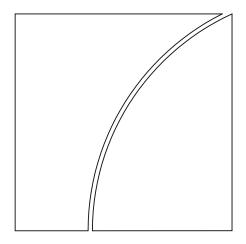
# Basel Committee on Banking Supervision



### Basel III Monitoring Report

March 2019



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ISBN 978-92-9197-634-8 (online)

### Basel III Monitoring Report

#### March 2019

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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 30 January 2019.

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Bank for International Settlements

#### Highlights of the Basel III monitoring exercise as of 30 June 2018

Changes in minimum required capital from fully phased-in final Basel III remain stable for large internationally active banks compared with end-2017, leaving the recently recalibrated market risk standards aside

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. However, it does not yet reflect the finalisation of the market risk framework published in January 2019. This report summarises the aggregate results using data as of 30 June 2018. 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 provided for a total of 189 banks, including 106 large internationally active ("Group 1") banks, among them all 29 G-SIBs, and 83 other ("Group 2") banks.<sup>4</sup> 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 2018. 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.

Basel Committee on Banking Supervision, *High-level summary of Basel III reforms*, December 2017, <a href="www.bis.org/bcbs/publ/d424">www.bis.org/bcbs/publ/d424</a> hlsummary.pdf; Basel Committee on Banking Supervision, *Basel III: Finalising post-crisis reforms*, December 2017, <a href="www.bis.org/bcbs/publ/d424.htm">www.bis.org/bcbs/publ/d424.htm</a>.

Basel Committee on Banking Supervision, Minimum capital requirements for market risk, January 2019, www.bis.org/bcbs/publ/d457.htm.

<sup>&</sup>lt;sup>3</sup> A list of previous publications is included in the Annex.

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 2017			30 June 2018		
	Group 1	Of which: G-SIBs	Group 2	Group 1	Of which: G-SIBs	Group 2
Fully phased-in initial Basel III framework						
CET1 ratio (%)	12.9	12.6	16.0	12.7	12.5	15.5
Target capital shortfalls (€ bn);¹ of which:	0.0	0.0	1.1	0.0	0.0	2.0
CET1	0.0	0.0	0.0	0.0	0.0	0.0
Additional Tier 1	0.0	0.0	1.1	0.0	0.0	1.9
Tier 2	0.0	0.0	0.0	0.0	0.0	0.1
TLAC shortfall 2022 minimum (€ bn)	82.1	82.1		68.0	68.0	
Total accounting assets (€ bn)	64,040	41,408	4,256	64,959	43,677	4,434
Leverage ratio (%)	5.8	5.9	5.7	5.8	5.8	5.4
LCR (%)	133.0	129.0	180.0	135.1	132.0	180.2
NSFR (%)	116.0	118.0	118.5	116.0	117.1	119.2
Fully phased-in final Basel III framework (2027)						
Change in Tier 1 MRC at the target level (%)	3.2	2.8	5.8	5.3	5.7	9.0
CET1 ratio (%)	12.2	12.0	12.6	11.7	11.6	13.0
Target capital shortfalls (€ bn); of which:	25.8	23.7	2.5	30.1	29.3	6.0
CET1	5.2	5.2	1.0	7.0	7.0	2.2
Additional Tier 1	7.3	6.3	0.8	10.6	10.3	2.3
Tier 2	13.3	12.2	0.7	12.6	12.0	1.4
TLAC shortfall 2022 minimum (€ bn)	143.6	143.6		108.8	108.8	

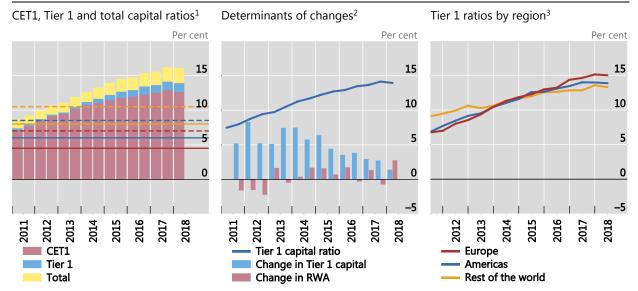
See Table A.4 for the target level capital requirements. 

1 Uses the 2017 definition of the leverage ratio exposure measure.

Source: Basel Committee on Banking Supervision.

- Compared with the previous reporting period (December 2017) the average Common Equity Tier 1 (CET1) capital ratio under the fully phased-in initial Basel III framework has decreased from 12.9% to 12.7% for Group 1 banks and from 16.0% to 15.5% for Group 2 banks.
- All Group 1 and Group 2 banks (including all 29 G-SIBs) would meet the CET1 minimum capital requirement of 4.5% and the CET1 target level of 7.0% (ie including the capital conservation buffer). This target also includes the G-SIB surcharge where applicable but does not include any countercyclical capital buffers.
- Applying the 2022 minimum TLAC requirements and the fully phased-in initial Basel III framework, six of the 24 G-SIBs reporting total loss-absorbing capacity (TLAC) data have a combined shortfall of €68.0 billion, compared with €82.1 billion at the end of December 2017.
- Group 1 banks' average Liquidity Coverage Ratio (LCR) increased by 2.1 percentage points to 135.1%, while the average Net Stable Funding Ratio (NSFR) remained stable at 116.0%. For Group 2 banks, there was a small increase for both LCR and NSFR.

Graph 1



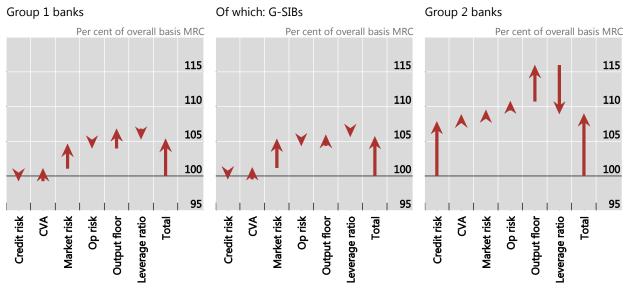
<sup>&</sup>lt;sup>1</sup> The solid lines depict the relevant minimums, the dotted lines the minimums plus the capital conservation buffer. See Table A.4 for the relevant levels. <sup>2</sup> Exchange rates as of 30 June 2018. <sup>3</sup> See Table B.1 for the composition of the regions.

Source: Basel Committee on Banking Supervision. See Table C.5, Table C.6 and Table C.7 for underlying data and sample size.

- The overall CET1 capital ratios for Group 1 banks have decreased to 12.7% in June 2018 from 12.9% in December 2017, for the first time since 2011. Overall Tier 1 and total capital ratios have displayed slightly lower decreases over this same time 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.
- The reduction in Tier 1 capital ratios is more pronounced in the rest of the world (0.3 percentage points) as compared to Europe and the Americas (both 0.1 percentage points).

### Small increase in Tier 1 MRC at the target level for Group 1 banks due to the final Basel III standards driven by pre-recalibration market risk numbers

Graph 2



Credit risk shows 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.

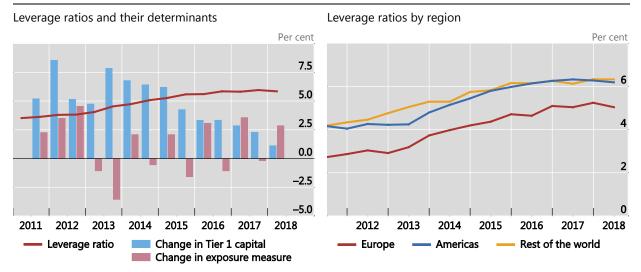
Source: Basel Committee on Banking Supervision. See also Table 4.

- For Group 1 banks, the Tier 1 minimum required capital (MRC) would increase by 5.3% following full phasing-in of the final Basel III standards. This increase is composed of a 6.8% increase for the risk-based components combined, driven by the positive contributions of output floor (2.8%), market risk (3.5%) and CVA (1.8%), as well as minor reductions in credit risk (-0.7%) and operational risk requirements (-0.6%). This increase is offset by a 1.5% reduction in leverage ratio Tier 1 MRC, which reflects the fact that the Basel III leverage ratio is becoming relatively less constraining for many banks in the sample in the presence of an output floor.
- The impact on MRC across regions is very heterogeneous for Group 1 banks with a moderate increase shown in the Americas (1.5%), a moderate decrease in the rest of the world (-2.7%) and in contrast to this a strong increase in MRC for European banks (+21.3%).
- For Group 2 banks, the overall 9.0% increase in Tier 1 MRC is driven by an increase in the risk-based measure of 15.9% (mainly driven by credit risk (7.8% and the output floor (5.2%)) and the leverage ratio measures, partially offsetting this increase at -7.0%.
- On average, at end-December 2017, the total change in Tier 1 MRC at the target level was lower at 3.2% for Group 1 banks, 2.8% for G-SIBs and 5.8% for Group 2 banks. The higher increase for Group 1 banks at the June 2018 reporting date is mainly driven by the higher market risk contribution. However, this does not yet reflect the finalisation of the market risk framework published in January 2019 which is expected to offset the increase to some extent.
- By excluding the revisions to the market risk framework as in the cumulative QIS at end-December 2015, the current end-June 2018 data show increases in Tier 1 MRC of 1.7%, 1.5% and 8.3% for Group 1 banks, G-SIBs and Group 2 banks, respectively. Here the average impact of the final Basel III framework on Group 1 banks has not changed compared to end-December 2017.

