, Tier 1 capital generally increased during the period with the peak in June 2017. RWA declined after 2012 until the end of 2016 and remained on this level since. 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 assets¹

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

Graph 27



¹ Tier 1 capital, RWA and leverage ratio exposure assume full implementation of Basel III. Data points from H1 2010 to H2 2012 use the original definition of the leverage ratio. Data points from H1 2013 to H1 2017 use the definition of the leverage ratio set out in the 2014 version of the framework. Note that the data points for H1 2013 use an approximation for the initial definition of the Basel III leverage ratio exposure where gross instead of adjusted gross securities financing transaction values are used. Data points from H2 2017 onwards use the final definition of the leverage ratio to the extent data are available.

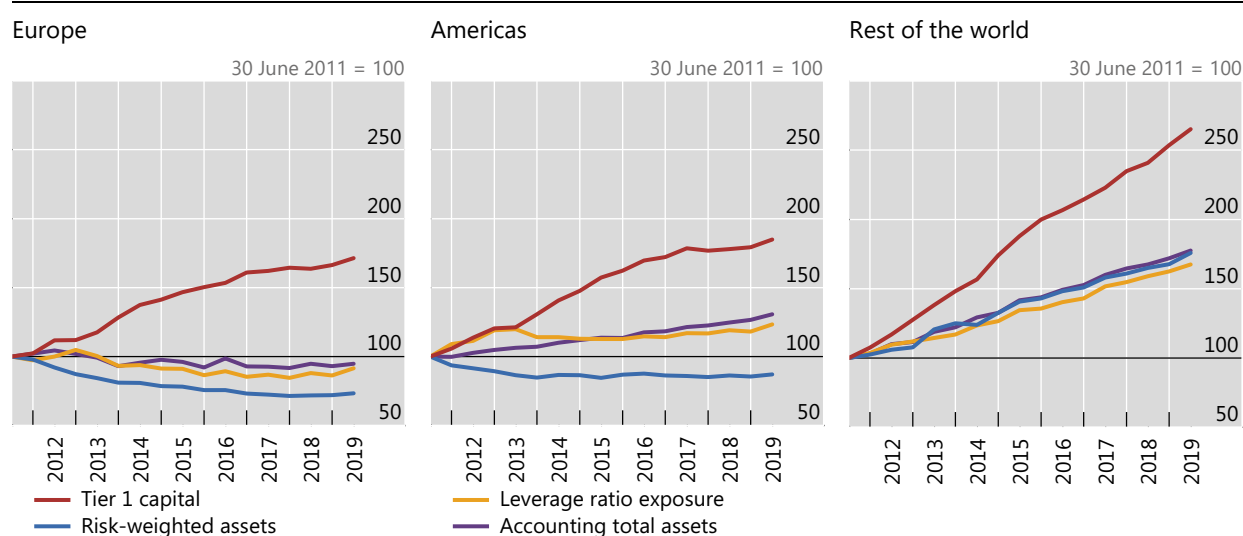
Source: Basel Committee on Banking Supervision. See Table C.17 for underlying data and sample size.

Graph 28 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 by more than 67% compared with 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 28



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.

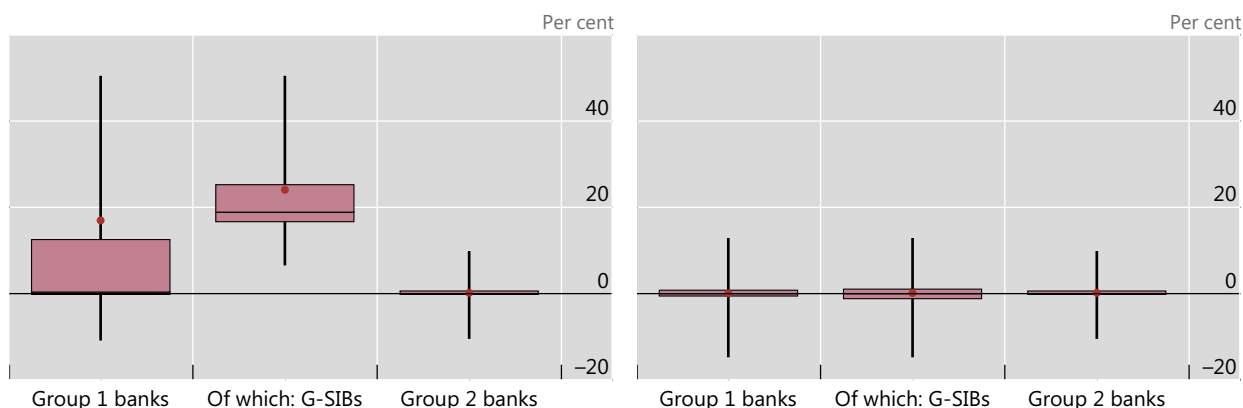
Source: Basel Committee on Banking Supervision. See Table C.18 for underlying data and sample size.

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

Graph 29 assesses, for Group 1 banks, G-SIBs and Group 2 banks, the changes in leverage ratio MRC at the target level due to the revisions to the Basel III leverage ratio and changes to the exposure measure only. With respect to leverage ratio MRC, Group 1 banks saw an increase on average of 17.0%, G-SIBs saw an increase on average of 24.1% and Group 2 banks saw an increase on average of 0.2%. With respect to the total exposure measure, Group 1 banks as well as G-SIBs experienced an increase on average of 0.1% and Group 2 banks saw an increase on average of 0.2%. This confirms that 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.

Overall change in MRC at the target level²

Resulting from changes to the exposure measure only



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.19 and Table C.20.

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-June 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 capital shortfalls as of the end-June 2019 reporting date for Group 1 banks decreased to €16.6 billion in comparison to the total capital shortfalls as of the end-December 2018 at €24.7 billion. The end-June 2019 shortfall can be split into €7.6 billion, €5.6 billion and €3.4 billion for CET1, additional Tier 1 and Tier 2 capital, respectively. The decrease has not been affected by the changes in the overall sample (currently 92 banks compared to 87 in the previous period). The decrease was observed even though improved data provided in the Basel III monitoring exercise by one G-SIB led to its shortfall rising since end-December 2018. However, if the overly conservative assumptions of the two G-SIBs mentioned above are reflected throughout the available reference dates, the shortfall would have decreased only from €24.7 billion at end-December 2018 to €20.3 billion in June 2019. Overall, the observed capital shortfalls for Group 1 banks are mostly generated by G-SIBs at end-June 2019 (89.7%).

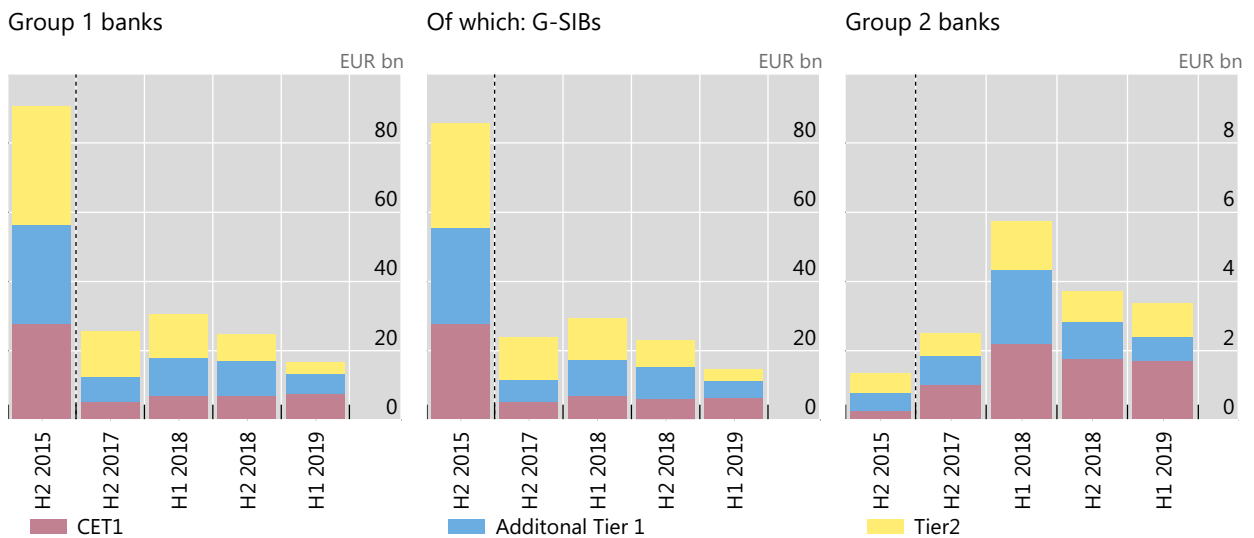
For Group 2 banks, the aggregate total capital shortfalls have decreased slightly from €3.8 billion to €3.4 billion. These changes are driven by differences in the sample. Compared to end-December 2018, the number of Group 2 banks included in the analysis has declined from 64 to 60 and their aggregate capital shortfalls under the final Basel III framework stand at €1.7 billion, €0.7 billion and €1.0 billion for CET1, additional Tier 1 and Tier 2 capital, respectively.

¹⁴ Basel Committee on Banking Supervision, *Basel III Monitoring Report - Results of the cumulative quantitative impact study*, December 2017, www.bis.org/bcbis/publ/d426.htm.

Combined capital shortfalls at the target level

Fully phased-in final Basel III standards¹, sample and exchange rates as at the reporting dates, reduced estimation bias²

Graph 30



¹ Results for H2 2015 are based on the Committee's cumulative Quantitative Impact Study and are not fully comparable from a methodological point of view. Compared to H2 2017 and H1 2018, the results since H2 2018 include the revised market risk framework as finalised in January 2019. ² For two 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 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.23; Table C.24 shows related results with conservative estimation.

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, 25 of which participated in the exercise.

Overall, applying the 2019 minimum requirements, two of the 25 G-SIBs in the sample have an incremental¹⁵ TLAC shortfall. This is the same as at end-December 2018. The shortfalls at end-June 2019 are up to 2.3% of each bank's RWA, totalling €10.5 billion (see Graph 31 for relative impact).

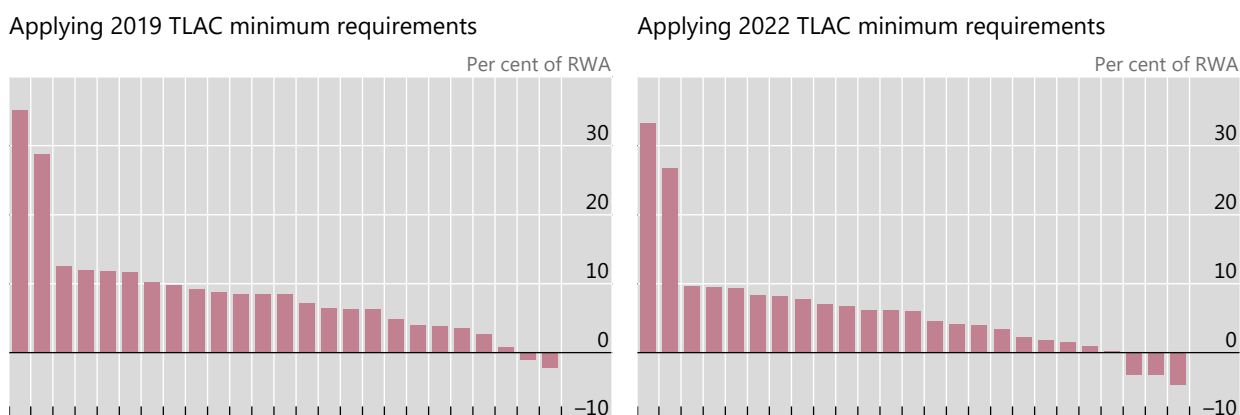
Applying the 2022 minimum requirements, three of the 25 G-SIBs in the sample have an incremental shortfall of up to 4.7% of RWA, totalling €35.2 billion. Compared with end-December 2018, the aggregate shortfall has slightly increased as well as the number of banks with shortfalls (from two to three).

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 banks¹

Fully phased-in initial Basel III standards, pure TLAC implementation²

Graph 31



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

Source: Basel Committee on Banking Supervision.

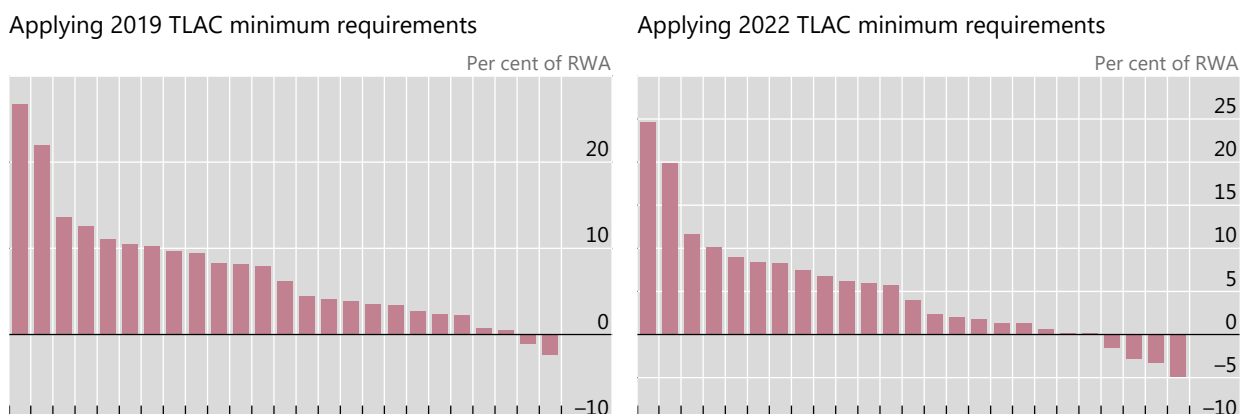
2.5.2 Final Basel III framework

The final Basel III reforms, based on end-June 2019 data, resulted in no significant increase in aggregate capital requirements for the respondent banks. With regards to TLAC, the reforms had little effect on the number of banks or size of shortfalls against the 2019 TLAC requirements. However, relative to the 2022 TLAC requirements, the final Basel III standards increase the number of banks reporting a TLAC shortfall (to four from three against the initial Basel III standards) and the aggregate shortfall is €42.7 billion with reduced estimation bias. With the overly conservative assumptions included, six banks show a shortfall of €46.5 billion. However, and highlighting the range of effects that the final Basel III standards have on different banks, in both cases there is no significant difference with respect to the range of shortfalls expressed as a percentage of RWA, with the greatest shortfall being 4.9% of RWA (relative to the 2022 requirements).

Distribution of individual G-SIB's incremental TLAC surplus and shortfall across banks¹

Fully phased-in final Basel III standards

Graph 32



¹ Surplus is indicated as positive and shortfall as negative.

Source: Basel Committee on Banking Supervision.

3. Level and composition of regulatory capital

3.1 Level of capital

Graph 33 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-December 2018 to end-June 2019, the level of CET1 capital for Group 1 banks increased by €122 billion (or 3.3%) to €3,866 billion. G-SIBs, which collectively held €2,759 billion as of end-June 2019, account for 85% of this increase. Additionally, the increase in Tier 2 capital over the last reporting period (€97 billion) was much larger than the one of additional Tier 1 capital (€40 billion).

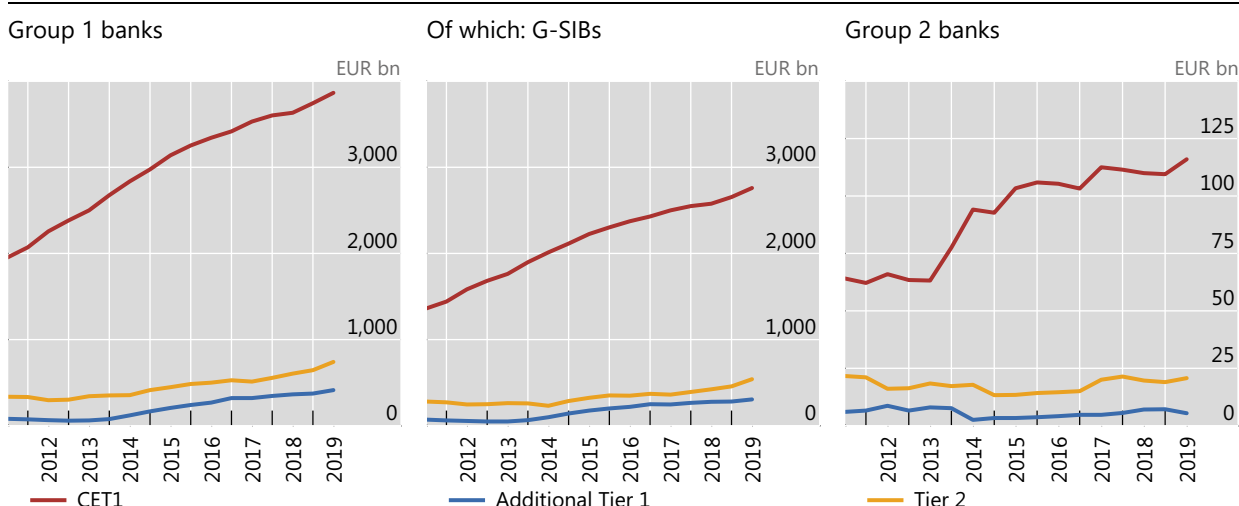
From end-December 2018 to end-June 2019, the level of Group 2 banks' CET1 capital increased by €6 billion (or 5.5%) to €116 billion. Additional Tier 1 capital decreased slightly to €5 billion while Tier 2 capital increased slightly over the period to €21 billion for Group 2 banks – changes of only €2 billion, respectively.

The rise in overall CET1 capital among Group 1 banks over the reporting period appears largely driven by retained earnings on significant after tax profits. G-SIBs contributed 64.8% of all the profits generated during the first half of 2019 by Group 1 banks.

Level of capital¹

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

Graph 33



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

Source: Basel Committee on Banking Supervision. See Table C.25 for underlying data and sample size. Table C.26 provides an additional regional breakdown for Group 1 banks.

Graph 34 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, the Americas and the rest of the world region by €29 billion, €29 billion and €66 billion, respectively. Similar to the last reporting period, the rest of the world region recorded a stronger increase. The rest of the world region also has the highest overall holdings of CET1 capital at €1,833 billion with an average of €47.0 billion per bank compared to €1,098 billion at an average of €36.6 billion per bank and €936 billion with an average of €52.0 billion per bank for Europe and the Americas, 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

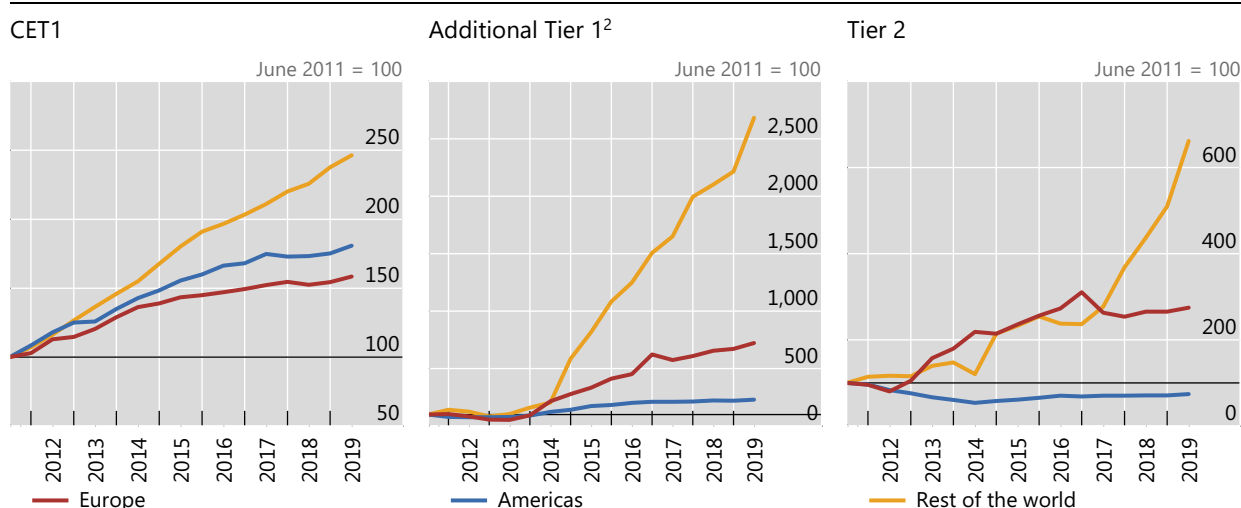
thereafter. From end-December 2018 to end-June 2019, additional Tier 1 capital grew the most for the rest of the world region (€26 billion), followed by Europe (€10 billion) and the Americas (€5 billion). However, additional Tier 1 holdings are significantly smaller compared to CET1 holdings at only €140 billion, €129 billion and €146 billion for Europe, the Americas and the rest of the world, respectively.

Tier 2 capital continues to be the most volatile tier of regulatory capital with the strongest fluctuations seen for banks from the rest of the world region. Generally, the stock of Tier 2 capital has grown compared to the reference date (end-June 2011) 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 a significant increase in the level of Tier 2 holdings (€83 billion), while Europe (€8 billion) and the Americas (€6 billion) have experienced relatively stable levels. As of end-June 2019, Tier 2 capital holdings for the Europe, Americas and rest of the world regions stand at €231 billion, €148 billion and €363 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 34



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.28 for underlying data and sample size.

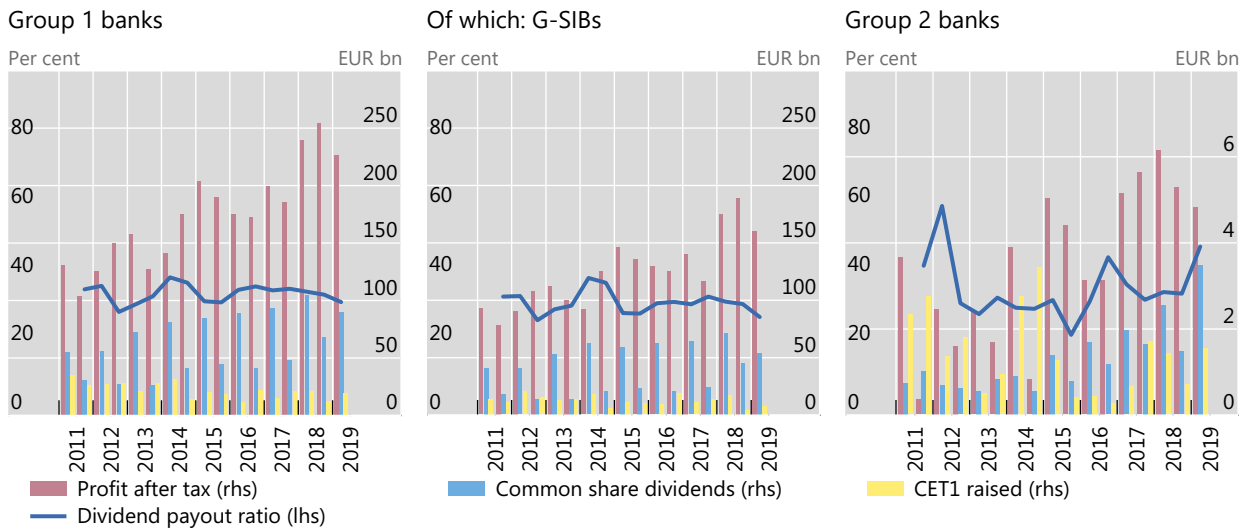
3.2 Profits, dividends and capital raised

Graph 35 depicts the evolution of profits, dividends, CET1 capital raised and the dividend payout ratio over time. Here, no clear trend or distinctive feature can be identified for CET1 capital raised over time at a global level. However, it increased for both Group 1 and Group 2 banks compared to the previous period. Group 1 banks' profits after tax have decreased compared to the previous reporting period and stand at €226.6 billion as of end-June 2019. G-SIBs account for a majority of the reported decline. The annual dividend payout ratios for Group 1 banks and G-SIBs also declined to 32.9% and 28.5%, respectively, compared to end-2018. On the other hand, the annual dividend payout ratio for Group 2 banks increased for the current reporting period.

Profits, dividends, CET1 capital raised externally and dividend payout ratio¹

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

Graph 35



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.

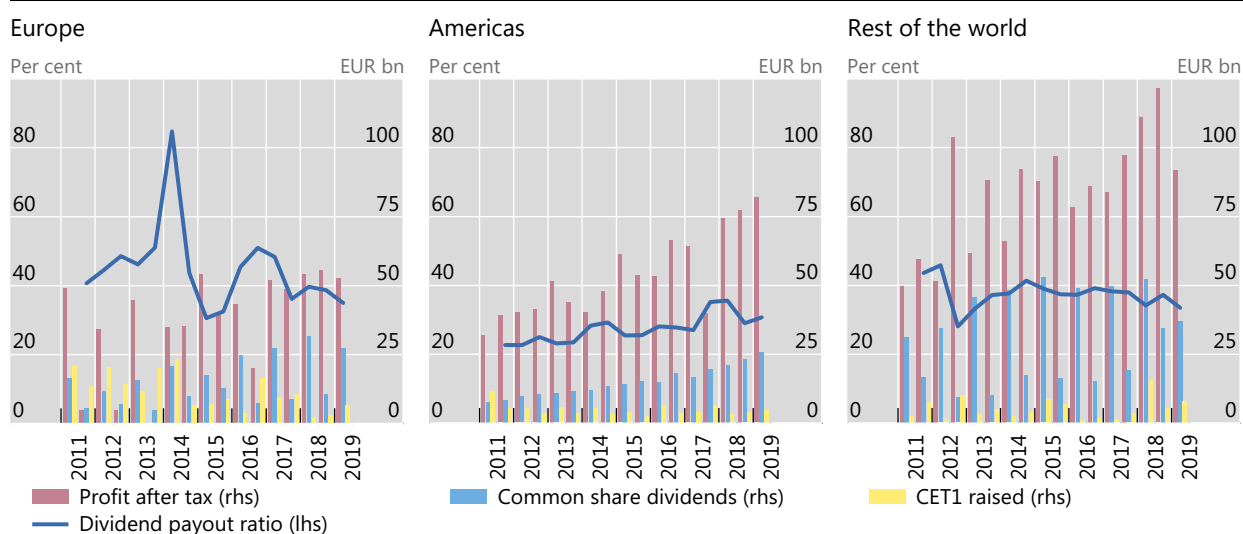
Source: Basel Committee on Banking Supervision. See Table C.29 and Table C.31 for underlying data and sample size.

Graph 36 provides the regional breakdown for Group 1 banks. Annual after tax profits for these banks continue to be higher in the rest of the world than in the Americas and in Europe, although the rest of the world shows the most significant drop compared to end-2018. Overall, over the last period 40.6% of the profits have been generated by banks in the rest of the world region, followed by banks in the Americas (36.1%) and then lastly in Europe (23.3%). The share of profits of European banks tends to be some two to three percentage points lower than their share in Tier 1 capital or RWA (see also Table B.2). Conversely, the share of profits of banks in the Americas and the rest of the world tends to be in line with or higher than their share in Tier 1 capital or RWA. For this reporting period, the highest annual dividend payout ratios were posted by European banks (35.0%), followed by banks in the rest of the world region (33.5%) and banks in the Americas (30.7%).

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 36



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.30 and Table C.32 for underlying data and sample size.

Over the first half of 2019, 60 out of the 104 Group 1 banks in the sample raised capital. Regarding CET1 capital, the total amount raised equals €23.8 billion (see Table 8). Similar to the previous reporting period, G-SIBs account for approximately 33% of the CET1 capital raised by Group 1 banks in the sample.

It is noticeable that Group 1 banks raised more additional Tier 1 capital (41.1% of the total capital raised) and Tier 2 capital (30.1%) than CET1 capital (28.8%). 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, where local 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. For Group 2 banks, CET1 capital continues to be the focus (66% of the total capital raised).

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	104	60	23.8	34.0	24.9
Of which: Americas	18	12	4.9	5.6	8.5
Of which: Europe	35	19	6.6	14.1	8.1
Of which: Rest of the world	51	29	12.2	14.3	8.2
Of which: G-SIBs	30	22	7.9	17.1	15.8
Group 2 banks	68	21	3.3	1.0	0.7

Source: Basel Committee on Banking Supervision.

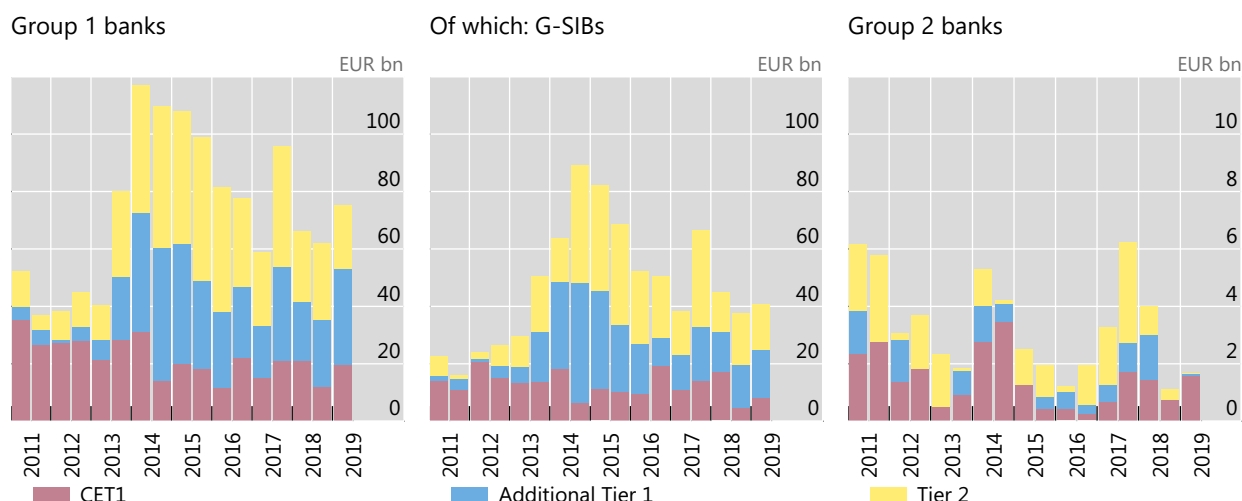
Graph 37 depicts the evolution of capital raised over time for a consistent sample of banks. Here, no clear trend or distinctive feature can be identified for CET1 raised over time at a global level. Overall, the capital raised by G-SIBs accounts for 53.7% of the capital raised by Group 1 banks. Moreover, G-SIBs account for 39.8%, 50.0% and 71.8% 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, we observe the opposite relationship.

Capital raised externally

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

Graph 37



Source: Basel Committee on Banking Supervision. See Table C.31 for underlying data and sample size. Table C.32 provides an additional regional breakdown for Group 1 banks.

3.3 Composition of capital

Graph 38 below shows the composition of total capital under the initial Basel III rules. As expected and as observed on previous reporting dates, CET1 capital continues to be the predominant form of regulatory

capital amongst all banks. As of end-June 2019, the average share of initial Basel III CET1 capital for Group 1 banks is 76.6%. For Group 2 banks, the initial Basel III CET1 capital represents 84.2% of regulatory capital at the reporting date. Noticeably, the second largest share of total capital continues to be Tier 2 capital (14.6% for Group 1 banks and 11.9% for Group 2 banks).

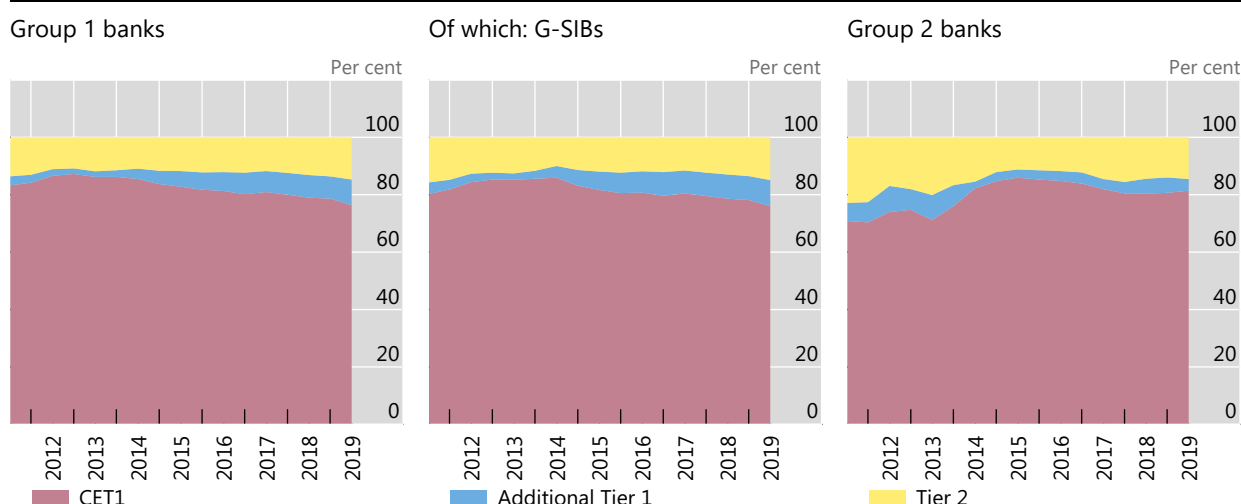
For Group 1 banks, the positive trend of increasing the share of CET1 capital that had been observed during the first years of the monitoring exercise reversed in 2013. Since then a decline in the share of CET1 can be observed simultaneously with an increase of additional Tier 1, suggesting that banks are shifting their focus from the risk-based capital requirements (which no longer cause a capital demand for most banks) to the leverage ratio requirement. Additionally, Tier 2 elements also continued to increase since end-June 2017.

For Group 2 banks, a strong positive trend can be observed over time for the share of CET1 capital: it increases from 70.8% in H1 2011 to 85.9% in H1 2015, which corresponds to a cutback of Tier 2 elements in a similar magnitude (ie a reduction from approximately 23% to 11%). 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 CET1 and Tier 2 capital holdings for Group 2 banks have slightly increased while additional Tier 1 capital has slightly decreased.

Structure of regulatory capital under initial Basel III¹

Consistent sample of banks

Graph 38



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.33 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 (see Table 9), paid-in capital and retained earnings continue to comprise the overwhelming majority of CET1 outstanding. For Group 1 banks, paid-in capital and retained earnings make up more than 92.5% of outstanding CET1 on average. On average, Accumulated Other Comprehensive Income (AOCI) contributes 6.6% to Group 1 banks' CET1 capital.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

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.

retained earnings in total CET1 capital is somewhat lower at 82.5%, while the 17.0% share of AOCI is higher compared to Group 1 banks.

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	27.8	64.7	6.6	0.8
Of which: Americas	18	22.6	79.5	-2.2	0.1
Of which: Europe	35	36.5	50.5	11.0	2.0
Of which: Rest of the world	51	24.8	66.0	8.7	0.5
Of which: G-SIBs	30	24.3	68.9	5.9	1.0
Group 2 banks	68	43.1	39.4	17.0	0.5

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 14.1% (see Table B.4). The largest driver of Group 1 bank CET1 capital adjustments continues to be goodwill (8.3%) followed by deductions for intangibles, other deductions and deferred tax assets (DTA) (2.3%, 1.5% and 1.1%, respectively).

The impact of regulatory adjustments on Group 2 banks is slightly higher, on average being at around 15.1% (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 39 shows the evolution of the share of different asset classes in overall MRC for a consistent sample of Group 1 banks.¹⁷ As of end-June 2019, credit risk continues to compose the dominant portion of overall MRC, with this category on average comprising 65.4% of total MRC for Group 1 banks considering a consistent sample over time. However, the share of credit risk has declined from 74.4% at end-June 2011 to its lowest share of 62.8% at end-December 2014 and since then slightly increased to the level at the current reporting date. This looping trend was mainly driven by the MRC of related entities and securitisations while the MRC for corporates slightly increased over the observed period from 30.8% at end-June 2011 to 38.1% at the current reporting date. Similarly, the share of operational risk MRC increased from 7.9% at the end of June 2011 to 16.3% at end-June 2019. The share of market risk declined

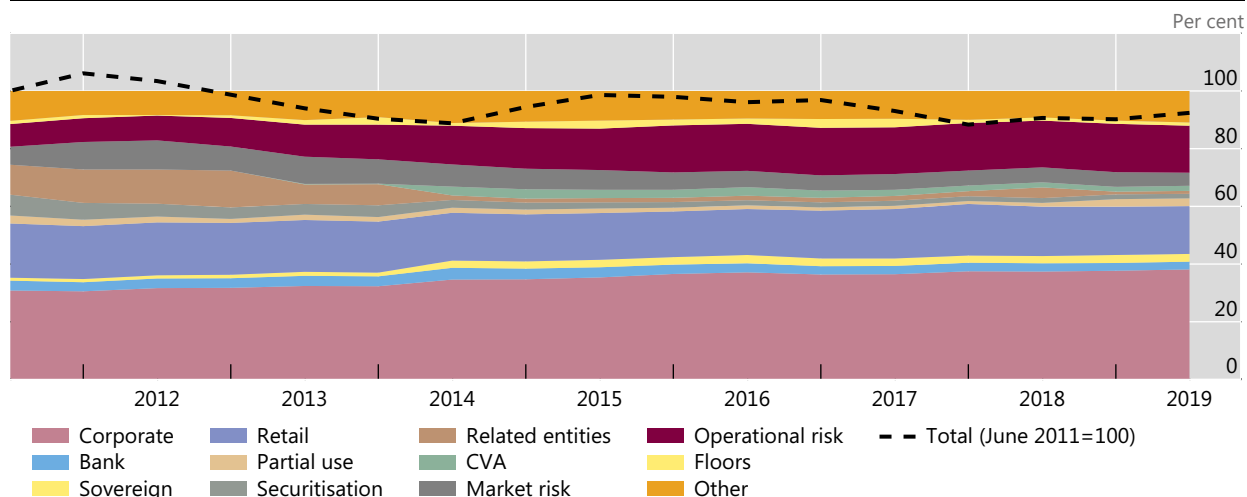
¹⁷ MRC figures in this section are based on the total capital ratio, ie based on 8% of RWAs. Where applicable, the MRC reflect the effect of the 1.06 scaling factor applied to IRB credit RWA, and deductions assigned to the securitisation and related entities asset classes.

slightly from 6.2% to 4.6% 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 class¹ according to current rules

Consistent sample of Group 1 banks

Graph 39



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.34 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-June 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.¹⁸ Since a common exposure measure for credit, market and operational risk does not exist, the size in terms of exposure and the average risk weight are only defined for asset classes subject to a credit risk treatment.

Looking at Group 1 banks, it is observed that while the retail and sovereign asset classes comprise around 40% of the exposures, their relative riskiness as measured by the average risk weight is rather low in comparison to other asset classes. In particular, for related entities and equity exposures the average risk weights are 647.8% and 208.0%, respectively.

For Group 2 banks, corporate, retail and sovereign asset classes comprise the overwhelming majority of exposures. With regard to average risk weights, asset classes with higher relative riskiness for Group 2 banks include equity exposures, past-due items and related entities. For CVA, although the share

¹⁸ 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.

of CVA exposure is much higher for Group 1 banks than for Group 2 banks (12.6% and 0.6%, respectively), the respective average risk weights are much lower for Group 1 banks than for Group 2 banks (4.1% and 62.3%, respectively).