#### Fully phased-in Basel III leverage ratios<sup>1</sup> decrease slightly in H1 2018

Consistent sample of Group 1 banks, exchange rates as of 30 June 2018

Graph 3



<sup>&</sup>lt;sup>1</sup> 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.

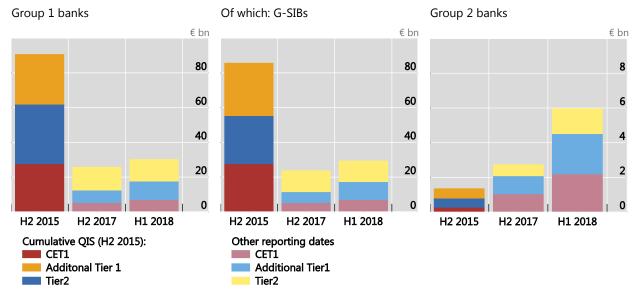
Source: Basel Committee on Banking Supervision. See Table C.14 and Table C.15 for underlying data and sample size.

- For the full sample at the end-June 2018 reporting date, the average fully phased-in Basel III Tier 1 leverage ratios are 5.8% for Group 1 banks and for G-SIBs, and 5.4% for Group 2 banks.
- For the consistent sample of banks, the average fully phased-in Basel III leverage ratio has decreased from 6.0% in December 2017 to 5.8% in June 2018. Until the end of 2017, 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.
- Three out of 69 Group 2 banks with an aggregate incremental shortfall of €1.4 billion would not meet a fully phased-in minimum Basel III Tier 1 leverage ratio of 3%, while all Group 1 banks meet the requirement.
- Leverage ratios are lower in Europe as compared to the Americas and the rest of the world. While the gap has narrowed slightly until end-2017, it widened again in the first half of 2018.

### Combined capital shortfalls at the target level under the final Basel III standards slightly higher for Group 1 banks compared with end-2017<sup>1</sup>

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

Graph 4



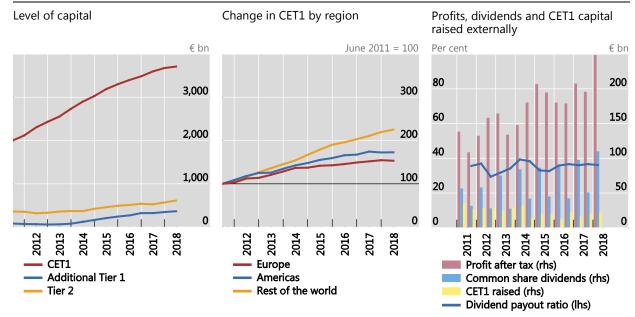
<sup>&</sup>lt;sup>1</sup> Results for H2 2015 are based on the Committee's cumulative Quantitative Impact Study and are not fully comparable from a methodological point of view, in particular since all changes from the revised market risk framework were already added to MRC under the current rules such that they were not reflected in the *change* in MRC.

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

- The capital shortfalls at the end-June 2018 reporting date are more than 70% lower for Group 1 banks than in the end-2015 cumulative QIS exercise, but more than 15% higher than in the end-2017 exercise. The increase over the last six months is partly driven by a higher market risk contribution; this does not yet reflect the finalisation of the market risk framework published in January 2019 which is expected to offset the increase to some extent.
- Overall, G-SIBs are the main contributors to the capital shortfalls for Group 1 banks. As in the
  cumulative QIS, they account for all of the CET1 and Tier 1 capital shortfall of Group 1 banks.
  Their contribution increased to 95% (+3 percentage points) for the Tier 2 capital shortfall
  compared to the end-2017 reporting date.
- On the contrary, a significant increase in capital shortfalls is reported for Group 2 banks as of 30 June 2018 compared to the two previous exercises. Compared to end-December 2017, under the final revisions to the Basel III standards the shortfalls had more than doubled and reached €2.2, €2.3 and €1.4 billion (+120%, +130% and +100%) for CET1, additional Tier 1 and Tier 2 shortfalls, respectively. For Group 2 banks, this increase is driven by differences in the samples.

Consistent sample of Group 1 banks, exchange rates as of 30 June 2018

Graph 5



<sup>&</sup>lt;sup>1</sup> The dividend payout ratio is calculated as common share dividends divided by profits after tax by using a rolling 12 months window.

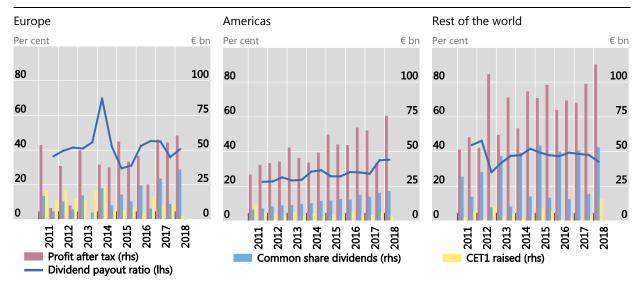
Source: Basel Committee on Banking Supervision. See Table C.23, Table C.26, Table C.27 and Table C.29 for underlying data and sample size. Table C.24, Table C.28 and Table C.30 provide an additional regional breakdown for Group 1 banks.

- From June 2011 to end-June 2018, the level of Group 1 banks' CET1 capital has increased by 85.5% from €2,001 billion to €3,712 billion. Since end-December 2017, Group 1 CET1 capital has increased by €36 billion (or 1.0%).
- 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 53.4% and 73.0%, respectively.
- The rise in overall CET1 capital among Group 1 banks in the current reporting period is largely due to profits generated, with particularly large profits shown by G-SIBs and a noted increase in G-SIBs' profits compared with the previous period.
- Group 1 banks' profits after tax have increased significantly over the last six months and reached a new historical peak of €248.2 billion over the first half of 2018. Almost 70% of the profits after tax of Group 1 banks have been realised by G-SIBs.

### Since 2011, European banks raised around 56% of the CET1 capital raised by the Group 1 bank sample but only generated around 22% of the profits after tax

Consistent sample of Group 1 banks, exchange rates as of 30 June 2018

Graph 6



<sup>&</sup>lt;sup>1</sup> The dividend payout ratio is calculated as common share dividends divided by profits after tax by using a rolling 12 months window.

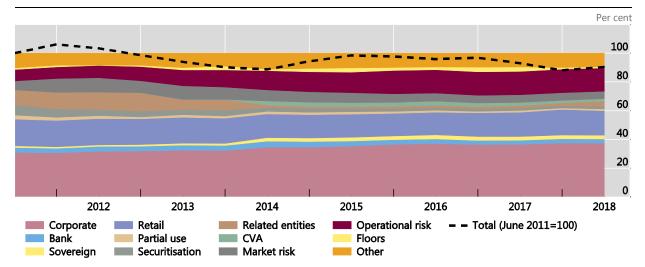
Source: Basel Committee on Banking Supervision. See Table C.28 and Table C.30 for underlying data and sample size.

- Since 2011, annual profits after tax recorded have always been higher in the Americas and the rest of the world than in Europe. For the current period, however, the rest of the world is the highest in aggregate.
- Overall since 2011, around 22% of the profits after tax have been generated by Group 1 banks in Europe, around 30% in the Americas and almost 50% in the rest of the world. This is roughly in line with the regional distribution of the overall sample (see Table B.2).
- Conversely, around 56% of the CET1 capital raised since 2011 has been raised by Group 1 banks in Europe.

## Analysis of share of MRC by asset class<sup>1</sup> according to current rules shows increase in operational risk MRC and decrease in credit risk MRC

Consistent sample of Group 1 banks

Graph 7



<sup>&</sup>lt;sup>1</sup> 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 which apply the standardised approach, general provisions may to some extent be recognised 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. 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 as "partial use".

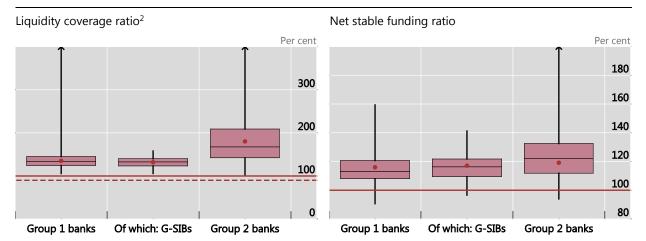
Source: Basel Committee on Banking Supervision. See Table C.33 for underlying data and sample size.

- As of end-June 2018, overall credit risk continues to compose the dominant portion of overall minimum required capital (MRC), with this category on average comprising 66.6% of total MRC for Group 1 banks.<sup>5</sup> However, the share of credit risk has declined significantly from 74.6% at the end of June 2011.
- Conversely, the share of operational risk MRC increased sharply from 7.8% at the end of June 2011 to 16.2% 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 31.0% to 37.6% between June 2011 and June 2018, while the share of MRC for securitisation exposures declined from 7.2% to 1.6%.

<sup>&</sup>lt;sup>5</sup> 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 fully phased-in liquidity coverage ratio, more than 95% the net stable funding ratio<sup>1</sup>

Overall distribution Graph 8



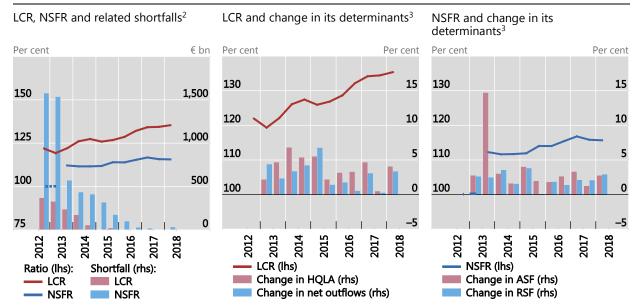
<sup>&</sup>lt;sup>1</sup> The median value is represented by a horizontal line, with 50% of the values falling in the 25th to 75th percentile range shown by the box. The upper and lower end points of the thin vertical lines show the range of the entire sample. In some cases, arrows at the top of the vertical line indicate banks with ratios outside the range shown in the graph. The dots represent weighted averages. <sup>2</sup> 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 lines represent the 90% minimum (2018, red dashed line) and the 100% minimum (2019, red solid line).

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

- The average LCR for Group 1 banks is 135.1% and for Group 2 banks 180.2% while at the end of December 2017, it was 133.0% and 180.0%, respectively.
- The average NSFR is 116.0% for Group 1 banks and 119.2% for Group 2 banks at end-June 2018 compared with 116.0% and 118.5% respectively, at end-December 2017.
- All banks in the sample already meet or exceed the final LCR minimum requirement of 100%.
- Some 96.2% of Group 1 banks and 95.2% 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 2018.

Consistent sample of Group 1 banks<sup>1</sup>

Graph 9



<sup>&</sup>lt;sup>1</sup> As described in Section 3.2, the NSFR time series depicts data reflecting NSFR standard released in December 2010, January 2014 and October 2014. <sup>2</sup> Exchange rates as at the reporting dates. <sup>3</sup> Exchange rates as of 30 June 2018.

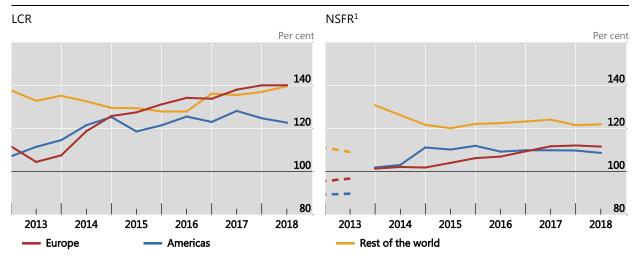
Source: Basel Committee on Banking Supervision. See Table C.79, Table C.80, Table C.83 and Table C.87 for underlying data and sample size. Table C.81, Table C.84 and Table C.88 provide additional regional breakdowns for Group 1 banks.

- For a consistent sample of Group 1 banks, all banks continue to comply with the 100% LCR minimum requirement.
- The aggregate NSFR shortfall was €28.9 billion for a consistent sample of Group 1 banks, compared with €2.7 billion at end-December 2017. The average NSFR for the same sample of banks decreased by 0.2 percentage points to 115.6%.

### LCRs in Europe and the rest of the world continue to converge, NSFR remains lower in Europe and the Americas

Consistent sample of Group 1 banks

Graph 10



<sup>&</sup>lt;sup>1</sup> As described in the Section 6.2, the NSFR time series depicts data reflecting NSFR standard released in December 2010, January 2014 and October 2014.

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

- The weighted average LCR at end-June 2018 for Group 1 banks is in excess of 120% for each of the three regions.
- While Group 1 banks in Europe and the Americas had initially lower average LCRs compared with the rest of the world, the average LCRs in Europe and the rest of the world and, to a lesser degree, the Americas have tended to gradually converge. 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 2018 for Group 1 banks in each of the three regions is well in excess of 100%.
- The average NSFR for Group 1 banks in Europe and the Americas at 111.6% and 108.7%, respectively, at end-June 2018 are lower than in the rest of the world at 121.9%.

# Detailed results of the Basel III monitoring exercise as of 30 June 2018

#### 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. 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 short "initial Basel III" in this report. On 7 December 2017, the GHOS finalised the Basel III reforms<sup>2</sup> 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. This report summarises the results of the latest Basel III monitoring exercise using 30 June 2018 data. A

#### 1.1 Scope of the monitoring exercise

All but one of the 27 Committee member countries participated in the Basel III monitoring exercise as of 30 June 2018. 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.<sup>5</sup> The questionnaire covered components of eligible capital, the calculation of all aspects of risk-weighted assets (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

- 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", <a href="www.bis.org/press/p100726.htm">www.bis.org/press/p100726.htm</a>, and the 12 September 2010 press release "Group of Governors and Heads of Supervision announces higher global minimum capital standards", <a href="www.bis.org/press/p100912.htm">www.bis.org/press/p100912.htm</a>.
- 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.
- <sup>3</sup> A list of previous publications is included in the Annex.
- The data for Japan are as of the end of March 2018, 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 2018, which corresponds to Canadian banks' fiscal second quarter-end.
- <sup>5</sup> See Basel Committee on Banking Supervision, *Instructions for Basel III monitoring*, March 2018, <a href="www.bis.org/bcbs/qis/">www.bis.org/bcbs/qis/</a>.

between the transitional and the fully phased-in Basel III frameworks is the level of the output floor which is 50% in 2022 (transitional final Basel III framework) and 72.5% in 2027 (fully phased-in final Basel III framework). This report does not yet reflect the finalisation of the market risk framework published in January 2019.<sup>6</sup>

The final data were submitted to the Secretariat of the Committee by 30 January 2019. 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 provided for a total of 189 banks, including 106 Group 1 banks and 83 Group 2 banks.<sup>7</sup> 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 111 Group 1, 95 Group 2 banks and 206 banks overall, the samples decreased. Nevertheless, the impact of the final Basel III framework could be assessed for a larger sample of 147 banks, among which 80 Group 1 banks and 67 Group 2 banks.<sup>8</sup>

Banks were asked to provide data at the consolidated level as of 30 June 2018. 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 2018 ("H1 2018") reporting dates, in order to make more meaningful period-to-period comparisons. The consistent sample differs for the various analyses; typically it includes around 86 Group 1 banks, of which 29 are G-SIBs, and around 40 Group 2 banks. The G-SIB in the time series analyses are among those banks which have been classified as G-SIBs as of November 2018, 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.

#### 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

Basel Committee on Banking Supervision, Minimum capital requirements for market risk, January 2019, <a href="https://www.bis.org/bcbs/publ/d457">www.bis.org/bcbs/publ/d457</a>.

See Table B.1 in the Statistical Annex for details on the sample. Also note that this table shows banks for which data were provided for the specific topics and not necessarily data used in the analysis.

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.

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 (both for risk-based and Basel III leverage ratio frameworks). 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 impact assessment was carried out by comparing banks' capital positions under fully phased-in initial Basel III to the transitional initial Basel III framework as implemented by the national supervisor (ie with phase-in arrangements). The fully phased-in initial Basel III results are calculated without considering transitional arrangements pertaining to the phase-in of deductions and grandfathering arrangements set out in the initial Basel III framework (see Box A). However, banks in some countries had difficulties providing fully phased-in Basel III capital amounts; in such cases, the capital amounts according to the fully phased-in *national implementation* of the Basel III framework were used instead.