Average asset class/risk type size and average risk weight¹

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:	87.4	79.0	35.2	99.4	83.6	30.2
Corporate	28.9	43.1	58.1	21.3	36.9	62.0
Sovereign	19.5	2.9	5.9	27.1	3.1	4.1
Bank	6.6	3.8	22.5	10.5	5.8	19.9
Retail	21.9	15.6	27.6	28.8	18.4	22.9
Equity	0.8	4.1	208.0	0.8	4.3	193.6
Purchased receivables	0.2	0.1	21.9	0.0	0.0	108.4
Securitisation	1.8	1.4	30.6	0.5	0.5	30.4
Related entities	0.0	0.6	647.8	0.0	0.0	368.7
Past-due items	0.1	0.3	104.4	0.6	1.8	112.2
Other assets	4.3	6.1	55.6	1.0	2.6	91.4
Failed trades and non-DVP transactions	0.0	0.0	97.8	0.0	0.0	
Not assigned ²	3.4	6.3	73.3	8.7	11.6	47.9
Regulatory difference ⁴		-5.4			-1.4	
CVA	12.6	1.3	4.1	0.6	1.0	62.3
Trading book CCR ³		0.1			0.0	
Market risk		3.7			2.6	
Other trading book		0.1			0.0	
Operational risk		13.2			9.4	
Floor adjustment		1.8			0.1	
Other ⁵		0.5			3.2	
Total	100.0	100.0	38.9	100.0	100.0	35.9

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

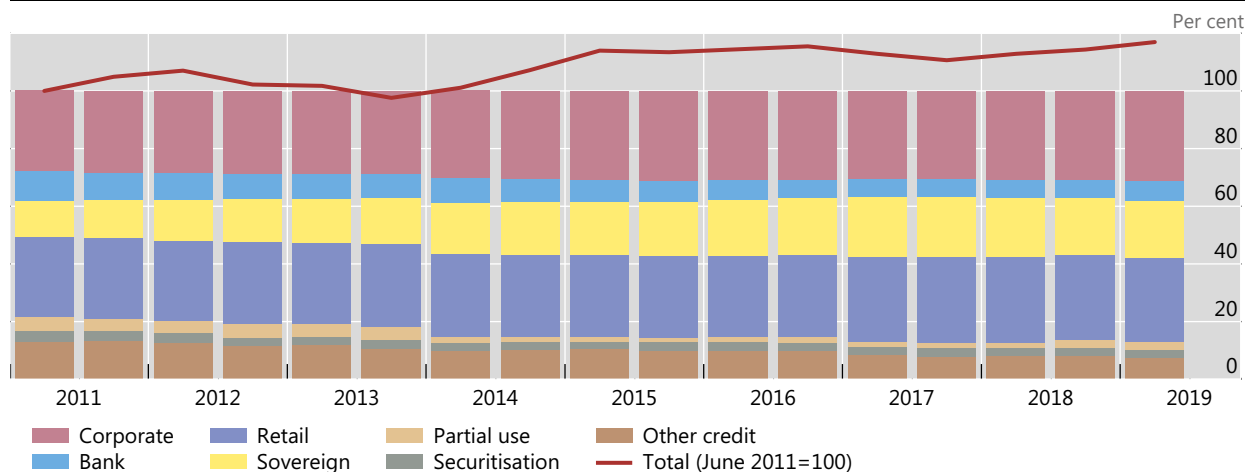
Graph 40 shows the evolution of exposure for the seven major asset classes for a consistent sample of 35 Group 1 banks. The composition of credit risk exposures has remained relatively stable as overall exposure levels have grown by 17% over the entire period. The share of sovereign exposures has increased 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.

Share of credit exposure

Consistent sample of Group 1 banks

Graph 40



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

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

Graph 41 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 (+8.4%) than for Group 1 banks, for which the impacts on standardised approach and IRB exposures compensate each other resulting in a slight decrease in capital requirements of -2.2% (slight decrease of -1.7% for G-SIBs).

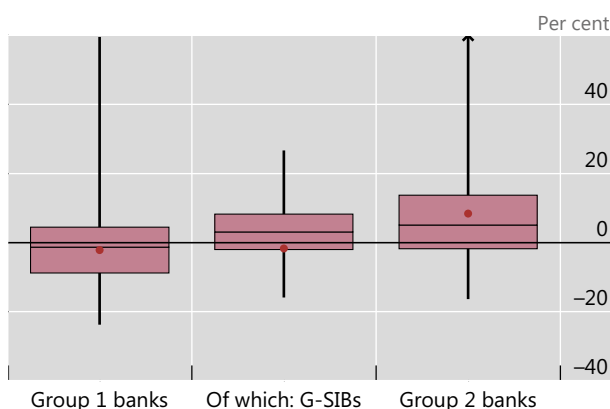
The right panel of Graph 41 breaks down the impact by asset class. For Group 1 banks, corporate exposures contribute -3.5% to the overall change, while the contributions of bank and equity exposures are positive at +1.2% and +0.6%, respectively. For Group 2 banks, bank and equity/subordinated debt exposures contribute +4.4% and +2.6% to the overall change in MRC. The contributions of real estate and retail asset classes account for a less significant +1.1% and +0.8%, 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 42 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.

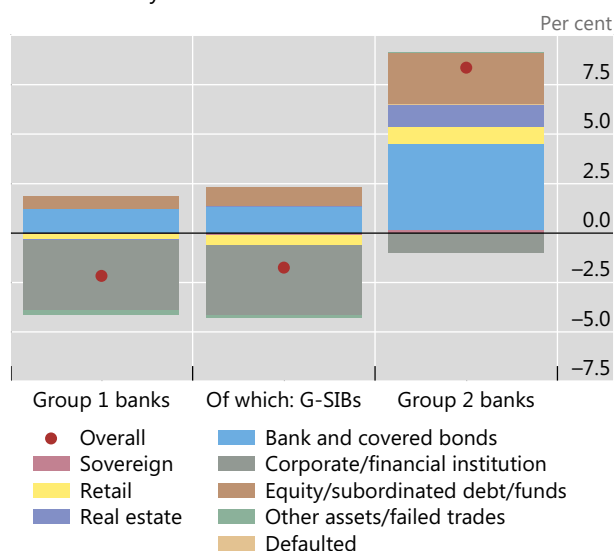
Changes in Tier 1 MRC for credit risk due to the final Basel III standards

Graph 41

Overall distribution¹



Breakdown by asset class



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.

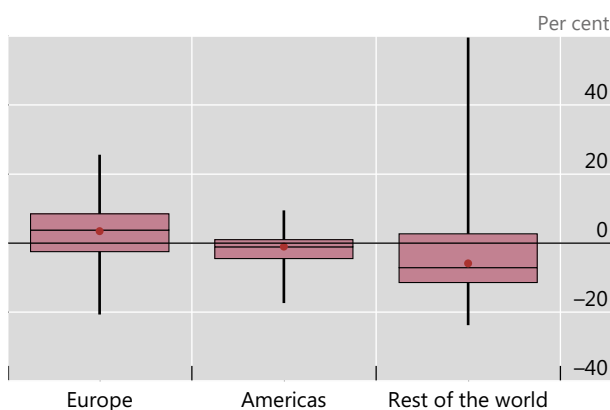
Source: Basel Committee on Banking Supervision. See also Table C.36 and Table C.37.

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

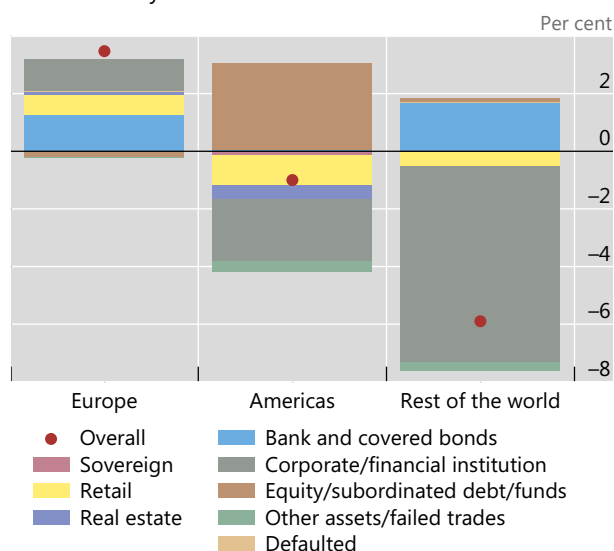
Group 1 banks

Graph 42

Overall distribution¹



Breakdown by asset class



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.38 and Table C.39.

4.2.3 Standardised approach for credit risk

Impact of the revisions on MRC

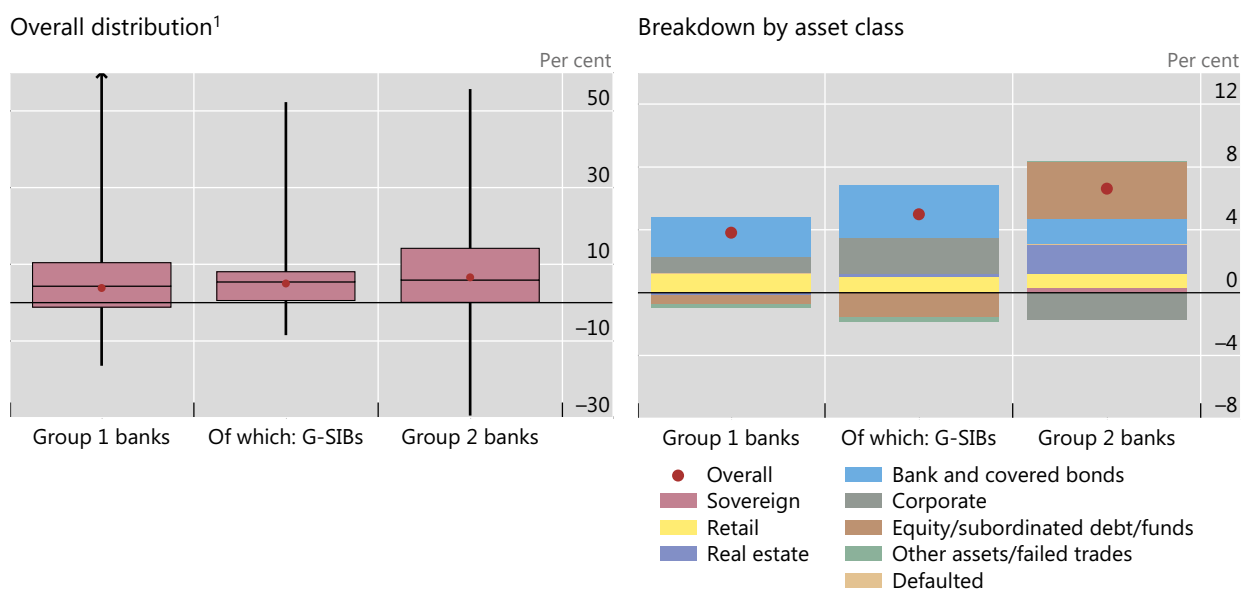
Graph 43 shows the changes in Tier 1 MRC due to the finalisation of the Basel III standards for credit risk exposures that are currently under the standardised approach. These data include exposures of banks subject to the standardised approach for credit risk as well as exposures of banks using the 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 3.8% for Group 1 banks, 5.0% for G-SIBs and 6.6% for Group 2 banks. The change in MRC for banks between the 25th and 75th percentiles of the distribution ranges from -1.2% to +10.4% for Group 1 banks, from +0.6% to +8.1% for G-SIBs and from +0.1% to +14.2% 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 banks and covered bonds (+2.5 percentage points) and retail (+1.2 percentage points). MRC for sovereign, corporate, real estate and defaulted exposures are largely unchanged. For Group 2 banks, MRC for equity and subordinated debt exposures contributed 3.6 percentage points to the overall change in MRC of 6.6%. The increases of MRC for real estate, bank and covered bonds and retail exposures are also significant, contributing +1.8; +1.6 and +0.9 percentage points, respectively, and the decrease of MRC for corporate exposures is -1.7%. 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 43



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.40 and Table C.41.

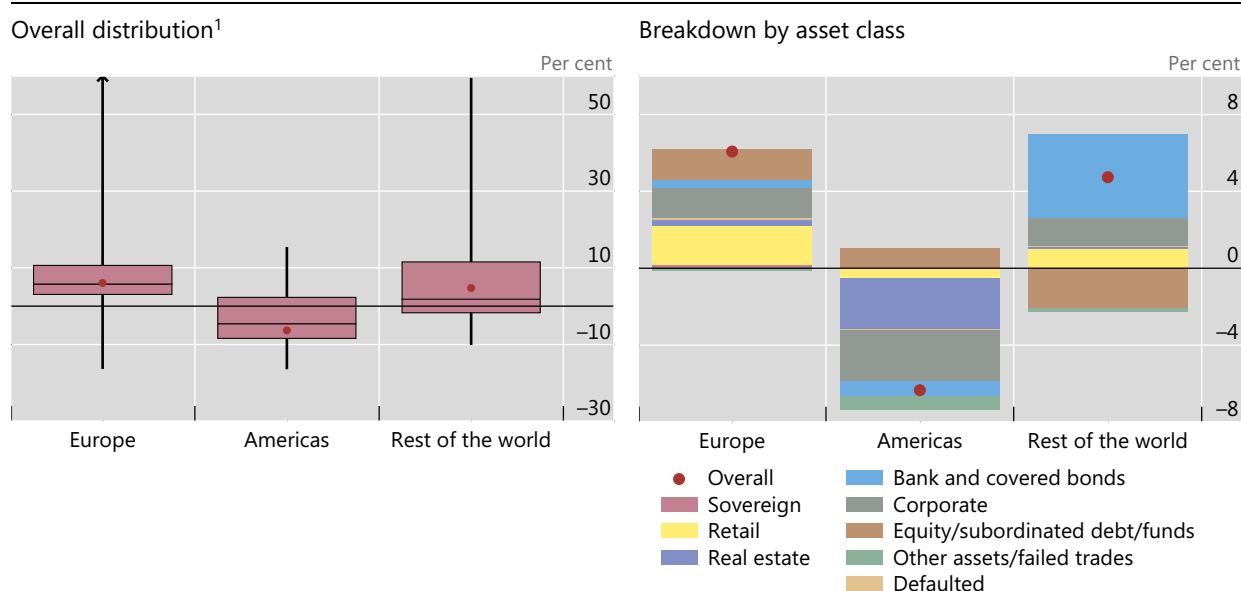
Graph 44 replicates the analysis of Graph 43 but breaks down the results for Group 1 banks by geographical region. For Group 1 banks, the revised standardised approach, on average, has a larger impact on the MRC of European banks (+6.1%) and banks in the rest of the world (+4.7%) than on banks in the Americas where the average MRC decreases (-6.3%). The change in MRC for banks between the 25th and 75th percentile of the distribution ranges from +3.1% to +10.6% for European banks, from -8.4% to +2.3% for banks in the Americas, and from -1.7% to +11.5% for banks in the rest of the world.

Looking at individual asset classes, the results are largely heterogeneous. Exposures to bank and covered bonds is the largest contributor for banks in the rest of the world (4.4%) while having a moderate positive impact for European banks (0.5%) and a moderate negative impact the Americas (-0.8%). Conversely, relative to the other asset classes, equity exposures, subordinated debt and funds have significant positive impacts for the Americas and Europe (+1.0% and +1.6%, respectively) while they have a significant negative impact on the rest of the world (-2.1%). Corporates and real estate have the most negative impacts in the Americas (-2.7% in both cases). However, for European banks, corporates provide one of the higher positive impacts (1.6%), second only to retail (2.1%).

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 44



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.42 and Table C.43.

Average risk weights

Graph 45 and Graph 46 provide additional detail on the current and revised average risk weights by asset class for Group 1 and Group 2 banks, respectively.

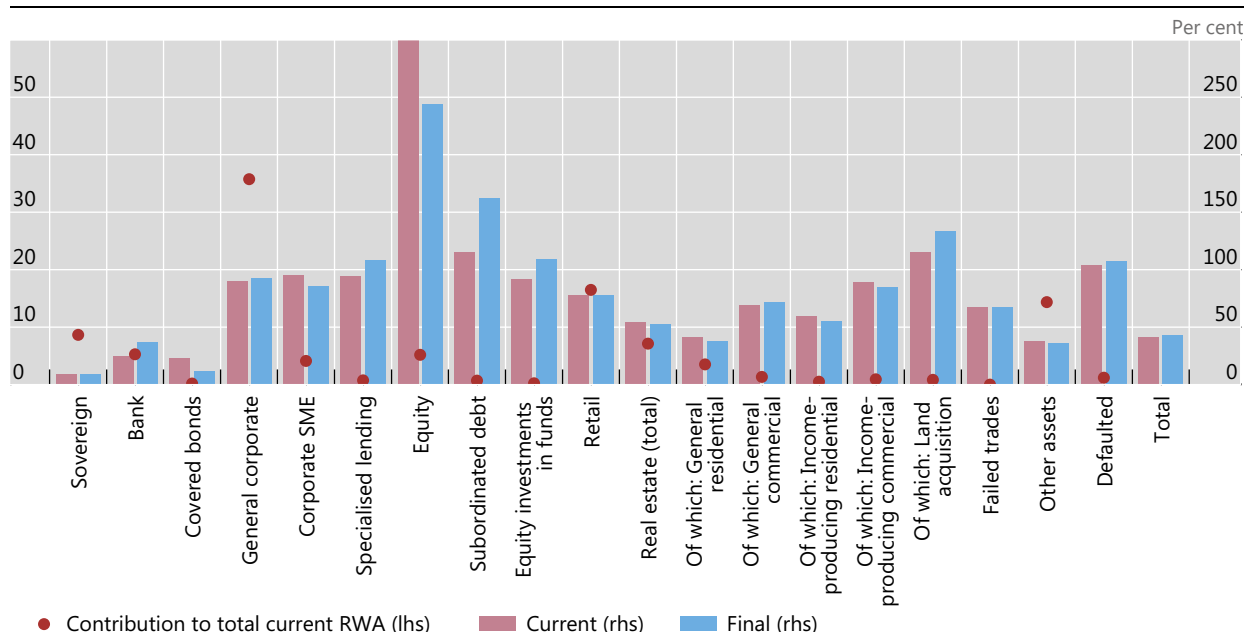
Overall, the average risk weight of Group 1 banks' exposures currently under the standardised approach increases from 41.5% to 42.6% (+1.1 percentage points) when moving from the current to the revised framework. Focusing on individual asset classes for Group 1 banks, subordinated debt shows the largest absolute increase in standardised approach risk weights, from 115.4% to 162.3% (a 46.9 percentage point increase). Additionally, the asset class equity investment in funds shows a significant increase of 26.7

and 31.3 percentage points, respectively. In relative terms, covered bonds appear the most affected, with average risk weights decreasing from 23.0% to 11.5% (a -50.0% decrease). Equity exposures show the largest absolute decrease, from 301.0% to 243.7% (a 57.3 percentage point decrease). The counterintuitive decrease shown by equity exposures 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.

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

Group 1 banks

Graph 45



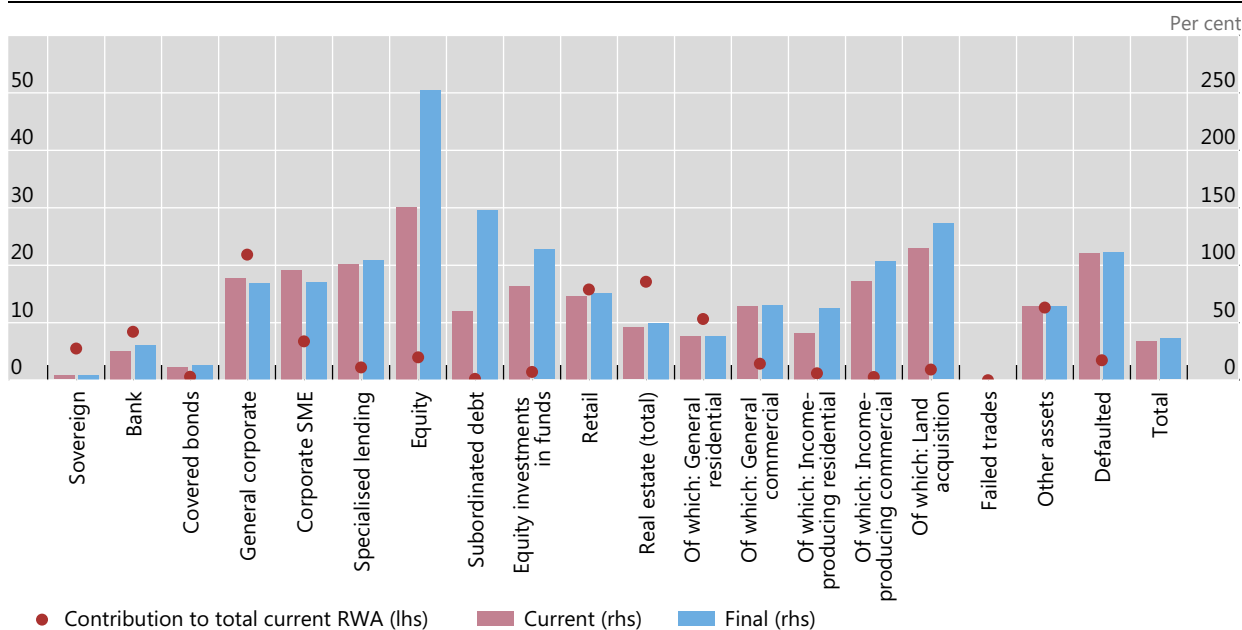
Source: Basel Committee on Banking Supervision. See also Table C.44 that includes a breakdown for G-SIBs. Table C.45 provides an additional regional breakdown.

Looking at Group 2 banks, the overall average risk weight under the standardised approach is estimated to increase by 2.1 percentage points from 34.2% to 36.3% when comparing the current with the revised framework. In comparison to Group 1 banks where subordinated debt and equity exposures show the largest absolute increases, subordinated debt and equity exposures in Group 2 show the largest increase in both absolute and relative terms, moving from 60.5% to 148.1% and 150.5% to 252.5%, respectively. Also notable in Group 2 are the changes in income-producing real estate and equity investments in funds, which both had the third and fourth largest increases in both absolute and relative terms, moving from 41.0% to 62.7% and 82.3% to 113.6%, respectively. Corporate small and medium-sized enterprises shows the largest negative impact, decreasing by 10.3 percentage points from 95.7% to 85.4%.

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

Group 2 banks

Graph 46



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

4.2.4 Internal ratings-based approach for credit risk

Impact of the revisions on MRC

Graph 47 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.

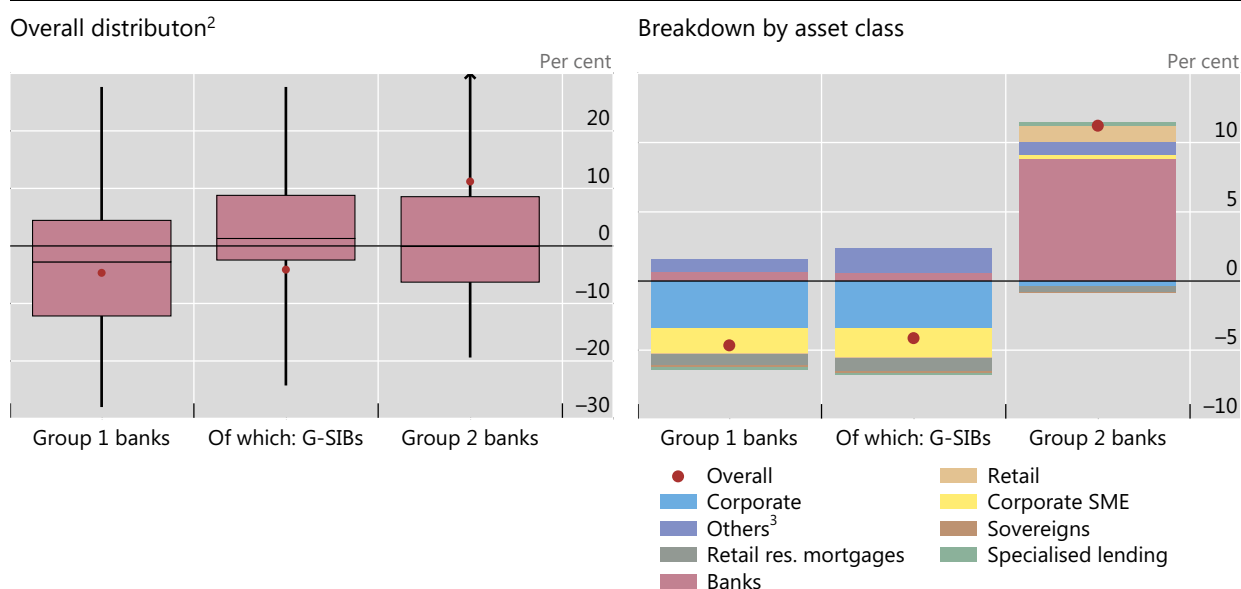
The left-hand panel of Graph 47 shows the overall distribution of the impact. In aggregate, the revisions to the IRB approach appear to result in a decrease in overall Tier 1 MRC for Group 1 banks (-4.7%) and G-SIBs (-4.1%), and in an increase for Group 2 banks (+11.2%). The change in MRC for the banks between the 25th and 75th percentile of the distribution ranges from -12.2% to +4.5% for Group 1 banks and from -2.5% to +8.8% for G-SIBs. The range for Group 2 bank is wider, from -6.3% to +8.6%.

The right-hand panel of Graph 47 breaks down the impact by asset class. Exposures to corporates and to corporate SMEs are the main contributors to the overall decrease in MRC (-3.4% and -1.8%, respectively) for Group 1 banks. The MRC for exposures to retail residential mortgages also shows a small decrease (-0.8%). 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 two factors: (i) certain jurisdictions currently apply super-equivalent requirements, which the analysis assumes will not be carried over to the new framework; and (ii) the changes in the foundation IRB standards, which in many cases result in a decrease in MRC.

The asset classes that experience the largest increases are banks (+0.7% for Group 1 banks, +8.8% for Group 2 banks) and other assets (+0.9% for Group 1 banks, +0.9% 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 standards¹

Graph 47



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.46 and Table C.47.

Graph 48 replicates the analysis of Graph 47 but breaks down the results by geographical region considering only Group 1 banks. Overall, the IRB revisions lead to an average increase in overall Tier 1 MRC for European banks (+2.3%), to a slight increase for banks in the Americas (+0.1%) and to a significant decrease for banks in the rest of the world (-11.2%). The impact is heterogeneous across banks: the change in MRC for the banks between the 25th and 75th percentile of the distribution ranges from -6.1% to +9.1% for Europe, from -5.0% to +2.7% for the Americas and from -18.6% to -2.7% for the rest of the world.

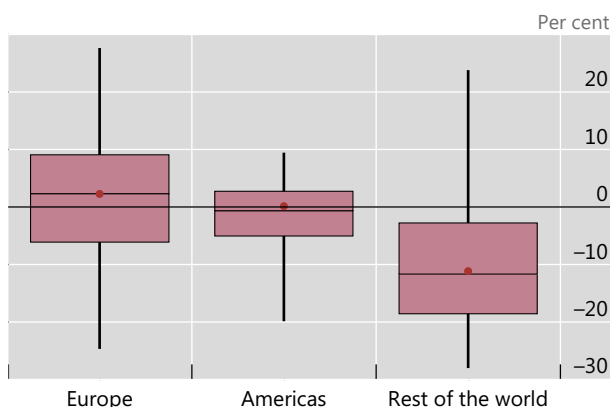
For European banks, exposures to banks (+1.7%), specialised lending and retail exposures (+0.9% and +0.6%, respectively) are the main contributors to the overall increase in MRC. For American banks, the main drivers for the MRC change are the decrease for corporate exposures (-1.5%), retail (-0.7%) and the increase for others (+3.1%). For the rest of the world, the decrease in MRC is mainly driven by exposures to corporates (-6.4%) and corporate SMEs (-3.8%).

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

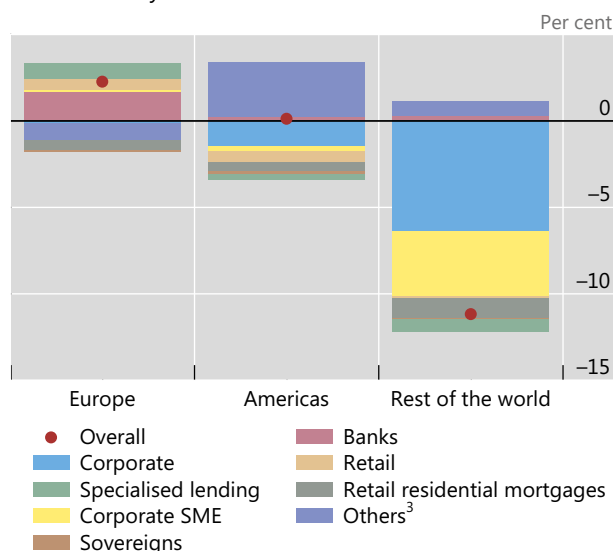
Group 1 banks

Graph 48

Overall distribution²



Breakdown by asset class



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.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. 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.

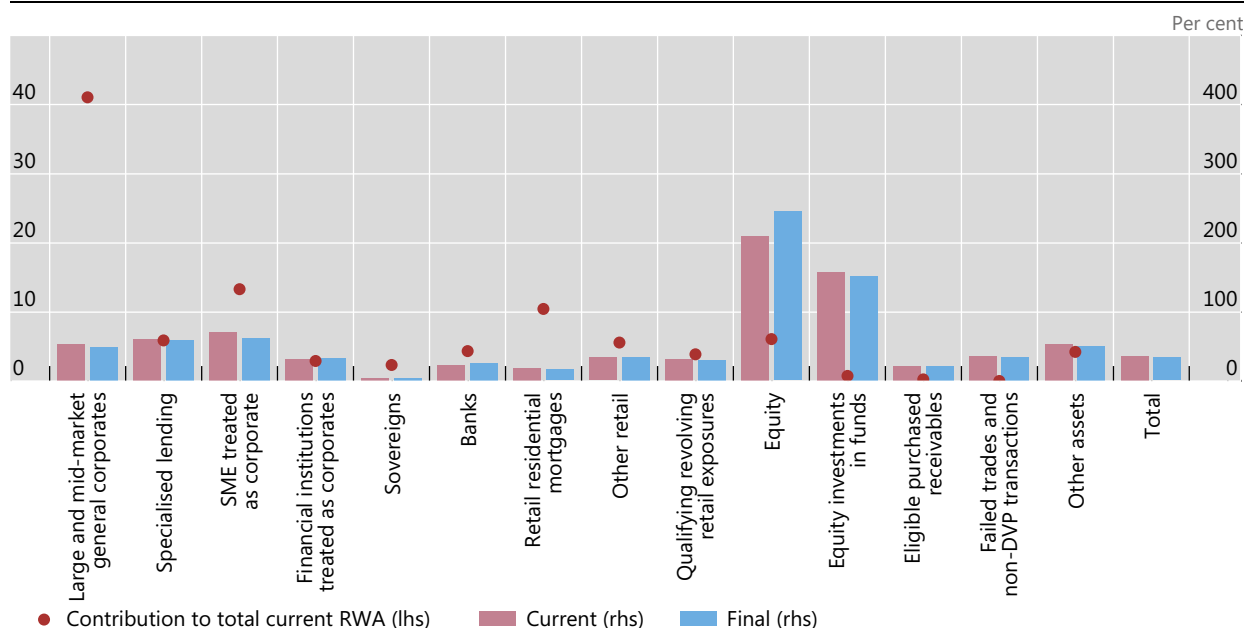
Overall, the average risk weight of Group 1 banks' exposures currently under the IRB decreases from 36.3% to 34.3% (a 2.0 percentage point decrease). The asset classes that show a decrease in average risk weights between the current and revised framework make up the overwhelming majority of the total 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, from 71.8% to 62.2% (a 9.6 percentage points decrease in absolute terms and a 13.4% decrease in relative terms). Equity exposures show the largest increase, both in absolute and relative terms (from 209.6% to 245.4%, a 35.8 percentage points increase in absolute terms and a 17.1% increase in relative terms). This increase is 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.

IRB 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 G-SIB breakdown. Table C.51 provides an additional regional breakdown.

The overall average risk weight of Group 2 banks' exposures currently under the IRB approach increases from 26.4% to 29.5% (a 3.1 percentage points increase). Contrary to Group 1 banks, the asset classes that show a decrease in average risk weights between the current and revised framework make up around two thirds of the total current IRB RWA of Group 2 banks. Compared to Group 1 banks, the number of asset classes that show a decrease in average risk weights decreases slightly, and makes up a smaller fraction of total RWA.

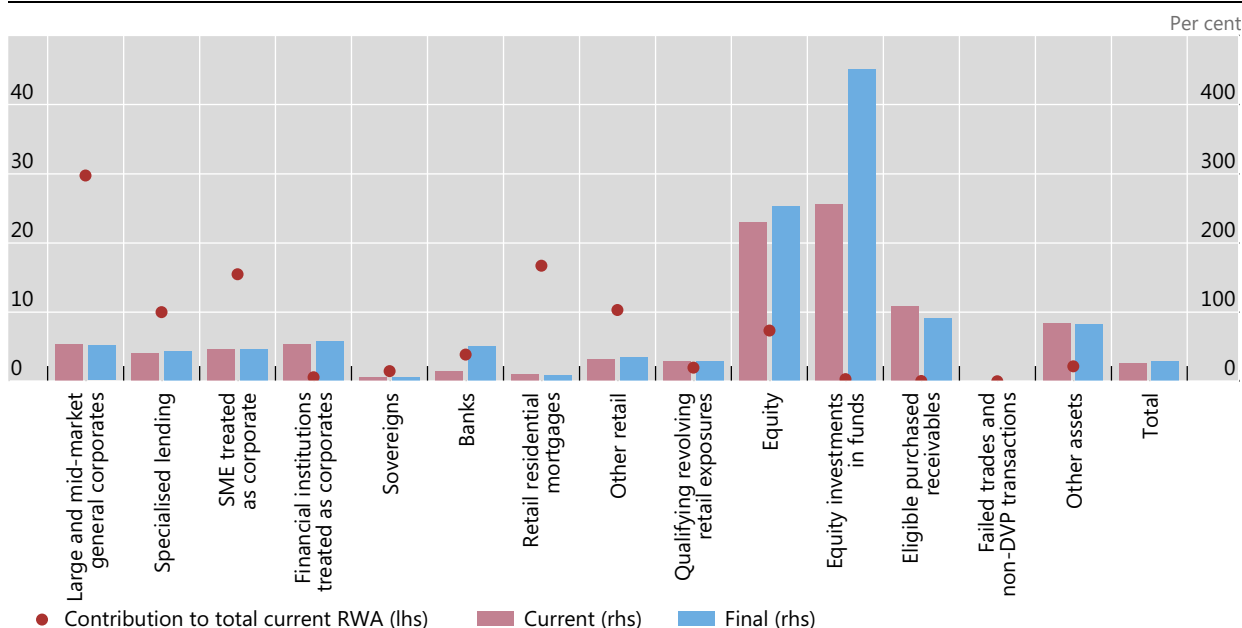
Looking at individual asset classes, eligible purchased receivables show the largest absolute decrease, from 108.4% to 90.9% (a 17.5 percentage points decrease), but their relatively small importance in terms of RWA does not let them impact the average risk weight. Exposures to banks show the largest increase, both in absolute and relative terms (from 14.2% to 50.4%, a 36.2 percentage points increase in absolute terms and a 255% increase in relative terms).¹⁹

¹⁹ This increase is mostly driven by one bank whose business model focusses on exposures to PSEs, regional governments and local authorities, which are treated as banks under the revised framework.

IRB 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.

Risk parameters by IRB asset classes under current rules

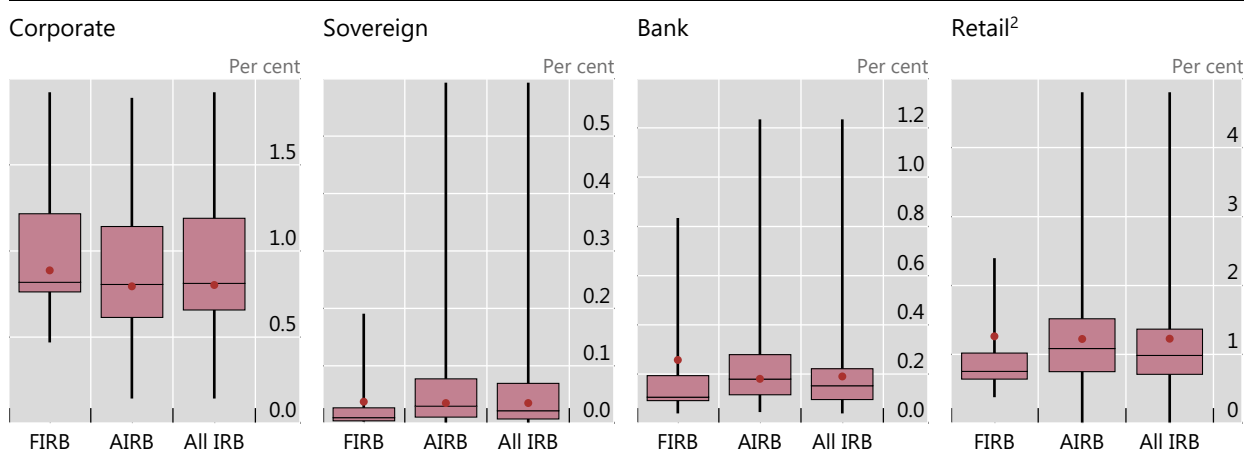
This section presents IRB risk parameters under current rules for a sample of Group 1 banks only. Graph 51 and Graph 52 illustrate weighted average probability of default (PD) and LGD for Group 1 banks' exposures subject to the IRB approaches, respectively. For Group 1 banks, average PDs are generally highest for retail and corporate portfolios (1.25% and 0.80%, respectively) while PDs for bank and sovereign portfolios are considerably lower (0.19% and 0.03%, 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.²⁰ 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.

²⁰ 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 classes¹

Group 1 IRB banks

Graph 51



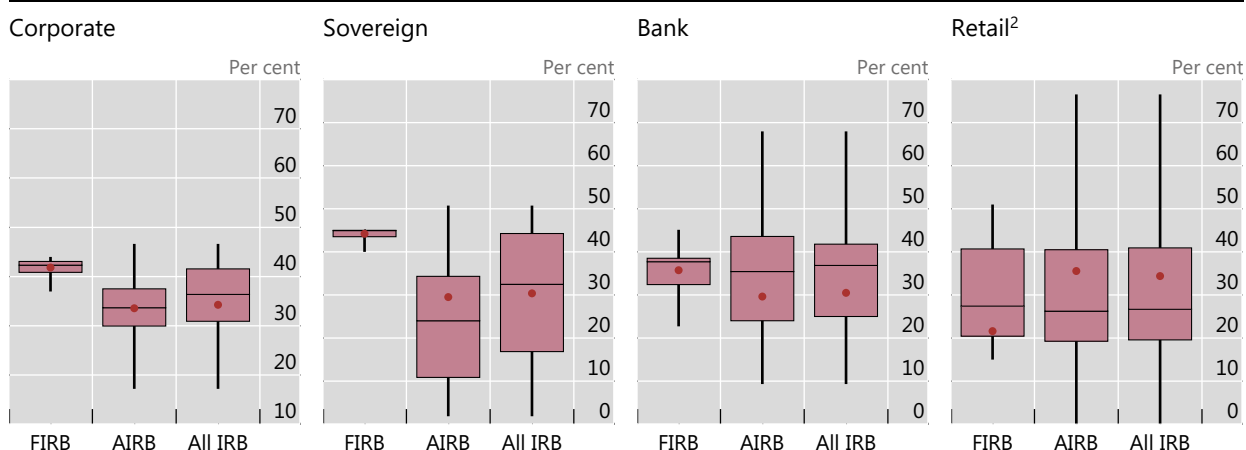
¹ The median value is represented by a horizontal line, with 50% of the values falling in the 25th to 75th percentile range shown by the box. The upper and lower end points of the vertical lines generally show the range of the entire sample. The dots represent weighted averages. ² While there is only 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.52 for underlying data and sample size.

Exposure-weighted average LGD after credit risk mitigation for non-defaulted exposures by main asset classes¹

Group 1 IRB banks

Graph 52



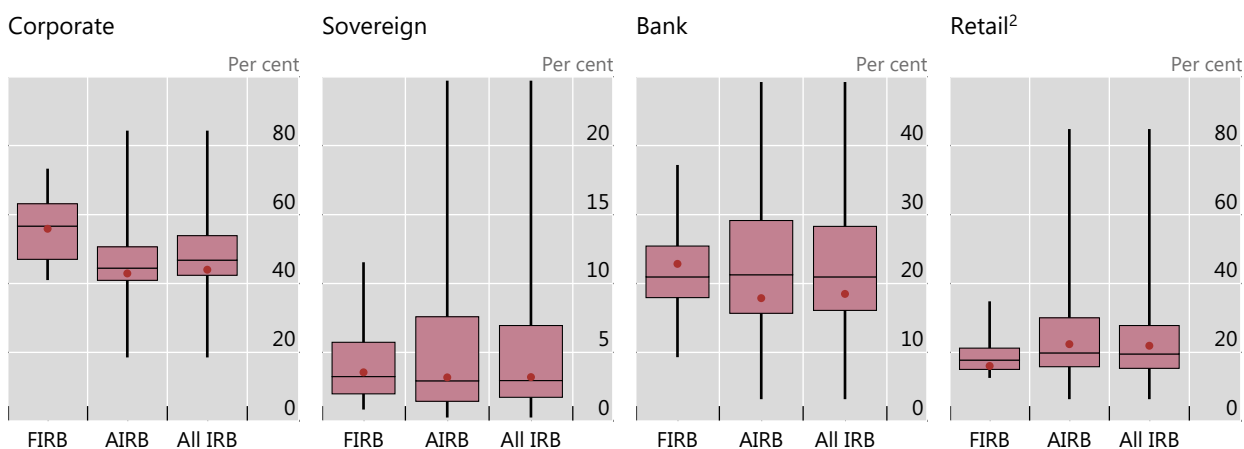
¹ The median value is represented by a horizontal line, with 50% of the values falling in the 25th to 75th percentile range shown by the box. The upper and lower end points of the vertical lines generally show the range of the entire sample. The dots represent weighted averages. ² While there is only 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.53 for underlying data and sample size.