Similarly, 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.

Box A

#### Phase-in provisions for risk-based capital requirements

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

- Regulatory adjustments (ie possibly stricter sets of deductions that apply under Basel III) were fully phased in by 1 January 2018;
- An additional 2.5% capital conservation buffer above the regulatory minimum capital ratios, which must be met with CET1 capital, will be phased in by 1 January 2019; and
- The additional loss absorbency requirement for G-SIBs, which ranges from 1.0% to 2.5%, will be fully phased in by 1 January 2019. It will be applied as an extension of the capital conservation buffer and must be met with CET1.

The final Basel III framework includes phase-in provisions for the output floor, which will start at 50% on 1 January 2022, rise in annual steps of 5% and be fully phased-in at the 72.5% level from 1 January 2027. 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.

#### 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 Ibased 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.

#### 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. Also particular attention has been paid on the reconciliation of reported data with existing data from supervisory reporting systems. Banks are included in the various analyses below only to the extent that they were able to provide data of sufficient quality to complete the analyses.

#### 1.5 Interpretation of results

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

- When comparing results to 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 2018 reporting date may differ from the H1 2018 data point in graphs and tables showing the time series for the consistent sample of banks as described above.
- The actual impact of those new requirements which 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 2018 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 transitional initial Basel III framework, the Basel III capital amounts shown in this report assume that all common equity deductions are fully phased in and 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 over five years.
- The treatment of deductions and non-qualifying capital instruments also affects figures reported in the section on the Basel III leverage ratio. The assumption that none of these capital instruments will be replaced by eligible instruments will become less of an issue as the implementation date of the Basel III leverage ratio nears.
- 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 relavent policy topic.
- 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 shows the aggregate capital ratios under the current (or transitional initial), fully phased-in initial, transitional final and fully phased-in final Basel III frameworks, as well as the related capital shortfalls. Details of capital ratios and capital shortfalls are provided in Section 2.1 and Section 2.2.

Aggregate capital ratios and (incremental) combined capital shortfalls at the target level<sup>1</sup>

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 <sup>2</sup>			
	Ini	tial	Final		Initial		Final	
	Current	Fully phased- in	Transitional Fully phased- in		Current	Fully phased- in	Transitional	Fully phased- in
Group 1 banks								
CET1 capital	12.7	12.7	12.2	11.7	0.0	0.0	0.0	7.0
Tier 1 capital <sup>3</sup>	14.1	13.9	13.4	12.9	0.0	0.0	2.5	10.6
Total capital⁴	16.5	16.0	15.4	14.8	0.0	0.0	9.0	12.6
Sum					0.0	0.0	11.5	30.1
Of which: G-SIBs								
CET1 capital	12.5	12.5	12.0	11.6	0.0	0.0	0.0	7.0
Tier 1 capital <sup>3</sup>	14.0	13.8	13.2	12.8	0.0	0.0	2.5	10.3
Total capital⁴	16.3	15.8	15.2	14.7	0.0	0.0	8.4	12.0
Sum					0.0	0.0	10.9	29.3
Group 2 banks								
CET1 capital	15.5	15.1	13.6	13.0	0.0	0.0	2.2	2.2
Tier 1 capital <sup>3</sup>	16.3	15.8	14.1	13.5	1.4	1.9	1.9	2.3
Total capital⁴	18.5	17.9	15.9	15.3	0.0	0.1	1.4	1.4
Sum					1.4	2.0	5.5	6.0

<sup>&</sup>lt;sup>1</sup> The target level includes the capital conservation buffer and the capital surcharges for 29 G-SIBs as applicable but does not include any countercyclical capital buffers. Samples for the initial and final Basel III frameworks are not consistent. <sup>2</sup> 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. <sup>3</sup> The shortfalls presented in the Tier 1 capital row are *additional* Tier 1 capital shortfalls. <sup>4</sup> The shortfalls presented in the total capital row are *Tier 2* capital shortfalls.

Source: Basel Committee on Banking Supervision.

#### **CET1** capital ratios

In per cent Table 3

	Initi	al Basel III st	andards	Final Basel III standards			
	Number of banks	Current	Fully phased-in	Number of banks	Transitional	Fully phased-in	
Group 1 banks	102	12.7	12.7	90	12.2	11.7	
Of which: Europe	36	13.5	13.6	34	11.5	10.7	
Of which: Americas	21	12.1	12.0	16	11.7	11.6	
Of which: RW	45	12.4	12.5	40	13.0	12.6	
Of which: G-SIBs	29	12.5	12.5	28	12.0	11.6	
Group 2 banks	78	15.5	15.1	71	13.6	13.0	

Source: Basel Committee on Banking Supervision.

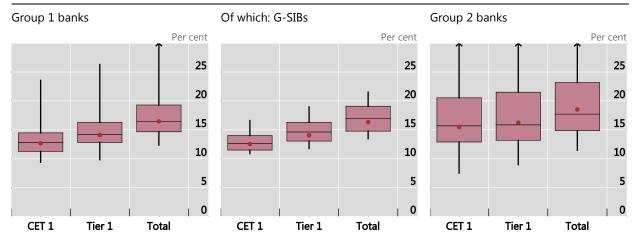
#### 2.1 Risk-based capital ratios

#### 2.1.1 Initial Basel III standards

For Group 1 banks, the average CET1 capital ratio would have remained flat at 12.7% as a result of the full implementation of the initial Basel III standards. For Group 2 banks, the average CET1 capital ratio declines from 15.5% under transitional initial rules to 15.1% as a result of the full phasing-in of initial Basel III (a reduction of 0.4 percentage points). Results continue to show significant variation across banks as shown in Graph 11 for the transitional Basel III rules and Graph 12 for the fully phased-in initial Basel III framework. The reduction in the average CET1 ratio for Group 2 banks is driven by the *full* application of the new definition of eligible capital instruments, deductions that were not previously applied at the common equity level of Tier 1 capital in most countries (numerator), and by increases in RWA (denominator). Over the last period, the positive change in RWA for Group 2 banks is greater compared to Group 1 banks. Overall, all banks in the Group 1 and Group 2 samples show CET1 ratios under fully phased-in initial Basel III that are above the 7.0% target ratio; furthermore, 96% of the banks in the sample show a CET1 ratio above 10%.

Tier 1 capital ratios of Group 1 banks would on average decline 0.2 percentage points from 14.1% to 13.9%, and total capital ratios of this same group would decline on average by 0.5 percentage points from 16.5% to 16.0%. Group 2 banks show greater declines in Tier 1 capital ratios (from 16.3% to 15.8%) and total capital ratios (from 18.5% to 17.9%). The stronger decline of total capital ratios is caused by the phase-out of Tier 2 instruments which will no longer be eligible in 2022.

<sup>&</sup>lt;sup>9</sup> See also Table B.5 and Table B.6.

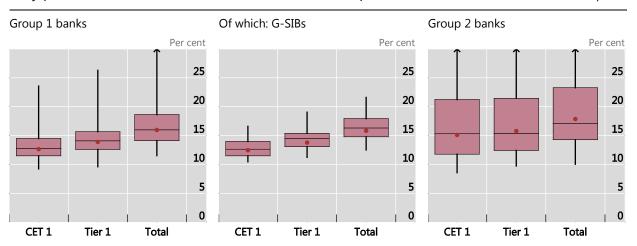


<sup>&</sup>lt;sup>1</sup> The median value is represented by a horizontal line, with 50% of the values falling in the 25th to 75th percentile range shown by the box. The upper and lower end points of the vertical lines generally show the range of the entire sample. In some cases, arrows at the top of 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.

#### Fully phased-in initial Basel III CET1, Tier 1 and total capital ratios<sup>1</sup>

Graph 12



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

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

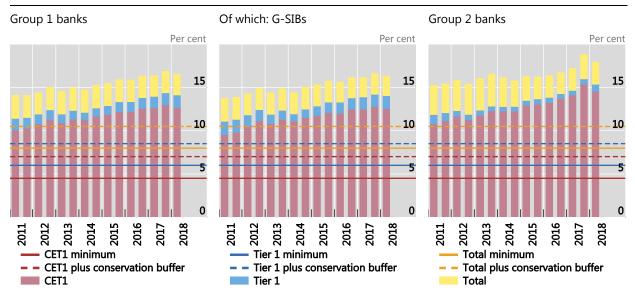
Graph 13 below shows the average capital ratios under transitional Basel III rules for a consistent sample of Group 1 and Group 2 banks for the periods end-June 2011 through end-June 2018. Transitional capital ratios had fallen over the last period for both Group 1 and Group 2 banks. The overall decrease in transitional Basel III CET1 ratios for Group 1 banks appears to be largely driven by an increase in RWA (the denominator) that more than offsets increases in capital (the numerator).

Graph 14 shows the average capital ratios under transitional Basel III rules for a consistent sample of Group 1 banks for the periods end-June 2011 through end-June 2018 by region. All regions have shown substantial growth in capital ratios over this period. Although aggregate capital ratios for European banks declined over the past six months, this region still continues to post the highest aggregate ratios. All ratios

in Europe are at least one percentage point above those of the other two regions as of June 2018 while the Americas and the rest of the world are in line with each other.

#### Transitional initial Basel III CET1, Tier 1 and total capital ratios<sup>1</sup>

Consistent sample of banks Graph 13



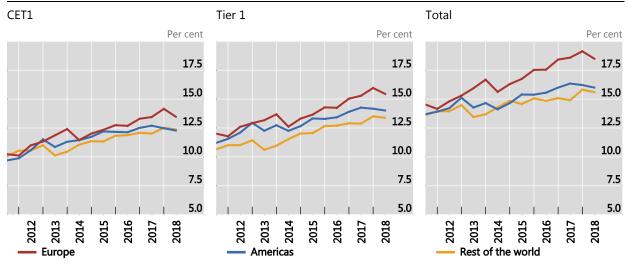
<sup>&</sup>lt;sup>1</sup> Before the implementation of the Basel III framework, results have been calculated on the basis of the relevant national regulatory frameworks in place at the reporting dates.

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

#### Transitional initial Basel III CET1, Tier 1 and total capital ratios, 1 by region

Consistent sample of Group 1 banks

Graph 14



<sup>&</sup>lt;sup>1</sup> Before the implementation of the Basel III framework, results have been calculated on the basis of the relevant national regulatory frameworks in place at the reporting dates.

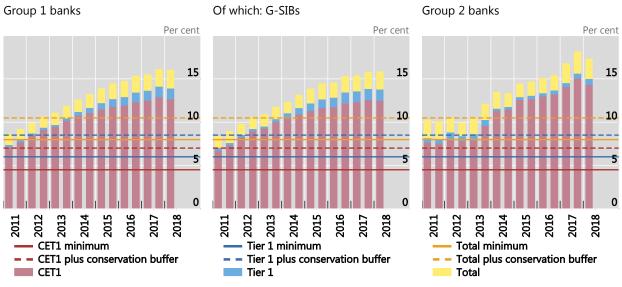
Source: Basel Committee on Banking Supervision. See Table C.4 for underlying data and sample size.

After full phasing in of Basel III (Graph 15), all tiers of capital ratios for this consistent sample of Group 1 banks slightly declined (0.2 percentage points for CET1 and Tier 1 and 0.1 percentage points for

total capital ratios) over the previous six months. For Group 2 banks, the decline in aggregate fully phased-in CET1, Tier 1 and total capital ratios was more pronounced at 0.7, 0.6 and 0.8 percentage points, respectively, between December 2017 and June 2018. The general decrease in fully phased-in Basel III capital ratios for both groups is mainly due to significant increases in RWA.

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

Consistent sample of banks Graph 15



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

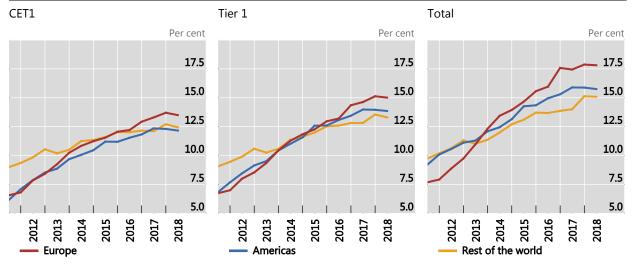
On a fully phased-in basis, Tier 1 capital ratios were more than two percentage points lower in Europe and the Americas than in the rest of the world region in 2011 (Graph 16). However, this relationship reversed around 2015 when Europe had started reporting the highest levels of capital ratios.

Over the last six months, all tier levels of capital ratios for this consistent sample of Group 1 banks slightly decreased for all regions. The greatest decline is recorded for CET1 ratios of 0.3, 0.2 and 0.1 percentage points for the rest of the world region, Europe and the Americas, respectively. Total capital ratios remained relatively stable over the period.

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

Consistent sample of Group 1 banks

Graph 16



<sup>&</sup>lt;sup>1</sup> Before the implementation of the Basel III framework, results have been calculated on the basis of the relevant national regulatory frameworks in place at the reporting dates.

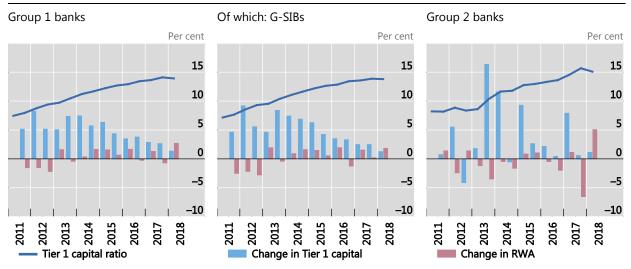
Source: Basel Committee on Banking Supervision. See Table C.6 for underlying data and sample size.

For Group 1 banks the increase in RWAs was greater than for Tier 1 capital in the first half of 2018. However, the RWA increase was lower amongst G-SIBs compared to the average for the overall sample of Group 1 banks. On the other hand, Group 2 banks showed a lower percent increase in Tier 1 capital and a sizeable increase in RWAs (see Graph 17).

### Fully phased-in initial Basel III Tier 1 capital ratios and changes in RWA and Tier 1 capital

Consistent sample of banks, exchange rates as of 30 June 2018

Graph 17



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

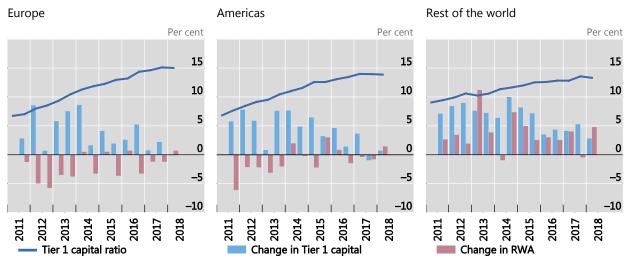
The rise in Group 1 banks' Tier 1 capital was distributed across regions while their RWA increase was concentrated in banks located in the rest of the world region (see Graph 18). Despite their increase in Tier 1 capital (+2.8%), the rest of world regions experienced the greatest decrease in the Tier 1 capital ratio

(-0.3 percentage points) due to a strong increase in RWAs of 4.8% over the last six months. The Americas saw a moderate decrease in the Tier 1 capital ratio of 0.1 percentage points to 13.9% as a result of an increase in Tier capital of 0.7% complemented by a increase of 1.4% in RWAs. Finally, Europe still reports the highest levels of Tier 1 capital ratios despite the slight decrease by 0.1 percentage points to 15.0% due to an increase in RWAs of 0.7%.

### Fully phased-in initial Basel III Tier 1 capital ratios and changes in RWA and Tier 1 capital, by region

Consistent sample of Group 1 banks, exchange rates as of 30 June 2018

Graph 18

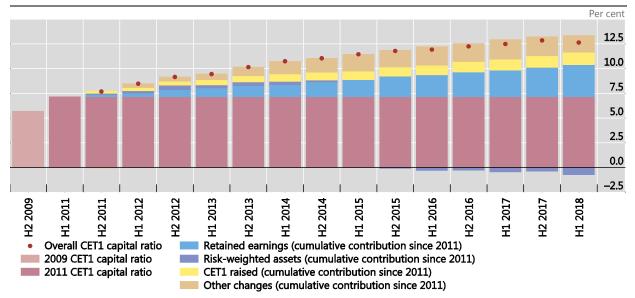


Source: Basel Committee on Banking Supervision. See Table C.8 for underlying data and sample size.

Graph 19 below shows the evolution of fully phased-in 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 graph suggests that retained earnings were the by far most significant contributor to the improvements in CET1 capital ratios.

Consistent<sup>1</sup> sample of Group 1 banks

Graph 19



<sup>&</sup>lt;sup>1</sup> 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. <sup>2</sup> Other changes include changes in regulatory adjustments to CET1 capital and any other changes in CET1 capital between two reporting dates which are not reported separately.