Exposure-weighted average risk weights for non-defaulted exposures by main asset classes¹

Group 1 IRB banks

Graph 53



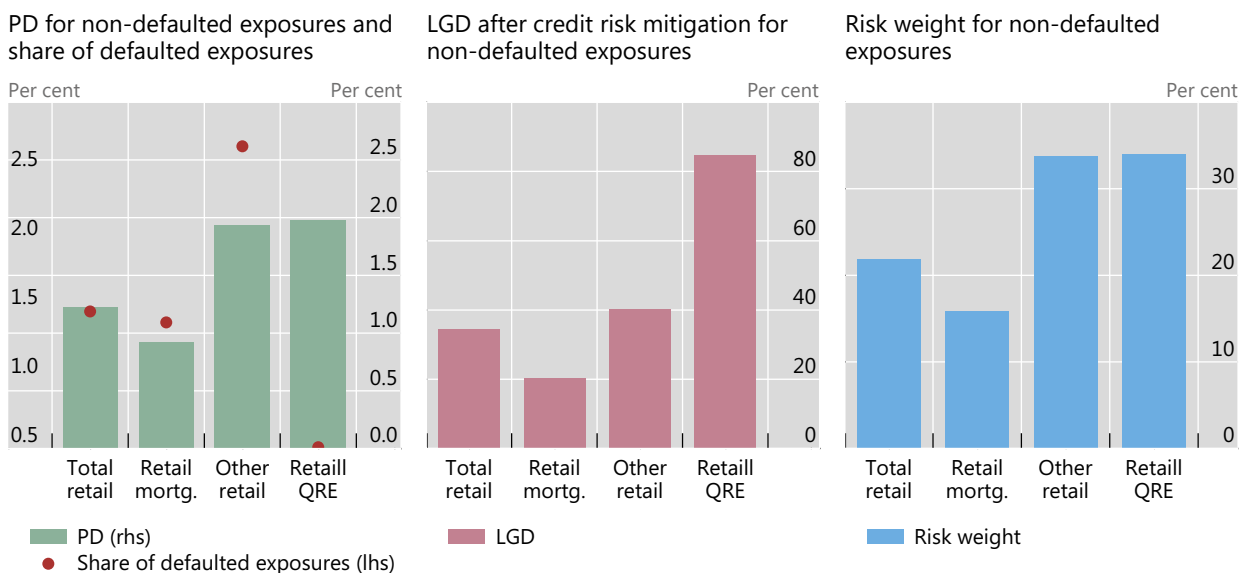
¹ The median value is represented by a horizontal line, with 50% of the values falling in the 25th to 75th percentile range shown by the box. The upper and lower end points of the vertical lines generally show the range of the entire sample. The dots represent weighted averages. ² While there is only 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.54 for underlying data and sample size.

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

Group 1 banks

Graph 54



Source: Basel Committee on Banking Supervision. See Table C.55 for underlying data and sample size.

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

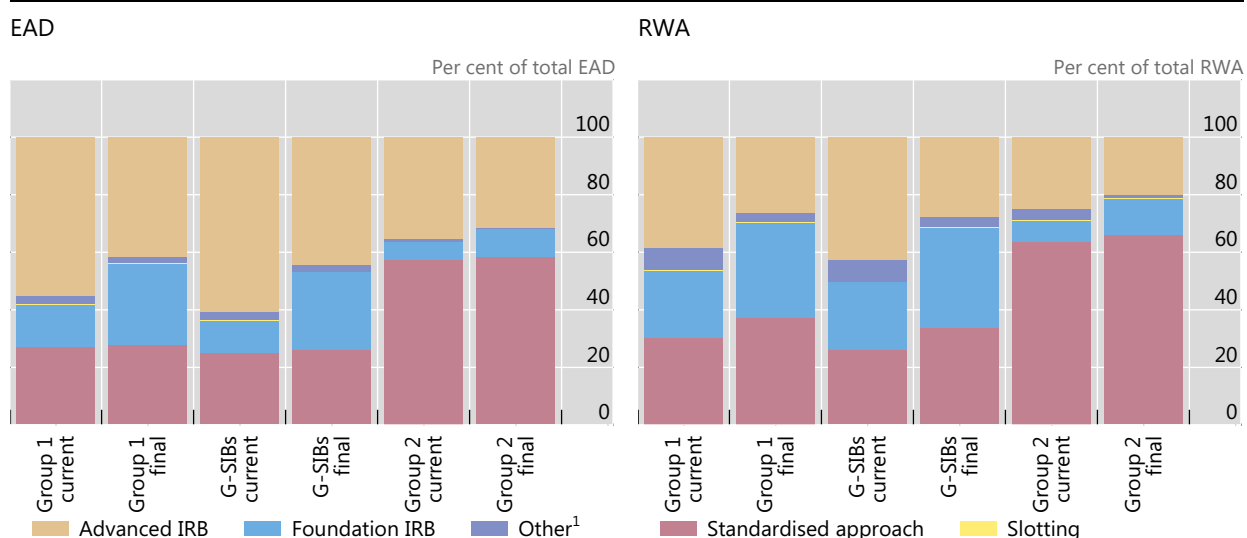
The left panel of Graph 55 shows the distribution of exposure at default (EAD) under different modelling and non-modelling approaches. For the purpose of this section, "slotting" refers to the EAD that is subject

to the supervisory slotting criteria approach for specialised lending. For Group 1 banks, the portion of exposures under the advanced IRB approach decreases from 55.0% to 41.6% under the revised framework, while exposures under the foundation IRB approach increase from 14.6% to 28.1% of total exposure value. Exposures under the standardised approach increase from 27.3% to 28.0%, 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 55 replicates the exercise for the distribution of RWA. For Group 1 banks, RWA under the advanced IRB approach decrease from 38.3% to 26.3%, RWA under the foundation IRB approach increase from 23.3% to 33.2% and RWA under the standardised approach increase from 30.3% to 37.1% of total RWA. For Group 2 banks RWA under the advanced IRB approach decrease from 25.0% to 20.1%, RWA under the foundation IRB approach increase from 7.3% to 12.2% and RWA under the standardised approach show a minor increase from 63.6% to 66.2%.

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

Graph 55



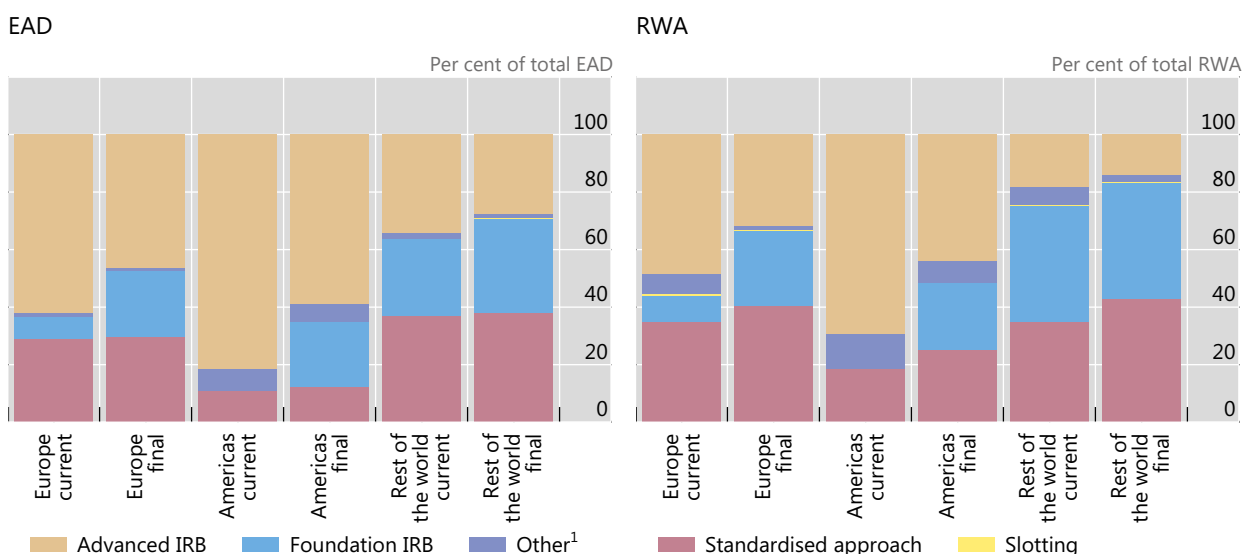
¹ “Other IRB” includes equity exposures, equity investments in funds, failed trades and non-DVP transactions and other assets under the IRB approach for credit risk.

Source: Basel Committee on Banking Supervision. See also Table C.56 and Table C.57

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

Group 1 banks

Graph 56



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.58 and Table C.59

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,²¹ 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.²² 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 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;

²¹ The PD floor will be 10 basis points for certain qualifying revolving retail (QRRE) exposures.

²² 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);²³
- 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 *Seventeenth progress report on adoption of the Basel regulatory framework*,²⁴ in October 2019, 21 Committee member jurisdictions have implemented the Basel III securitisation framework. This includes 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 October 2019 (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 98 banks submitted data of sufficient quality for securitisation, including 73 Group 1 banks (24 G-SIBs) and 25 Group 2 banks. The Group 1 sample represents 99% of total securitisation exposures of all participating Basel III monitoring banks. Total securitisation exposures and RWA across Group 1 banks are €1.46 trillion and €408 billion respectively, compared with €16.7 billion and €5.6 billion for Group 2 banks.

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 worksheet could impact the comparability of the results. The most material issue is the classification as STC or non-STC exposure. 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.²⁵ 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

²³ National supervisors are provided with a national discretion to not implement the SEC-ERBA.

²⁴ Basel Committee on Banking Supervision, *Seventeenth progress report on adoption of the Basel regulatory framework*, October 2018, www.bis.org/bcbs/publ/d478.htm.

²⁵ 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.

framework or implemented it without the capital treatment for STC securitisations, which is optional. Table 11 shows that 61 banks (62.2%) reported no STC exposures and eight banks (8.2%) reported all exposures as STC-eligible. 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.

Number of banks per range of STC share						Table 11
	Share = 0%	0% < share ≤ 25%	25% < share ≤ 50%	50% < share ≤ 75%	75% < share < 100%	Share = 100%
Total	62	15	3	4	7	8
Source: Basel Committee on Banking Supervision.						

Overview of securitisation exposures

Investment activity represents 53.2% of banks' exposures to securitisations, with the remaining split evenly between their roles as ABCP sponsors and originator (Table 12). The relative 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					Table 12
In billions of euros					
	Originator	Investor	Sponsor	Total	
Exposure amounts	363.0	762.0	307.6	1,432.6	
RWA	66.1	212.1	59.0	337.3	
¹ The sample consists of 98 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. Banks reported 11% of their exposures as STC-eligible (compared to 20%²⁶ as of December 2018). However, as shown by Table 11 at the individual bank level, the STC share ranges widely. As mentioned above, the numbers are, therefore, subject to a level of data uncertainty. Overall, it is reasonable to postulate that the amount of STC exposures has been underestimated.

The Basel III securitisation framework also introduced a new hierarchy of three approaches (SEC-IRBA, SEC-ERBA and SEC-SA) for calculating risk weights. Consistent with the prescribed hierarchy, most exposures (41%) are risk-weighted by SEC-IRBA, and SEC-ERBA²⁷ (34%) followed by SEC-SA (26%) (Graph 57). This distribution is similar to the one observed for December 2018, with a 3 percentage points increase in SEC-IRBA and a corresponding decrease in SEC-ERBA.

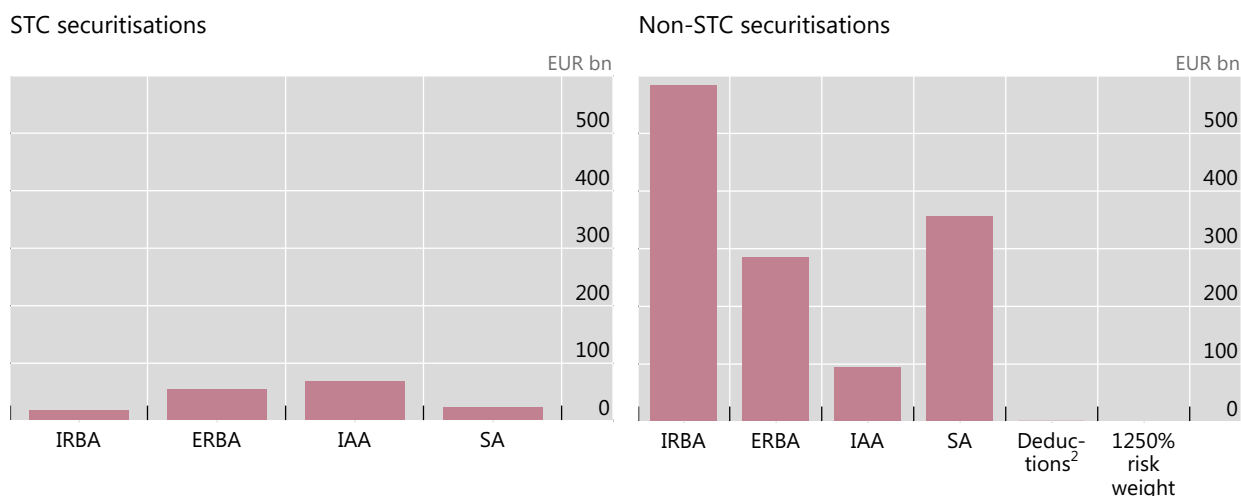
²⁶ The majority of the change is related to reclassification of STC-eligible exposures into non-STC exposures by two banks in the sample.

²⁷ Including the SEC-IAA.

Securitisation exposure amounts by approach

All banks¹

Graph 57



¹ The sample consists of 99 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 13.

Impact of the Basel III securitisation framework

Change in RWA for securitisation exposures

The sample of banks considered in this analysis is limited to 15 banks located in the jurisdictions that have not yet implemented the final Basel III securitisation standards. Across all banks in this sample, the total RWA for securitisation exposures increases marginally by €3.6 billion (2.4%) under the Basel III securitisation framework (Table 13). Directionally, this increase is within the expectations, reflecting the more conservative calibration for senior securitisation exposures, the introduction of the 15% risk weight floor, and the necessary reclassification of some exposures resulting from the introduction of a new hierarchy of risk weighting approaches.

Breaking down the RWA change shows that increases related to non-STC exposures dominate, comprising €4.1 billion (113.7%) of the total increase. Within non-STC exposures, the 6.7% increase in RWA for securitisation exposures risk-weighted using SEC-SA could be traced back to four banks that each have roughly an equal share of the total exposures. More in detail, three of out of four banks show an increase in their RWA in line with the objective of the reform, while for the remaining bank RWA decrease due to the application of the cap to the risk weight for the senior position (so-called look-through approach). The increase on the RWA (72.2%) for re-securitisation exposures is due to the more punitive version of the SEC-SA approach, which entails a minimum risk weight of 100% and the value of the supervisory parameter p of 1.5.

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

Table 13

	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	193.0	192.7	−0.1	52.4	51.1	−2.6
Non-STC securitisations: SEC-ERBA	0.1	0.1	0.0	0.1	0.1	42.6
Non-STC securitisations: SEC-IAA	0.0	0.0		0.0	0.0	
Non-STC securitisations: SEC-SA	218.4	218.7	0.2	80.7	86.0	6.7
Of which: resecuritisation	2.9	3.2	8.8	3.0	5.2	72.2
Non-STC securitisations: total	411.5	411.6	0.0	133.1	137.2	3.1
STC securitisations: SEC-IRBA	0.4	0.4	0.0	0.2	0.2	2.1
STC securitisations: SEC-ERBA	0.6	0.6	0.0	0.4	0.5	43.2
STC securitisations: SEC-IAA	0.0	0.0		0.0	0.0	
STC securitisations: SEC-SA	14.7	14.7	0.0	9.2	8.7	−5.9
STC securitisations: total	15.7	15.7	0.0	9.7	9.3	−3.9
Others (1250% RW)	0.4	0.4	0.0	4.8	4.7	−2.2
Total	427.5	427.6	0.0	147.7	151.2	2.4

¹ The sample consists of 15 banks.

Source: Basel Committee on Banking Supervision.

STC and non-STC exposures

Graph 58 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.²⁸ Exposures subject to the SEC-SA show only marginal differences, with risk weightings for STC exposures expected to drop, while non-STC exposures should marginally increase. However, under the Basel III securitisation framework, relatively large increase in the average risk weight can be observed for exposures treated under the SEC-ERBA.²⁹ Exposures subject to the SEC-IRBA show a slight increase for STC transactions (from 49% to 50%).³⁰ Even if the graph shows a slight decrease for non-STC transactions (27% to 26%), 11 banks out of 15 from the sample have unchanged RWA (6) or have RWA increasing between the current and the final standards (5).

On an overall basis, the average risk weight decreased from 62% to 60% for STC transactions but increased from 33% to 34% under the Basel III securitisation framework for non-STC transactions. Again, those results are consistent with the results observed in December 2018.

²⁸ The sample only contains non-EU banks, since the EU banks have already implemented the final standards.

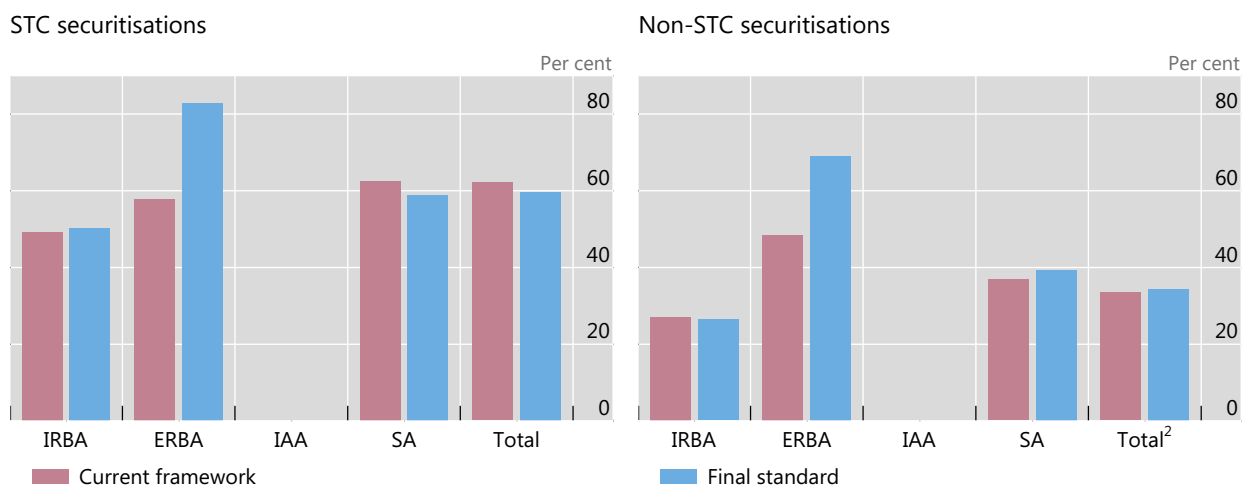
²⁹ The increase in SEC-ERBA for STC and non STC transactions is due to the size and composition of the sample. For the STC transactions, only one bank has exposures under SEC-ERBA. For the non-STC transactions, two other banks have exposures under SEC-ERBA.

³⁰ This is mainly due to the size of the sample, which is composed of only three banks.

Average risk weight by approach

All banks¹

Graph 58



¹ The sample consists of 15 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.

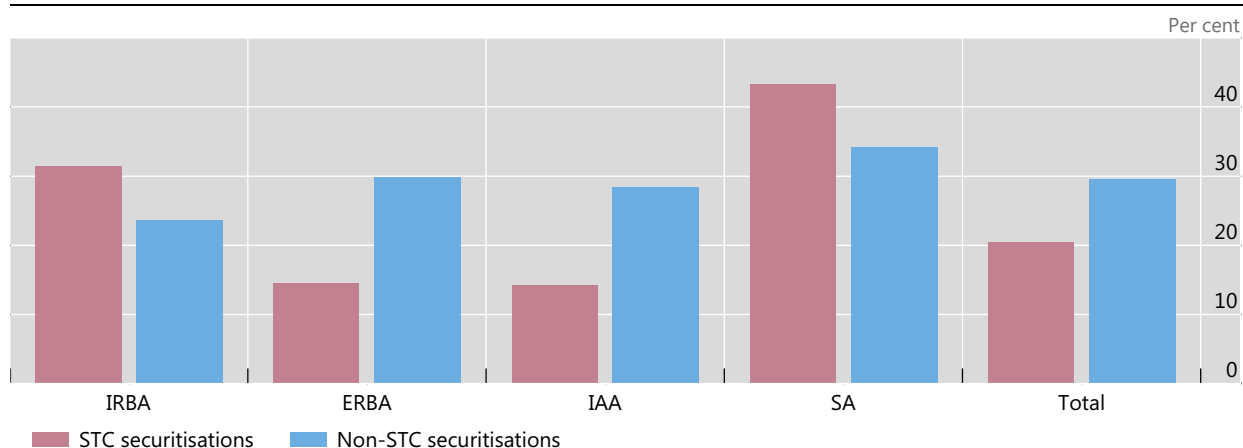
Source: Basel Committee on Banking Supervision. See also Table C.60.

Graph 59 compares 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 9.2 percentage points higher than for STC exposures. The exposures risk-weighted using the SEC-ERBA show the greatest difference (15.4 percentage points) in average risk weights between STC and non-STC exposures.³¹

Average risk weight, final standards¹

All banks²

Graph 59



¹ Results for STC and non-STC securitisations refer to different exposures. ² The sample consists of 99 banks.

Source: Basel Committee on Banking Supervision. See also Table C.61.

³¹ Concerning SEC-SA for STC transactions, four banks are shifting the weighted average. These banks have high risk weights but their relative contribution to the total exposure is approximately 30%. Considering the SEC-SA for non-STC, banks with a risk weight above 1 have a relative contribution of approximately 0.5%. Banks with a risk weight above 0.5 have a relative contribution of approximately 19%. On (arithmetic) average, the risk weight under the SEC-SA for STC transactions is smaller than under SEC-SA for non-STC transactions.

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 maturity³² or those related to non-performing loans may be in this situation. Another example might be transactions with underlying assets showing significant dilution risk.³³ 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 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 report is the second time that banks are asked to report the RWA calculated using the 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 73 banks were included in the analysis sample corresponding; these banks correspond to 99% of the overall exposure amounts under the SEC-SA.

³² 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.

³³ 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).

Table 14 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. For the total universe of exposures, the application of the SEC-SA would result in an increase of 76.5% with respect to the average risk weights. This increase can be explained by the fact that the majority of the reported exposures is of relatively high quality (as indicated by an average risk weight of 28.7%), which generally receive under the SEC-SA higher risk-weights as under the more risk-sensitive approaches. This conclusion is also supported by the fact that the alternative application of the SEC-SA would result in the largest increase. On the other hand, for low quality exposures the SEC-SA would result in lower risk weights (for example for deduction positions the average risk-weight would decrease by 7.2%) than the other approaches. This again shows 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 standards¹

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

Table 14

	Final standards	SEC-SA	Change
Non-STC securitisations: SEC-IRBA	23.3	54.9	135.4
Non-STC securitisations: SEC-ERBA	37.8	87.0	130.6
Non-STC securitisations: SEC-IAA	29.8	62.3	109.0
Non-STC securitisations: SEC-SA	35.2	35.2	0.0
Of which: resecuritisation	167.1	167.1	0.0
Non-STC securitisations: total	29.1	53.5	83.6
STC securitisations: SEC-IRBA	31.4	48.8	55.3
STC securitisations: SEC-ERBA	14.6	21.7	48.4
STC securitisations: SEC-IAA	14.4	16.9	17.7
STC securitisations: SEC-SA	43.2	43.2	0.0
STC securitisations: total	20.8	26.2	26.1
Others (1250% RW)	1,040.8	1,040.8	0.0
Total	28.7	50.6	76.5
Deducted (EU only)	816.9	757.9	-7.2

¹ The sample consists of 73 banks.

Source: Basel Committee on Banking Supervision.

4.3 Market risk

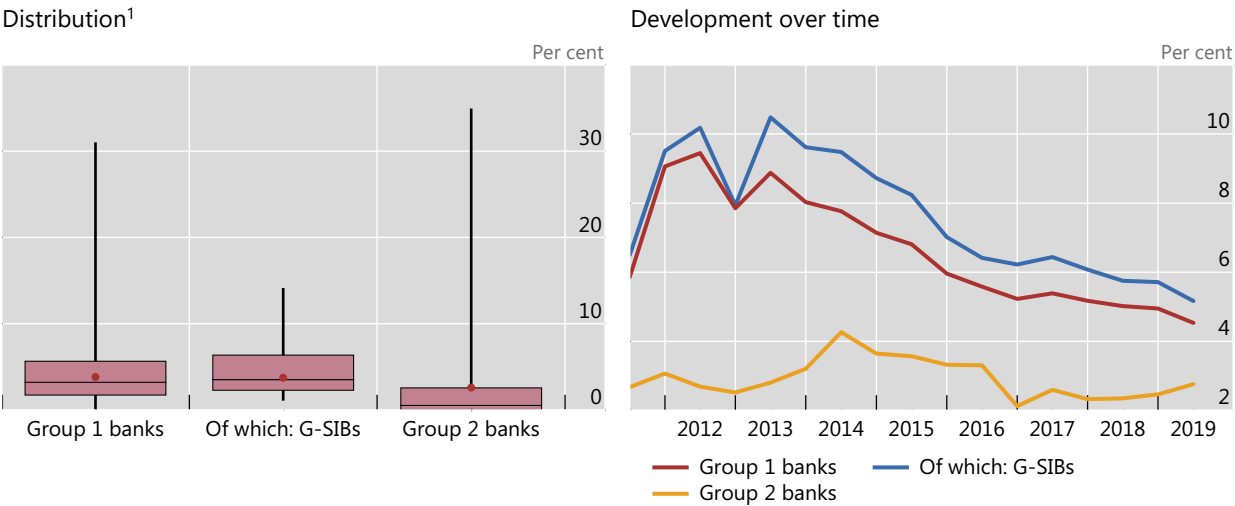
4.3.1 Current market risk rules

The left panel of Graph 60 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 average, the share of market risk MRC is 3.8% of total MRC for Group 1 banks and 2.6% of total MRC for Group 2 banks. However, there is significant dispersion in impacts from zero to 31.0% across participating Group 1 banks and from zero to 34.9% 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 of the groups since peaking between 2012 and 2014. This drop is most pronounced for Group 1 banks, which have seen their relative capital requirements attributed to market risk decline by more than one half. As of June 2019, the average share for Group 1 banks and G-SIBs was at a slightly lower level 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’ share of market risk MRC as of end-June 2019 (2.8%) 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 60



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.

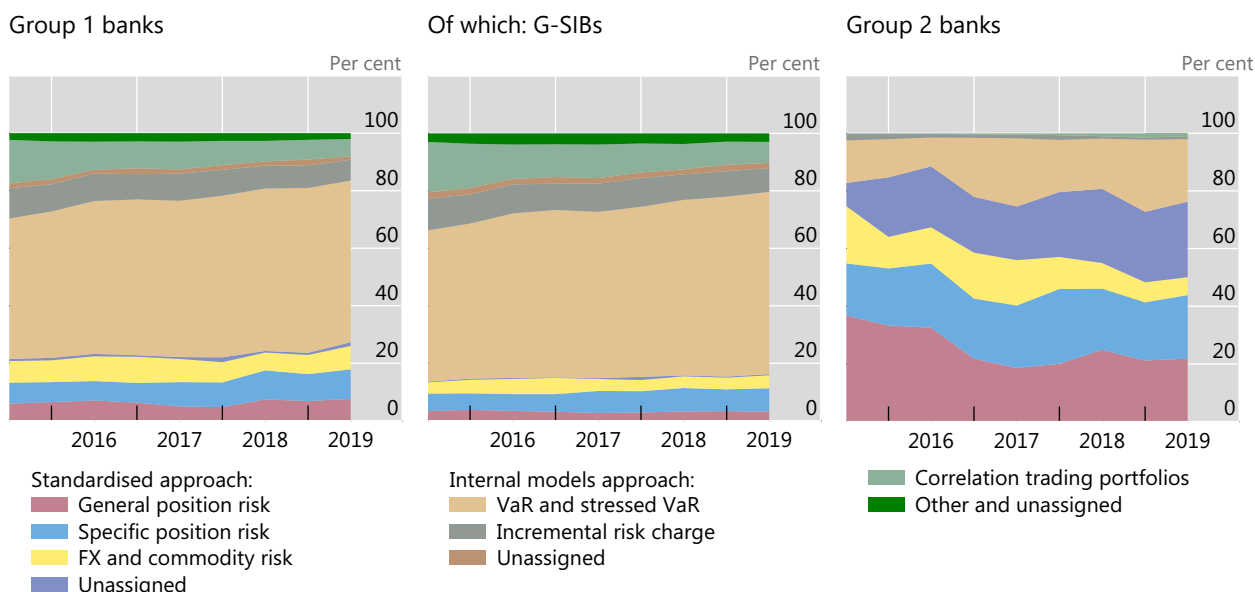
Source: Basel Committee on Banking Supervision. See Table C.62 and Table C.63 for underlying data and sample size.

Graph 61 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 three quarters of overall market risk MRC. The contribution of value-at-risk (VaR) and stressed VaR has increased steadily, while the contribution of correlation trading portfolios (CTP) – complex securitisations or credit derivative positions – has decreased. For Group 2 banks, the internal models approach is far less relevant with 79.0% of market risk capital requirements calculated under the standardised approach.

Components of MRC for market risk under the current rules

Consistent sample of banks, in per cent

Graph 61



Graph 62 below shows the relation of the 10-day 99% confidence level 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 26 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 262.8% as of end-June 2019.

The right panel of Graph 62 shows the same ratio for a shorter-run consistent sample including 29 additional banks that have provided data since 2015. For this larger sample of overall 55 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 272.7% as of end-June 2019.

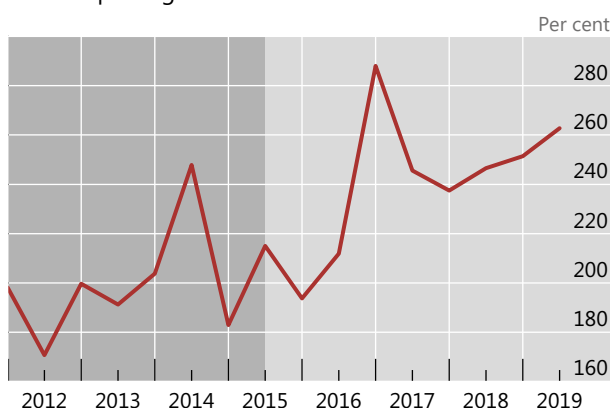
In both samples, time series the increasing trend can be attributed at least partially to the lower volatility environment that has been observed in the markets over the last several years which reduces VaR figures. Banks' VaR models are based on a fixed backwards-looking period that rolls forward over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

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

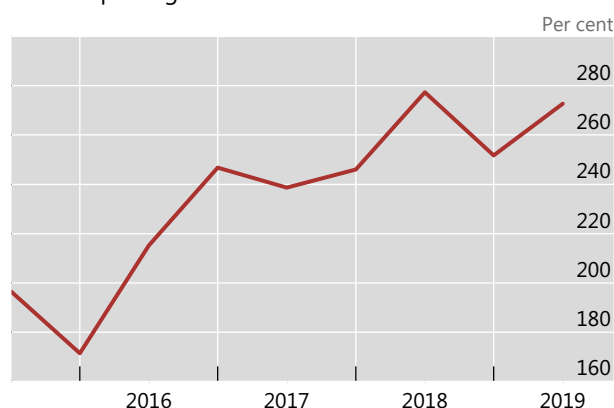
Consistent sample of Group 1 banks

Graph 62

Banks reporting since end-2011



Banks reporting since June 2015



Source: Basel Committee on Banking Supervision. See Table C.67 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-June 2019 included the second data collection in which banks' capital impact estimates were based on the revised market risk framework published in January 2019³⁴, 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.

It should be noted that 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 are 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 the prior collection included banks' estimates of the capital impact of the 2019 standard, the fact that the banks had an additional six months to refine their calculations might have generally improved the accuracy of their estimates.

When interpreting impacts of the transition to the final standards, it should be noted that 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, thus the analysis does not account for potential changes banks would make to the scope of trading desks for which they intend to use models. In addition, the presented impacts do not reflect the potential consequences of trading desk-level backtesting and the P&L attribution test results.

Besides, evidence from previous reforms to the market risk capital framework has shown that banks have progressively reduced their overall trading book risk profile in response to strengthened capital

³⁴ Basel Committee on Banking Supervision, *Minimum capital requirements for market risk*, January 2019 (rev February 2019), www.bis.org/bcbs/publ/d457.htm.

requirements and changes in risk appetites. Subsequently, realised impacts of reforms have turned out lower than estimated.

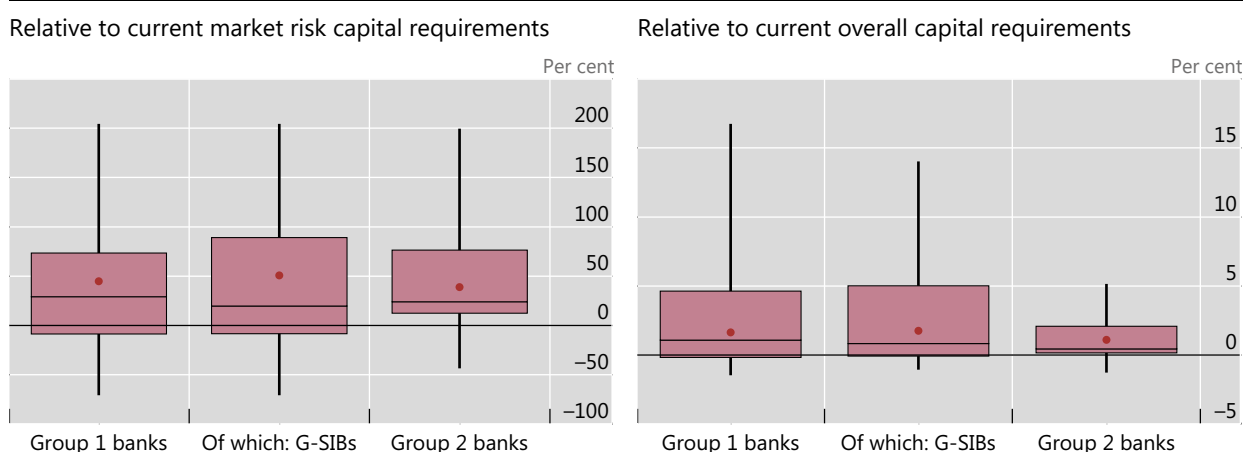
A total of 49 Group 1 banks including 23 G-SIBs, and 14 Group 2 banks provided market risk data as of the end-June 2019 reporting date that were sufficiently complete to estimate the overall impact of the revised market risk framework. Two of the G-SIBs were excluded from the analyses with reduced estimation bias for the reasons discussed above.

Graph 63 below shows the revised market risk standards' impact versus current market risk capital requirements (left panel) and total capital requirements (right panel). The average prospective Basel III market risk capital requirements relative to current market risk capital requirements increase by 44.6% (53.6%) for Group 1 banks with reduced estimation bias (conservative estimation) and by 38.8% for Group 2 banks. At the individual bank level, the impact exhibits wide variability ranging from a drop of 70.7% to an increase of 204.3% (374.5%). 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 1.6% (2.0%) for Group 1 banks and 1.1% for Group 2 banks. At the individual bank level, the impact ranges from a drop of 1.5% to an increase of 16.7%.

Impact on MRC of the revised standards for minimum capital requirements for market risk¹

Reduced estimation bias

Graph 63



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.68; Table C.69 shows related results with conservative estimation.

Graph 64 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 49.0% to 56.4% with reduced estimation bias (from 47.4% to 55.7% with conservative estimation). For Group 2 banks, the share of their internal models-based capital requirement is expected to drop from 13.4% to 1.3%.

For positions subject to the revised standardised approach, for Group 1 banks, 61.3% (63.2%) 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 71.1%. The default risk capital (DRC) requirement contributes 34.4% (32.9%) and 28.2% 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

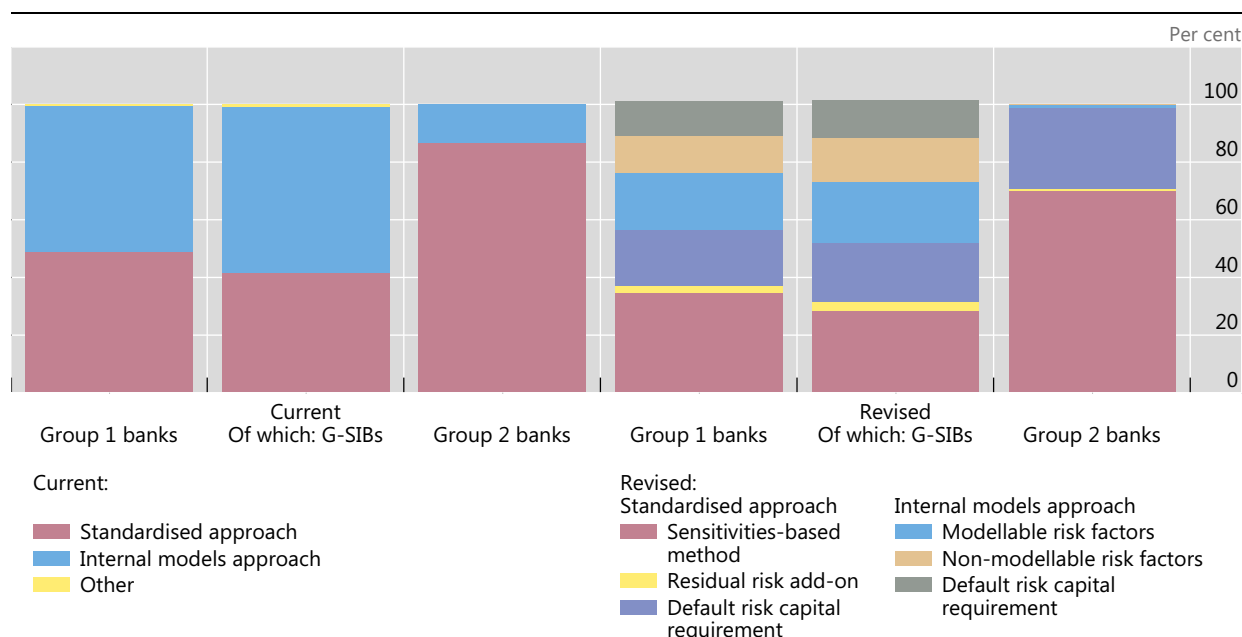
covered by the SbM or the DRC (eg gap risk, correlation risk and behavioural risk), contributes 4.3% (3.9%) to the standardised approach capital requirement for Group 1 banks and 0.7% for Group 2 banks.

With respect to revised IMA, the internally-modelled capital requirement would contribute 44.5% (43.3%) to the total internally-modelled capital requirements for Group 1 banks and 92.5% for Group 2 banks. The share of capital requirements from non-modellable risk factors (NMRF) is 28.9% (29.6%) and 7.5% respectively. Finally, the DRC for internal models is expected to contribute 26.6% (27.2%) 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

Reduced estimation bias¹

Graph 64



¹ For two 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 C.70; Table C.71 shows related results with conservative estimation.

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. While 47 banks provided at least one day's worth of data for at least one trading desk for at least one of the required five risk or P&L measures, only the data from banks that provided data of sufficient time-series length and quality were used in the analysis. Fifteen banks were able to provide sufficient data to perform VaR backtesting, and only seven banks sufficient data to perform the P&L attribution test.