Source: Basel Committee on Banking Supervision. See Table C.9 for underlying data and sample size.

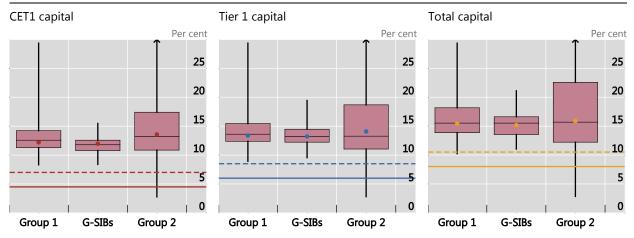
#### 2.1.2 Final Basel III standards

On average the fully phased-in 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 21) would decline by one percentage point from 12.7% to 11.7%. G-SIBs would see an equivalent decrease of 0.9 percentage points from 12.5% to 11.6%. Group 2 banks will also report a CET1 capital ratio decline by 2.1 percentage points from 15.1% to a low of 13.0%. There is also more 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 by one percentage point and 2.3 percentage points, respectively. Total capital ratios also decline for both groups, with a more pronounced decline for Group 2 banks bringing the average much closer to the median of these banks.

As compared with transitional CET1, the average CET1 capital ratio of Group 1 banks would have declined from 12.2% to 11.7% as a result of the full implementation of the final Basel III standards (a reduction of 0.5 percentage points). A similar decline is observed for Group 2 banks, with the average CET1 capital ratio declining from 13.6% under transitional standards to 13.0% as a result of the full phasing-in of final Basel III. Results also highlight a lower variation across banks for the fully phased-in Basel III framework (Graph 21) compared to transitional final Basel III standards (Graph 20).

Tier 1 capital ratios of Group 1 banks would on average decline 0.5 percentage points from 13.4% to 12.9%, and total capital ratios of this same group would decline on average by 0.6 percentage points from 15.4% to 14.8%. Group 2 banks show subdued declines in Tier 1 capital ratios (from 14.1% to 13.5%) and total capital ratios (from 15.9% to 15.3%). The starting low base for total capital ratios is caused by the phase-out of Tier 2 instruments which will no longer be eligible in 2022.

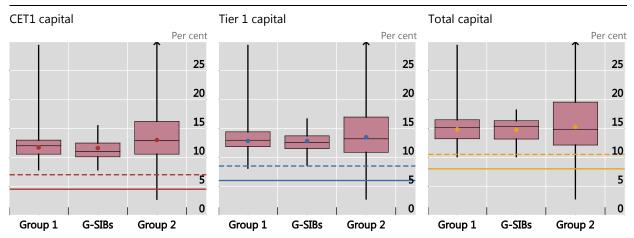


The solid horizontal line represents the relevant minimum requirement, the dotted horizontal line represents the relevant target (excluding any bank-specific G-SIB surcharges).

Source: Basel Committee on Banking Supervision. See also Table C.10.

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

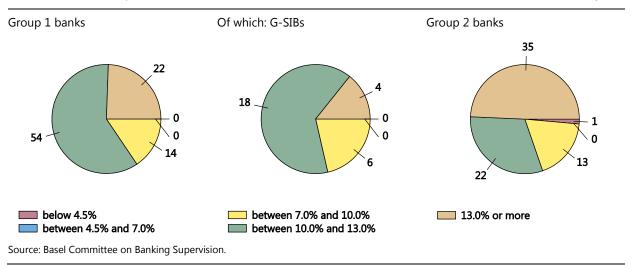
Graph 21



The solid horizontal line represents the relevant minimum requirement, the dotted horizontal line represents the relevant target (excluding any bank-specific G-SIB surcharges).

Source: Basel Committee on Banking Supervision. See also Table C.11.

All Group 1 banks in the sample meet the minimum and target requirements with nearly a quarter of banks having a CET1 ratio higher than 13% and more than 80% reporting a CET1 ratio larger than 10%. For Group 2 banks, except one bank, all banks in the sample meet the minimum fully phased-in capital requirement of 4.5%. More than 75% of Group 2 banks have a CET1 capital ratio which is higher than 10% and nearly 45% have a capital ratio higher that 13%.



Overall, while the improvement in the *initial* Basel III ratios is mainly driven by an increase of Tier 1 capital, the lower increase in the *final* Basel III ratios suggests that there is now a negative impact of the finalisation of Basel III on Tier 1 capital ratios.

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

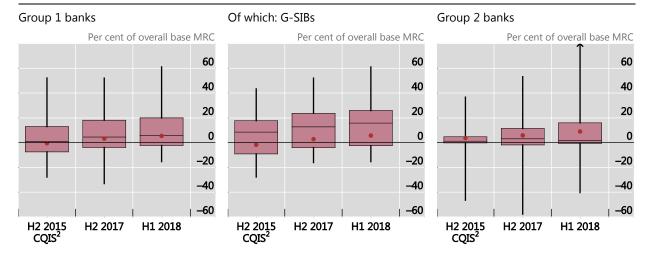
On average, the total change in Tier 1 MRC at the target level is +5.3% for Group 1 banks, +5.7% for G-SIBs and +9.0% for Group 2 banks. In contrast to the results of the cumulative QIS, <sup>10</sup> these numbers include the impact of the revised market risk framework, which has a standalone impact of almost 3.5% on Group 1 banks, 4.1% on G-SIBs and 0.6% on Group 2 banks (see Graph 23). The higher increase from market risk for Group 1 banks at the June 2018 reporting date does not yet reflect the finalisation of the market risk framework published in January 2019 which is expected to offset the increase to some extent. Assuming the same treatment of the revisions to the market risk framework as in the cumulative QIS, the current June-2018 data show increases of 1.7%, 1.5% and 8.3% for Group 1, G-SIBs and Group 2 banks, respectively.

Graph 23 also shows the dispersion of changes in MRC across the Group 1 banks, G-SIBs and Group 2 banks in the sample. The change in MRC including market risk for the current period for 50% of the Group 1 banks is between -2.3% and +19.9%, with a median of 5.7%. The distribution for G-SIBs is wider with a higher median of 15.7%, while the median Group 2 bank shows a 1.8% increase with 50% of the banks in also a rather wide interval from -0.5% to a +16.0% increase in Tier 1 MRC. Therefore, the dispersion of the results among Group 2 banks is clearly lower than for Group 1 banks and G-SIBs.

<sup>&</sup>lt;sup>10</sup> In the cumulative QIS, all changes from the revised market risk framework were are already added to MRC under the current rules such that they were not reflected in the *change* in MRC.

Samples as at the reporting dates

Graph 23



<sup>&</sup>lt;sup>1</sup> 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. <sup>2</sup> 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 are 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.

The results are summarised in Table 4 and Graph 24 which 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.<sup>11</sup>
- 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.
- 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 riskbased Tier 1 MRC and leverage ratio Tier 1 MRC do not add up, since the total MRC increases

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.

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

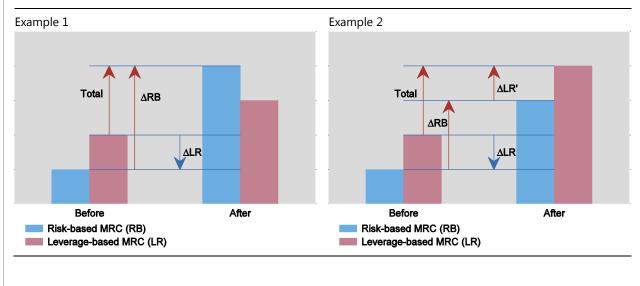
### Aggregation of changes in risk-based and leverage ratio MRC

Example 1 shows an illustrative bank that is currently constrained  $\odot$  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 ( $\Delta$ LR) in the diagram. Example 2 shows an alternative case where the bank is still constrained by the Basel III leverage ratio effect after the reforms. In this case, the contribution of leverage ratio Tier 1 MRC is the net 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 ( $\Delta$ LR), 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.



Graph A



For Group 1 banks, the Tier 1 MRC would increase by 5.3% following full phasing-in of the final Basel III standards. This increase is composed of a 6.8% increase for the risk-based components combined, driven by the positive contributions of output floor (2.8%), market risk (3.5%) and CVA (1.8%), as well as minor reductions in credit risk (-0.7%) and operational risk requirements (-0.6%). This increase is offset by a 1.5% reduction in leverage ratio Tier 1 MRC, which reflects the fact that the Basel III leverage ratio is becoming relatively less constraining for many banks in the sample in the presence of an output floor.