4.4 Operational risk

4.4.1 Current operational risk rules

As depicted in Graph 65 below, MRC for operational risk of Group 1 banks has continuously increased until end-2016 and decreased slightly until end-June 2017. 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 66, 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, €525.5 billion of gross and €472.5 billion of net operational risk losses have been reported over the past 10 years. Operational risk gross losses increased from €27.4 billion in 2009 up to the peak in 2014 with €78.7 billion. The gross losses have decreased significantly to €40.8 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 58.6% in 2011 to 68.5% in the latest reporting period, while the share of operational risk MRC as a percentage of total MRC is 13.3% for Group 1 banks and 15.1% for G-SIBs.

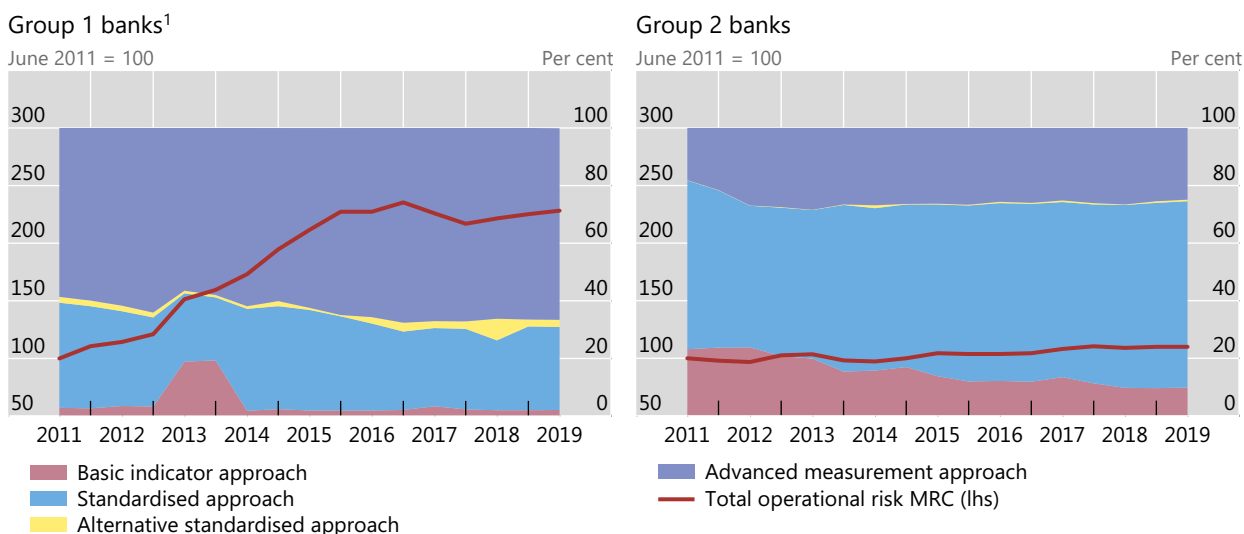
The increase in MRC for operational risk for Group 2 banks, most of which calculate operational risk capital requirements under the framework's non-model-based approaches,³⁵ is largely explained by an increase in business volume, which is a factor captured by the financial statement-based components of the standardised approaches. For Group 2 banks, the share of operational risk MRC as a percentage of total MRC is 9.4%.

³⁵ These comprise the Basic Indicator Approach (BIA), the Standardised Approach (TSA) and its variant, the Alternative Standardised Approach (ASA).

Total MRC for operational risk and share of approaches

Consistent sample of banks

Graph 65



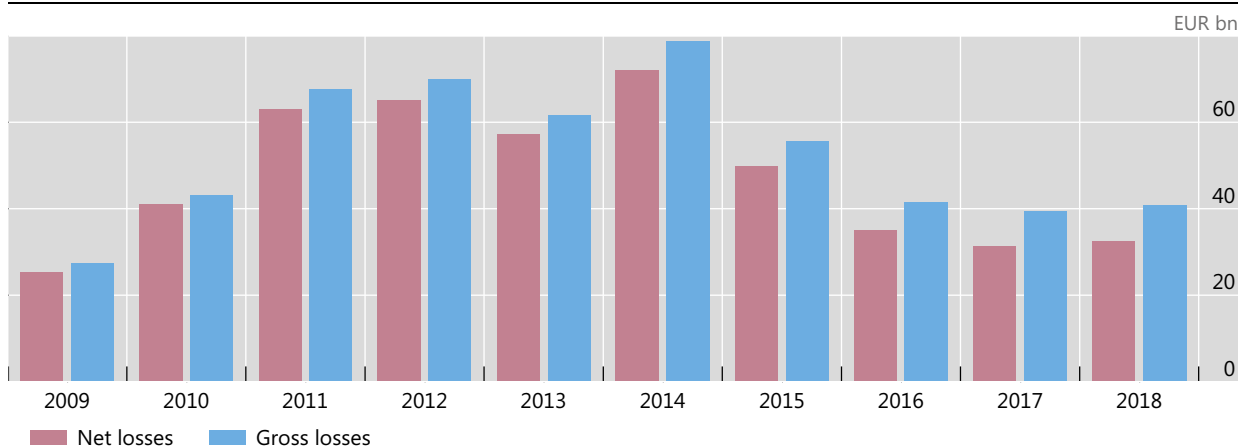
¹ Some banks started reporting operational risk RWAs under the Basic Indicator Approach in 2013 and eventually migrated to the Standardised Approach in 2014.

Source: Basel Committee on Banking Supervision. See Table C.72 and Table C.73 for underlying data and sample size.

Loss evolution over the past 10 years

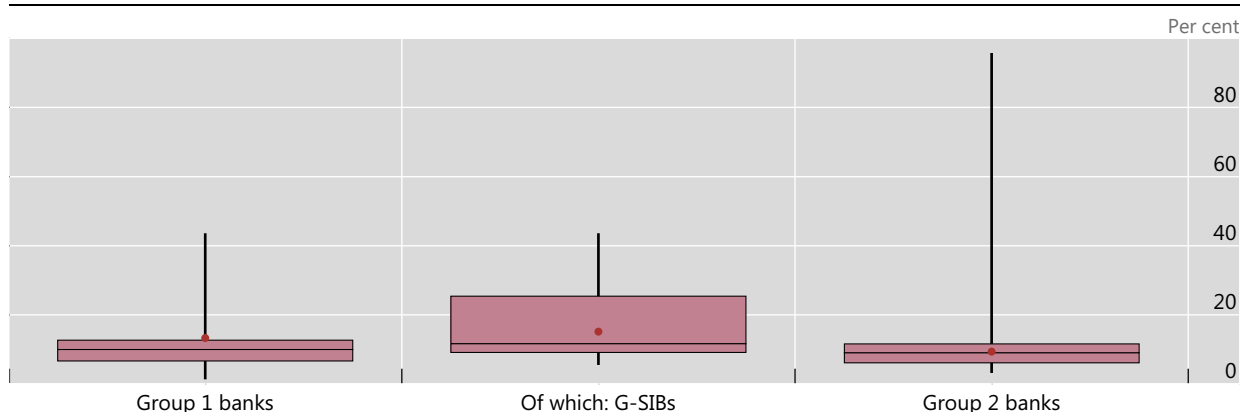
All banks, exchange rates as of the current reporting date

Graph 66



Source: Basel Committee on Banking Supervision. See Table C.74 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 67). For Group 2 banks, the difference between the 25th and 75th quantile of the share of MRC for operational risk in total MRC is 5.5 percentage points. Although the difference of 6.1 percentage points for Group 1 banks is similar, the difference for G-SIBs with 16.3 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.



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.75 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 approaches³⁶ 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.³⁷

According to Table 15, the final operational risk framework generates an aggregate decrease of operational risk MRC of approximately -5.7% for all Group 1 banks and a -8.8% decrease for G-SIBs as well as an increase of 17.1% for the Group 2 banks in the sample. Under the assumption that the evolution of experienced losses is as low as in the last three years (see Graph 66) 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 15 may be overstated and reductions may be understated.

³⁶ 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).

³⁷ 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 operational risk capital requirements

In per cent

Table 15

	Change in Tier 1 MRC ¹	Number of banks migrating from AMA	Number of banks migrating from other approach
Group 1 banks	-5.7	43	59
Of which: Americas	-19.6	14	4
Of which: Europe	28.9	15	20
Of which: Rest of the world	-16.5	14	35
Of which: G-SIBs	-8.8	21	9
Group 2 banks	17.1	6	62

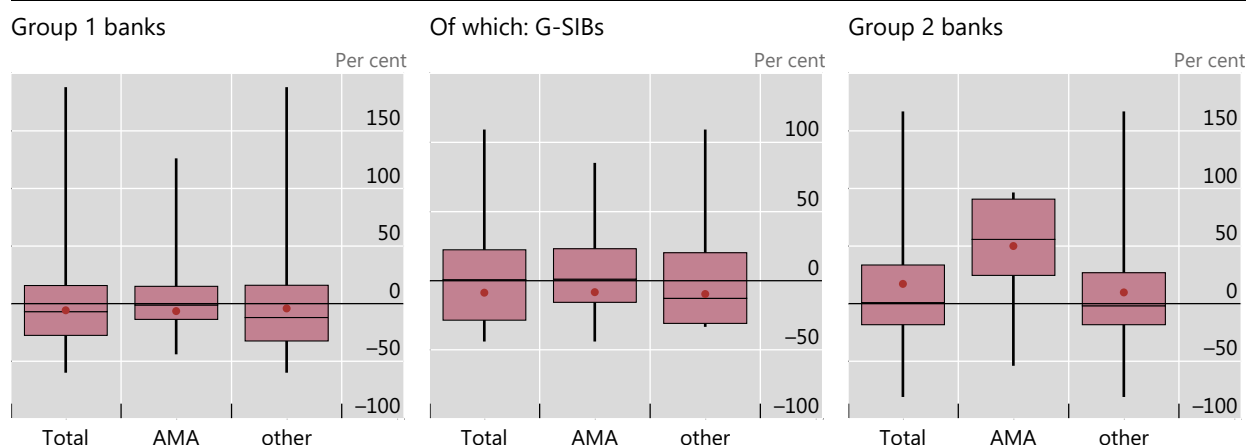
¹ Figures may not show supervisor-imposed Pillar 2 capital add-ons. Therefore, increases in MRC may be overstated and reductions may be understated.

Source: Basel Committee on Banking Supervision.

Graph 68 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.

Changes in MRC for operational risk¹

Graph 68



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.76.

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 69 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%,³⁸ whereas the dashed vertical line represents a Basel III Tier 1 leverage ratio of 3%.

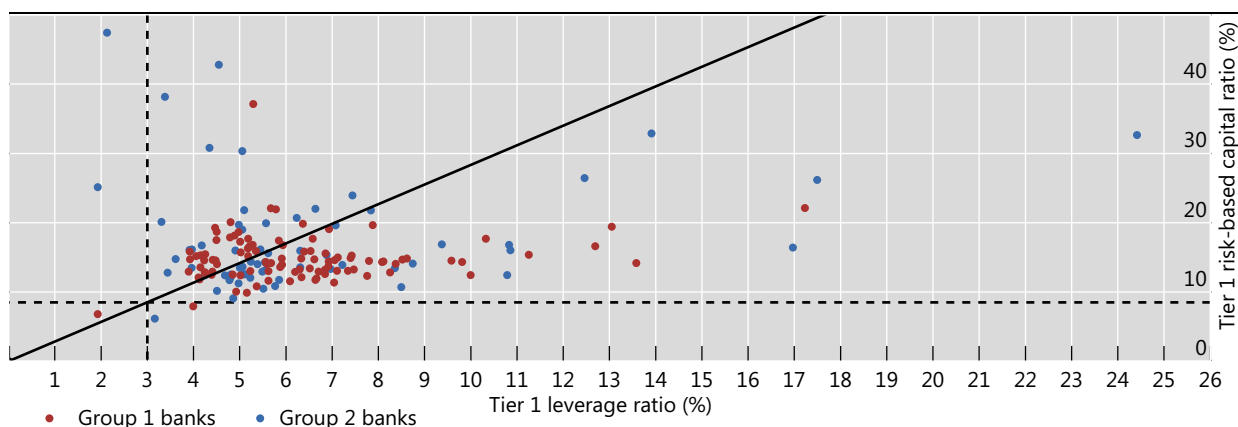
The diagonal line represents points where an 8.5% fully phased-in Basel III Tier 1 target risk-based capital ratio results in the same amount of required fully phased-in Basel III Tier 1 capital as a fully phased-in Basel III Tier 1 leverage ratio of 3%. By construction, it also represents a multiple of $8.5\%/3\% \approx 2.83$ 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).³⁹ 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).

As shown in Graph 69, two Group 2 banks do not meet the minimum fully phased-in Basel III Tier 1 leverage ratio of 3% (plotted left of the vertical dashed line). One Group 1 bank meets neither the Tier 1 target risk-based capital ratio of 8.5% nor the minimum fully phased-in Basel III Tier 1 leverage ratio of 3%. This graph also shows that the fully phased-in Basel III Tier 1 leverage ratio is constraining for 62 banks out of 164, including 39 Group 1 and 23 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 69



Source: Basel Committee on Banking Supervision.

³⁸ Calculated as the sum of a 6.0% Tier 1 minimum capital ratio plus 2.5% capital conservation buffer.

³⁹ 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.

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 risk-based, output floor and Basel III leverage ratio capital requirements, all including the 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 70 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").⁴⁰

With the exception of Group 2 banks that only use the standardised approach, the risk-based capital measure generally constrains between 40.0% and 50.0% across all groups and frameworks, and it generally constrains a lower share of banks under the final framework. Similarly, with the exception of Group 2 banks that only use the standardised approach, the final framework constrains a larger share of banks by the output floor in comparison to the current framework, which results in greater parity in the shares of banks being constrained by the output floor and the leverage ratio in the final framework. This increase in the share of banks being constrained by the output floor in the final framework is most pronounced in the Group 2 IRB bank sample as the output floor is constraining for a very small portions of Group 2 IRB banks under the current framework.

For the Group 2 pure SA banks, the opposite effect is seen with the risk-based capital measure, as it is slightly more constraining under the revised final framework.

Under the current framework, 33.7% of Group 1 banks are constrained by the Basel III leverage ratio while 18.5% are constrained by the transitional Basel I-based floor. With the introduction of the somewhat stricter and more consistent output floor under the revised framework, 37.0% of Group 1 banks will be constrained by the floor while 26.1% 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 47.8% to 37.0%.

For the subset of G-SIBs, the Basel III leverage ratio is currently constraining for a smaller share of banks (27.6%) as compared to Group 1 banks as a whole while the transitional Basel I-based floor constrains a larger share of banks (24.1%) as compared to Group 1. The remaining 48.3% of G-SIBs are constrained by the risk-based measure before application of the output floors. Under the revised framework, 34.5% of G-SIBs will be constrained by the output floor while the Basel III leverage ratio will become constraining for 31.0% of the G-SIBs. The remaining 34.5% of G-SIBs will be constrained by the risk-based capital requirements before application of the output floor.

Of the Group 2 IRB banks in the sample, 53.3% are currently constrained by the Basel III leverage ratio while 6.7% are constrained by the transitional Basel I-based floor. The share of Group 2 IRB banks constrained by risk-based capital requirements before application of the output floors under the current regime is 40.0% and somewhat lower than the share among Group 1 banks and G-SIBs. Under the revised regime, the share of Group 2 IRB banks constrained by the risk-based capital requirements before

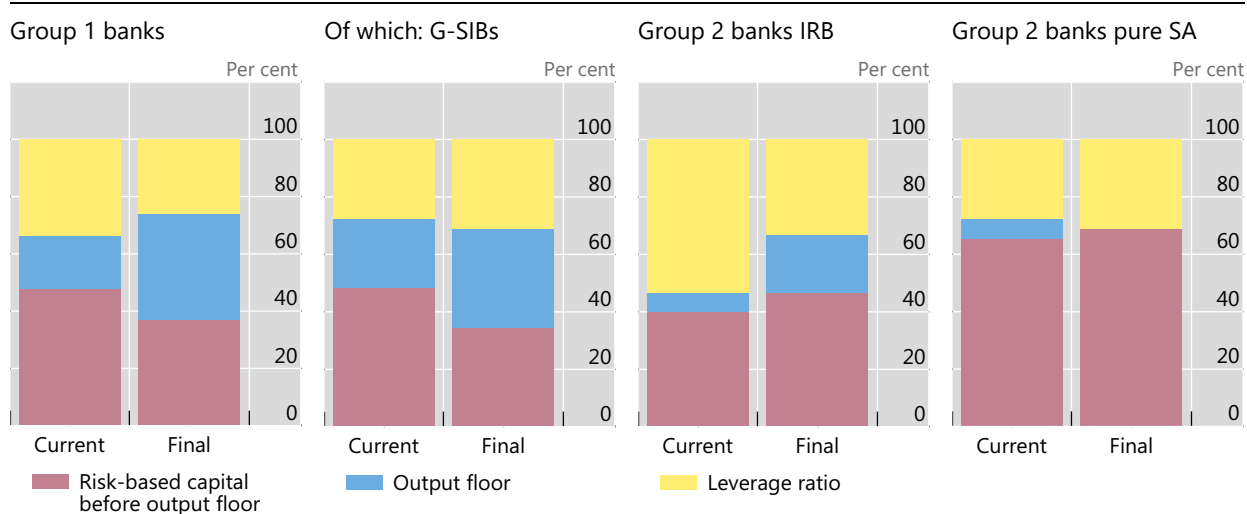
⁴⁰ Graph 70 does not distinguish between IRB and "pure SA" Group 1 banks as out of the 92 Group 1 banks in the sample only 13 are "pure SA" banks.

application of the output floor notably increases to 46.7% and it is greater than the share of Group 1 banks constrained by the same requirement. The Basel III leverage ratio will be constraining on 33.3% of Group 2 IRB banks while the share of Group 2 IRB banks constrained by the output floor will significantly increase to 20.0% in comparison to the current output floor.

For the 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 65.5% of the banks and increase for this reporting period to 69.0% under the revised framework. The Basel III leverage ratio is constraining for 27.6% of these banks and will increase to 31.0% under the final standards. For this reporting period, the output floor is constraining for a small portion of banks (6.9%) under the current framework, reflecting the fact that the share of RWA from market risk or counterparty credit risk is low for banks using the standardised approach for credit risk.

Percentage of banks constrained by different parts of the framework

Graph 70



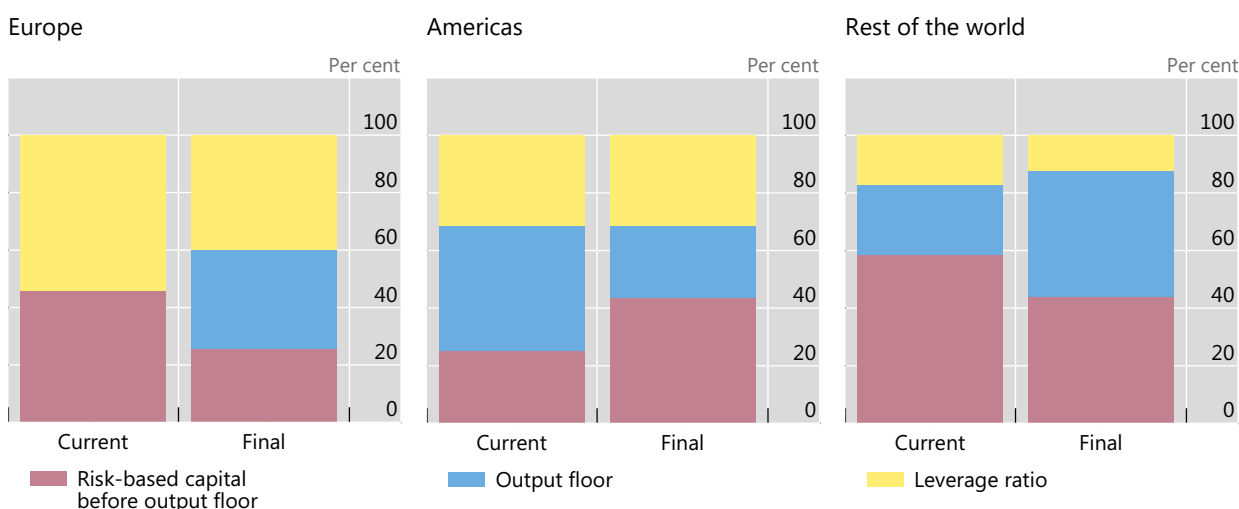
Source: Basel Committee on Banking Supervision. See also Table C.77.

Graph 71 shows the percentage of banks constrained by different parts of the framework, by region. In Europe, the leverage ratio is the most constraining under both the current and final standards at 54.3% and 40.0% respectively. Under the final Basel III framework, the output floor is the most constraining for the rest of the world (43.9%) and Europe (34.3%). In the Americas, currently the Basel I-based floor is the most constraining measure affecting 43.8% of the banks. Under the final Basel III framework, the risk-based measure before application of the output floors is the most constraining for the rest of the world with 43.9% and the Americas with 43.8%.

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

Group 1 banks

Graph 71



Source: Basel Committee on Banking Supervision. See also Table C.78.

6. Liquidity

6.1 Liquidity Coverage Ratio

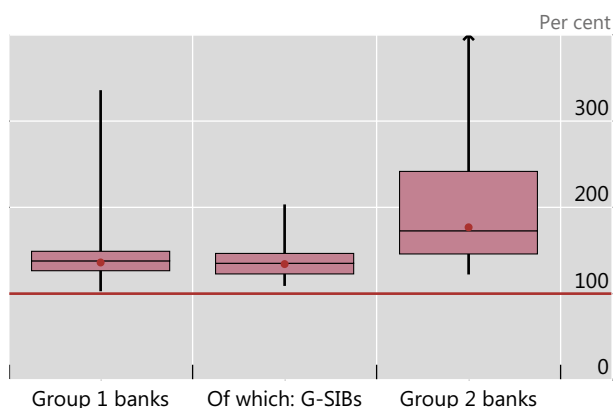
One of the two liquidity standards introduced by the Committee is the 30-day Liquidity Coverage Ratio (LCR), which promotes short-term resilience against potential liquidity disruptions. The LCR requires global banks to have sufficient high-quality liquid assets to withstand a stressed 30-day funding 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 165 banks (104 Group 1 banks and 61 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 €72.7 trillion. Banks reported a total of €13.4 trillion in eligible liquid asset holdings (post-haircut and after cap).

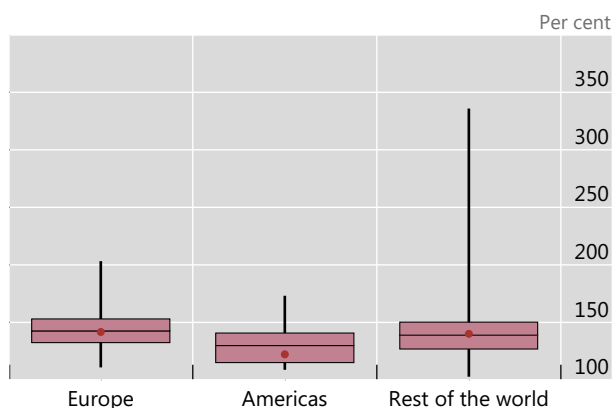
The weighted average LCR for the subset of Group 1 banks reporting data for both the December 2018 and June 2019 reporting dates increased by 0.2 percentage points from the previous period to 136.2%. The weighted average LCR for the similar sample of Group 2 banks increased by 1.9 percentage points from 175.1% at end-December 2018 to 177.0% at the end of June 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 banks in the sample reported an LCR above the 100% minimum requirement.

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.79 and Table C.80 for underlying data.

As all banks in the sample reported an LCR above 100%, there is no shortfall (ie difference between high-quality liquid assets and net cash outflows) in this period. In the previous period however, the Basel III monitoring results showed a shortfall at a 100% minimum requirement of €2.0 billion for Group 1 banks and €0.1 billion for Group 2 banks.

The key components of outflows and inflows are shown in Table 16. 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 16

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Outflows to...			
Retail deposits run-off	2.2	2.3	2.5
Unsecured wholesale funding run-off	11.5	11.9	5.8
Secured funding and collateral swaps	1.7	2.2	0.4
Additional requirements run-off	4.0	4.5	1.6
Other contingent funding obligations	1.7	1.8	2.0
Total outflows¹	21.1	22.7	12.3
Inflows from...			
Secured lending and collateral swaps	2.3	3.0	0.3
Contractual inflows from fully performing loans	2.6	2.4	1.5
Other cash inflows	2.3	2.5	1.2
Total inflows^{1,2}	7.2	7.8	3.0

¹ May contain rounding differences. 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

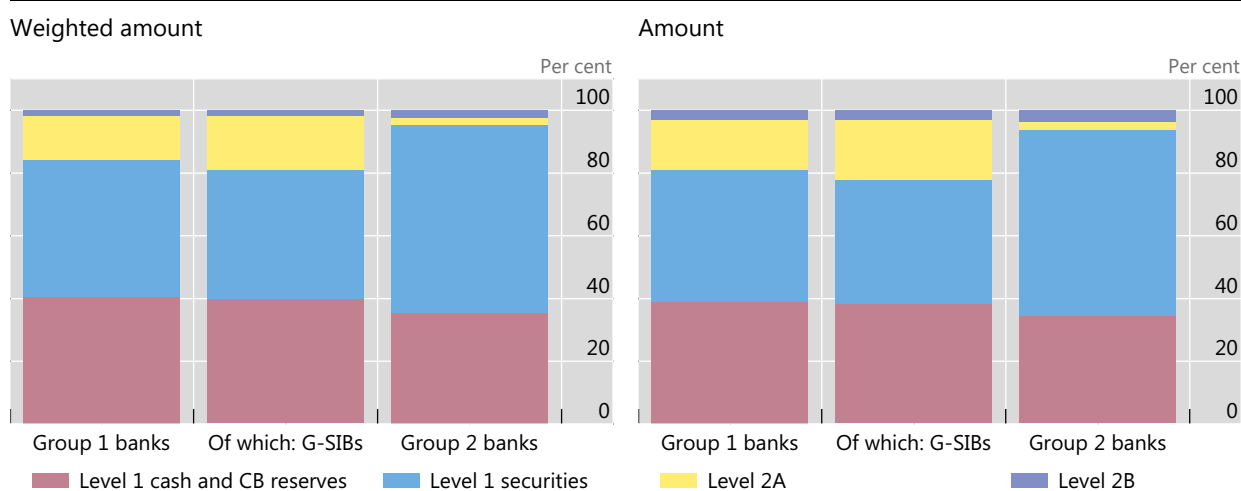
At end-June 2019, 3 Group 1 and 2 Group 2 banks are affected by the cap on inflows with a total amount of capped inflows of €8.8 billion for Group 1 banks and €0.2 billion for Group 2 banks.

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 Graph 73. 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 central bank reserves comprise the most significant portions of the qualifying pool for Group 1 banks (together accounting for 84.1% 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 95.5% of total eligible liquid assets).

Composition of holdings of eligible liquid assets

Graph 73



Source: Basel Committee on Banking Supervision. See Table C.81 for underlying data and sample size.

Caps on Level 2B and Level 2 assets

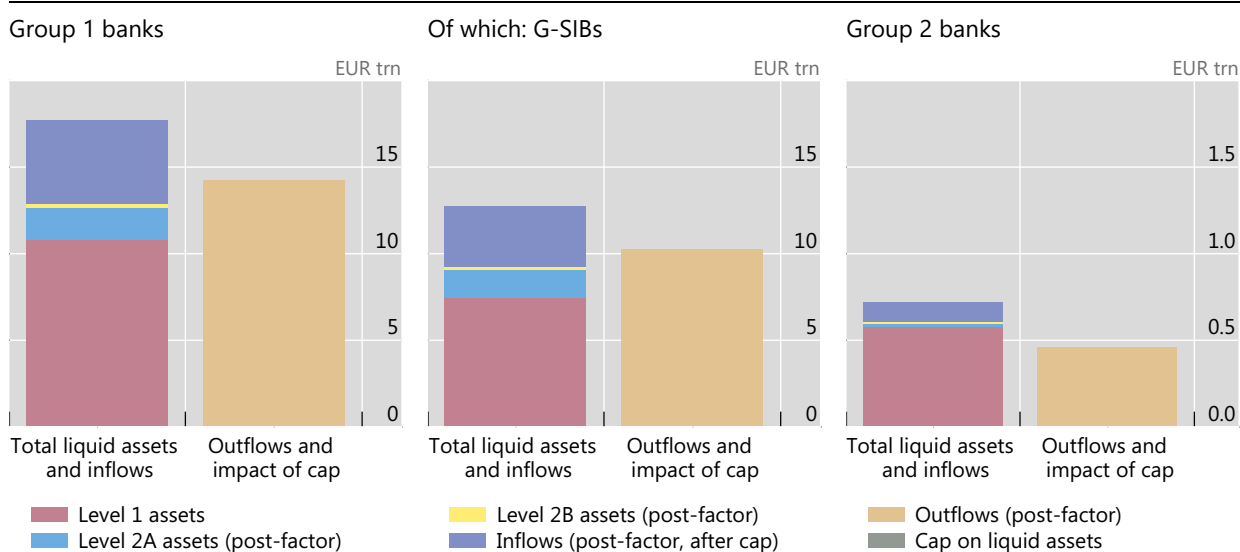
Due to the cap on liquid assets, overall €188.2 billion of liquid assets are excluded from high-quality liquid assets. In total, three (Group 1) banks are constrained.

Comparison of liquid assets and inflows to outflows and caps

Graph 74 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 €3.65 trillion, of which G-SIBs have a gross surplus of €2.65 trillion, at end-June 2019. The gross surplus for Group 2 banks was €0.26 trillion.

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

Graph 74



Source: Basel Committee on Banking Supervision. See Table C.82 for underlying data and sample size.

6.2 Net Stable Funding Ratio

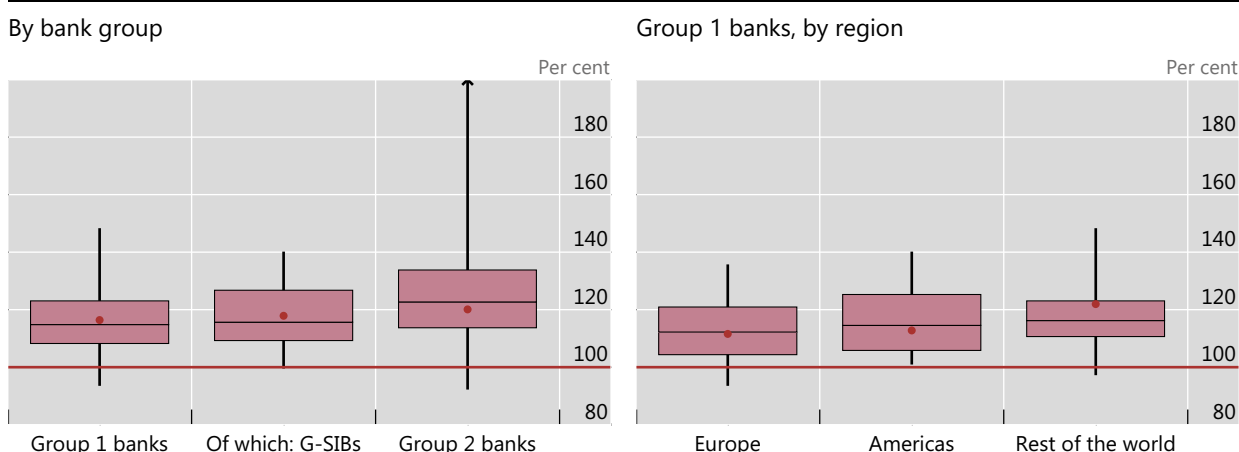
The second liquidity standard introduced by the Basel III reforms is the Net Stable Funding Ratio (NSFR), a longer-term structural ratio designed to reduce funding risk over a longer time horizon by requiring banks to fund their activities with sufficiently stable sources of funding in order to mitigate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

For the NSFR, data provided by 170 banks (102 Group 1 and 68 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 €70.3 trillion.

The weighted average NSFR was 116.4% for Group 1 banks and 120.1% for Group 2 banks at end-June 2019 compared with 116.3% and 120.0% respectively, at end-December 2018. Overall, 96.1% of Group 1 banks and 95.6% of Group 2 banks reported a ratio that met or exceeded 100% as of end-June 2019, while all banks report a ratio at or above 90% as of the same date.

Net stable funding ratio¹

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 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).

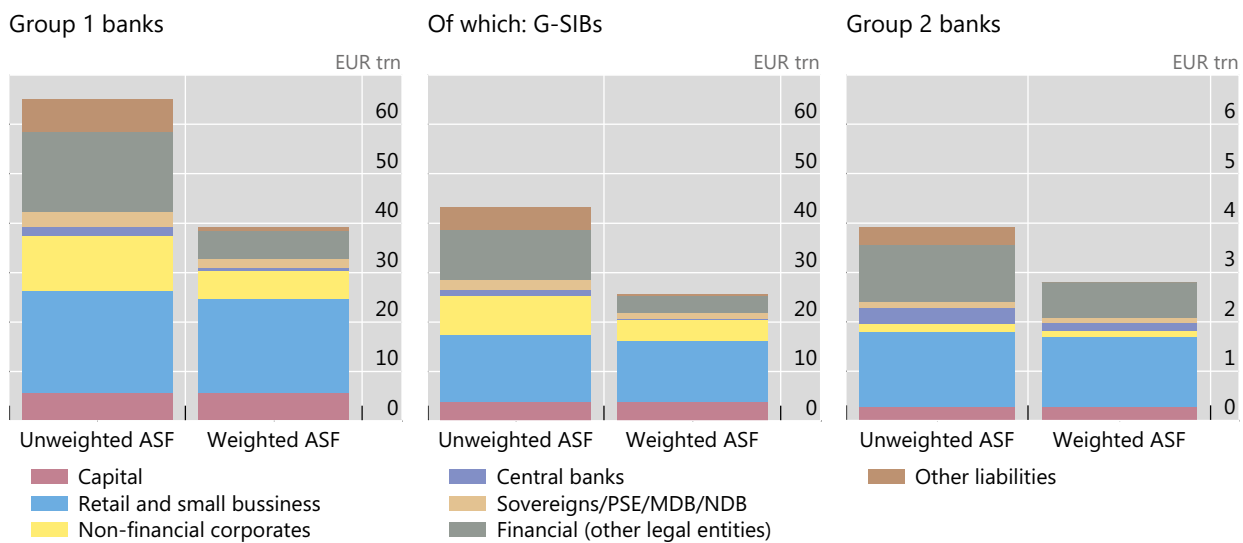
Source: Basel Committee on Banking Supervision. See Table C.79 and Table C.80 for underlying data.

For the 102 Group 1 banks in the sample, the shortfall is €27.7 billion at end-June 2019 compared with €11.2 billion at end-December 2018. For the 68 Group 2 banks in the sample, the shortfall is €4.4 billion at end-June 2019 compared with €3.5 billion at end-December 2018. 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.⁴¹

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 (48.2%) and Group 2 banks (50.0%). To a lesser degree, banks in the sample utilised funding from financial counterparties, which represented roughly 17.8% of total weighted available stable funding for Group 1 banks and 25.0% for Group 2 banks.

⁴¹ 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.

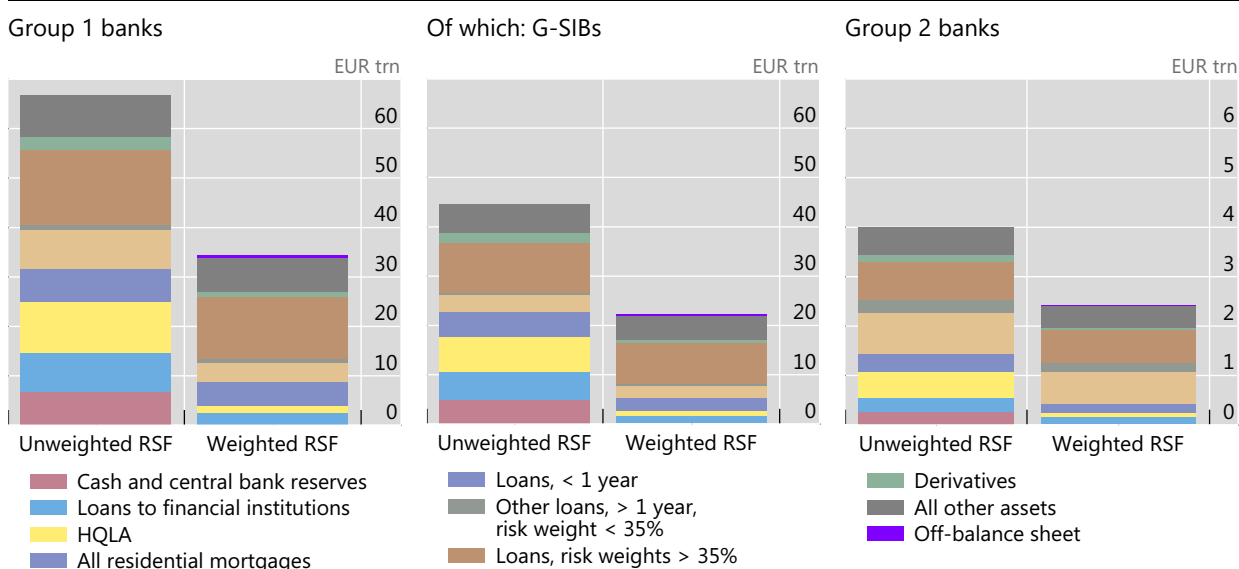


Source: Basel Committee on Banking Supervision. See Table C.83 for underlying data.

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 53.6% for Group 1 banks and 62.5% 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 4.2% 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). On aggregate, the RSF associated with Group 2 banks was 2.4%.



Source: Basel Committee on Banking Supervision. See Table C.84 for underlying data.

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

Graph 78 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 2012.⁴² Given the different samples of banks, results for the end-December 2018 and end-June 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 136.6% at end-June 2019. The ratio was 136.2% and 134.9% at end-December 2018 and end-June 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-June 2019, the weighted average LCR of these banks is 163.8%. 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 2012.⁴³ The weighted average NSFR for Group 1 banks was 116.0% at end-June 2019, 116.0% at end-December 2018 and 115.5% at end-June 2018. The weighted average NSFR for Group 2 banks was 119.5% at end-June 2019, 118.0% at end-December 2018 and 117.0% at end-June 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, less than 0.1% of the aggregate weighted RSF. The aggregate shortfall with regard to the 100% NSFR minimum requirement was €9.1 billion for

⁴² 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.

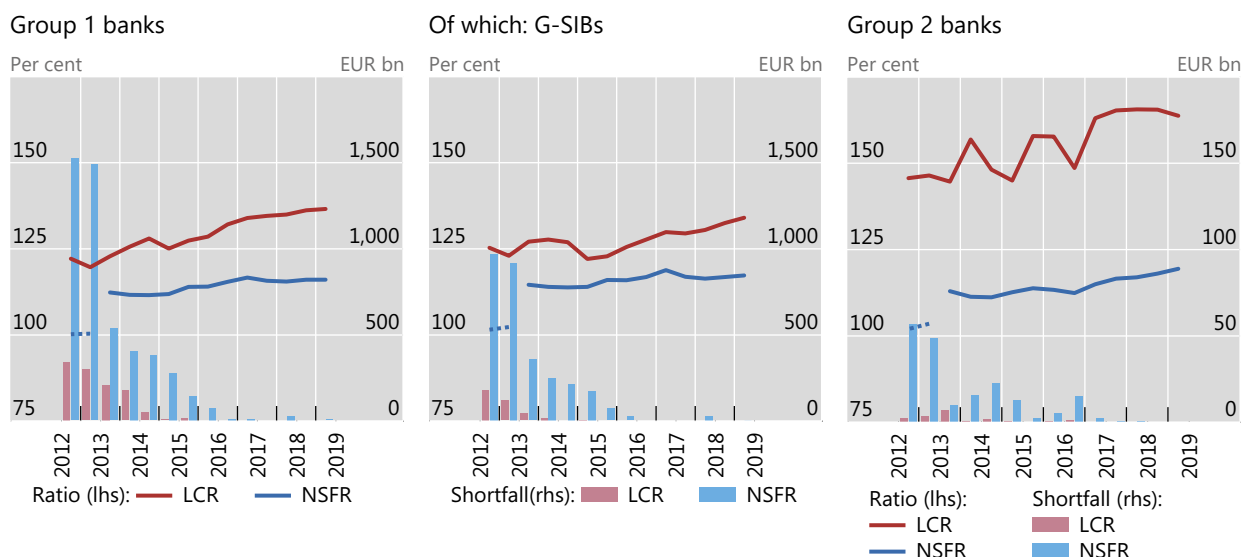
⁴³ Graph 78 depicts the NSFR as calculated under different versions of the NSFR framework (released in December 2010, January 2014 and October 2014, respectively). Calculations performed according to the final standard approved by the Committee in October 2014 start with the end-December 2014 reporting period. See Basel Committee on Banking Supervision, *Basel III: the net stable funding ratio*, October 2014, www.bis.org/bcbs/publ/d295.htm.