The impact on MRC across regions is very heterogeneous for Group 1 banks with a decrease shown in the rest of the world (-2.7%), a moderate increase in the Americas (+1.5%) and in contrast to this a strong increase in MRC for European banks (+21.3%). The largest impact for the sample of European banks stems from the output floor (+8.8%) followed by changes in CVA (+4.7%) and operational risk

(+4.7%). For banks in the Americas increases for CVA (+0.7%) and market risk (+8.3%) are partially offset by MRC reductions in the output floor (-2.2%) and operational risk (-5.2%). For banks in the rest of the world reductions in MRC for credit risk, operational risk and the leverage ratio are higher than the rises for market risk, CVA and the output floor.

For Group 2 banks, the overall 9.0% increase in Tier 1 MRC is driven by an increase in the risk-based measure of 15.9% – mainly driven by credit risk (7.8%) and the output floor (5.2%), while the leverage ratio measure partially offsets this increase at -7.0%.

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

Table 4

	Number	Total		Risk-based requirements						
	of banks			Total	Of which:				Leverage	
	Daliks	With MR	Without MR		Credit risk <sup>1</sup>	CVA	Market risk	Op risk²	Output floor <sup>3</sup>	ratio
Group 1 banks	80	5.3	1.7	6.8	-0.7	1.8	3.5	-0.6	2.8	-1.5
Of which: Europe	32	21.3	17.4	25.7	4.1	4.7	3.3	4.7	8.8	-4.4
Of which: AM	16	1.5	-6.3	1.5	0.0	0.7	8.3	-5.2	-2.2	0.0
Of which: RW	32	-2.7	-3.4	-2.3	-4.3	0.6	0.7	-1.2	1.9	-0.4
Of which: G-SIBs	28	5.7	1.5	5.9	-0.4	1.6	4.1	-0.9	1.5	-0.2
Group 2 banks	67	9.0	8.3	15.9	7.8	1.0	0.6	1.3	5.2	-7.0

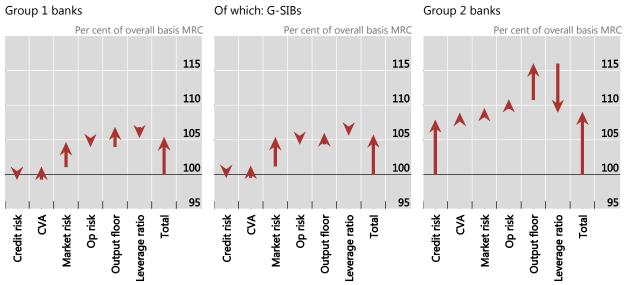
<sup>&</sup>lt;sup>1</sup> Change in MRC due to the revised standardised and IRB approaches, including securitisation. <sup>2</sup> Change in MRC due to revised operational risk framework. Figures may not show supervisor-imposed capital add-ons. Therefore, increases in MRC may be overstated and reductions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

Source: Basel Committee on Banking Supervision.

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

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

Graph 24

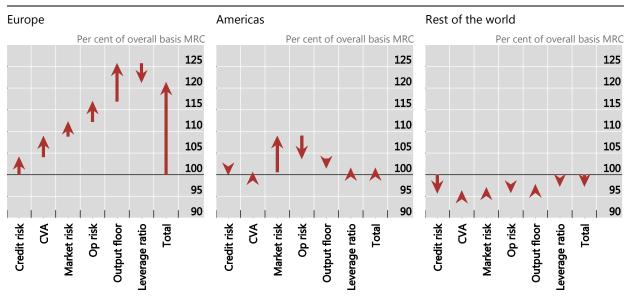


Credit risk shows change in MRC due to revised standardised and IRB approaches, including securitisation. Operational risk figures may not show supervisor-imposed capital add-ons. Therefore, increases in MRC may be overstated and reductions may be understated. Output floor results are net of the existing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

Source: Basel Committee on Banking Supervision.

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

Group 1 banks Graph 25



Credit risk shows 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.

Source: Basel Committee on Banking Supervision.

### 2.3 Leverage ratio

#### 2.3.1 Overall results

#### Key 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:
  - transitional 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 leverage ratio without considering transitional arrangements set out in the in the Basel III framework.
- *denominator*: the Basel III leverage ratio exposure measure is also calculated on the same corresponding basis as the numerator above (unless otherwise stated).

Box C

## Basel III leverage ratio framework

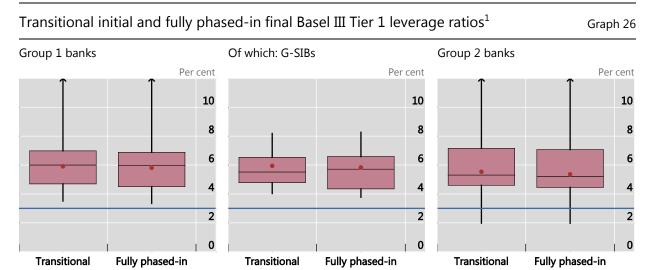
Under the January 2014 Basel III leverage ratio framework, the Basel III leverage ratio exposure measure (the denominator of the Basel III leverage ratio) includes:

- 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 based on the current exposure method (CEM);
- 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, <a href="https://www.bis.org/publ/bcbs270.htm">www.bis.org/publ/bcbs270.htm</a>. 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, <a href="https://www.bis.org/bcbs/publ/d424.htm">www.bis.org/bcbs/publ/d424.htm</a>.

Graph 26 presents summary statistics related to the distribution of Basel III leverage ratios based on transitional Basel III Tier 1 and fully phased-in Basel III capital for Group 1 banks, G-SIBs and Group 2 banks. The weighted average transitional Basel III leverage ratios would be 5.9% for Group 1 banks and 5.9% for G-SIBs, while it would amount to 5.5% for Group 2 banks. The weighted average fully phased-in Basel III leverage ratios are 5.8% for Group 1 banks, 5.8% for G-SIBs and 5.4% for Group 2 banks. Group 2 banks show a greater dispersion compared to Group 1 banks.

Under both the transitional and the fully phased-in Basel III leverage ratios, three banks in the sample would not meet the 3% ratio level, all three being Group 2 banks, with an aggregate incremental shortfall of €1.4 billion.<sup>12</sup>



<sup>&</sup>lt;sup>1</sup> 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.13 for underlying data.

Graph 27 shows how the fully phased-in Basel III leverage ratios have evolved over time for a consistent sample of 66 Group 1 banks (including 27 G-SIBs) and 30 Group 2 banks, all of which provided leverage ratio data for all reporting dates from June 2011 to June 2018. For Group 1 banks and G-SIBs the leverage ratio slightly decreased to 5.8% from 6.0% over the prior period, in both cases due to an increase in the exposure measure which was not offset by a corresponding increase in Tier 1 capital. Group 2 banks' leverage ratio also decreased by 0.2 percentage points to 5.1%, as the exposure measure increased by 2.1% compared to the prior period while the Tier 1 capital slightly decreased.

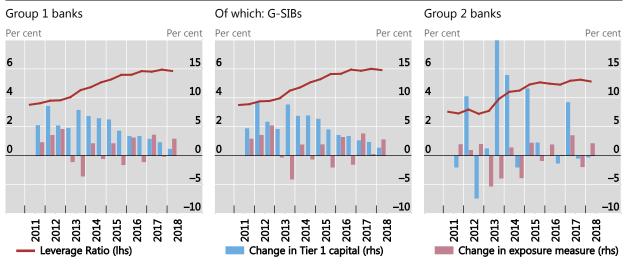
Graph 28 shows the same information as Graph 27 however only for a consistent sample of Group 1 banks and grouped by region. Overall the leverage ratio for all regions has been growing over the past six years. In Europe, leverage ratios started from a low base of 2.7% and increased to 5.0% at end-June 2018. In the Americas the leverage ratio increased from 4.2% to 6.2%, as of June 2018. For the rest of the world, the leverage ratio increased from 4.2% in 2011 to 6.3% as at end-June 2018. Over the last period, leverage ratios decreased by 0.2 percentage points in Europe, 0.1 percentage points in the Americas and remained constant in the rest of the world.

See also Table 2.