Group 1 banks and €0.0 billion for Group 2 banks at end-June 2019. This compares to shortfalls of €3.7 billion for Group 1 banks and €0.1 billion for Group 2 banks at end-December 2018.

LCR, NSFR and related shortfalls at a 100% minimum requirement¹

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

Graph 78



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.85 and Table C.86 for underlying data and sample size.

Graph 79 displays the regional breakdown of the weighted average LCR and the weighted average NSFR⁴⁴ for a consistent sample of Group 1 banks across reporting periods since end-December 2012. The weighted average LCR at end-June 2019 for each of the three regions was in excess of 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.

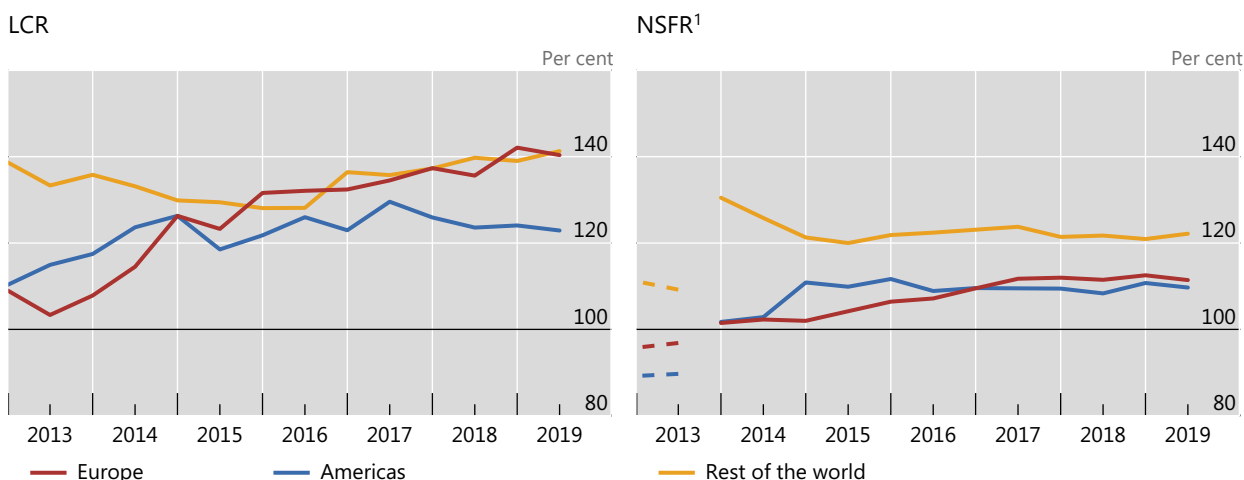
The weighted average NSFR at end-June 2019 for Group 1 banks in each of the three regions continues to be well in excess of 100%. Europe and the Americas at 111.4% and 109.7% at end-June 2019 have lower average NSFRs compared with the rest of the world at 122.2%.

⁴⁴ 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 79



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

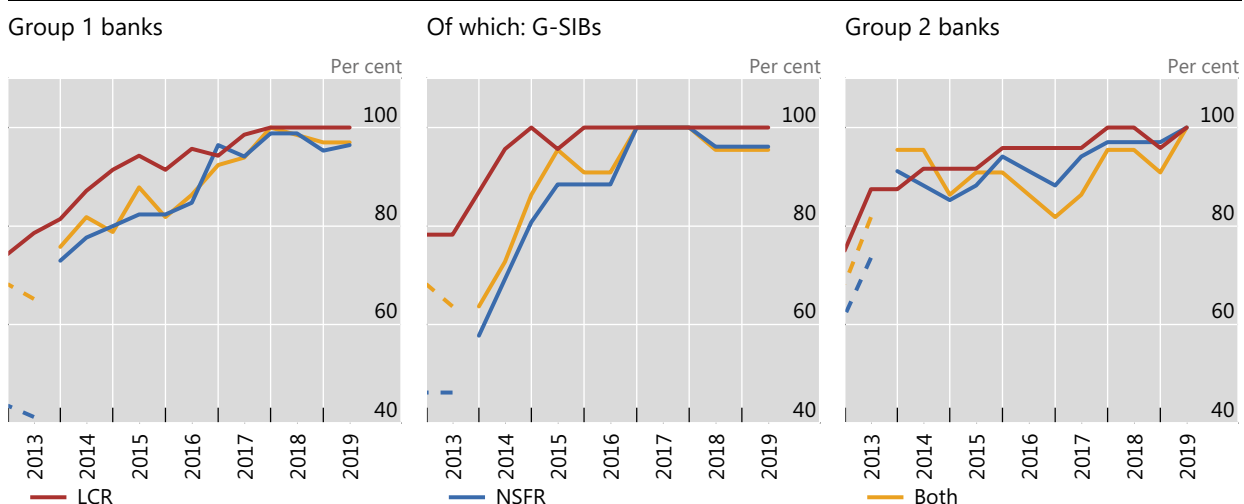
Source: Basel Committee on Banking Supervision. See Table C.87 for underlying data and sample size.

Graph 80 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 68.2% at end-December 2012 to 97.0% at end-June 2019, while the share of Group 2 banks meeting both requirements increased from 68.2% to 100.0% during the same period.

Share of banks meeting the LCR and NSFR requirements¹

Consistent sample of banks

Graph 80



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.88 for underlying data.

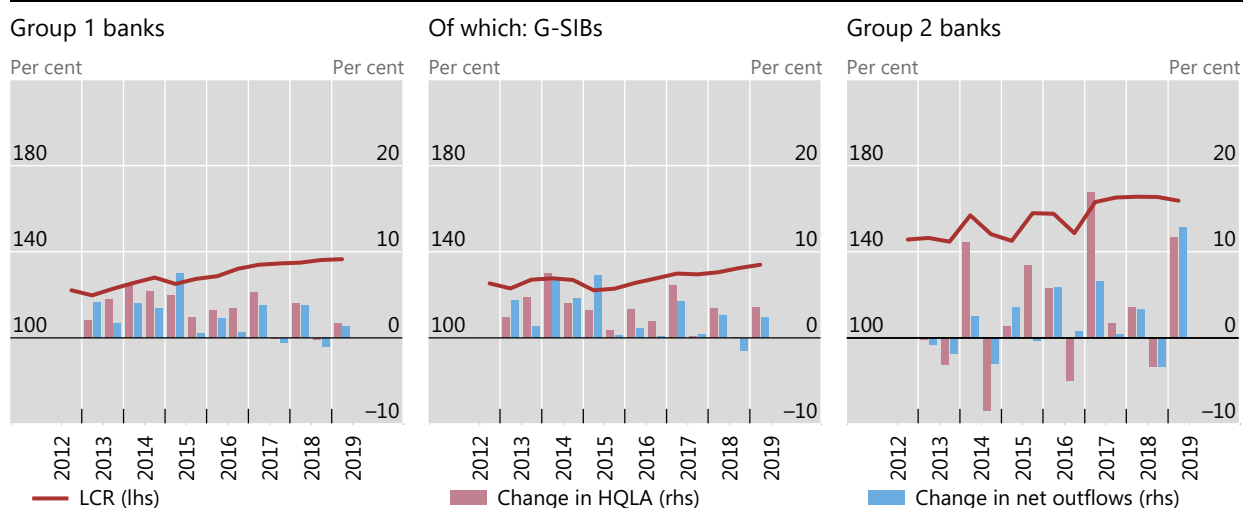
Graph 81 displays the weighted average LCR for a consistent sample of banks across reporting periods since end-December 2012, along with a breakdown of the period-to-period changes of the LCR into changes in HQLA and changes in net outflows. This decomposition shows that the increase in the

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 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 165.5% in the previous period to 163.8% at end-June 2019.

LCR and change in HQLA and net outflows

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

Graph 81



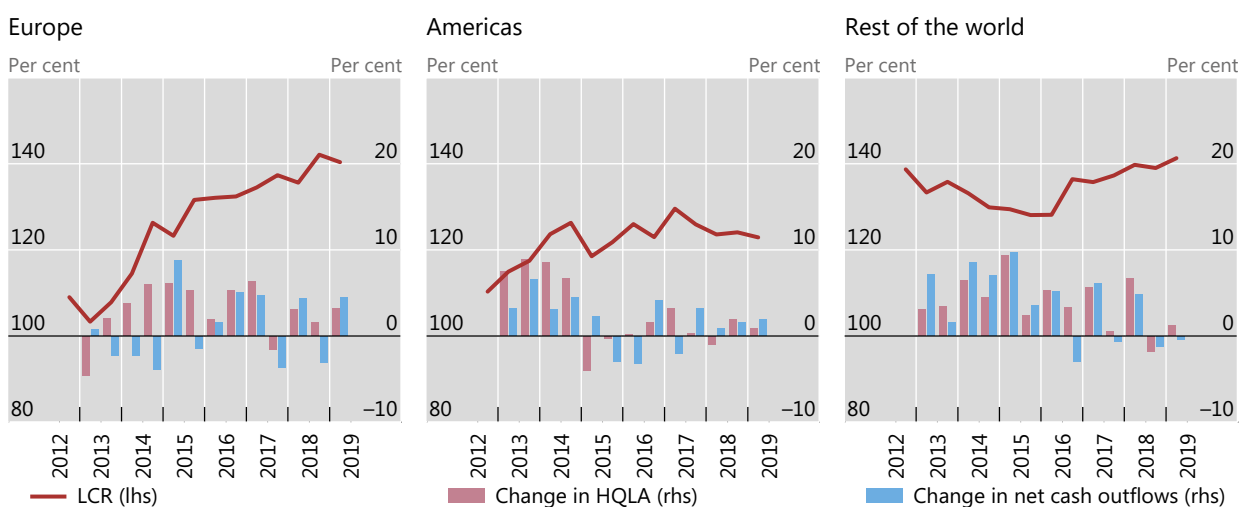
Source: Basel Committee on Banking Supervision. See Table C.89 for underlying data and sample size.

Graph 82 provides a breakdown by region of the results in Graph 81 for Group 1 banks. It displays the weighted average LCR for Group 1 banks located in each of the three regions. This graph also displays 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 both Europe and in Americas because of a bigger increase in net outflows than in HQLA. For Europe, the weighted average LCR decreased from 142.1% in the previous period to 140.4% in the current period. Similarly, for the Americas this decrease is from the previous value of 124.1% to current value of 122.9%. For the rest of the world however, LCR continued its trend upwards and increase to 141.3%, compared to the previous period of 139.0%.

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 82



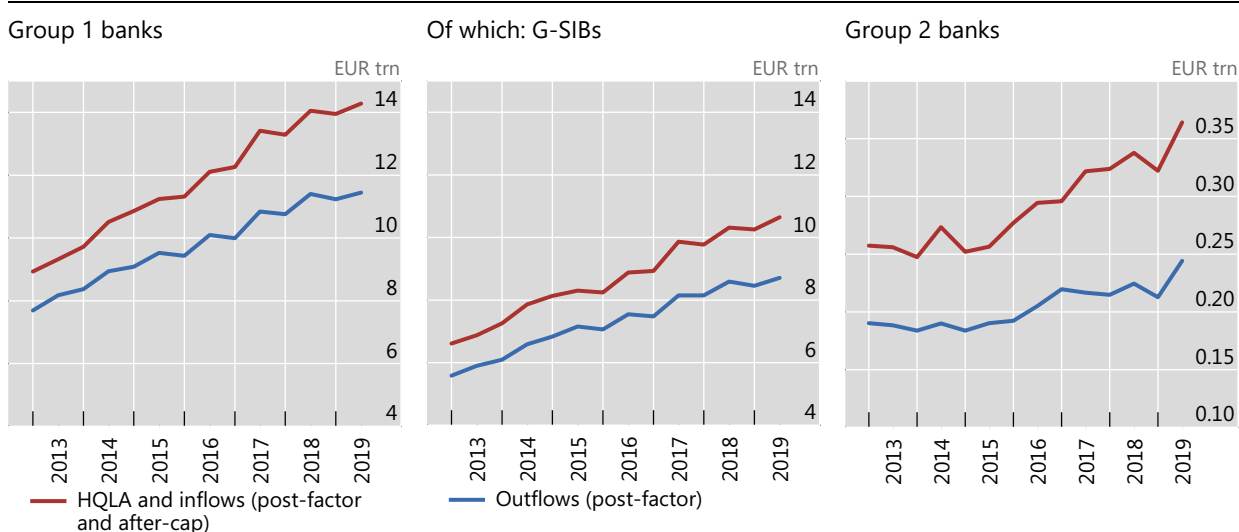
Source: Basel Committee on Banking Supervision. See Table C.90 for underlying data and sample size.

Graph 83 compares the trend in liquidity resources (ie HQLA and inflows) to 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 25 percent) and Group 2 banks (by 50 percent). This difference reached €2.84 trillion and €0.12 trillion for Group 1 and Group 2 banks, respectively, at end-June 2019.

High quality liquid assets and inflows versus outflows over time

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

Graph 83



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

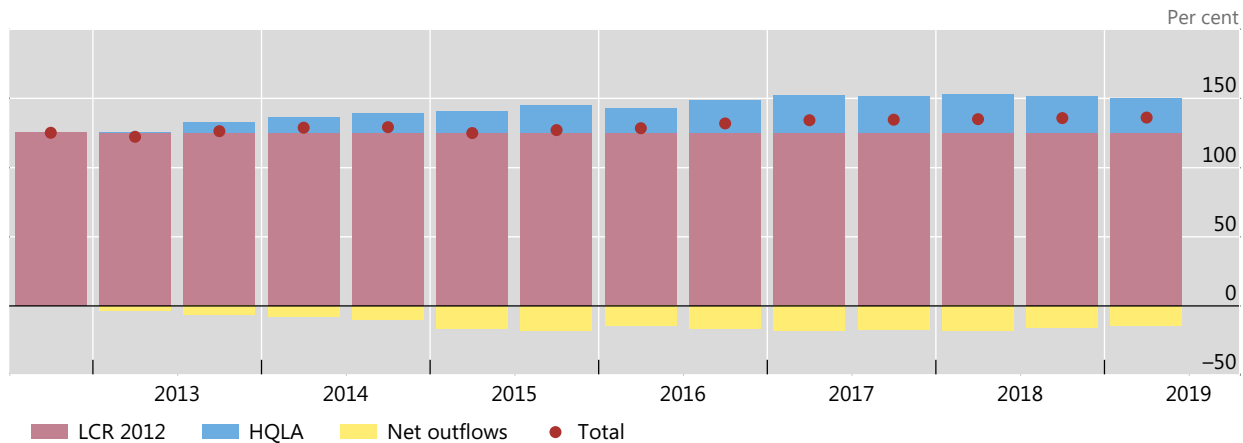
Graph 84 shows the evolution of the LCR and its drivers. Starting with the June 2012 LCR, the cumulative effect on the LCR of an increase in HQLA is added to the LCR, while the impact of cumulative increases in net outflows is subtracted from the baseline LCR. HQLA have grown faster over the years compared to the net outflows, which has resulted in an overall improvement in the LCR over time.

However, from end-December 2017 to present, both the HQLA and net outflows percentages have declined, but net outflows have declined more, which continues to push up the LCR.

Evolution of the LCR and its drivers

Consistent sample of Group 1 banks

Graph 84

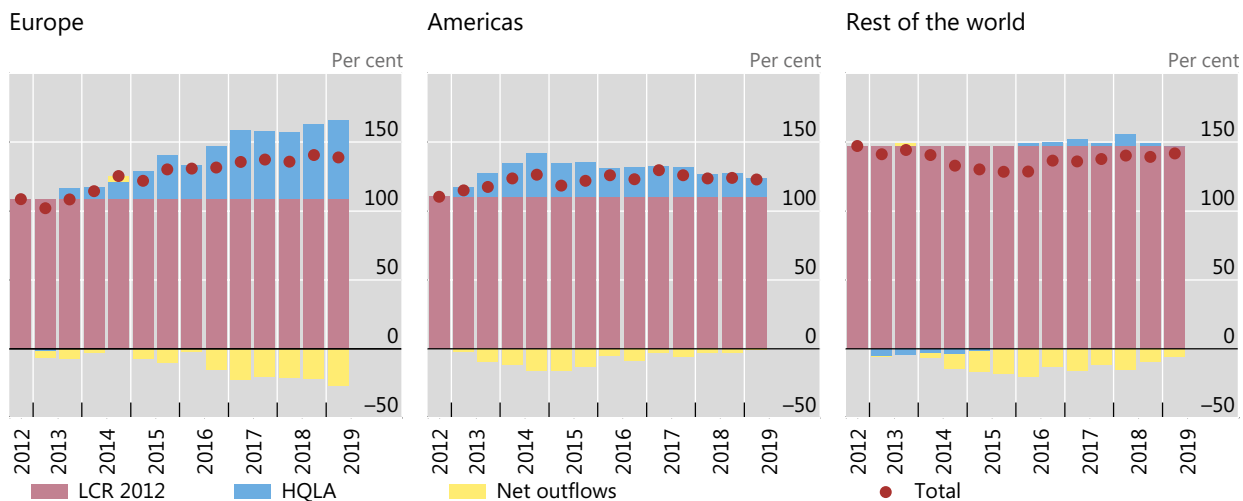


Source: Basel Committee on Banking Supervision. See Table C.92 for underlying data and sample size.

Evolution of the LCR and its drivers, by region

Consistent sample of Group 1 banks

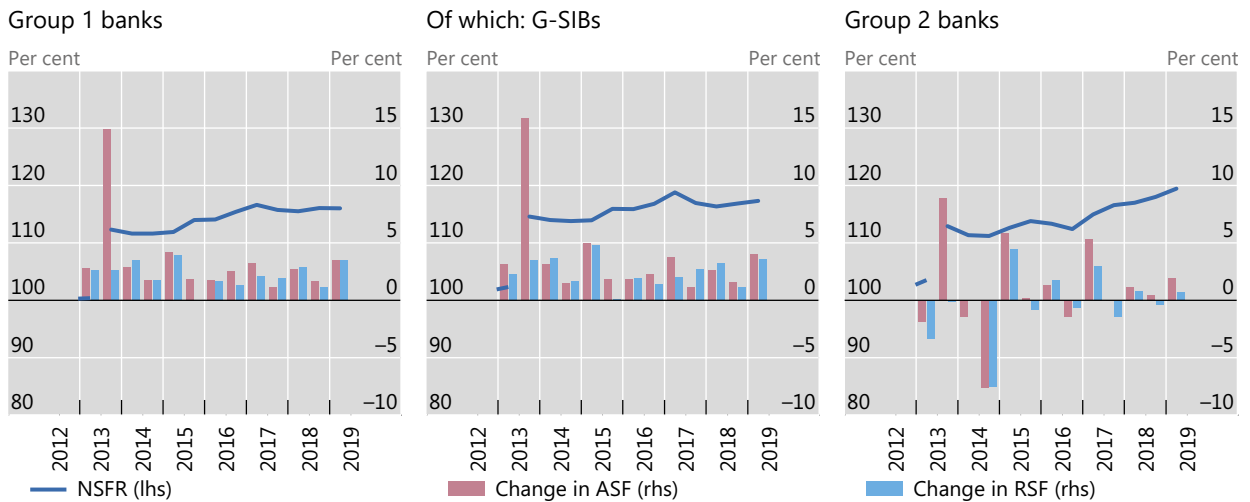
Graph 85



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

Graph 86 depicts the change in ASF and RSF over time. For all bank groups, there were significant positive changes in ASF of more than 8 percentage points for the end-December 2013 reporting date, also reflecting the changes to the definition of the NSFR standard. The change in ASF has since generally stabilised for Group 1 banks to between 1% and 4% per period. Group 2 banks have remained more volatile, with changes in ASF ranging from -8% to 6%.

Graph 86



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

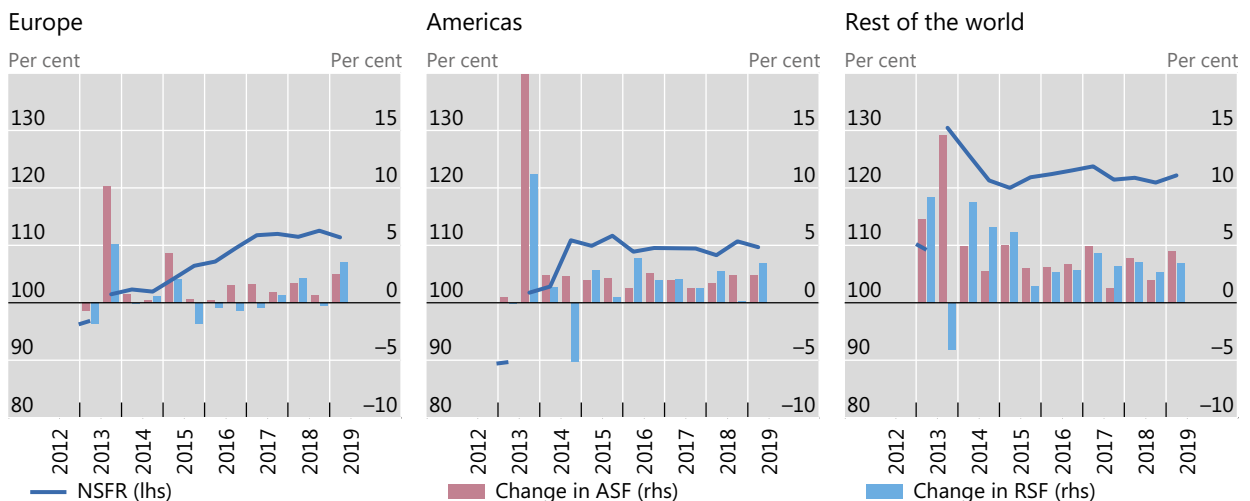
Source: Basel Committee on Banking Supervision. See Table C.94 for underlying data and sample size.

Graph 87 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 87



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

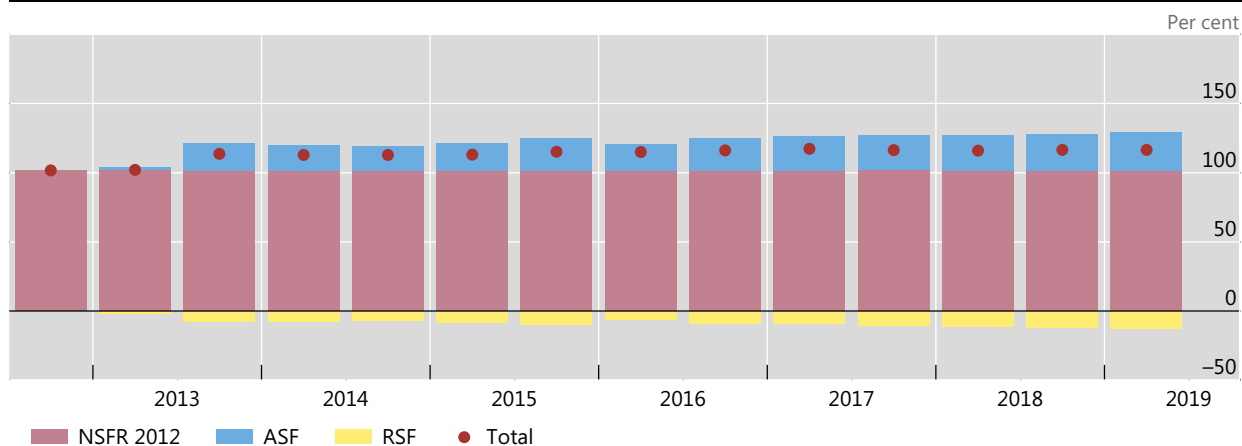
Source: Basel Committee on Banking Supervision. See Table C.95 for underlying data and sample size.

Graph 88 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. Across regions, the impact of the RSF is minimal except for Europe (see Graph 89).

Evolution of NSFR and its drivers¹

Consistent sample of Group 1 banks

Graph 88



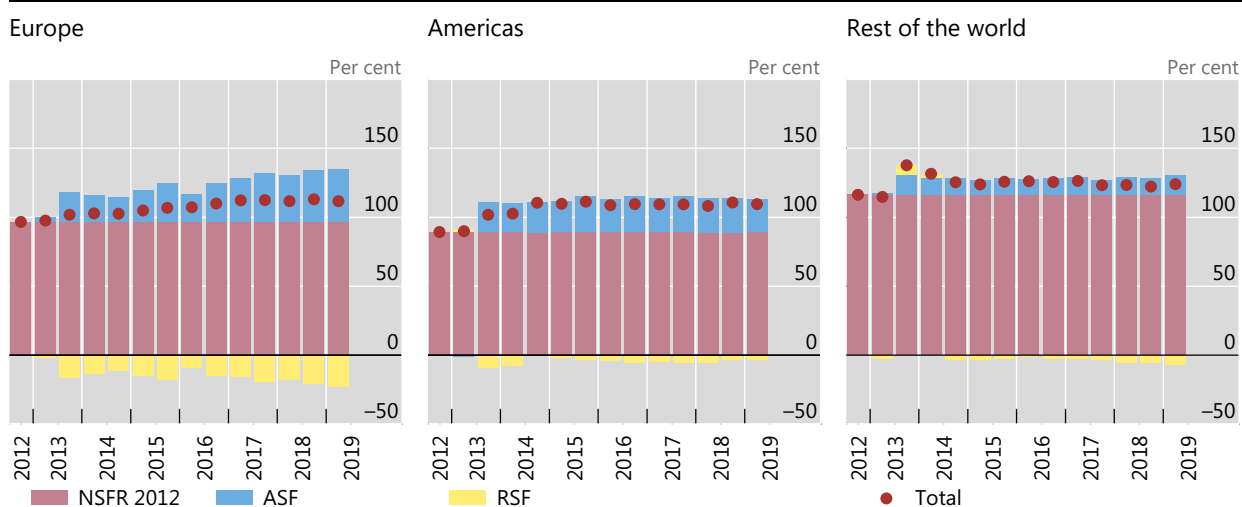
¹ As described in the text, the NSFR analysis is based on NSFR standard released in December 2010, January 2014 and October 2014.

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

Evolution of NSFR and its drivers,¹ by region

Consistent sample of Group 1 banks

Graph 89



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.97 for underlying data and sample size.

Counterparty credit risk and credit valuation adjustment risk

1. Counterparty credit risk

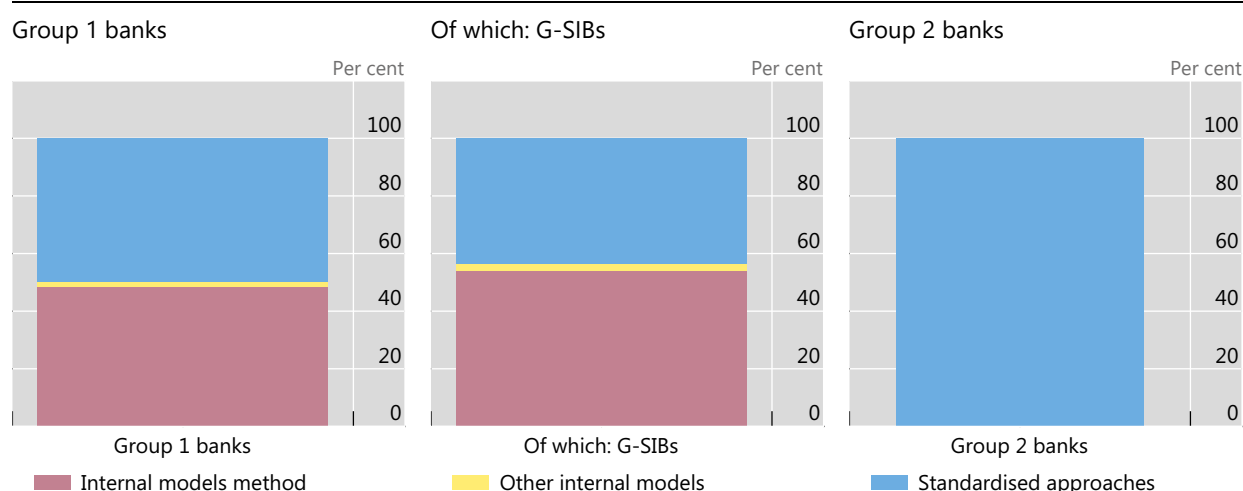
In understanding overall MRC, counterparty credit risk is part of credit risk capital requirements. This section provides detailed analysis of the current and revised counterparty credit risk capital requirements.

1.1 Current rules for counterparty credit risk

Graph 1 shows the composition of counterparty credit risk (CCR) capital by bank group at end-June 2019. Most banks in the sample use standardised approaches (SA) to calculate CCR exposures. Amongst those, the current exposure method (CEM) is the most widely used. Group 1 banks also use internal models approaches, mainly the internal models method (IMM), to calculate CCR exposures for derivative and securities financing transactions (SFTs). Group 2 banks in the sample do not apply the internal model approaches. For 62 Group 1 banks (of which 18 are using the IMM), CCR IMM capital requirements contribute 48.4% to total CCR capital requirements. CCR capital requirements calculated using standardised approaches contribute 49.7%. For G-SIBs, 54.1% of total CCR capital requirements come from capital requirements calculated using the IMM. Other internal models methods (repo-VaR and the comprehensive approach using own estimates of haircuts) are generally used for smaller portions of exposures (1.9% for Group 1 banks): they are used by fewer banks and cover only specific products.

Contribution to current CCR capital requirements by approach to EAD calculation

Graph 1



Source: Basel Committee on Banking Supervision. See Table C.98 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 affect the risk weights applied to CCR exposures. Both changes to the framework contribute to the impact to CCR capital requirements. Generally, both changes lead to an increase in CCR capital requirements under the revised framework relative to the current rules. 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 can be neutral. A total of 94 banks, including 62 Group 1 banks, of which 21 G-SIBs, and 32 Group 2 banks, have provided consistent data on the revised minimum capital requirements for counterparty credit risk at the end-June 2019 reporting date.

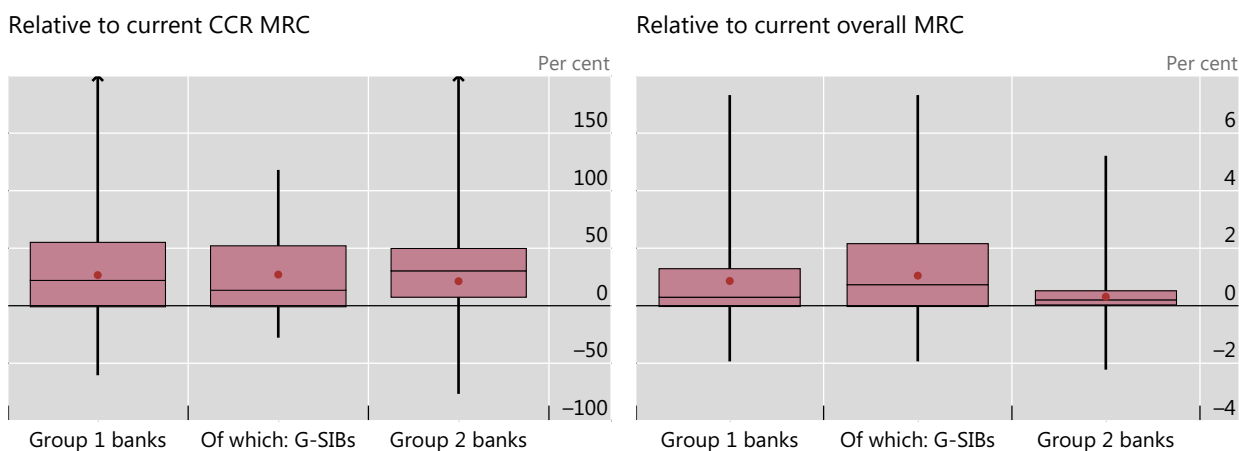
The left-hand panel of Graph 2 shows the impact on capital requirements from the introduction of the revised CCR framework compared to the current rules. On the full sample, capital requirements increase on average by 26.6%. For Group 1 banks and G-SIBs, RWAs increase by 26.7% and 27.2%, respectively. For Group 2 banks, the average increase is slightly less pronounced (21.4%). There is higher variability across Group 1 and Group 2 banks than for G-SIBs. The right-hand panel of Graph 2 provides the impact relative to current overall MRC. Given the small share of CCR capital requirements in overall MRC for most banks, the average impact of the CCR revisions on overall MRC is 0.9% 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 1.3% of overall MRC, and between 0.0% and 0.5% for the middle 50% of Group 2 banks.

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 rule (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.

Impact of revised CCR capital requirements compared to current rules

All banks

Graph 2



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

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

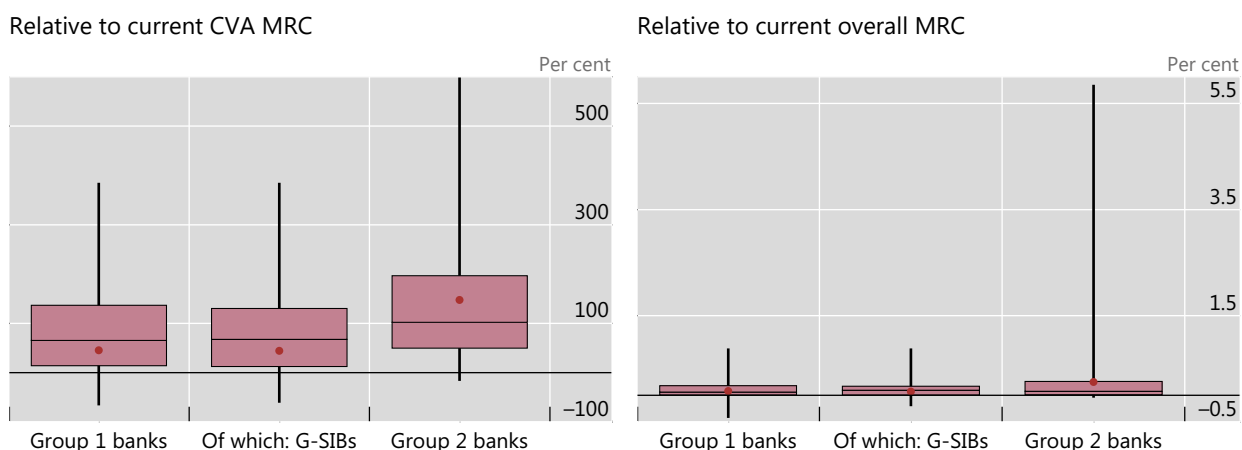
This section shows the estimated impacts from the introduction of the revised minimum capital requirements for credit valuation adjustment (CVA) risk published in January 2016. The sample for the analysis of the CVA risk component consists of 94 banks, including 70 Group 1 banks, of which 25 G-SIBs, and 24 Group 2 banks that provided consistent data at the end-June 2019 reporting date. The sample includes 18 banks that currently apply the advanced method for CVA (A-CVA), of which 17 indicate to use the standardised approach for CVA (SA-CVA) under the revised framework. The other 76 banks that currently apply the standard method for CVA (S-CVA) include 13 banks that indicate to apply the SA-CVA and 55 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 eight banks in the sample indicate to use only the full basic approach for CVA (full BA-CVA) in the future.

The impact differs substantially between Group 1 and Group 2 banks: the weighted average increase for Group 1 banks is 45.6%, while the weighted average increase for Group 2 banks is 147.5%. The impact for G-SIBs (+44.1%) is almost equal to the impact of the Group 1 banks. The variability in results is very significant. Some banks report decreasing capital requirements when moving to the revised CVA framework with CVA capital requirements decreasing by as much as 66.5%. Other banks report significant increases in the CVA capital requirements relative to the current standards, up to around seven times the current capital requirements. Very high increases appear more frequently for S-CVA banks that move to the reduced BA-CVA. These are explained by the increase in exposures from the application of the SA-CCR and the higher risk weights in the BA-CVA compared to the current standardised approach. Capital requirements under the revised reduced BA-CVA are 98.6% higher than capital requirements under the current S-CVA for the median bank.

The right-hand panel of Graph 3 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 94 banks in the sample, the average impact of the CVA revisions on overall MRC is 0.1% and 0.3% for Group 1 and Group 2 banks. Overall, the impact ranges between -0.4% and +5.9% for all banks in the sample.

Impact of revised CVA capital requirements compared to current rules

Graph 3



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.

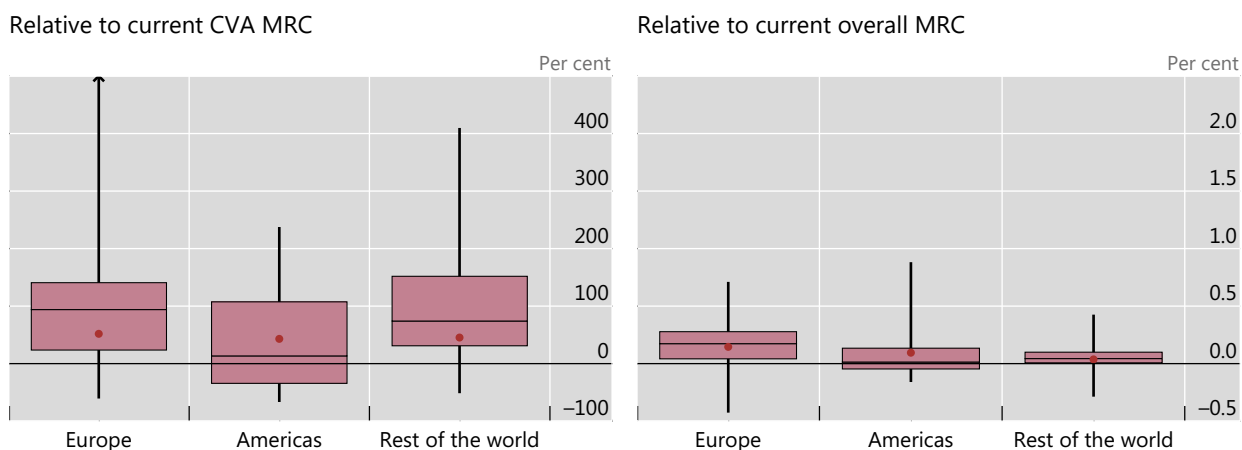
Source: Basel Committee on Banking Supervision. See Table C.100 for underlying data and sample size.

Graph 4 shows that results differ across regions. The average impacts of +43.3% and +44.6% in the Americas and the rest of the world, respectively, are lower than in Europe (+47.2%). The variability of results also differs across individual countries. In some countries, all banks show similar 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 4



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.101 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 September 2019, a final rule for the Net Stable Funding Ratio is only in place in 11 out of 19 Basel Committee member jurisdictions. See Basel Committee on Banking Supervision, *Seventeenth progress report on adoption of the Basel regulatory framework*, October 2019, www.bis.org/bcbs/publ/d478.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	<i>Basel III: A global framework for more resilient banks and the banking system,</i> www.bis.org/publ/bcbs189.htm		
Credit risk	<i>Basel III: A global framework for more resilient banks and the banking system,</i> www.bis.org/publ/bcbs189.htm <i>Capital requirements for bank exposures to central counterparties,</i> 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	
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	

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 included¹

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	0	0	2	2
Australia (RW)	4	4	0	4	4	1	1	1	0	1	1	0
Belgium (EU)	2	2	2	2	2	2	1	1	1	1	1	0
Brazil (AM)	2	2	2	2	2	0	0	0	0	0	0	0
Canada (AM)	6	6	6	6	6	6	2	2	2	2	2	2
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)	5	5	5	5	5	4	20	20	20	20	20	0
India (RW)	8	8	8	8	6	1	2	2	2	2	2	0
Indonesia (RW)	0	0	0	0	0	0	2	2	2	1	1	2
Italy (EU)	2	2	2	2	2	2	11	11	10	11	11	10
Japan (RW)	16	15	16	16	16	15	3	3	3	3	3	3
Korea (RW)	8	8	8	8	8	7	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	0	1	0	5	5	5	0	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	4	4	4	4	4	3
Sweden (EU)	3	3	3	3	3	1	3	3	3	3	3	0
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)	9	9	9	9	9	8	0	0	0	0	0	0
Total	105	104	101	104	102	72	69	69	65	61	68	31
Of which: G-SIBs	30	30	30	30	29	25	0	0	0	0	0	0

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.

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	96	4,319	30,058	65,855	72,744
Of which: Europe	18	1,064	7,432	14,539	17,152
Of which: Americas	31	1,302	8,424	23,832	25,567
Of which: Rest of the world	47	1,952	14,202	27,483	30,025
Of which: G-SIBs	30	3,039	21,319	47,174	51,722
Group 2 banks	63	199	1,308	3,581	3,829

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 framework¹

Table B.3

	Group 1 banks	Group 2 banks
Belgium (EU)	2	1
Brazil (AM)	2	0
Canada (AM)	6	2
China (RW)	6	0
Finland (EU)	1	0
France (EU)	5	2
Germany (EU)	5	17
India (RW)	3	2
Italy (EU)	2	9
Japan (RW)	14	3
Korea (RW)	8	0
Luxembourg (EU)	0	2
Mexico (AM)	1	5
Netherlands (EU)	4	4
Russia (EU)	1	0
Saudi Arabia (RW)	3	0
Singapore (RW)	3	0
South Africa (RW)	4	2
Spain (EU)	2	4
Sweden (EU)	3	3
Switzerland (EU)	2	0
Turkey (EU)	2	0
United Kingdom (EU)	5	3
United States (AM)	7	0
Total	91	59

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	Other ³	Total
H1 2011	84	-15.6	-3.8	-3.4	-3.0	-1.8	-2.2	-3.0	-32.9
H2 2011	84	-14.2	-3.6	-2.9	-2.0	-1.6	-1.7	-3.8	-29.8
H1 2012	84	-13.5	-3.4	-2.6	-1.8	-1.2	-1.4	-3.4	-27.2
H2 2012	84	-12.5	-3.2	-2.7	-2.4	-1.2	-1.2	-2.8	-26.1
H1 2013	84	-12.1	-2.9	-2.7	-2.5	-1.1	-1.0	-2.1	-24.4
H2 2013	84	-11.3	-2.7	-2.5	-1.4	-0.5	-0.4	-1.5	-20.4
H1 2014	84	-10.9	-2.7	-2.3	-1.3	-0.4	-0.2	-1.5	-19.2
H2 2014	84	-10.4	-2.5	-2.1	-1.0	-0.4	-0.2	-1.8	-18.5
H1 2015	84	-10.0	-2.4	-1.9	-0.7	-0.3	-0.1	-1.8	-17.5
H2 2015	84	-9.5	-2.3	-1.9	-0.7	-0.3	-0.1	-1.8	-16.9
H1 2016	84	-9.3	-2.3	-1.8	-0.7	-0.2	-0.1	-2.2	-16.9
H2 2016	84	-9.0	-2.3	-1.7	-0.7	-0.3	-0.1	-2.0	-16.2
H1 2017	84	-8.8	-2.3	-1.6	-0.8	-0.3	-0.1	-1.6	-15.4
H2 2017	84	-8.8	-2.3	-1.3	-0.7	-0.1	-0.1	-1.5	-14.8
H1 2018	84	-8.7	-2.3	-1.3	-0.7	-0.1	-0.1	-1.5	-14.6
H2 2018	84	-8.6	-2.3	-1.2	-0.7	-0.1	-0.1	-1.6	-14.6
H1 2019	84	-8.3	-2.3	-1.1	-0.7	-0.1	-0.2	-1.5	-14.1

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	Other ³	Total
H1 2011	30	-16.1	-4.0	-0.5	-5.2	-5.6	-2.7	-4.8	-39.0
H2 2011	30	-10.9	-4.2	-0.6	-5.8	-3.7	-2.0	-4.5	-31.6
H1 2012	30	-8.6	-4.1	-0.3	-5.6	-3.1	-2.1	-5.2	-29.0
H2 2012	30	-8.0	-3.9	-0.2	-6.5	-2.6	-1.7	-5.5	-28.4
H1 2013	30	-7.8	-3.7	-0.4	-6.2	-1.9	-1.6	-6.4	-28.0
H2 2013	30	-5.8	-3.7	-0.4	-4.7	-0.7	-1.0	-6.3	-22.7
H1 2014	30	-5.2	-3.3	-0.4	-3.2	0.0	-0.7	-2.0	-14.9
H2 2014	30	-3.3	-3.6	-0.6	-3.6	-0.5	-0.7	-3.3	-15.8
H1 2015	30	-3.2	-3.0	-0.5	-3.6	-0.1	-0.8	-2.7	-14.0
H2 2015	30	-3.2	-3.0	-0.5	-3.4	0.0	-0.2	-3.2	-13.6
H1 2016	30	-3.2	-3.1	-1.0	-2.9	0.0	-0.2	-2.7	-13.1
H2 2016	30	-3.2	-3.1	-1.0	-4.3	0.0	-0.4	-2.2	-14.2
H1 2017	30	-3.1	-2.9	-1.5	-3.3	0.0	-0.1	-2.2	-13.0
H2 2017	30	-3.0	-3.1	-1.7	-3.4	0.0	-0.4	-2.2	-13.8
H1 2018	30	-3.2	-3.2	-2.1	-3.4	0.0	-0.5	-1.8	-14.1
H2 2018	30	-3.1	-3.3	-2.0	-3.4	-0.2	-0.7	-1.7	-14.5
H1 2019	30	-3.1	-3.4	-2.2	-3.5	-0.2	-0.7	-2.1	-15.1

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.

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	37.1	37.1	42.7	16.4	18.7	21.3	47.4	47.4	47.4
95th percentile	18.1	19.6	21.6	16.1	17.6	20.6	32.5	32.8	37.3
75th percentile	14.5	16.0	18.5	13.7	15.8	18.3	19.3	19.9	21.3
Median	12.9	14.2	15.9	12.2	14.4	16.4	14.5	14.8	16.1
25th percentile	11.6	12.7	14.7	11.7	13.1	15.1	12.4	12.6	14.0
5th percentile	10.0	11.4	12.6	11.1	12.5	14.2	9.3	10.5	12.1
Min	5.9	6.3	9.1	11.1	11.7	14.0	5.9	6.0	8.4
Weighted average	12.7	14.1	16.2	12.5	13.9	16.2	14.5	15.1	17.2

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	87	72.1	9.2	18.6	30	69.6	11.1	19.3	31	68.2	8.3	23.4
H2 2011	87	73.4	8.8	17.8	30	71.1	10.4	18.5	31	70.3	6.9	22.8
H1 2012	87	75.3	7.9	16.8	30	73.7	9.3	17.0	31	71.9	4.4	23.8
H2 2012	87	75.7	7.3	17.0	30	74.6	8.8	16.7	31	71.8	4.2	24.0
H1 2013	87	75.2	7.0	17.8	30	75.2	7.4	17.4	31	71.6	4.0	24.4
H2 2013	87	75.8	6.8	17.4	30	76.0	7.1	17.0	31	73.0	3.3	23.7
H1 2014	87	76.9	5.5	17.6	30	77.2	5.6	17.1	31	74.6	3.5	21.9
H2 2014	87	76.5	6.1	17.3	30	76.5	6.5	16.9	31	76.6	3.8	19.6
H1 2015	87	76.9	6.6	16.5	30	76.8	7.1	16.1	31	78.5	3.9	17.6
H2 2015	87	76.7	7.1	16.2	30	76.7	7.7	15.6	31	80.1	4.4	15.5
H1 2016	87	77.0	7.4	15.6	30	77.1	8.0	14.9	31	80.7	4.3	15.0
H2 2016	87	77.1	7.6	15.3	30	77.2	8.1	14.6	31	81.0	4.0	15.0
H1 2017	87	77.2	8.2	14.6	30	77.4	8.7	13.9	31	80.5	3.7	15.8
H2 2017	87	77.0	8.4	14.6	30	76.9	8.8	14.3	31	80.0	3.6	16.4
H1 2018	87	76.8	8.9	14.4	30	76.8	9.2	14.0	31	79.5	5.3	15.2
H2 2018	87	76.8	8.6	14.5	30	76.8	9.0	14.2	31	80.3	5.4	14.3
H1 2019	87	76.4	8.9	14.7	30	76.0	9.1	14.9	31	81.4	4.1	14.5

Source: Basel Committee on Banking Supervision.

Annex C: Statistical Annex

Initial Basel III CET1, Tier 1 and total capital ratios

In per cent

Table C.1

	Group 1 banks			Of which: G-SIBs			Group 2 banks		
	CET1	Tier 1	Total	CET1	Tier 1	Total	CET1	Tier 1	Total
Max	37.1	37.1	42.7	16.4	19.1	21.5	47.4	47.4	47.4
95th percentile	18.0	19.6	22.0	16.0	18.4	21.2	31.6	32.0	36.8
75th percentile	14.4	16.2	18.9	13.5	16.1	19.0	19.2	19.7	20.6
Median	12.8	14.1	16.1	12.4	14.5	16.9	14.8	15.3	17.1
25th percentile	11.7	12.8	15.0	12.0	13.4	15.5	12.4	13.2	15.0
5th percentile	10.0	11.3	12.7	11.2	12.9	14.8	9.5	10.6	12.0
Min	6.6	7.3	10.1	11.1	12.8	14.0	8.1	8.2	10.7
Weighted average	12.8	14.3	16.7	12.7	14.2	16.7	14.8	15.4	17.5

Source: Basel Committee on Banking Supervision.

Initial Basel III CET1, Tier 1 and total capital ratios¹

Consistent sample of banks, in per cent

Table C.2

	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	82	7.0	7.3	8.6	30	6.7	7.1	8.5	31	6.8	7.5	9.8
H2 2011	82	7.6	7.9	9.1	30	7.3	7.6	9.0	31	6.6	7.3	9.5
H1 2012	82	8.5	8.7	9.8	30	8.2	8.5	9.8	31	7.1	8.1	9.8
H2 2012	82	9.1	9.4	10.5	30	9.0	9.2	10.6	31	6.7	7.4	9.1
H1 2013	82	9.4	9.6	10.9	30	9.2	9.4	10.8	31	6.8	7.7	9.7
H2 2013	82	10.1	10.4	11.7	30	9.9	10.3	11.6	31	8.8	9.7	11.6
H1 2014	82	10.7	11.2	12.5	30	10.5	11.0	12.2	31	10.8	11.1	13.1
H2 2014	82	10.8	11.4	12.9	30	10.6	11.3	12.8	31	10.7	11.1	12.6
H1 2015	82	11.3	12.0	13.6	30	11.0	11.9	13.5	31	11.5	11.8	13.3
H2 2015	82	11.7	12.5	14.3	30	11.4	12.4	14.2	31	11.5	11.9	13.5
H1 2016	82	11.9	12.8	14.6	30	11.6	12.7	14.4	31	11.5	12.0	13.6
H2 2016	82	12.1	13.3	15.1	30	12.0	13.3	15.1	31	11.6	12.1	13.8
H1 2017	82	12.4	13.5	15.3	30	12.2	13.4	15.1	31	12.4	13.0	15.2
H2 2017	82	12.5	13.7	15.6	30	12.3	13.6	15.4	31	13.6	14.3	16.9
H1 2018	82	12.4	13.6	15.7	30	12.1	13.4	15.4	31	13.6	14.5	17.0
H2 2018	82	12.7	14.0	16.2	30	12.6	13.9	16.1	31	13.8	14.7	17.1
H1 2019	82	12.8	14.3	16.8	30	12.7	14.3	16.8	31	14.5	15.2	17.8

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 CET1, Tier 1 and total capital ratios,¹ by region

Consistent sample of Group 1 banks, in per cent

Table C.3

	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	18	6.1	6.7	9.1	36	8.9	9.0	9.7
H2 2011	28	6.7	6.8	7.6	18	7.0	7.6	10.0	36	9.3	9.4	10.2
H1 2012	28	7.8	8.0	8.6	18	7.8	8.4	10.5	36	9.8	9.9	10.6
H2 2012	28	8.5	8.6	9.5	18	8.4	8.9	10.9	36	10.5	10.6	11.3
H1 2013	28	9.2	9.3	10.8	18	8.6	9.2	10.9	36	10.2	10.2	11.0
H2 2013	28	10.2	10.4	12.2	18	9.4	10.1	11.7	36	10.5	10.6	11.4
H1 2014	28	10.8	11.3	13.4	18	10.0	10.9	12.4	36	11.2	11.3	12.0
H2 2014	28	10.9	11.5	13.6	18	10.4	11.5	13.0	36	11.0	11.3	12.3
H1 2015	28	11.5	12.2	14.5	18	10.9	12.2	13.9	36	11.4	11.8	12.8
H2 2015	28	11.9	12.9	15.4	18	11.1	12.4	14.2	36	11.9	12.4	13.5
H1 2016	28	12.1	13.1	15.9	18	11.4	12.9	14.8	36	12.0	12.6	13.6
H2 2016	28	12.6	14.1	17.3	18	11.7	13.3	15.1	36	12.1	12.7	13.8
H1 2017	28	13.0	14.3	17.1	18	12.2	13.8	15.7	36	12.1	12.8	13.9
H2 2017	28	13.7	15.2	17.9	18	11.8	13.4	15.2	36	12.2	13.0	14.5
H1 2018	28	13.5	15.1	17.9	18	11.7	13.3	15.2	36	12.1	12.9	14.7
H2 2018	28	13.5	15.1	18.0	18	12.0	13.6	15.5	36	12.7	13.5	15.5
H1 2019	28	13.7	15.8	18.7	18	12.3	14.0	15.9	36	12.6	13.7	16.2

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 capital¹

Consistent sample of banks, exchange rates as of the current reporting date, in per cent

Table C.4

	Group 1 banks				Of which: G-SIBs				Group 2 banks			
	Number of banks	Tier 1 ratio	Change		Number of banks	Tier 1 ratio	Change		Number of banks	Tier 1 ratio	Change	
			Tier 1 capital	RWA			Tier 1 capital	RWA			Tier 1 capital	RWA
H1 2011	82	7.3			30	7.1			30	7.6		
H2 2011	82	7.9	5.3	-1.9	30	7.6	4.8	-2.5	30	7.5	-0.5	0.9
H1 2012	82	8.7	8.4	-2.1	30	8.5	9.2	-2.6	30	8.3	7.4	-2.6
H2 2012	82	9.4	5.2	-2.0	30	9.2	5.6	-2.2	30	7.6	-7.0	2.1
H1 2013	82	9.6	4.9	2.0	30	9.4	4.7	2.2	30	7.8	1.4	-2.1
H2 2013	82	10.4	7.6	-0.3	30	10.3	8.4	-0.2	30	9.8	19.3	-4.5
H1 2014	82	11.2	7.4	-0.4	30	11.0	7.5	0.1	30	11.2	13.9	-0.7
H2 2014	82	11.4	6.3	4.2	30	11.3	6.9	3.9	30	11.2	-1.2	-0.8
H1 2015	82	12.0	6.4	1.2	30	11.9	6.4	1.4	30	11.8	10.2	4.3
H2 2015	82	12.5	4.5	0.2	30	12.4	4.3	-0.2	30	11.9	3.0	1.9
H1 2016	82	12.8	3.3	1.0	30	12.7	3.5	1.3	30	12.0	0.1	-0.3
H2 2016	82	13.3	3.5	0.1	30	13.3	3.4	-1.0	30	12.1	-1.2	-2.4
H1 2017	82	13.5	3.0	1.3	30	13.4	2.6	1.6	30	13.0	9.0	1.6
H2 2017	82	13.7	2.6	1.1	30	13.6	2.5	1.2	30	14.3	-0.4	-9.7
H1 2018	82	13.6	1.3	1.7	30	13.4	1.4	2.3	30	14.6	0.3	-1.7
H2 2018	82	14.0	3.0	0.3	30	13.9	2.9	-0.5	30	14.8	-0.1	-1.6
H1 2019	82	14.3	4.8	2.4	30	14.3	5.2	2.4	30	15.3	4.6	1.5

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.

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.5

	Europe				Americas				Rest of the world			
	Number of banks	Tier 1 ratio	Change		Number of banks	Tier 1 ratio	Change		Number of banks	Tier 1 ratio	Change	
			Tier 1 capital	RWA			Tier 1 capital	RWA			Tier 1 capital	RWA
H1 2011	28	6.5			18	6.7			36	9.0		
H2 2011	28	6.8	2.8	-1.8	18	7.6	5.7	-6.3	36	9.4	7.5	2.54
H1 2012	28	8.0	9.1	-6.3	18	8.4	7.6	-2.2	36	9.9	8.3	3.3
H2 2012	28	8.6	0.7	-6.4	18	8.9	5.9	-0.8	36	10.6	8.8	1.9
H1 2013	28	9.3	4.9	-3.4	18	9.2	0.7	-2.3	36	10.2	7.9	11.4
H2 2013	28	10.4	7.8	-3.5	18	10.1	7.7	-1.8	36	10.6	7.3	3.8
H1 2014	28	11.3	8.4	0.2	18	10.9	7.8	-0.5	36	11.3	6.3	-0.8
H2 2014	28	11.5	3.0	0.6	18	11.5	4.9	-0.1	36	11.3	10.1	10.5
H1 2015	28	12.2	4.1	-1.6	18	12.2	6.5	0.1	36	11.8	8.2	4.0
H2 2015	28	12.9	2.3	-3.1	18	12.4	3.1	1.3	36	12.4	7.1	1.9
H1 2016	28	13.1	2.1	0.1	18	12.9	4.6	0.5	36	12.6	3.4	1.8
H2 2016	28	14.1	4.5	-2.4	18	13.3	1.4	-1.0	36	12.7	4.2	2.6
H1 2017	28	14.3	0.8	-1.2	18	13.8	3.6	-0.4	36	12.8	4.1	3.9
H2 2017	28	15.2	1.9	-3.7	18	13.4	-0.9	2.3	36	13.0	5.3	3.5
H1 2018	28	15.1	-0.4	0.2	18	13.3	0.7	0.9	36	12.9	2.7	3.0
H2 2018	28	15.1	1.3	1.1	18	13.6	0.9	-1.3	36	13.5	5.3	0.7
H1 2019	28	15.8	5.3	1.0	18	14.0	3.3	0.9	36	13.7	5.4	3.9

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 drivers¹

Group 1 banks, in per cent

Table C.6

	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	0.0
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	0.3	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	0.0	0.8	1.6
H1 2015		7.1	1.6	-0.1	0.9	1.9
H2 2015		7.1	2.0	-0.2	0.9	1.9
H1 2016		7.1	2.1	-0.3	1.0	2.0
H2 2016		7.1	2.4	-0.3	1.1	1.9
H1 2017		7.1	2.5	-0.5	1.1	2.1
H2 2017		7.1	2.8	-0.7	1.2	2.1
H1 2018		7.1	3.1	-0.9	1.3	1.8
H2 2018		7.1	3.4	-0.9	1.3	1.8
H1 2019		7.1	3.7	-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 drivers¹

Group 1 banks, region Europe, in per cent

Table C.7

	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	0.4	0.0
H1 2012		6.3	-0.1	0.6	0.6	0.3
H2 2012		6.3	-0.3	1.1	0.7	0.4
H1 2013		6.3	-0.1	1.5	0.8	0.5
H2 2013		6.3	-0.4	2.1	1.0	1.1
H1 2014		6.3	-0.3	2.2	1.3	1.3
H2 2014		6.3	-0.2	2.1	1.3	1.4
H1 2015		6.3	0.0	2.4	1.4	1.3
H2 2015		6.3	0.1	2.8	1.5	1.2
H1 2016		6.3	0.1	2.8	1.6	1.3
H2 2016		6.3	0.1	3.2	1.7	1.2
H1 2017		6.3	0.2	3.5	1.8	1.2
H2 2017		6.3	0.4	4.1	1.9	1.0
H1 2018		6.3	0.5	4.1	2.0	0.8
H2 2018		6.3	0.8	3.9	2.0	0.6
H1 2019		6.3	1.0	3.9	2.1	0.6

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.

Evolution of initial Basel III capital ratios and their drivers¹

Group 1 banks, region Americas, 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		6.1				
H2 2011		6.1	0.1	0.4	0.2	0.2
H1 2012		6.1	0.2	0.7	0.3	0.6
H2 2012		6.1	0.3	0.8	0.3	0.9
H1 2013		6.1	0.5	1.0	0.4	0.7
H2 2013		6.1	0.7	1.2	0.4	1.1
H1 2014		6.1	0.7	1.3	0.5	1.4
H2 2014		6.1	0.7	1.4	0.5	1.8
H1 2015		6.1	0.7	1.4	0.6	2.1
H2 2015		6.1	0.8	1.3	0.6	2.2
H1 2016		6.1	0.8	1.3	0.7	2.5
H2 2016		6.1	1.0	1.5	0.7	2.5
H1 2017		6.1	1.0	1.6	0.8	2.8
H2 2017		6.1	0.7	1.3	0.8	2.9
H1 2018		6.1	0.8	1.2	0.9	2.8
H2 2018		6.1	0.7	1.4	0.9	3.0
H1 2019		6.1	0.6	1.3	1.0	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 drivers¹

Group 1 banks, region rest of the world, 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		8.9				
H2 2011		8.9	0.7	-0.2	0.1	-0.1
H1 2012		8.9	0.9	-0.6	0.1	0.5
H2 2012		8.9	2.0	-0.8	0.2	0.2
H1 2013		8.9	2.1	-2.1	0.3	0.9
H2 2013		8.9	3.0	-2.6	0.3	0.8
H1 2014		8.9	3.2	-2.7	0.4	1.4
H2 2014		8.9	4.1	-4.0	0.4	1.6
H1 2015		8.9	4.5	-4.8	0.5	2.3
H2 2015		8.9	5.4	-5.3	0.6	2.3
H1 2016		8.9	5.7	-5.7	0.6	2.4
H2 2016		8.9	6.5	-6.2	0.6	2.2
H1 2017		8.9	6.9	-6.9	0.7	2.5
H2 2017		8.9	7.8	-7.6	0.7	2.4
H1 2018		8.9	8.4	-8.2	0.9	2.1
H2 2018		8.9	9.4	-8.7	0.9	2.1
H1 2019		8.9	10.0	-9.5	1.0	2.2

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.10

	Group 1 banks			Of which: G-SIBs			Group 2 banks		
	CET1	Tier 1	Total	CET1	Tier 1	Total	CET1	Tier 1	Total
Max	37.0	37.0	42.5	16.5	20.0	20.8	53.6	53.6	53.6
95th percentile	19.4	20.0	22.3	15.5	18.3	20.3	23.7	25.0	27.2
75th percentile	14.9	16.1	18.7	13.9	15.9	18.3	16.7	17.2	19.4
Median	13.1	14.4	16.3	12.5	14.1	16.2	13.7	14.1	15.5
25th percentile	11.7	12.7	14.6	11.5	13.2	14.9	10.9	11.2	12.5
5th percentile	9.4	10.6	12.7	9.5	10.6	12.1	9.1	9.4	10.8
Min	7.0	7.1	11.8	9.1	10.3	12.0	3.2	3.3	3.3
Weighted average	12.9	14.2	16.5	12.7	14.1	16.5	12.6	13.2	15.0

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.11

	Group 1 banks			Of which: G-SIBs			Group 2 banks		
	CET1	Tier 1	Total	CET1	Tier 1	Total	CET1	Tier 1	Total
Max	27.2	27.2	31.3	16.5	17.1	20.1	53.6	53.6	53.6
95th percentile	18.9	19.1	20.1	14.4	16.8	18.8	23.6	23.6	24.0
75th percentile	13.6	14.7	17.4	13.0	14.8	17.4	15.6	16.1	19.1
Median	12.5	13.6	15.7	12.2	13.7	15.8	13.1	13.7	15.1
25th percentile	11.1	12.1	14.0	10.6	12.1	13.9	10.9	11.2	12.4
5th percentile	9.3	10.5	12.1	9.0	10.2	11.9	9.1	9.4	10.8
Min	5.0	5.1	9.4	7.5	8.2	9.7	3.2	3.3	3.3
Weighted average	12.3	13.6	15.8	12.3	13.6	15.9	12.2	12.7	14.5

Source: Basel Committee on Banking Supervision.

Total changes in Tier 1 MRC at the target level

Reduced estimation bias¹

Table C.12

	Max	95th percentile	75th percentile	Median	25th percentile	5th percentile	Min	Weighted average
Group 1 banks								
H2 2015	52.2	38.0	12.9	1.0	-7.5	-17.0	-27.8	-0.5
H2 2017	52.0	31.8	17.5	4.3	-1.8	-15.2	-33.1	3.5
H1 2018	61.1	30.7	19.0	5.4	-2.3	-13.8	-16.0	5.3
H2 2018	60.5	29.3	14.6	2.5	-3.2	-13.1	-17.6	3.0
H1 2019	63.2	26.8	11.9	2.7	-4.4	-14.7	-19.9	2.5
Of which: G-SIBs								
H2 2015	43.4	39.1	17.3	7.7	-9.1	-22.6	-27.8	-1.7
H2 2017	52.0	41.5	23.0	10.8	-3.1	-16.1	-16.1	3.0
H1 2018	61.1	33.2	25.7	15.2	-2.4	-12.6	-15.4	5.7
H2 2018	60.5	39.9	21.7	14.0	-1.8	-16.8	-17.2	3.4
H1 2019	63.2	30.4	21.1	16.8	-3.6	-14.9	-16.9	2.7
Group 2 banks								
H2 2015	36.7	15.8	4.7	1.2	-0.3	-11.4	-46.5	3.8
H2 2017	54.5	23.1	12.8	3.2	-0.1	-10.4	-56.0	5.7
H1 2018	113.6	33.5	17.4	2.6	-0.2	-7.2	-40.4	9.3
H2 2018	84.2	34.7	15.5	5.3	0.0	-9.9	-32.8	8.5
H1 2019	77.8	26.4	13.9	5.2	-0.1	-9.8	-47.3	7.5

¹ For two 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 30 June 2019 results. The two banks are included with their numbers as reported in the results for 31 December 2018.

Source: Basel Committee on Banking Supervision.

Total changes in Tier 1 MRC at the target level

Conservative estimation

Table C.13

	Max	95th percentile	75th percentile	Median	25th percentile	5th percentile	Min	Weighted average
Group 1 banks								
H2 2015	52.2	38.0	12.9	1.0	-7.5	-17.0	-27.8	-0.5
H2 2017	52.0	31.8	17.5	4.3	-1.8	-15.2	-33.1	3.5
H1 2018	61.1	30.7	19.0	5.4	-2.3	-13.8	-16.0	5.3
H2 2018	60.5	29.3	14.6	2.5	-3.2	-13.1	-17.6	3.0
H1 2019	63.2	28.0	11.9	2.7	-4.4	-14.7	-19.9	2.8
Of which: G-SIBs								
H2 2015	43.4	39.1	17.3	7.7	-9.1	-22.6	-27.8	-1.7
H2 2017	52.0	41.5	23.0	10.8	-3.1	-16.1	-16.1	3.0
H1 2018	61.1	33.2	25.7	15.2	-2.4	-12.6	-15.4	5.7
H2 2018	60.5	39.9	21.7	14.0	-1.8	-16.8	-17.2	3.4
H1 2019	63.2	34.2	21.6	16.8	-3.6	-14.9	-16.9	3.1

Source: Basel Committee on Banking Supervision.

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

In per cent

Table C.14

	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	87	87	20	20	63	63
Max	17.5	17.2	8.0	8.1	23.9	24.4
95th percentile	10.5	10.5	7.7	7.8	14.2	14.0
75th percentile	7.2	7.0	5.5	5.3	7.2	6.9
Median	5.7	5.6	5.0	4.9	5.5	5.2
25th percentile	4.6	4.6	4.3	4.2	4.8	4.7
5th percentile	4.1	4.0	4.1	3.9	3.3	3.3
Min	2.1	1.9	4.1	3.9	1.9	1.9
Weighted average	5.8	5.7	5.8	5.6	5.2	5.0

Source: Basel Committee on Banking Supervision.

Fully phased-in final Basel III Tier 1 leverage ratios and component changes¹

Consistent sample of banks, exchange rates as of the current reporting date, in per cent

Table C.15

	Group 1 banks				Of which: G-SIBs				Group 2 banks			
	Number of banks	Leverage ratio	Change		Number of banks	Leverage ratio	Change		Number of banks	Leverage ratio	Change	
			Tier 1 capital	Exposure measure			Tier 1 capital	Exposure measure			Tier 1 capital	Exposure measure
H1 2011	63	3.5			28	3.5			25	3.0		
H2 2011	63	3.6	5.2	2.3	28	3.5	4.8	3.0	25	2.9	-2.2	2.0
H1 2012	63	3.8	8.5	3.4	28	3.7	9.1	3.6	25	3.2	10.1	0.8
H2 2012	63	3.8	5.1	4.7	28	3.8	5.8	5.1	25	2.9	-8.5	2.0
H1 2013	63	4.0	4.8	-0.9	28	3.9	4.6	-0.3	25	3.0	1.1	-5.0
H2 2013	63	4.5	8.0	-3.7	28	4.5	8.7	-3.9	25	3.9	23.7	-4.2
H1 2014	63	4.7	6.8	2.1	28	4.7	6.9	1.8	25	4.3	11.6	1.3
H2 2014	63	5.1	6.5	-0.6	28	5.0	6.9	-0.5	25	4.4	-2.2	-3.7
H1 2015	63	5.3	6.2	2.0	28	5.2	6.4	1.9	25	4.8	12.0	2.3
H2 2015	63	5.6	4.2	-1.6	28	5.6	4.5	-1.9	25	5.0	2.2	-1.0
H1 2016	63	5.6	3.4	3.0	28	5.6	3.5	3.1	25	4.9	-0.4	1.7
H2 2016	63	5.8	3.4	-1.1	28	5.9	3.4	-1.5	25	4.8	-1.6	-0.3
H1 2017	63	5.8	2.9	3.5	28	5.8	2.7	3.8	25	5.1	9.7	3.6
H2 2017	63	5.9	2.3	-0.1	28	5.9	2.3	0.3	25	5.2	-0.7	-2.2
H1 2018	63	5.8	1.1	2.9	28	5.9	1.4	2.7	25	5.1	-0.4	1.5
H2 2018	63	6.0	2.9	0.0	28	6.1	3.0	-0.1	25	5.0	0.0	1.8
H1 2019	63	6.0	3.7	4.3	28	6.0	3.5	4.8	25	4.9	0.2	2.4

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.16

	Europe				Americas				Rest of the world			
	Number of banks	Leverage ratio	Change		Number of banks	Leverage ratio	Change		Number of banks	Leverage ratio	Change	
			Tier 1 capital	Exposure measure			Tier 1 capital	Exposure measure			Tier 1 capital	Exposure measure
H1 2011	21	2.7			17	4.1			25	4.1		
H2 2011	21	2.9	2.4	-2.7	17	4.0	5.7	9.0	25	4.3	7.5	3.6
H1 2012	21	3.0	9.1	2.7	17	4.2	7.6	2.1	25	4.4	8.9	5.8
H2 2012	21	2.9	0.2	5.0	17	4.2	5.9	7.0	25	4.7	9.1	2.2
H1 2013	21	3.2	5.1	-4.2	17	4.2	0.7	0.7	25	5.0	8.3	2.1
H2 2013	21	3.7	9.1	-7.2	17	4.7	7.7	-4.9	25	5.3	7.2	2.2
H1 2014	21	4.0	7.2	0.7	17	5.1	7.7	0.1	25	5.3	5.7	5.7
H2 2014	21	4.2	2.8	-2.8	17	5.4	4.9	-1.1	25	5.7	11.1	2.5
H1 2015	21	4.4	3.8	-0.2	17	5.8	6.5	-0.1	25	5.8	8.0	6.3
H2 2015	21	4.7	2.5	-5.1	17	5.9	3.2	0.0	25	6.1	6.4	0.8
H1 2016	21	4.7	2.1	3.5	17	6.1	4.6	1.7	25	6.1	3.4	3.5
H2 2016	21	5.1	4.8	-4.6	17	6.2	1.5	-0.5	25	6.2	3.8	1.9
H1 2017	21	5.1	0.8	1.7	17	6.3	3.7	2.5	25	6.1	3.9	6.0
H2 2017	21	5.3	1.5	-2.5	17	6.2	-1.0	-0.2	25	6.3	5.4	2.1
H1 2018	21	5.1	-0.6	3.9	17	6.2	0.7	2.1	25	6.3	2.6	2.7
H2 2018	21	5.2	1.7	-1.8	17	6.3	0.8	-0.9	25	6.5	5.2	2.2
H1 2019	21	5.1	3.0	6.1	17	6.2	3.1	4.3	25	6.6	4.6	3.0

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 exposure¹ and accounting total assets

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

Table C.17

	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	97.6	102.3	101.7	104.8	97.4	103.0	101.7	97.8	101.3	102.0	102.9
H1 2012	114.2	95.6	105.8	105.6	114.4	95.4	106.7	106.0	107.7	99.5	102.9	102.6
H2 2012	120.0	93.6	110.8	105.4	121.1	93.6	112.2	106.2	98.5	101.3	105.0	103.9
H1 2013	125.8	95.1	109.8	106.7	126.7	95.6	111.9	107.9	99.5	99.1	99.7	102.1
H2 2013	135.8	94.4	105.7	105.1	137.7	95.2	107.4	106.5	123.1	93.3	95.5	98.5
H1 2014	145.1	94.7	108.0	109.0	147.2	96.0	109.4	110.4	137.4	92.6	96.7	99.9
H2 2014	154.5	96.1	107.4	111.5	157.4	97.6	108.8	113.0	134.3	88.7	93.2	97.7
H1 2015	164.2	97.6	109.5	113.8	167.5	98.9	110.9	115.4	150.5	89.0	95.3	98.9
H2 2015	171.1	98.1	107.8	112.5	175.0	99.6	108.8	113.8	153.8	88.6	94.4	97.6
H1 2016	176.8	99.7	111.0	118.1	181.2	101.5	112.2	119.7	153.2	87.3	95.9	99.8
H2 2016	182.8	99.0	109.9	116.7	187.3	100.4	110.5	118.3	150.8	84.5	95.6	98.5
H1 2017	188.1	100.5	113.8	119.6	192.3	102.1	114.8	121.3	165.4	86.1	99.1	101.3
H2 2017	192.4	100.8	113.7	120.7	196.7	102.3	115.1	122.6	164.3	83.0	97.0	100.0
H1 2018	194.6	102.4	117.0	123.5	199.5	104.2	118.2	125.6	163.6	82.5	98.5	101.4
H2 2018	200.3	102.9	117.1	124.5	205.5	104.3	118.0	126.7	163.5	82.5	100.2	101.3
H1 2019	207.8	106.2	122.1	127.9	212.8	107.6	123.8	132.1	163.9	82.6	102.6	106.0

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.15.

Source: Basel Committee on Banking Supervision.

Tier 1 capital, RWA, Basel III leverage ratio exposure¹ and accounting total assets, by region

Consistent sample of Group 1 banks², exchange rates as of the current reporting date,
June 2011 = 100

Table C.18

	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	102.4	97.8	97.3	102.0	105.7	93.5	109.0	99.7	107.5	102.5	103.6	103.0
H1 2012	111.7	92.0	99.9	104.3	113.7	91.5	111.3	102.7	117.0	105.9	109.6	110.0
H2 2012	111.9	87.2	104.9	101.8	120.5	89.4	119.1	104.8	127.7	107.6	112.0	111.5
H1 2013	117.5	84.4	100.4	99.2	121.3	86.5	119.9	106.4	138.2	120.7	114.4	118.9
H2 2013	128.2	81.0	93.2	93.0	130.6	84.7	114.0	107.2	148.2	125.1	116.9	122.1
H1 2014	137.5	80.8	93.9	95.4	140.7	86.6	114.1	110.1	156.7	123.9	123.6	129.4
H2 2014	141.3	78.6	91.3	97.7	147.6	86.4	112.8	112.0	174.0	132.5	126.6	132.6
H1 2015	146.7	78.1	91.1	96.1	157.3	84.6	112.7	113.6	187.9	140.7	134.6	141.6
H2 2015	150.3	75.7	86.5	92.0	162.3	86.9	112.7	113.5	199.9	143.0	135.6	143.7
H1 2016	153.5	75.7	89.5	98.6	169.7	87.6	114.6	117.5	206.6	148.3	140.4	149.1
H2 2016	160.9	73.1	85.3	92.9	172.1	86.2	114.1	118.2	214.4	150.9	143.1	152.6
H1 2017	162.1	72.3	86.8	92.7	178.4	85.8	116.9	121.5	222.8	158.1	151.7	160.0
H2 2017	164.5	71.4	84.6	91.6	176.7	85.1	116.7	122.5	234.8	161.0	154.8	164.6
H1 2018	163.6	71.8	87.9	94.8	177.8	86.3	119.2	124.6	240.8	165.1	159.0	167.5
H2 2018	166.3	71.9	86.3	92.9	179.3	85.4	118.2	126.5	253.5	167.8	162.6	172.0
H1 2019	171.3	73.3	91.5	94.7	184.9	87.0	123.2	130.6	265.2	175.9	167.4	177.5

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.16.

Source: Basel Committee on Banking Supervision.

Changes in leverage ratio MRC at the target level due to revisions in the final standards¹

In per cent

Table C.19

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Max	50.5	50.5	9.9
95th percentile	27.5	37.5	2.3
75th percentile	12.6	25.2	0.6
Median	0.4	18.9	0.0
25th percentile	-0.2	16.7	-0.2
5th percentile	-3.6	9.5	-2.1
Min	-10.8	6.6	-10.5
Weighted average	17.0	24.1	0.2

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 standards¹

In per cent

Table C.20

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Max	12.9	12.9	9.9
95th percentile	5.3	6.8	2.3
75th percentile	0.8	1.1	0.6
Median	0.0	0.0	0.0
25th percentile	-0.5	-1.2	-0.2
5th percentile	-6.0	-6.2	-2.1
Min	-14.8	-14.8	-10.5
Weighted average	0.1	0.1	0.2

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 level¹

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

Table C.21

	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	111	38.8	226.8	47.0	30	31.7	178.5	10.4	100	8.6	17.6	3.5
H2 2011	111	11.9	196.5	39.5	30	7.6	158.2	11.6	98	7.6	16.6	3.2
H1 2012	110	3.7	173.4	17.5	30	0.1	145.8	0.0	95	4.8	16.0	4.2
H2 2012	110	2.2	180.9	13.3	30	0.0	155.7	0.3	106	11.7	16.4	6.8
H1 2013	111	3.3	111.8	11.5	30	0.0	97.3	7.6	109	12.5	16.2	7.6
H2 2013	111	0.1	39.8	3.2	30	0.0	33.4	0.0	104	2.3	7.2	3.7
H1 2014	105	0.0	7.0	0.0	29	0.0	4.7	0.0	101	0.1	3.3	3.1
H2 2014	106	0.0	3.1	1.3	30	0.0	2.7	0.0	91	0.0	4.3	1.8
H1 2015	109	0.0	0.0	0.0	30	0.0	0.0	0.0	96	0.0	4.3	0.3
H2 2015	109	0.0	0.0	0.0	30	0.0	0.0	0.0	93	0.0	1.5	0.2
H1 2016	109	0.0	0.0	0.0	30	0.0	0.0	0.0	94	0.0	2.9	0.0
H2 2016	108	0.0	0.0	0.0	29	0.0	0.0	0.0	83	0.0	2.0	0.0
H1 2017	105	0.0	0.0	0.0	29	0.0	0.0	0.0	80	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	94	0.0	0.0	0.0	30	0.0	0.0	0.0	76	0.0	1.4	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	100	0.0	1.4	0.0	30	0.0	0.0	0.0	65	0.0	1.1	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 level¹

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

Table C.22

	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	111	493.5	235.3	216.0	30	396.5	161.2	141.0	98	29.7	23.1	9.9
H2 2011	111	391.6	244.0	227.3	30	318.3	175.6	145.6	98	21.3	23.8	7.1
H1 2012	110	197.9	240.2	215.0	30	159.4	183.8	130.4	95	16.1	19.3	9.6
H2 2012	110	122.9	236.5	164.2	30	90.1	186.5	97.7	106	25.9	18.4	12.1
H1 2013	111	62.5	170.8	145.6	30	44.0	137.5	101.5	109	27.9	18.6	10.2
H2 2013	111	15.2	81.6	105.4	30	11.8	63.6	76.6	104	9.8	11.6	7.0
H1 2014	105	4.7	25.9	77.2	29	3.9	17.8	66.8	101	1.6	7.5	5.1
H2 2014	106	0.7	16.8	71.5	30	0.0	6.8	60.6	91	1.4	7.0	5.1
H1 2015	109	0.0	6.6	15.9	30	0.0	2.8	14.0	96	0.2	7.0	5.0
H2 2015	109	0.0	6.0	5.7	30	0.0	2.4	1.8	93	0.2	2.8	4.3
H1 2016	109	1.3	4.3	3.4	30	1.3	2.9	0.9	94	0.0	4.0	4.1
H2 2016	108	0.0	0.4	0.3	29	0.0	0.0	0.0	83	0.0	3.2	1.3
H1 2017	105	0.0	0.4	0.0	29	0.0	0.0	0.0	80	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	94	0.0	0.0	0.0	30	0.0	0.0	0.0	76	0.0	1.4	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	100	0.4	1.3	0.0	30	0.0	0.0	0.0	65	0.0	1.1	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 standards¹, sample and exchange rates as at the reporting dates, reduced estimation bias², in billions of euros

Table C.23

	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	73	5.2	7.3	13.3	27	5.2	6.3	12.2	53	1.0	0.8	0.6
H1 2018	82	7.0	10.8	12.6	29	7.0	10.3	12.0	69	2.2	2.2	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	92	7.6	5.6	3.4	29	6.4	4.7	3.4	60	1.7	0.7	1.0

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. ² For two 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 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.

Combined capital shortfalls at the target level

Fully phased-in final Basel III standards¹, sample and exchange rates as at the reporting dates, conservative estimation, 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
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	73	5.2	7.3	13.3	27	5.2	6.3	12.2	53	1.0	0.8	0.6
H1 2018	82	7.0	10.8	12.6	29	7.0	10.3	12.0	69	2.2	2.2	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	92	7.6	5.6	7.1	29	6.4	4.7	7.1	60	1.7	0.7	1.0

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 capital¹

Consistent sample of banks, exchange rates as of the current reporting date, 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	87	1,954	81	338	30	1,361	73	281	31	64	6	22
H2 2011	87	2,070	73	335	30	1,442	61	272	31	62	7	21
H1 2012	87	2,256	65	298	30	1,583	57	247	31	66	9	16
H2 2012	87	2,384	59	302	30	1,682	50	250	31	63	7	16
H1 2013	87	2,500	61	342	30	1,762	51	263	31	63	8	18
H2 2013	87	2,677	78	352	30	1,899	66	260	31	78	8	17
H1 2014	87	2,836	121	356	30	2,012	100	233	31	94	3	18
H2 2014	87	2,977	166	413	30	2,115	142	288	31	93	3	13
H1 2015	87	3,139	207	447	30	2,226	175	324	31	103	3	13
H2 2015	87	3,253	242	485	30	2,302	202	351	31	106	4	14
H1 2016	87	3,343	268	500	30	2,373	218	349	31	105	4	15
H2 2016	87	3,418	320	527	30	2,428	251	372	31	103	5	15
H1 2017	87	3,530	320	514	30	2,499	248	360	31	113	5	20
H2 2017	87	3,603	346	556	30	2,550	265	393	31	111	6	21
H1 2018	87	3,634	365	604	30	2,576	277	424	31	110	7	20
H2 2018	87	3,744	374	645	30	2,655	282	457	31	110	7	19
H1 2019	87	3,866	414	742	30	2,759	305	540	31	116	5	21

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.26

	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	693	19	84	18	518	56	199	39	744	5	55
H2 2011	30	712	20	81	18	562	45	192	39	796	8	63
H1 2012	30	783	16	68	18	610	42	166	39	863	7	64
H2 2012	30	794	11	88	18	648	44	151	39	942	5	63
H1 2013	30	834	10	132	18	652	45	133	39	1,014	6	77
H2 2013	30	893	18	151	18	699	51	121	39	1,085	9	81
H1 2014	30	945	42	184	18	740	69	106	39	1,152	11	66
H2 2014	30	963	54	180	18	768	80	116	39	1,247	32	118
H1 2015	30	994	64	198	18	806	98	121	39	1,340	44	128
H2 2015	30	1,004	79	215	18	828	103	130	39	1,421	59	140
H1 2016	30	1,019	87	229	18	861	113	140	39	1,462	68	131
H2 2016	30	1,035	120	261	18	870	118	136	39	1,513	82	130
H1 2017	30	1,055	111	221	18	906	119	141	39	1,570	90	152
H2 2017	30	1,071	118	213	18	895	120	141	39	1,638	108	202
H1 2018	30	1,057	126	223	18	897	125	141	39	1,679	114	240
H2 2018	30	1,069	130	223	18	907	124	142	39	1,767	120	280
H1 2019	30	1,098	140	231	18	936	129	148	39	1,833	146	363

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.27

	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	87	100.0	100.0	100.0	30	100.0	100.0	100.0	31	100.0	100.0	100.0
H2 2011	87	105.9	89.6	99.1	30	105.9	83.7	97.0	31	96.9	110.0	97.8
H1 2012	87	115.5	80.5	88.2	30	116.3	78.0	88.1	31	102.9	144.7	74.2
H2 2012	87	122.0	72.8	89.4	30	123.6	68.5	89.1	31	98.8	110.4	75.4
H1 2013	87	127.9	75.0	101.2	30	129.5	69.7	93.6	31	98.5	134.0	85.4
H2 2013	87	137.0	95.8	104.3	30	139.5	90.7	92.5	31	120.9	127.8	79.7
H1 2014	87	145.1	149.8	105.4	30	147.9	137.4	82.9	31	146.7	43.3	82.3
H2 2014	87	152.3	204.4	122.3	30	155.4	196.2	102.8	31	144.5	55.6	61.8
H1 2015	87	160.6	254.9	132.4	30	163.6	241.9	115.5	31	161.2	55.4	62.3
H2 2015	87	166.4	297.9	143.5	30	169.2	278.1	125.0	31	165.1	62.8	66.0
H1 2016	87	171.0	330.8	148.1	30	174.4	300.9	124.5	31	164.3	69.3	67.6
H2 2016	87	174.9	395.2	155.9	30	178.4	345.6	132.5	31	160.9	79.0	69.9
H1 2017	87	180.6	394.5	152.1	30	183.6	342.5	128.3	31	175.5	79.8	92.9
H2 2017	87	184.4	427.1	164.5	30	187.4	365.5	140.1	31	173.8	92.9	99.2
H1 2018	87	185.9	450.6	178.7	30	189.3	382.2	151.1	31	171.4	118.5	91.4
H2 2018	87	191.6	461.4	190.8	30	195.1	389.3	163.0	31	170.7	120.7	87.7
H1 2019	87	197.8	510.8	219.7	30	202.8	421.1	192.5	31	180.8	90.3	95.7

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.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	100.0	100.0	100.0	18	100.0	100.0	100.0	39	100.0	100.0	100.0
H2 2011	30	102.8	104.3	95.9	18	108.5	79.6	96.3	39	107.0	141.1	114.5
H1 2012	30	113.0	82.8	80.4	18	117.9	75.3	83.5	39	116.1	125.8	116.9
H2 2012	30	114.6	56.3	104.9	18	125.1	77.5	75.7	39	126.6	83.0	115.4
H1 2013	30	120.4	53.3	157.7	18	125.8	79.7	66.7	39	136.4	103.2	139.6
H2 2013	30	128.9	91.9	179.6	18	135.0	90.9	60.7	39	145.9	160.0	147.4
H1 2014	30	136.3	215.8	218.6	18	142.8	122.1	53.5	39	154.9	203.9	120.2
H2 2014	30	138.9	278.6	214.2	18	148.3	142.2	58.1	39	167.7	586.5	214.4
H1 2015	30	143.4	333.8	235.7	18	155.6	173.7	61.0	39	180.1	817.6	233.0
H2 2015	30	144.9	411.2	256.2	18	159.9	183.6	65.3	39	191.1	1,082.5	254.6
H1 2016	30	147.1	450.7	273.0	18	166.3	201.4	70.6	39	196.6	1,247.2	237.9
H2 2016	30	149.4	622.5	310.3	18	168.1	210.2	68.6	39	203.5	1,507.6	236.5
H1 2017	30	152.2	575.2	263.3	18	174.9	211.6	70.7	39	211.1	1,649.8	277.3
H2 2017	30	154.5	609.3	253.6	18	172.8	213.6	70.6	39	220.2	1,996.0	368.5
H1 2018	30	152.5	655.4	265.5	18	173.3	221.3	70.8	39	225.9	2,101.5	437.1
H2 2018	30	154.3	672.5	265.7	18	175.2	220.1	71.3	39	237.7	2,216.0	509.7
H1 2019	30	158.4	723.4	275.0	18	180.7	228.6	74.3	39	246.5	2,683.1	661.8

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.

Profits, dividends and dividend payout ratio¹

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

Table C.29

	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	84	130.9	55.2	42.1		29	92.8	40.9	44.1		31	3.7	0.7	20.1	
H2 2011	84	103.6	30.6	29.5	36.6	29	78.7	18.1	22.9	34.4	31	0.4	1.0	279.6	43.4
H1 2012	84	125.7	55.6	44.3	37.6	29	91.0	40.6	44.6	34.6	31	2.5	0.7	28.6	60.8
H2 2012	84	149.9	27.2	18.1	30.1	29	108.0	14.2	13.2	27.5	31	1.6	0.6	38.5	32.5
H1 2013	84	158.2	72.3	45.7	32.3	29	112.3	53.4	47.6	30.7	31	2.4	0.6	23.2	29.3
H2 2013	84	127.6	26.5	20.7	34.6	29	100.2	14.1	14.1	31.8	31	1.7	0.8	49.7	34.1
H1 2014	84	141.4	81.2	57.4	40.0	29	92.2	62.4	67.7	39.8	31	3.9	0.9	23.2	31.2
H2 2014	84	175.3	40.7	23.2	38.5	29	125.0	21.0	16.8	38.4	31	0.8	0.6	67.2	30.9
H1 2015	84	203.5	84.8	41.7	33.1	29	146.1	59.4	40.6	29.6	31	5.0	1.4	27.8	33.4
H2 2015	84	190.0	44.1	23.2	32.8	29	135.4	23.7	17.5	29.5	31	4.4	0.8	18.2	23.3
H1 2016	84	174.9	88.7	50.7	36.4	29	129.4	62.3	48.2	32.5	31	3.1	1.7	54.0	33.0
H2 2016	84	172.4	41.2	23.9	37.4	29	125.0	21.4	17.1	32.9	31	3.1	1.2	37.6	45.8
H1 2017	84	199.9	93.8	46.9	36.3	29	140.5	64.1	45.7	32.2	31	5.2	2.0	38.2	38.0
H2 2017	84	186.0	47.9	25.7	36.7	29	116.9	24.4	20.9	34.4	31	5.6	1.6	29.2	33.5
H1 2018	84	239.7	104.8	43.7	35.9	29	175.1	71.8	41.0	33.0	31	6.2	2.6	41.6	35.7
H2 2018	84	254.5	68.4	26.9	35.0	29	188.9	45.6	24.1	32.3	31	5.3	1.5	27.8	35.3
H1 2019	84	226.6	89.9	39.7	32.9	29	160.5	53.9	33.6	28.5	31	4.8	3.5	72.1	49.0

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 ratio¹, by region

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

Table C.30

	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	48.9	16.3	33.2		18	32.2	7.8	24.2		37	49.8	31.1	62.5	
H2 2011	29	4.7	5.6	117.1	40.7	18	39.1	8.4	21.4	22.7	37	59.8	16.7	27.9	43.6
H1 2012	29	34.0	11.7	34.3	44.5	18	40.1	9.6	24.0	22.7	37	51.6	34.3	66.6	45.8
H2 2012	29	4.7	7.1	150.4	48.5	18	41.3	10.7	26.0	25.0	37	103.9	9.4	9.0	28.1
H1 2013	29	44.8	15.8	35.1	46.2	18	51.6	10.8	20.9	23.1	37	61.7	45.8	74.2	33.3
H2 2013	29	-4.6	4.8	-104.6	51.0	18	43.9	11.6	26.6	23.5	37	88.4	10.0	11.4	37.2
H1 2014	29	34.8	20.8	59.9	84.8	18	40.4	12.2	30.2	28.3	37	66.2	48.2	72.8	37.7
H2 2014	29	35.1	9.7	27.6	43.7	18	47.9	13.6	28.4	29.2	37	92.3	17.4	18.9	41.4
H1 2015	29	54.3	17.7	32.5	30.6	18	61.3	14.2	23.2	25.5	37	87.9	52.9	60.2	39.0
H2 2015	29	39.2	12.7	32.4	32.5	18	53.8	15.2	28.2	25.5	37	96.9	16.3	16.8	37.4
H1 2016	29	43.2	24.7	57.2	45.4	18	53.4	14.9	28.0	28.1	37	78.4	49.1	62.6	37.3
H2 2016	29	20.1	7.5	37.4	50.9	18	66.3	18.4	27.7	27.8	37	86.0	15.3	17.8	39.2
H1 2017	29	51.9	27.2	52.5	48.3	18	64.1	16.8	26.3	27.0	37	83.9	49.7	59.2	38.3
H2 2017	29	48.6	9.0	18.5	36.1	18	40.0	19.8	49.4	35.2	37	97.4	19.1	19.6	37.9
H1 2018	29	54.0	31.7	58.7	39.7	18	74.6	21.0	28.1	35.6	37	111.1	52.2	46.9	34.2
H2 2018	29	55.7	10.7	19.3	38.7	18	77.3	23.1	29.9	29.0	37	121.5	34.5	28.4	37.3
H1 2019	29	52.8	27.2	51.5	35.0	18	81.9	25.7	31.4	30.7	37	91.9	37.0	40.2	33.5

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.31

	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	84	35.1	4.8	12.4	29	14.2	1.6	6.9	31	2.3	1.5	2.3
H2 2011	84	26.6	5.2	4.9	29	11.1	3.6	1.1	31	2.8	0.0	3.0
H1 2012	84	27.3	1.0	9.9	29	20.6	1.0	2.4	31	1.4	1.5	0.2
H2 2012	84	28.0	5.1	12.0	29	15.4	3.8	7.1	31	1.8	0.0	1.9
H1 2013	84	21.2	7.2	12.1	29	13.5	5.5	10.6	31	0.5	0.0	1.8
H2 2013	84	28.5	22.0	29.6	29	13.8	17.6	19.1	31	0.9	0.8	0.1
H1 2014	84	31.2	41.2	44.5	29	18.3	30.5	15.0	31	2.8	1.3	1.3
H2 2014	84	14.0	46.4	49.3	29	6.5	41.9	40.8	31	3.4	0.7	0.1
H1 2015	84	20.1	41.8	46.0	29	11.4	33.9	36.7	31	1.3	0.0	1.3
H2 2015	84	18.4	30.5	50.0	29	10.2	23.5	34.9	31	0.4	0.4	1.1
H1 2016	84	11.7	26.5	43.3	29	9.7	17.3	25.1	31	0.4	0.6	0.2
H2 2016	84	22.2	24.7	30.8	29	19.2	10.0	21.4	31	0.3	0.3	1.4
H1 2017	84	15.0	18.3	25.4	29	11.0	12.2	15.2	31	0.7	0.6	2.0
H2 2017	84	20.9	32.7	42.0	29	14.1	18.5	33.7	31	1.7	1.0	3.5
H1 2018	84	21.2	20.4	24.6	29	17.3	14.1	13.6	31	1.4	1.6	1.0
H2 2018	84	12.2	23.3	26.5	29	4.7	15.0	18.0	31	0.7	0.0	0.4
H1 2019	84	19.6	33.6	22.0	29	7.9	17.1	15.8	31	1.6	0.1	0.0

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.32

	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	20.8	1.4	9.2	18	11.6	3.3	3.2	37	2.7	0.0	0.0
H2 2011	29	13.6	3.4	1.1	18	5.5	1.6	2.8	37	7.5	0.1	1.0
H1 2012	29	20.5	0.0	3.5	18	5.5	1.0	5.1	37	1.3	0.0	1.4
H2 2012	29	14.2	1.4	6.5	18	3.7	2.5	5.5	37	10.1	1.2	0.0
H1 2013	29	11.8	0.0	7.9	18	6.0	5.5	4.3	37	3.3	1.8	0.0
H2 2013	29	19.9	11.2	20.1	18	3.6	7.6	8.7	37	5.0	3.2	0.9
H1 2014	29	23.1	25.5	23.5	18	5.3	13.9	2.2	37	2.7	1.8	18.8
H2 2014	29	6.6	15.1	11.6	18	3.3	10.4	15.4	37	4.1	20.9	22.3
H1 2015	29	7.1	14.3	25.8	18	4.1	16.0	13.9	37	8.9	11.6	6.3
H2 2015	29	8.9	9.9	22.0	18	2.7	5.3	12.0	37	6.8	15.3	16.0
H1 2016	29	3.7	9.0	21.4	18	6.7	9.0	12.4	37	1.3	8.5	9.5
H2 2016	29	16.5	7.5	12.0	18	3.8	3.4	8.1	37	1.9	13.8	10.7
H1 2017	29	9.5	10.2	13.1	18	4.1	0.9	7.6	37	1.4	7.1	4.7
H2 2017	29	10.7	9.6	6.2	18	6.4	4.5	1.9	37	3.7	18.7	33.9
H1 2018	29	2.4	7.9	10.2	18	3.2	6.5	3.0	37	15.6	6.0	11.3
H2 2018	29	3.0	12.3	4.1	18	3.9	4.1	5.4	37	5.3	6.9	17.0
H1 2019	29	6.6	14.1	8.1	18	4.9	5.6	8.5	37	8.1	13.9	5.3

Source: Basel Committee on Banking Supervision.

Structure of regulatory capital under initial Basel III¹

Consistent sample of banks, in per cent

Table C.33

	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	87	83.2	3.2	13.6	30	80.2	4.1	15.7	31	70.8	6.3	22.9
H2 2011	87	84.2	2.8	13.0	30	81.9	3.3	14.8	31	70.4	7.0	22.6
H1 2012	87	86.6	2.4	11.1	30	84.4	2.9	12.7	31	74.0	9.1	16.9
H2 2012	87	87.2	2.0	10.8	30	85.3	2.3	12.3	31	74.7	7.3	18.0
H1 2013	87	86.2	2.0	11.8	30	85.2	2.3	12.5	31	71.3	8.6	20.1
H2 2013	87	86.2	2.4	11.5	30	85.5	2.8	11.7	31	76.0	7.3	16.7
H1 2014	87	85.5	3.6	10.9	30	85.9	4.1	9.9	31	82.3	2.3	15.4
H2 2014	87	83.7	4.6	11.7	30	83.1	5.5	11.3	31	84.7	3.1	12.1
H1 2015	87	82.8	5.4	11.8	30	81.7	6.4	11.9	31	85.9	2.9	11.2
H2 2015	87	81.7	6.1	12.2	30	80.6	7.1	12.3	31	85.3	3.2	11.5
H1 2016	87	81.3	6.5	12.1	30	80.7	7.4	11.8	31	84.9	3.4	11.7
H2 2016	87	80.2	7.5	12.3	30	79.7	8.2	12.1	31	83.9	3.9	12.2
H1 2017	87	80.9	7.3	11.8	30	80.4	8.0	11.6	31	82.0	3.5	14.5
H2 2017	87	80.0	7.6	12.4	30	79.5	8.2	12.3	31	80.4	4.0	15.5
H1 2018	87	79.0	7.9	13.1	30	78.7	8.4	13.0	31	80.4	5.2	14.5
H2 2018	87	78.6	7.9	13.6	30	78.2	8.3	13.5	31	80.7	5.3	14.0
H1 2019	87	76.4	8.9	14.7	30	76.0	9.1	14.9	31	81.4	4.1	14.5

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.

Share of MRC by asset class¹

Group 1 banks, consistent sample of banks, in per cent of total MRC

Table C.34

	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	34.6	4.1	2.5	16.6	1.7	2.7	1.6	3.1	7.7	13.4	0.9	11.1	100.0	88.9
H2 2014	33	34.7	3.7	2.5	16.3	1.7	2.4	1.5	3.2	7.2	14.0	2.3	10.6	100.0	94.4
H1 2015	33	35.4	3.5	2.6	16.2	1.6	2.1	1.4	2.9	6.9	14.4	2.8	10.2	100.0	98.6
H2 2015	33	36.6	3.3	2.6	15.8	1.4	2.0	1.5	2.8	6.0	16.3	2.0	9.9	100.0	97.9
H1 2016	33	37.1	3.2	2.8	15.9	1.3	1.8	1.6	3.0	5.6	16.4	1.8	9.5	100.0	96.1
H2 2016	33	36.4	2.9	2.6	16.6	1.1	1.7	1.5	2.5	5.3	16.5	3.1	9.7	100.0	96.9
H1 2017	33	36.5	2.9	2.6	17.1	1.1	1.8	1.6	2.1	5.4	16.2	3.0	9.6	100.0	93.1
H2 2017	33	37.5	2.9	2.6	17.8	1.0	1.7	1.7	1.9	5.2	16.5	1.1	10.0	100.0	88.3
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

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.35

	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

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.36

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Max	59.5	26.7	830.6
95th percentile	19.1	25.7	28.7
75th percentile	4.5	8.2	13.7
Median	-1.4	3.1	5.1
25th percentile	-8.8	-2.0	-1.8
5th percentile	-17.5	-14.0	-11.9
Min	-23.8	-15.9	-16.4
Weighted average	-2.2	-1.7	8.4

Source: Basel Committee on Banking Supervision.

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

In per cent

Table C.37

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Sovereign	0.0	−0.1	0.2
Bank and covered bonds	1.2	1.3	4.4
Retail	−0.3	−0.5	0.8
Real estate	−0.1	0.0	1.1
Defaulted	0.0	0.0	0.0
Corporate / financial institutions treated as corporate	−3.5	−3.5	−1.0
Equity / subordinated debt / funds	0.6	1.0	2.6
Other assets / failed trades / eligible purchased receivables	−0.2	−0.1	0.0
Total	−2.2	−1.7	8.4

Source: Basel Committee on Banking Supervision.

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

Group 1 banks, in per cent

Table C.38

	Europe	Americas	Rest of the world
Max	25.6	9.4	59.5
95th percentile	21.7	7.9	21.8
75th percentile	8.5	1.0	2.7
Median	3.8	−1.1	−7.1
25th percentile	−2.5	−4.5	−11.5
5th percentile	−9.8	−15.0	−19.3
Min	−20.7	−17.4	−23.8
Weighted average	3.5	−1.0	−5.9

Source: Basel Committee on Banking Supervision.

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

Group 1 banks, in per cent

Table C.39

	Europe	Americas	Rest of the world
Sovereign	0.0	-0.1	0.0
Bank and covered bonds	1.3	0.1	1.7
Retail	0.7	-1.1	-0.5
Real estate	0.1	-0.5	0.0
Defaulted	0.0	0.0	0.0
Corporate / financial institutions treated as corporate	1.1	-2.2	-6.8
Equity / subordinated debt / funds	-0.2	3.0	0.1
Other assets / failed trades / eligible purchased receivables	0.0	-0.4	-0.3
Total	3.5	-1.0	-5.9

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 standards¹

In per cent

Table C.40

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Max	107.8	52.3	55.7
95th percentile	34.6	35.7	29.1
75th percentile	10.4	8.1	14.2
Median	4.3	5.4	5.9
25th percentile	-1.2	0.6	0.1
5th percentile	-8.9	-6.2	-8.2
Min	-16.4	-8.4	-29.5
Weighted average	3.8	5.0	6.6

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 standards¹

In per cent

Table C.41

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Sovereign	0.1	0.0	0.3
Retail	1.2	1.0	0.9
Defaulted	0.1	0.0	0.0
Corporate	1.0	2.3	-1.7
Bank and covered bonds	2.5	3.4	1.6
Equity / subordinated debt / funds	-0.6	-1.6	3.6
Other assets / failed trades	-0.2	-0.3	0.0
Real estate	-0.2	0.2	1.8
Total	3.8	5.0	6.6

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.42

	Europe	Americas	Rest of the world
Max	107.8	15.4	59.5
95th percentile	31.7	15.4	44.3
75th percentile	10.6	2.3	11.5
Median	5.8	-4.6	1.8
25th percentile	3.1	-8.4	-1.7
5th percentile	-4.4	-16.4	-5.6
Min	-16.4	-16.4	-10.1
Weighted average	6.1	-6.3	4.7

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.43

	Europe	Americas	Rest of the world
Sovereign	0.2	0.0	0.0
Retail	2.1	−0.5	1.0
Defaulted	0.0	0.0	0.1
Corporate	1.6	−2.7	1.5
Bank and covered bonds	0.5	−0.8	4.4
Equity / subordinated debt / funds	1.6	1.0	−2.1
Other assets / failed trades	−0.1	−0.7	−0.2
Real estate	0.3	−2.7	0.1
Total	6.1	−6.3	4.7

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.44

	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	8.7	8.9	9.0	10.1	9.7	9.7	5.5	4.1	4.3
Bank	5.3	24.3	36.5	6.2	24.4	37.6	8.4	25.6	30.4
Covered bonds	0.2	23.0	11.5	0.0	16.9	13.1	0.6	11.6	13.3
General corporate	35.7	90.2	92.7	37.3	90.6	96.0	21.8	88.8	84.5
Corporate SME	4.1	94.8	85.4	2.5	93.6	85.5	6.8	95.7	85.4
Specialised lending	0.7	94.3	107.8	0.3	100.5	108.4	2.2	101.0	105.0
Equity	5.2	301.0	243.7	5.9	412.4	254.2	4.0	150.5	252.5
Subordinated debt	0.7	115.4	162.3	1.1	113.7	161.0	0.2	60.5	148.1
Equity investments in funds	0.2	92.0	108.7	0.1	165.0	280.9	1.4	82.3	113.6
Retail	16.5	77.6	78.0	14.1	73.0	74.5	15.8	73.3	76.0
Real estate (total)	7.1	54.0	52.8	6.4	53.2	54.4	17.2	45.9	49.6
Of which: General residential	3.5	40.9	37.6	3.1	39.8	39.6	10.6	38.5	38.0
Of which: General commercial	1.4	69.1	72.1	1.3	66.3	71.3	2.9	64.0	65.1
Of which: Income-producing residential	0.5	59.8	54.9	0.4	65.9	69.5	1.2	41.0	62.7
Of which: Income-producing commercial	0.9	88.8	85.0	0.8	85.4	83.2	0.6	86.6	103.7
Of which: Land acquisition	0.8	115.3	133.3	0.7	120.0	127.3	1.9	115.4	136.3
Failed trades	0.0	67.5	67.5	0.0	110.6	110.6	0.0		
Other assets	14.3	37.6	36.3	15.0	34.9	33.3	12.6	64.5	64.5
Defaulted	1.2	103.9	107.7	1.1	101.8	104.7	3.5	110.4	111.2
Total	100.0	41.5	42.6	100.0	39.8	41.3	100.0	34.2	36.3

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.45

	Europe		Americas		Rest of the world	
	Current	Final	Current	Final	Current	Final
Sovereign	7.6	7.7	9.0	9.0	9.7	9.7
Bank	18.2	21.6	35.2	36.6	25.7	40.8
Covered bonds	13.9	19.6	24.7	10.1	20.0	10.0
General corporate	90.7	93.6	94.2	88.7	89.2	93.0
Corporate SME	93.2	86.0	99.3	84.9	95.1	84.9
Specialised lending	99.3	109.2	74.7	104.6	93.6	107.2
Equity	214.8	258.1	102.5	144.6	470.2	268.0
Subordinated debt	104.1	164.5	100.0	150.0	116.8	162.1
Equity investments in funds	98.5	160.6	161.2	191.2	85.7	92.0
Retail	72.3	75.2	87.4	76.0	78.1	81.8
Real estate (total)	47.7	48.9	66.7	52.2	59.1	60.2
Of which: General residential	37.1	33.9	46.1	32.3	45.1	46.2
Of which: General commercial	54.3	64.3	100.2	107.6	97.5	83.0
Of which: Income-producing residential	59.2	63.1	71.0	36.5	36.2	43.8
Of which: Income-producing commercial	71.3	85.4	100.0	80.1	93.0	97.5
Of which: Land acquisition	132.8	140.4	94.9	119.0	103.4	130.0
Failed trades	110.5	110.5	118.5	118.5	11.7	11.7
Other assets	70.6	69.8	50.5	44.2	31.3	30.2
Defaulted	113.8	116.4	106.5	104.0	85.2	92.6
Total	41.0	43.0	61.4	56.1	39.1	40.6

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.46

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Max	27.6	27.6	1,487.8
95th percentile	19.4	24.0	30.7
75th percentile	4.5	8.8	8.6
Median	-2.7	1.3	-0.1
25th percentile	-12.2	-2.5	-6.3
5th percentile	-24.4	-20.2	-16.9
Min	-28.0	-24.3	-19.4
Weighted average	-4.7	-4.1	11.2

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

In per cent

Table C.47

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Banks	0.7	0.6	8.8
Corporate	-3.4	-3.4	-0.4
Corporate SME	-1.8	-2.0	0.3
Others	0.9	1.8	0.9
Retail	0.0	-0.1	1.2
Retail res. mortgages	-0.8	-0.9	-0.4
Sovereigns	-0.1	-0.1	0.0
Specialised lending	-0.2	-0.1	0.2
Total	-4.7	-4.1	11.2

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

Group 1 banks, in per cent

Table C.48

	Europe	Americas	Rest of the world
Max	27.6	9.4	23.8
95th percentile	20.8	8.6	12.1
75th percentile	9.1	2.7	-2.7
Median	2.3	-0.7	-11.7
25th percentile	-6.1	-5.0	-18.6
5th percentile	-14.9	-18.0	-25.3
Min	-24.7	-19.9	-28.0
Weighted average	2.3	0.1	-11.2

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

Group 1 banks, in per cent

Table C.49

	Europe	Americas	Rest of the world
Banks	1.7	0.2	0.3
Corporate	-0.2	-1.5	-6.4
Corporate SME	0.2	-0.3	-3.8
Others	-1.0	3.1	0.8
Retail	0.6	-0.7	-0.1
Retail res. mortgages	-0.6	-0.5	-1.2
Sovereigns	-0.1	-0.2	-0.1
Specialised lending	0.9	-0.3	-0.7
Total	2.3	0.1	-11.2

Source: Basel Committee on Banking Supervision.

IRB approach risk weights under the current 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 RWA	Current	Final	Contrib. to total RWA	Current	Final	Contrib. to total RWA	Current	Final
Large and mid-market general corporates	41.1	54.5	48.9	43.0	54.6	48.8	29.7	53.6	51.8
Specialised lending	5.9	60.8	59.1	5.2	57.8	56.5	10.0	41.4	43.2
SME treated as corporate	13.3	71.8	62.2	13.0	81.2	68.7	15.5	47.1	47.2
Financial institutions treated as corporates	2.9	31.7	33.2	3.3	31.9	33.2	0.6	54.3	57.7
Sovereigns	2.4	4.5	4.3	2.8	4.9	4.7	1.5	6.3	6.0
Banks	4.4	23.7	27.0	3.8	26.3	29.8	3.9	14.2	50.4
Retail residential mortgages	10.5	18.6	17.1	11.0	21.2	19.3	16.7	9.9	9.7
Other retail	5.6	34.5	34.9	4.7	36.9	36.8	10.3	31.7	35.4
Qualifying revolving retail exposures	3.9	31.8	31.2	4.1	33.4	32.5	2.0	28.9	29.2
Equity	6.1	209.6	245.4	5.3	179.1	235.5	7.3	230.6	253.3
Equity investments in funds	0.8	157.9	152.5	0.6	126.3	150.5	0.3	256.7	451.6
Eligible purchased receivables	0.3	22.2	22.2	0.3	26.5	27.0	0.0	108.4	90.9
Failed trades and non-DVP transactions	0.0	37.0	35.6	0.1	36.7	35.4	0.0		
Other assets	4.2	53.3	51.1	4.6	58.2	58.0	2.2	84.5	83.4
Total	100.0	36.3	34.3	100.0	37.3	35.3	100.0	26.4	29.5

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.51

	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	38.8	49.2	48.0	38.5	47.6	42.9	43.1	62.0	53.3
Specialised lending	6.7	45.2	50.8	6.6	61.8	58.9	5.2	78.1	68.0
SME treated as corporate	9.6	49.2	50.3	4.4	69.4	67.3	20.0	81.7	66.5
Financial institutions treated as corporates	3.0	27.3	30.7	6.7	35.2	34.6	1.0	31.8	35.1
Sovereigns	2.6	5.3	5.1	5.7	7.4	7.2	0.6	1.4	1.2
Banks	5.1	19.9	28.6	4.3	25.6	26.2	3.9	25.8	27.8
Retail residential mortgages	12.8	12.9	12.3	8.1	18.5	17.3	10.4	25.3	22.5
Other retail	8.8	29.1	31.5	5.6	49.2	46.3	3.8	36.1	35.4
Qualifying revolving retail exposures	1.9	28.8	29.2	9.8	36.5	34.6	2.2	26.0	26.8
Equity	8.0	300.7	259.7	5.1	136.2	217.4	5.4	202.9	256.0
Equity investments in funds	0.2	228.9	396.5	1.0	92.5	117.9	1.1	222.4	171.7
Eligible purchased receivables	0.1	20.2	22.4	0.1	29.3	27.6	0.4	21.8	21.4
Failed trades and non- DVP transactions	0.0	6.8	6.7	0.2	37.3	36.0	0.0	127.3	120.1
Other assets	2.4	58.2	63.0	9.4	44.9	43.5	2.8	72.4	64.4
Total	100.0	29.2	29.8	100.0	33.7	33.1	100.0	43.7	39.1

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.52

	Corporate			Sovereign			Bank			Retail ¹		
	FIRB	AIRB	All	FIRB	AIRB	All	FIRB	AIRB	All	FIRB	AIRB	All
Number of banks	17	47	64	17	47	64	17	48	65	16	49	65
Max	1.92	1.89	1.92	0.19	0.59	0.59	0.83	1.23	1.23	2.40	4.81	4.81
95th percentile	1.49	1.55	1.55	0.13	0.49	0.38	0.65	0.90	0.79	1.76	3.97	3.73
75th percentile	1.22	1.17	1.21	0.03	0.07	0.07	0.19	0.29	0.23	1.02	1.62	1.49
Median	0.82	0.81	0.81	0.01	0.03	0.02	0.11	0.18	0.15	0.75	1.10	1.06
25th percentile	0.76	0.60	0.64	0.00	0.01	0.01	0.09	0.12	0.09	0.64	0.80	0.73
5th percentile	0.52	0.38	0.38	0.00	0.00	0.00	0.06	0.06	0.06	0.44	0.44	0.43
Min	0.47	0.14	0.14	0.00	0.00	0.00	0.04	0.05	0.04	0.38	0.36	0.36
Weighted average	0.89	0.79	0.80	0.04	0.03	0.03	0.26	0.18	0.19	1.26	1.25	1.25

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.53

	Corporate			Sovereign			Bank			Retail ¹		
	FIRB	AIRB	All	FIRB	AIRB	All	FIRB	AIRB	All	FIRB	AIRB	All
Number of banks	17	47	64	17	47	64	17	48	65	16	49	65
Max	44.0	46.6	46.6	45.0	50.7	50.7	45.2	67.9	67.9	51.0	76.5	76.5
95th percentile	43.7	42.3	43.4	45.0	44.9	45.0	44.2	60.1	59.2	48.2	68.6	64.8
75th percentile	43.1	37.5	41.6	45.0	34.3	44.3	38.5	43.6	41.8	40.7	41.4	41.4
Median	42.3	33.7	36.3	45.0	24.0	32.5	37.7	35.4	36.9	27.4	26.5	26.8
25th percentile	40.9	29.9	30.9	43.5	10.9	16.8	32.4	24.0	25.0	20.4	20.7	20.7
5th percentile	38.8	21.5	24.0	41.5	6.5	6.6	24.6	12.2	13.4	15.8	14.9	15.0
Min	36.9	17.2	17.2	40.0	1.8	1.8	22.7	9.3	9.3	15.0	12.4	12.4
Weighted average	41.8	33.6	34.3	44.2	29.5	30.4	35.8	29.7	30.5	21.6	35.6	34.4

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.54

	Corporate			Sovereign			Bank			Retail ¹		
	FIRB	AIRB	All	FIRB	AIRB	All	FIRB	AIRB	All	FIRB	AIRB	All
Number of banks	17	47	64	17	47	64	17	48	65	16	49	65
Max	73.3	84.4	84.4	11.5	24.7	24.7	37.2	49.2	49.2	34.8	84.8	84.8
95th percentile	72.9	63.1	71.2	9.7	16.2	15.9	35.7	46.5	45.4	30.6	43.0	42.4
75th percentile	63.1	50.9	54.2	5.7	7.1	6.8	25.4	29.5	28.4	21.2	30.5	28.4
Median	56.7	44.9	47.1	3.2	2.9	2.9	20.9	21.6	21.2	17.8	19.8	19.5
25th percentile	47.0	41.2	42.4	2.0	1.5	1.8	18.0	15.7	16.4	15.1	15.7	15.1
5th percentile	42.5	27.1	29.0	1.0	0.5	0.6	13.1	6.3	6.6	13.0	10.5	11.0
Min	41.0	18.5	18.5	0.8	0.3	0.3	9.3	3.2	3.2	12.6	6.4	6.4
Weighted average	55.9	43.0	44.1	3.5	2.7	2.7	22.8	18.0	18.7	16.1	22.7	22.1

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.55

	Number of banks	Average PD non-defaulted exposures	Share of defaulted exposures	Average LGD non-defaulted exposures
Retail mortgages	69	0.9	1.4	20.3
Other retail	63	1.9	2.7	40.3
Retail QRE	59	2.0	0.5	84.7

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.56

	Group 1 banks		Of which: G-SIBs		Group 2 banks	
	Current	Final	Current	Final	Current	Final
Advanced IRB	55.0	41.6	60.5	44.5	35.4	31.5
Foundation IRB	14.6	28.1	11.4	27.4	6.4	9.7
Other ¹	3.0	2.1	3.1	2.2	0.7	0.3
Standardised approach	27.3	28.0	24.9	25.9	57.3	58.3
Slotting	0.2	0.2	0.0	0.0	0.2	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.57

	Group 1 banks		Of which: G-SIBs		Group 2 banks	
	Current	Final	Current	Final	Current	Final
Advanced IRB	38.3	26.3	42.6	27.7	25.0	20.1
Foundation IRB	23.3	33.2	23.4	34.9	7.3	12.2
Other ¹	7.7	3.1	7.6	3.5	3.6	0.9
Standardised approach	30.3	37.1	26.3	33.9	63.6	66.2
Slotting	0.4	0.3	0.1	0.1	0.6	0.6

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.58

	Europe		Americas		Rest of the world	
	Current	Final	Current	Final	Current	Final
Advanced IRB	61.9	46.5	81.7	59.1	34.1	27.8
Foundation IRB	7.3	22.7	0.1	22.7	26.5	33.0
Other ¹	1.4	0.7	7.3	5.9	1.9	1.2
Standardised approach	29.2	29.9	11.0	12.3	37.2	37.9
Slotting	0.2	0.2	0.0	0.0	0.2	0.2

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.59

	Europe		Americas		Rest of the world	
	Current	Final	Current	Final	Current	Final
Advanced IRB	48.6	31.7	69.2	43.9	18.3	14.2
Foundation IRB	9.1	25.8	0.2	23.7	40.0	40.1
Other ¹	6.9	1.4	12.1	7.4	6.0	2.2
Standardised approach	35.1	40.7	18.4	25.0	35.1	43.0
Slotting	0.4	0.4	0.0	0.0	0.5	0.5

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.60

	IRBA	ERBA	IAA	SA	Total
STC securitisations					
Current framework	49.3	57.9		62.6	62.1
Final standard	50.3	82.9		58.9	59.7
Non-STC securitisations					
Current framework	27.2	48.5		36.9	33.5
Final standard	26.5	69.1		39.3	34.4

Source: Basel Committee on Banking Supervision.

Average risk weight, final standards

In per cent

Table C.61

	IRBA	ERBA	IAA	SA	Total
STC securitisations	31.4	14.5	14.2	43.2	20.4
Non-STC securitisations	23.6	29.9	28.4	34.2	29.6

Source: Basel Committee on Banking Supervision.

Share of market risk MRC in total MRC

In per cent

Table C.62

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Max	31.0	14.1	34.9
95th percentile	10.7	10.2	8.9
75th percentile	5.7	6.4	2.6
Median	3.2	3.5	0.5
25th percentile	1.7	2.3	0.0
5th percentile	0.0	1.2	0.0
Min	0.0	1.1	0.0
Weighted average	3.8	3.7	2.6
Number of banks	107	30	68

Source: Basel Committee on Banking Supervision.

Share of market risk MRC in total MRC

Consistent sample of banks, in per cent

Table C.63

	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	7.8	15	9.5	15	4.3
H2 2014	35	7.1	15	8.7	15	3.6
H1 2015	35	6.8	15	8.2	15	3.6
H2 2015	35	6.0	15	7.0	15	3.3
H1 2016	35	5.6	15	6.4	15	3.3
H2 2016	35	5.2	15	6.2	15	2.1
H1 2017	35	5.4	15	6.4	15	2.6
H2 2017	35	5.2	15	6.1	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

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.64

	Number of banks	Standard measurement method				Internal models approach			Correlation trading portfolios	Other and unassigned
		General position risk	Specific position risk	FX and commodity risk	Unassigned	VaR and stressed VaR	Incremental risk charge	Unassigned		
H1 2015	96	5.9	7.4	7.5	0.7	48.7	10.6	1.6	15.2	2.3
H2 2015	96	6.5	6.9	7.6	0.8	50.8	9.5	1.7	13.2	2.9
H1 2016	96	7.1	6.7	8.7	0.8	53.1	9.5	1.4	9.8	2.9
H2 2016	96	6.3	6.9	9.1	0.6	54.0	8.8	2.1	9.4	2.8
H1 2017	96	5.1	8.4	8.1	0.6	54.2	9.5	1.5	9.7	2.9
H2 2017	96	4.8	8.6	7.1	1.7	56.1	9.0	1.7	8.4	2.6
H1 2018	96	6.9	9.9	6.3	0.6	56.8	8.1	1.5	7.2	2.7
H2 2018	96	6.3	9.0	6.8	0.7	58.0	8.1	2.0	7.0	2.1
H1 2019	96	6.7	10.0	8.3	1.4	56.8	7.4	1.3	6.1	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.65

	Number of banks	Standard measurement method				Internal models approach			Correlation trading portfolios	Other and unassigned
		General position risk	Specific position risk	FX and commodity risk	Unassigned	VaR and stressed VaR	Incremental risk charge	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

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.66

	Number of banks	Standard measurement method				Internal models approach			Correlation trading portfolios	Other and unassigned
		General position risk	Specific position risk	FX and commodity risk	Unassigned	VaR and stressed VaR	Incremental risk charge	Unassigned		
H1 2015	60	36.8	18.1	20.1	7.8	14.8	2.2	0.0	0.2	0.0
H2 2015	60	33.4	19.7	11.0	20.7	13.2	1.8	0.0	0.2	0.0
H1 2016	60	32.6	22.2	12.6	21.1	10.0	1.2	0.0	0.3	0.0
H2 2016	60	21.9	20.8	15.9	19.3	20.5	1.2	0.0	0.3	0.0
H1 2017	60	18.6	21.7	15.7	18.6	23.6	1.4	0.0	0.3	0.0
H2 2017	60	20.7	23.8	11.5	23.1	18.6	1.7	0.0	0.6	0.0
H1 2018	60	24.3	21.0	9.0	26.1	17.7	0.9	0.0	1.0	0.0
H2 2018	60	23.0	21.3	6.7	23.2	23.7	0.7	0.0	1.4	0.0
H1 2019	60	26.2	23.3	6.1	23.3	19.2	0.9	0.0	0.9	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.67

	Number of banks	Banks reporting since end-2011	Number of banks	Banks reporting since June 2015
H2 2011	26	198.1		
H1 2012	26	170.7		
H2 2012	26	199.7		
H1 2013	26	191.2		
H2 2013	26	203.8		
H1 2014	26	247.9		
H2 2014	26	182.9		
H1 2015	26	214.9	55	196.7
H2 2015	26	193.7	55	171.5
H1 2016	26	211.9	55	215.3
H2 2016	26	288.0	55	246.7
H1 2017	26	245.5	55	238.7
H2 2017	26	237.5	55	246.0
H1 2018	26	246.6	55	277.3
H2 2018	26	251.4	55	251.8
H1 2019	26	262.8	55	272.7

Source: Basel Committee on Banking Supervision.

Impact of revised minimum capital requirements for market risk

Reduced estimation bias¹, in per cent

Table C.68

	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	204.3	204.3	199.7	16.7	14.0	5.2
95th percentile	138.9	179.6	160.7	9.1	9.3	5.1
75th percentile	73.3	89.1	76.5	4.6	5.0	2.1
Median	29.2	19.6	24.0	1.1	0.8	0.4
25th percentile	-8.6	-8.6	12.5	-0.2	-0.1	0.1
5th percentile	-44.8	-46.3	-42.8	-1.0	-0.9	-1.2
Min	-70.7	-70.7	-43.4	-1.5	-1.1	-1.3
Weighted average	44.6	50.6	38.8	1.6	1.7	1.1
Number of banks	47	21	14	47	21	14

¹ For two 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.

Impact of revised minimum capital requirements for market risk

Conservative estimation, in per cent

Table C.69

	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	374.5	374.5	199.7	16.7	16.3	5.2
95th percentile	181.7	202.2	160.7	12.1	13.5	5.1
75th percentile	81.3	113.4	76.5	5.0	6.2	2.1
Median	34.0	29.2	24.0	1.1	1.2	0.4
25th percentile	-8.6	-4.6	12.5	-0.1	0.0	0.1
5th percentile	-44.3	-44.6	-42.8	-1.0	-0.9	-1.2
Min	-70.7	-70.7	-43.4	-1.5	-1.1	-1.3
Weighted average	53.6	62.2	38.8	2.0	2.1	1.1
Number of banks	49	23	14	49	23	14

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 bias¹, in per cent

Table C.70

	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	47	49.0	21	41.8	14	86.6
Internal models approach	47	50.4	21	57.4	14	13.4
Other	38	0.6	20	0.8	4	0.0
Revised standard						
Standardised approach						
Sensitivities-based method	47	34.6	21	28.4	14	70.1
Default risk capital requirement	47	19.4	21	20.3	14	27.9
Residual risk add-on	47	2.4	21	3.1	14	0.7
Internal models approach						
Modellable risk factors	47	19.9	21	21.4	14	1.2
Non-modellable risk factors	32	12.9	21	15.2	3	0.1
Default risk capital requirement	47	11.9	21	13.0	14	0.0

¹ For two 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.

Breakdown of minimum capital requirements for market risk by approach and risk component under the current rules and the revised standard

Conservative estimation, in per cent

Table C.71

	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	47.4	23	40.1	14	86.6
Internal models approach	49	51.9	23	59.0	14	13.4
Other	40	0.7	22	0.9	4	0.0
Revised standard						
Standardised approach						
Sensitivities-based method	49	35.2	23	29.9	14	70.1
Default risk capital requirement	49	18.3	23	18.9	14	27.9
Residual risk add-on	49	2.2	23	2.8	14	0.7
Internal models approach						
Modellable risk factors	49	19.6	23	20.8	14	1.2
Non-modellable risk factors	34	13.4	23	15.6	3	0.1
Default risk capital requirement	49	12.3	23	13.3	14	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.72

	Number of banks	Total June 2011=100	Basic indicator approach	Standardised approach	Alternative standardised approach	Advanced measurement approach
H1 2011	78	100.0	2.9	36.5	2.1	58.6
H2 2011	78	110.7	2.7	35.5	1.9	59.9
H1 2012	78	114.4	3.5	32.8	1.9	61.7
H2 2012	78	121.2	3.4	30.9	1.7	64.1
H1 2013	78	151.3	18.9	23.7	0.9	56.4
H2 2013	78	159.4	19.4	21.8	0.8	58.0
H1 2014	78	173.3	1.9	35.4	0.9	61.9
H2 2014	78	194.8	2.4	35.8	1.7	60.1
H1 2015	78	211.7	1.9	35.0	0.7	62.4
H2 2015	78	227.3	2.0	32.6	0.5	64.9
H1 2016	78	227.4	2.0	30.2	2.2	65.6
H2 2016	78	235.4	2.1	27.2	3.0	67.6
H1 2017	78	225.9	3.4	27.1	2.4	67.0
H2 2017	78	216.9	2.3	28.0	2.5	67.2
H1 2018	78	221.5	2.0	24.3	7.5	66.2
H2 2018	78	225.3	2.0	29.1	2.4	66.4
H1 2019	78	228.2	2.1	28.8	2.5	66.5

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.73

	Number of banks	Total June 2011=100	Basic indicator approach	Standardised approach	Alternative standardised approach	Advanced measurement approach
H1 2011	30	100.0	23.1	58.6	0.1	18.2
H2 2011	30	97.9	23.7	54.6	0.1	21.6
H1 2012	30	96.7	23.8	49.2	0.1	26.9
H2 2012	30	102.6	20.8	51.5	0.2	27.5
H1 2013	30	103.6	19.9	51.6	0.1	28.4
H2 2013	30	98.1	15.4	57.9	0.2	26.5
H1 2014	30	97.2	15.7	56.4	1.0	26.8
H2 2014	30	100.1	17.0	56.4	0.2	26.4
H1 2015	30	104.5	13.8	59.6	0.2	26.3
H2 2015	30	103.7	11.9	61.1	0.2	26.7
H1 2016	30	103.7	12.1	61.7	0.5	25.7
H2 2016	30	104.3	11.8	61.8	0.3	26.0
H1 2017	30	108.2	13.4	60.8	0.6	25.2
H2 2017	30	110.5	11.3	62.1	0.5	26.1
H1 2018	30	109.1	9.7	63.6	0.2	26.5
H2 2018	30	110.1	9.6	64.4	0.6	25.4
H1 2019	30	109.9	9.8	64.7	0.6	24.9

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.74

	Number of banks	Net losses	Gross losses
2009	147	25.3	27.4
2010	159	41.0	43.1
2011	160	63.0	67.6
2012	162	65.1	69.9
2013	167	57.1	61.7
2014	169	72.1	78.7
2015	169	49.9	55.6
2016	169	35.1	41.4
2017	169	31.4	39.3
2018	169	32.5	40.8

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.75

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Max	43.6	43.6	95.8
95th percentile	26.5	38.5	28.6
75th percentile	12.7	25.4	11.6
Median	10.0	11.6	9.0
25th percentile	6.6	9.1	6.1
5th percentile	3.9	6.4	3.9
Min	1.3	5.5	3.1
Weighted average	13.3	15.1	9.4
Number of banks	107	30	68

Source: Basel Committee on Banking Supervision.

Changes in operational risk capital requirements¹

In per cent

Table C.76

	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	188.1	126.2	188.1	109.4	85.3	109.4	166.9	96.5	166.9
95th percentile	98.9	80.6	111.6	83.4	81.2	82.5	94.4	96.1	76.9
75th percentile	15.8	15.1	16.0	22.3	23.0	20.2	33.7	90.7	26.8
Median	-6.9	-1.1	-11.9	0.7	1.1	-12.8	0.9	55.8	-1.7
25th percentile	-27.5	-13.7	-32.5	-28.7	-15.7	-31.0	-18.2	24.6	-18.3
5th percentile	-42.6	-41.3	-43.0	-39.0	-42.0	-33.3	-50.2	-35.1	-43.1
Min	-59.9	-44.0	-59.9	-44.0	-44.0	-33.5	-80.9	-53.9	-80.9
Weighted average	-5.7	-6.5	-4.2	-8.8	-8.4	-9.8	17.1	50.0	9.7

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.77

	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	92	47.8	37.0	29	48.3	34.5	30	40.0	46.7	29	65.5	69.0
Output floors	92	18.5	37.0	29	24.1	34.5	30	6.7	20.0	29	6.9	0.0
Leverage ratio	92	33.7	26.1	29	27.6	31.0	30	53.3	33.3	29	27.6	31.0

Source: Basel Committee on Banking Supervision.

Banks constrained by different parts of the framework, by region

Group 1 banks, in per cent

Table C.78

	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	45.7	25.7	16	25.0	43.8	41	58.5	43.9
Output floors	35	0.0	34.3	16	43.8	25.0	41	24.4	43.9
Leverage ratio	35	54.3	40.0	16	31.3	31.3	41	17.1	12.2

Source: Basel Committee on Banking Supervision.

Liquidity coverage ratio and net stable funding ratio

In per cent

Table C.79

	Liquidity coverage ratio			Net stable funding ratio		
	Group 1	Of which: G-SIBs	Group 2	Group 1	Of which: G-SIBs	Group 2
Max	336.0	203.3	2,313.3	148.3	140.2	1,778.7
95th percentile	197.7	160.6	539.4	133.0	133.0	213.5
75th percentile	149.0	146.5	241.8	123.0	126.8	133.8
Median	137.9	135.2	173.0	114.8	115.7	122.7
25th percentile	126.7	123.0	145.9	108.3	109.3	113.7
5th percentile	108.6	110.3	129.5	100.7	100.9	104.1
Min	102.8	108.9	122.3	93.5	99.5	92.2
Weighted average	136.2	134.3	177.0	116.4	117.8	120.1

Source: Basel Committee on Banking Supervision.

Liquidity coverage ratio and net stable funding ratio, by region

Group 1 banks, in per cent

Table C.80

	Liquidity coverage ratio			Net stable funding ratio		
	Europe	Americas	Rest of the world	Europe	Americas	Rest of the world
Max	203.3	173.1	336.0	135.8	140.2	148.3
95th percentile	195.9	169.2	198.9	132.2	136.8	133.2
75th percentile	153.0	140.7	150.3	120.9	125.3	123.1
Median	142.6	129.9	138.9	112.2	114.5	116.2
25th percentile	132.4	115.1	126.8	104.3	105.9	110.7
5th percentile	120.6	108.8	105.0	96.2	101.1	101.2
Min	110.9	108.8	102.8	93.5	100.9	97.2
Weighted average	141.7	122.2	140.1	111.6	112.8	122.0

Source: Basel Committee on Banking Supervision.

Composition of holdings of eligible liquid assets

In per cent

Table C.81

	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	39.1	40.5	38.4	40.0	34.6	35.4
Level 1 securities	41.8	43.6	39.3	41.2	59.2	60.1
Level 2A	16.1	14.3	19.4	17.3	2.5	2.2
Level 2B	3.0	1.6	2.9	1.6	3.7	2.4
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 caps

In trillions of euros

Table C.82

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Total liquid assets and inflows			
Level 1 assets	10.82	7.48	0.58
Level 2A assets (post-factor)	1.84	1.59	0.01
Level 2B assets (post-factor)	0.21	0.14	0.01
Inflows (post-factor, after cap)	4.81	3.52	0.11
Total	17.69	12.73	0.72
Outflows and impact of cap			
Outflows (post-factor)	14.21	10.27	0.46
Cap	-0.17	-0.19	0.00
Total	14.04	10.08	0.46

Source: Basel Committee on Banking Supervision.

Aggregate available stable funding (ASF) by counterparty

In trillions of euros

Table C.83

	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	18.9	13.5	12.4	1.5	1.4
Non-financial corporates	11.3	5.8	8.0	4.1	0.3	0.2
Central banks	1.7	0.6	1.1	0.4	0.2	0.1
Sovereigns/PSEs/MDBs/NDBs	3.0	1.7	2.0	1.1	0.1	0.1
Financials (other legal entities)	16.1	5.8	10.2	3.5	1.1	0.7
Other liabilities	6.5	0.7	4.5	0.3	0.4	0.0
Total	65.0	39.2	43.2	25.6	3.9	2.8

Source: Basel Committee on Banking Supervision.

Aggregate required stable funding (RSF) by category

In trillions of euros

Table C.84

	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	7.9	2.4	5.7	1.7	0.3	0.2
HQLA	10.2	1.5	7.2	1.1	0.5	0.1
All residential mortgages	6.8	4.9	3.4	2.4	0.8	0.6
Loans, < 1 year	7.8	3.8	5.0	2.5	0.4	0.2
Other loans, > 1 year, risk weight < 35%	1.1	0.8	0.6	0.4	0.3	0.2
Loans, risk weights > 35%	15.1	12.7	9.9	8.4	0.8	0.7
Derivative	2.8	0.9	2.1	0.6	0.1	0.0
All other assets	8.3	6.8	5.7	4.7	0.6	0.4
Off-balance sheet		0.6		0.4		0.0
Total	66.7	34.3	44.5	22.2	4.0	2.4

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.85

	Group 1 banks		Of which: G-SIBs		Group 2 banks	
	Ratio (%)	Shortfall (€ bn)	Ratio (%)	Shortfall (€ bn)	Ratio (%)	Shortfall (€ bn)
H2 2012	122.2	342.4	125.4	182.4	145.7	2.3
H1 2013	119.7	299.4	123.0	121.1	146.5	3.6
H2 2013	122.9	210.9	127.1	45.0	144.7	7.1
H1 2014	125.6	178.0	127.7	16.3	156.9	0.8
H2 2014	128.0	51.0	126.9	0.0	148.1	2.0
H1 2015	125.1	9.7	122.1	5.7	145.0	0.9
H2 2015	127.4	16.4	122.8	0.0	157.9	0.0
H1 2016	128.6	2.5	125.5	0.0	157.7	0.7
H2 2016	132.1	3.2	127.7	0.0	148.6	1.4
H1 2017	134.0	0.1	129.9	0.0	163.1	0.1
H2 2017	134.6	0.0	129.5	0.0	165.3	0.0
H1 2018	134.9	0.0	130.5	0.0	165.6	0.0
H2 2018	136.2	0.0	132.5	0.0	165.5	0.1
H1 2019	136.6	0.0	134.0	0.0	163.8	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.86

	Group 1 banks		Of which: G-SIBs		Group 2 banks	
	Ratio (%)	Shortfall (€ bn)	Ratio (%)	Shortfall (€ bn)	Ratio (%)	Shortfall (€ bn)
H2 2012	100.2	1,525.4	101.6	971.2	102.0	57.0
H1 2013	100.4	1,489.5	102.3	918.2	103.5	48.8
H2 2013	112.3	536.9	114.6	358.8	112.9	10.2
H1 2014	111.6	408.0	114.0	252.0	111.3	16.1
H2 2014	111.6	381.2	113.8	217.4	111.2	22.6
H1 2015	111.9	281.3	114.0	174.0	112.6	13.2
H2 2015	114.0	146.4	116.0	74.6	113.8	2.7
H1 2016	114.1	75.9	115.9	27.3	113.3	5.3
H2 2016	115.4	13.9	116.8	0.0	112.4	15.2
H1 2017	116.6	12.6	118.8	0.0	115.0	2.6
H2 2017	115.7	2.7	116.9	0.0	116.6	0.8
H1 2018	115.5	28.9	116.3	28.9	117.0	0.8
H2 2018	116.0	3.7	116.9	0.8	118.0	0.1
H1 2019	116.0	9.1	117.3	3.9	119.5	0.0

Source: Basel Committee on Banking Supervision.

LCR and NSFR, by region

Consistent sample of Group 1 banks, in per cent

Table C.87

	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	109.0	29	95.8	14	110.3	15	89.2	32	138.7	41	111.2
H1 2013	24	103.3	29	96.8	14	115.0	15	89.7	32	133.4	41	109.2
H2 2013	24	107.8	29	101.5	14	117.4	15	101.8	32	135.8	41	130.5
H1 2014	24	114.5	29	102.3	14	123.7	15	102.8	32	133.1	41	125.8
H2 2014	24	126.3	29	102.0	14	126.3	15	110.9	32	129.9	41	121.3
H1 2015	24	123.3	29	104.2	14	118.5	15	109.9	32	129.5	41	120.0
H2 2015	24	131.6	29	106.4	14	121.8	15	111.7	32	128.1	41	121.9
H1 2016	24	132.1	29	107.2	14	126.0	15	108.9	32	128.1	41	122.4
H2 2016	24	132.4	29	109.5	14	123.0	15	109.5	32	136.4	41	123.1
H1 2017	24	134.5	29	111.7	14	129.6	15	109.5	32	135.8	41	123.8
H2 2017	24	137.3	29	112.0	14	125.9	15	109.5	32	137.3	41	121.4
H1 2018	24	135.6	29	111.5	14	123.6	15	108.3	32	139.8	41	121.8
H2 2018	24	142.1	29	112.5	14	124.1	15	110.7	32	139.0	41	120.9
H1 2019	24	140.4	29	111.4	14	122.9	15	109.7	32	141.3	41	122.2

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.88

	Group 1 banks			Of-which: G-SIBs			Group 2 banks		
	LCR	NSFR	Both	LCR	NSFR	Both	LCR	NSFR	Both
H2 2012	74.3	43.5	68.2	78.3	46.2	68.2	75.0	61.8	68.2
H1 2013	78.6	41.2	65.2	78.3	46.2	63.6	87.5	73.5	81.8
H2 2013	81.4	72.9	75.8	87.0	57.7	63.6	87.5	91.2	95.5
H1 2014	87.1	77.6	81.8	95.7	69.2	72.7	91.7	88.2	95.5
H2 2014	91.4	80.0	78.8	100.0	80.8	86.4	91.7	85.3	86.4
H1 2015	94.3	82.4	87.9	95.7	88.5	95.5	91.7	88.2	90.9
H2 2015	91.4	82.4	81.8	100.0	88.5	90.9	95.8	94.1	90.9
H1 2016	95.7	84.7	86.4	100.0	88.5	90.9	95.8	91.2	86.4
H2 2016	94.3	96.5	92.4	100.0	100.0	100.0	95.8	88.2	81.8
H1 2017	98.6	94.1	93.9	100.0	100.0	100.0	95.8	94.1	86.4
H2 2017	100.0	98.8	100.0	100.0	100.0	100.0	100.0	97.1	95.5
H1 2018	100.0	98.8	98.5	100.0	96.2	95.5	100.0	97.1	95.5
H2 2018	100.0	95.3	97.0	100.0	96.2	95.5	95.8	97.1	90.9
H1 2019	100.0	96.5	97.0	100.0	96.2	95.5	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 HQLA plus inflows and outflows

Consistent sample of banks, exchange rates as of the current reporting date, in per cent

Table C.89

	Group 1 banks				Of-which: G-SIBs				Group 2 banks			
	Number of banks	LCR	Change		Number of banks	LCR	Change		Number of banks	LCR	Change	
			HQLA	Net outflows			HQLA	Net outflows			HQLA	Net outflows
H2 2012	70	122.2			23	125.4			24	145.7		
H1 2013	70	119.7	2.1	4.2	23	123.0	2.4	4.4	24	146.5	-0.3	-0.8
H2 2013	70	122.9	4.4	1.7	23	127.1	4.7	1.3	24	144.7	-3.1	-1.8
H1 2014	70	125.6	6.3	4.0	23	127.7	7.5	7.0	24	156.9	11.1	2.5
H2 2014	70	128.0	5.4	3.5	23	126.9	3.9	4.6	24	148.1	-8.4	-3.0
H1 2015	70	125.1	5.0	7.4	23	122.1	3.2	7.3	24	145.0	1.4	3.5
H2 2015	70	127.4	2.4	0.6	23	122.8	0.9	0.3	24	157.9	8.4	-0.4
H1 2016	70	128.6	3.2	2.2	23	125.5	3.3	1.1	24	157.7	5.8	5.8
H2 2016	70	132.1	3.4	0.6	23	127.7	1.9	0.2	24	148.6	-5.0	0.8
H1 2017	70	134.0	5.3	3.8	23	129.9	6.1	4.3	24	163.1	16.9	6.6
H2 2017	70	134.6	-0.1	-0.5	23	129.5	0.1	0.4	24	165.3	1.7	0.4
H1 2018	70	134.9	4.0	3.7	23	130.5	3.4	2.7	24	165.6	3.5	3.3
H2 2018	70	136.2	-0.1	-1.0	23	132.5	0.0	-1.5	24	165.5	-3.4	-3.3
H1 2019	70	136.6	1.7	1.4	23	134.0	3.6	2.4	24	163.8	11.6	12.8

Source: Basel Committee on Banking Supervision.

LCR and change HQLA plus inflows and outflows, by region

Consistent sample of banks, exchange rates as of the current reporting date, in per cent

Table C.90

	Europe				Americas				Rest of the world			
	Number of banks	LCR	Change		Number of banks	LCR	Change		Number of banks	LCR	Change	
			HQLA	Net outflows			HQLA	Net outflows			HQLA	Net outflows
H2 2012	24	109.0			14	110.3			32	138.7		
H1 2013	24	103.3	-4.5	0.7	14	115.0	7.5	3.1	32	133.4	3.1	7.2
H2 2013	24	107.8	2.0	-2.2	14	117.4	8.9	6.6	32	135.8	3.4	1.5
H1 2014	24	114.5	3.8	-2.2	14	123.7	8.5	3.1	32	133.1	6.4	8.5
H2 2014	24	126.3	6.0	-3.9	14	126.3	6.7	4.5	32	129.9	4.4	7.1
H1 2015	24	123.3	6.1	8.8	14	118.5	-4.0	2.3	32	129.5	9.4	9.7
H2 2015	24	131.6	5.2	-1.4	14	121.8	-0.3	-3.0	32	128.1	2.4	3.5
H1 2016	24	132.1	1.9	1.6	14	126.0	0.2	-3.1	32	128.1	5.2	5.2
H2 2016	24	132.4	5.3	5.0	14	123.0	1.6	4.1	32	136.4	3.3	-3.0
H1 2017	24	134.5	6.3	4.7	14	129.6	3.2	-2.1	32	135.8	5.6	6.1
H2 2017	24	137.3	-1.6	-3.6	14	125.9	0.3	3.2	32	137.3	0.5	-0.6
H1 2018	24	135.6	3.1	4.4	14	123.6	-1.0	0.8	32	139.8	6.7	4.8
H2 2018	24	142.1	1.5	-3.1	14	124.1	1.9	1.5	32	139.0	-1.8	-1.2
H1 2019	24	140.4	3.2	4.5	14	122.9	0.9	1.9	32	141.3	1.3	-0.4

Source: Basel Committee on Banking Supervision.

High-quality liquid assets and inflows versus outflows over time

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

Table C.91

	Group 1 banks		Of which: G-SIBs		Group 2 banks	
	HQLA and inflows (post-factor and after-cap)	Outflows (post-factor)	HQLA and inflows (post-factor and after-cap)	Outflows (post-factor)	HQLA and inflows (post-factor and after-cap)	Outflows (post-factor)
H2 2012	8.93	7.69	6.62	5.58	0.26	0.19
H1 2013	9.33	8.18	6.88	5.90	0.26	0.19
H2 2013	9.72	8.37	7.26	6.09	0.25	0.18
H1 2014	10.51	8.94	7.86	6.59	0.27	0.19
H2 2014	10.86	9.08	8.13	6.83	0.25	0.18
H1 2015	11.24	9.53	8.30	7.16	0.26	0.19
H2 2015	11.32	9.43	8.25	7.06	0.28	0.19
H1 2016	12.10	10.10	8.88	7.55	0.29	0.21
H2 2016	12.26	9.99	8.93	7.48	0.30	0.22
H1 2017	13.42	10.85	9.86	8.15	0.32	0.22
H2 2017	13.29	10.76	9.77	8.15	0.32	0.21
H1 2018	14.05	11.41	10.31	8.60	0.34	0.22
H2 2018	13.95	11.24	10.26	8.46	0.32	0.21
H1 2019	14.28	11.44	10.64	8.71	0.36	0.24

¹ Group 1 includes 70 banks, G-SIBs include 23 banks and Group 2 includes 24 banks.

Source: Basel Committee on Banking Supervision.

Evolution of the LCR and its drivers

Consistent sample of Group 1 banks, in per cent

Table C.92

	Number of banks	LCR 2012	HQLA	Net outflows
H2 2012	60	125.1		
H1 2013	60	125.1	0.6	−3.4
H2 2013	60	125.1	8.0	−6.6
H1 2014	60	125.1	11.3	−7.5
H2 2014	60	125.1	14.0	−10.0
H1 2015	60	125.1	16.0	−16.2
H2 2015	60	125.1	20.1	−18.1
H1 2016	60	125.1	17.9	−14.5
H2 2016	60	125.1	23.1	−16.4
H1 2017	60	125.1	27.5	−18.3
H2 2017	60	125.1	26.4	−16.9
H1 2018	60	125.1	28.1	−18.2
H2 2018	60	125.1	26.5	−15.8
H1 2019	60	125.1	25.4	−14.3

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.93

	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	19	108.6			14	110.3			27	147.1		
H1 2013	19	108.6	-1.7	-4.9	14	110.3	6.5	-1.9	27	147.1	-5.4	-0.6
H2 2013	19	108.6	7.5	-7.6	14	110.3	16.8	-9.6	27	147.1	-4.5	1.7
H1 2014	19	108.6	8.7	-2.8	14	110.3	24.5	-11.2	27	147.1	-3.4	-3.0
H2 2014	19	108.6	12.8	4.1	14	110.3	31.7	-15.7	27	147.1	-3.8	-10.4
H1 2015	19	108.6	20.4	-7.1	14	110.3	24.2	-16.0	27	147.1	-1.5	-15.3
H2 2015	19	108.6	31.6	-9.9	14	110.3	24.7	-13.2	27	147.1	-0.7	-17.9
H1 2016	19	108.6	24.3	-2.1	14	110.3	20.4	-4.7	27	147.1	1.9	-20.4
H2 2016	19	108.6	38.5	-15.4	14	110.3	21.6	-8.9	27	147.1	2.7	-13.1
H1 2017	19	108.6	49.8	-22.7	14	110.3	21.7	-2.4	27	147.1	4.5	-15.6
H2 2017	19	108.6	49.2	-20.5	14	110.3	21.3	-5.7	27	147.1	2.0	-11.5
H1 2018	19	108.6	48.4	-21.2	14	110.3	16.4	-3.1	27	147.1	8.6	-15.5
H2 2018	19	108.6	54.0	-21.9	14	110.3	16.7	-3.0	27	147.1	2.0	-9.7
H1 2019	19	108.6	57.0	-26.6	14	110.3	13.6	-1.0	27	147.1	0.0	-5.4

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.94

	Group 1 banks				Of which: G-SIBs				Group 2 banks			
	Number of banks	NSFR	Change		Number of banks	NSFR	Change		Number of banks	NSFR	Change	
			ASF	RSF			ASF	RSF			ASF	RSF
H2 2012	85	100.2			26	101.6			34	102.0		
H1 2013	85	100.4	2.8	2.7	26	102.3	3.1	2.3	34	103.5	-1.9	-3.3
H2 2013	85	112.3	14.9	2.6	26	114.6	15.9	3.5	34	112.9	8.9	-0.1
H1 2014	85	111.6	2.9	3.5	26	114.0	3.1	3.7	34	111.3	-1.4	0.0
H2 2014	85	111.6	1.7	1.7	26	113.8	1.5	1.6	34	111.2	-7.6	-7.5
H1 2015	85	111.9	4.2	3.9	26	114.0	4.9	4.8	34	112.6	5.8	4.5
H2 2015	85	114.0	1.9	0.0	26	116.0	1.8	0.1	34	113.8	0.2	-0.8
H1 2016	85	114.1	1.8	1.7	26	115.9	1.9	1.9	34	113.3	1.3	1.8
H2 2016	85	115.4	2.6	1.3	26	116.8	2.2	1.4	34	112.4	-1.4	-0.6
H1 2017	85	116.6	3.2	2.1	26	118.8	3.8	2.0	34	115.0	5.3	3.0
H2 2017	85	115.7	1.1	1.9	26	116.9	1.1	2.7	34	116.6	-0.1	-1.5
H1 2018	85	115.5	2.7	2.9	26	116.3	2.7	3.2	34	117.0	1.2	0.8
H2 2018	85	116.0	1.6	1.2	26	116.9	1.6	1.1	34	118.0	0.5	-0.4
H1 2019	85	116.0	3.5	3.5	26	117.3	4.0	3.6	34	119.5	1.9	0.7

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.95

	Europe				Americas				Rest of the world			
	Number of banks	NSFR	Change		Number of banks	NSFR	Change		Number of banks	NSFR	Change	
			ASF	RSF			ASF	RSF			ASF	RSF
H2 2012	29	95.8			15	89.2			41	111.2		
H1 2013	29	96.8	-0.7	-1.8	15	89.7	0.5	-0.1	41	109.2	7.3	9.2
H2 2013	29	101.5	10.1	5.1	15	101.8	26.1	11.2	41	130.5	14.6	-4.1
H1 2014	29	102.3	0.8	-0.1	15	102.8	2.4	1.3	41	125.8	4.9	8.8
H2 2014	29	102.0	0.2	0.6	15	110.9	2.3	-5.1	41	121.3	2.7	6.6
H1 2015	29	104.2	4.3	2.1	15	109.9	2.0	2.9	41	120.0	5.0	6.2
H2 2015	29	106.4	0.3	-1.8	15	111.7	2.1	0.5	41	121.9	3.0	1.4
H1 2016	29	107.2	0.3	-0.4	15	108.9	1.3	3.9	41	122.4	3.1	2.6
H2 2016	29	109.5	1.5	-0.7	15	109.5	2.6	2.0	41	123.1	3.3	2.8
H1 2017	29	111.7	1.6	-0.4	15	109.5	2.0	2.0	41	123.8	4.9	4.3
H2 2017	29	112.0	0.9	0.7	15	109.5	1.2	1.3	41	121.4	1.3	3.2
H1 2018	29	111.5	1.7	2.1	15	108.3	1.7	2.8	41	121.8	3.8	3.6
H2 2018	29	112.5	0.7	-0.2	15	110.7	2.4	0.2	41	120.9	2.0	2.7
H1 2019	29	111.4	2.5	3.5	15	109.7	2.4	3.4	41	122.2	4.5	3.4

Source: Basel Committee on Banking Supervision.

Evolution of the NSFR and its drivers

Consistent sample of Group 1 banks, in per cent

Table C.96

	Number of banks	NSFR 2012	ASF	RSF
H2 2012	62	101.6		
H1 2013	62	101.6	2.1	−1.6
H2 2013	62	101.6	20.1	−8.0
H1 2014	62	101.6	18.6	−7.4
H2 2014	62	101.6	17.9	−6.7
H1 2015	62	101.6	20.0	−8.5
H2 2015	62	101.6	23.2	−9.7
H1 2016	62	101.6	19.2	−5.8
H2 2016	62	101.6	23.4	−9.0
H1 2017	62	101.6	24.7	−8.9
H2 2017	62	101.6	25.3	−10.7
H1 2018	62	101.6	25.5	−11.3
H2 2018	62	101.6	26.6	−11.8
H1 2019	62	101.6	27.6	−12.7

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.97

	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	22	96.7			14	89.3			26	116.2		
H1 2013	22	96.7	3.0	-2.1	14	89.3	-1.2	1.7	26	116.2	1.5	-3.0
H2 2013	22	96.7	21.6	-16.6	14	89.3	21.5	-9.0	26	116.2	14.5	7.0
H1 2014	22	96.7	19.4	-13.3	14	89.3	20.5	-7.3	26	116.2	12.9	2.4
H2 2014	22	96.7	17.5	-11.5	14	89.3	21.9	-0.6	26	116.2	12.3	-3.2
H1 2015	22	96.7	23.2	-15.0	14	89.3	22.3	-2.0	26	116.2	10.8	-3.2
H2 2015	22	96.7	28.1	-17.9	14	89.3	25.5	-3.5	26	116.2	12.0	-2.4
H1 2016	22	96.7	19.8	-9.2	14	89.3	23.5	-4.1	26	116.2	11.1	-1.2
H2 2016	22	96.7	28.2	-14.9	14	89.3	25.9	-5.7	26	116.2	12.0	-2.7
H1 2017	22	96.7	31.2	-15.6	14	89.3	24.5	-4.5	26	116.2	12.7	-2.6
H2 2017	22	96.7	35.1	-19.3	14	89.3	25.4	-5.4	26	116.2	10.4	-3.4
H1 2018	22	96.7	33.3	-18.2	14	89.3	24.7	-5.8	26	116.2	12.7	-5.5
H2 2018	22	96.7	37.4	-21.1	14	89.3	24.7	-3.5	26	116.2	11.8	-5.6
H1 2019	22	96.7	37.9	-22.9	14	89.3	23.5	-3.2	26	116.2	14.3	-6.6

Source: Basel Committee on Banking Supervision.

Contribution to current CCR capital requirements by approach to EAD calculation

All banks, in per cent

Table C.98

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Internal models method	48.4	54.1	
Other internal models	1.9	2.3	
Standardised approach	49.7	43.6	100.0

Source: Basel Committee on Banking Supervision.

Impact of revised CCR capital requirements compared to current rules

In per cent

Table C.99

	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	321.9	118.0	230.0	7.3	7.3	5.2
95th percentile	115.9	94.4	171.1	3.8	5.8	3.1
75th percentile	55.2	52.1	49.9	1.3	2.2	0.5
Median	22.0	13.4	30.3	0.3	0.7	0.2
25th percentile	-1.0	-0.9	7.4	0.0	0.0	0.0
5th percentile	-27.4	-27.5	-51.3	-0.7	-1.2	-2.0
Min	-60.4	-27.7	-76.6	-1.9	-1.9	-2.2
Weighted average	26.7	27.2	21.4	0.9	1.0	0.3
Number of banks	62	21	32	62	21	32

Source: Basel Committee on Banking Supervision.

Impact of revised CVA requirements compared to current rules

In per cent

Table C.100

	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	385.0	385.0	599.7	0.9	0.9	5.9
95th percentile	293.5	336.2	466.9	0.4	0.8	2.3
75th percentile	136.9	129.9	196.4	0.2	0.2	0.3
Median	65.6	67.5	101.8	0.1	0.1	0.1
25th percentile	14.1	12.4	49.7	0.0	0.0	0.0
5th percentile	-55.4	-60.7	-13.9	-0.2	-0.2	0.0
Min	-66.5	-61.4	-17.0	-0.4	-0.2	0.0
Weighted average	45.6	44.1	147.5	0.1	0.1	0.3
Number of banks	70	25	24	70	25	24

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.101

	Relative to current CVA MRC			Relative to current overall MRC		
	Europe	Americas	Rest of the world	Europe	Americas	Rest of the world
Max	385.0	237.3	320.0	0.7	0.9	0.4
95th percentile	229.5	232.0	310.1	0.7	0.9	0.2
75th percentile	135.0	107.6	149.3	0.3	0.1	0.1
Median	67.8	13.3	72.1	0.2	0.0	0.0
25th percentile	21.6	-34.3	30.4	0.0	0.0	0.0
5th percentile	-55.1	-66.2	-34.3	-0.4	-0.2	-0.1
Min	-60.5	-66.5	-51.5	-0.4	-0.2	-0.3
Weighted average	47.2	43.3	44.6	0.1	0.1	0.0
Number of banks	24	11	35	24	11	35

Source: Basel Committee on Banking Supervision.

Previous monitoring reports published by the Basel Committee

December 2010	<i>Results of the comprehensive quantitative impact study</i> , December 2010, www.bis.org/publ/bcbs186.htm	
April 2012	<i>Results of the Basel III monitoring exercise as of 30 June 2011</i> , www.bis.org/publ/bcbs217.htm	
September 2012	<i>Results of the Basel III monitoring exercise as of 31 December 2011</i> , www.bis.org/publ/bcbs231.htm	
March 2013	<i>Results of the Basel III monitoring exercise as of 30 June 2012</i> , www.bis.org/publ/bcbs243.htm	
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September 2014	<i>Basel III monitoring report</i> , www.bis.org/publ/bcbs289.htm Main findings of the trading book hypothetical portfolio exercise	Diana Iercosan, Derek Nesbitt and Arnaud Sandrin
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March 2016	<i>Basel III monitoring report</i> , 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	<i>Basel III monitoring report</i> , 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	<i>Basel III monitoring report</i> , www.bis.org/bcbs/publ/d397.htm Impact of the revised minimum capital requirements for market risk Results of the survey on the interaction of regulatory instruments	Scott Nagel Diana Hancock and Doriana Ruffino
September 2017	<i>Basel III monitoring report</i> , www.bis.org/bcbs/publ/d416.htm Impact of the revised minimum capital requirements for market risk Impact of the revised securitisation framework	Scott Nagel Bernardo D'Alessandro, Thomas Morck and Emanuela Piani
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Counterparty credit risk and credit valuation adjustment risk

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