### Fully phased-in Basel III Tier 1 leverage ratios and component changes<sup>1</sup>

Consistent sample of banks, exchange rates as of 30 June 2018

Graph 27



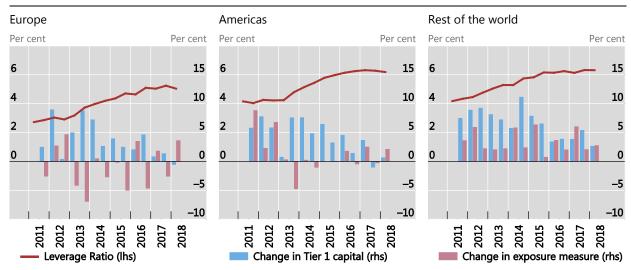
<sup>&</sup>lt;sup>1</sup> Note that the data points for H1 2013 use an approximation for the initial definition of the Basel III leverage ratio exposure where gross instead of adjusted gross securities financing transaction values are used. Data points from H2 2017 onwards use the final definition of the leverage ratio to the extent data are available.

Source: Basel Committee on Banking Supervision. See Table C.14 for underlying data and sample size.

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

Consistent sample of Group 1 banks, exchange rates as of 30 June 2018

Graph 28



<sup>&</sup>lt;sup>1</sup> 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.

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

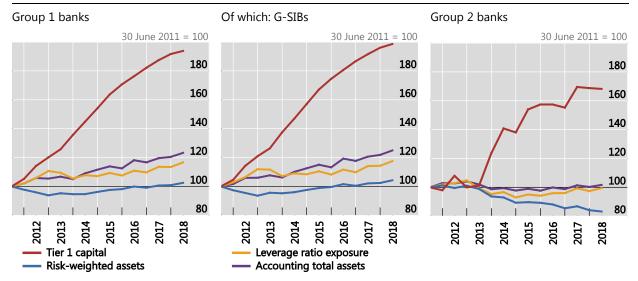
Graph 29 shows the evolution of the components of the risk-based capital and leverage ratios over time for a consistent sample of banks, ie banks that have consistently been providing the four data series for the period June 2011 to June 2018. The four components are Basel III Tier 1 capital, RWA and 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 leverage total exposures and RWAs decreased slightly in 2012 and then began to increase through the current period. For Group 2 banks, Tier 1 capital generally increased during the period with the peak in June 2017. RWA increased until 2012, and then declined after to the current period. Leverage total exposure and accounting total assets decreased until 2013, but since have increased through the current period.

Tier 1 capital, RWA, Basel III leverage ratio exposure and accounting total assets<sup>1</sup>

Consistent sample of banks, exchange rates as of 30 June 2018

Graph 29



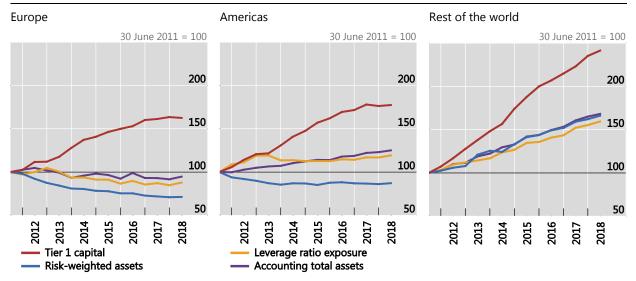
<sup>&</sup>lt;sup>1</sup> Tier 1 capital, RWA and leverage ratio exposure assume full implementation of Basel III. Note that the data points for H1 2013 use an approximation for the initial definition of the Basel III leverage ratio exposure where gross instead of adjusted gross securities financing 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.

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

Consistent sample of Group 1 banks, exchange rates as of 30 June 2018

Graph 30

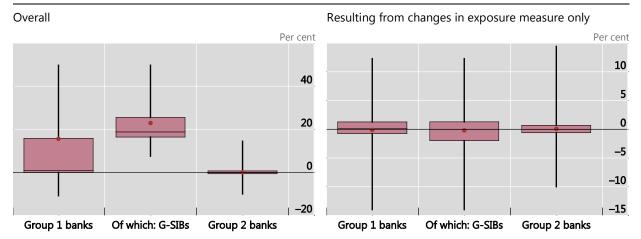


<sup>&</sup>lt;sup>1</sup> Tier 1 capital, RWA and leverage ratio exposure assume full implementation of Basel III. Note that the data points for H1 2013 use an approximation for the initial definition of the Basel III leverage ratio exposure where gross instead of adjusted gross securities financing 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.

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

Graph 31 assesses, for Group 1 banks, G-SIBs and Group 2 banks, the changes in leverage ratio MRC 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 15.6%, G-SIBs saw an increase on average of 22.9%, and Group 2 banks saw an increase on average of 0.1%. With respect to the total exposure measure, Group 1 banks saw a decrease on average of -0.1%,G-SIBs saw a decrease on average of -0.2% and Group 2 banks saw an increase on average of 0.1%.



<sup>&</sup>lt;sup>1</sup> 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.

Source: Basel Committee on Banking Supervision. See also Table C.18 and Table C.19.

#### 2.4 Combined shortfall amounts

#### 2.4.1 Shortfalls under the initial Basel III standards

This section shows the capital shortfalls for the Group 1 and Group 2 bank samples assuming full phasing in of the initial Basel III requirements based on data as of 30 June 2018 and disregarding transitional arrangements. The shortfalls presented are measured against different minimum capital ratio requirements (ie 4.5% CET1, 6.0% Tier 1 and 8.0% total capital) as well as against the *target* level, which includes the 2.5% capital conservation buffer and capital surcharges for 29 G-SIBs as applicable.<sup>13</sup>

Graph 32 and Graph 33 below as well as Table 2 above provide estimates of the amount of capital that Group 1 and Group 2 banks would need based on data as of 30 June 2018 in addition to capital already held at the reporting date, in order to meet the minimum and target CET1, Tier 1 and total capital ratios under Basel III assuming fully phased-in requirements and deductions. Under these assumptions, there are no capital shortfalls for Group 1, however Group 2 banks would need an additional €1.9 billion of additional Tier 1 or higher-quality capital to meet minimum (Graph 32) and an additional 0.1 billion of Tier 2 capital to meet the target (Graph 33) total capital requirements.

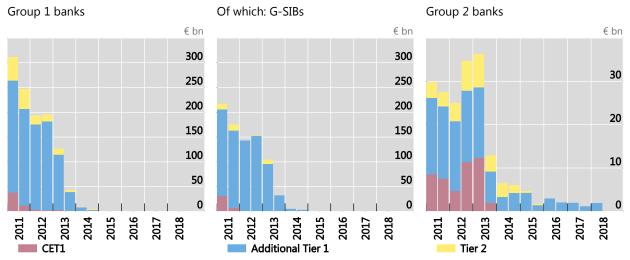
As indicated above, no assumptions have been made about bank profits or behavioural responses, such as changes in balance sheet composition that would serve to reduce the impact of capital shortfalls over time. As a point of reference, the aggregate sum of after-tax profits for the six-month period ending 30 June 2018 for Group 1 and Group 2 banks was €248.2 billion and €8.2 billion, respectively.

See Financial Stability Board, 2018 list of global systemically important banks (G-SIBs), November 2018, www.fsb.org/2018/11/fsb-publishes-2018-g-sib-list/.

### Estimated combined capital shortfalls at the minimum level<sup>1</sup>

Fully phased-in initial Basel III standards, sample and exchange rates as at the reporting dates

Graph 32

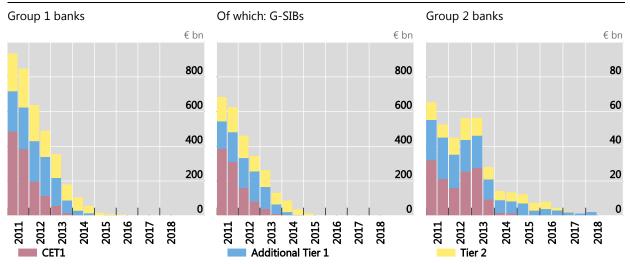


<sup>&</sup>lt;sup>1</sup> The height of each bar shows the aggregated capital shortfall considering requirements for each tier (ie CET1, Tier 1 and total) of capital. Source: Basel Committee on Banking Supervision. See Table C.20 for underlying data and sample size.

## Estimated combined capital shortfalls at the target level<sup>1</sup>

Fully phased-in initial Basel III standards, sample and exchange rates as at the reporting dates

Graph 33



<sup>&</sup>lt;sup>1</sup> The height of each bar shows the aggregated capital shortfall considering requirements for each tier (ie CET1, Tier 1 and total) of capital. Source: Basel Committee on Banking Supervision. See Table C.21 for underlying data and sample size.

#### 2.4.2 Shortfalls under the final Basel III framework

Graph 34 shows the capital shortfalls for the Group 1 and Group 2 bank samples assuming fully phased-in requirements according to the final Basel III standards. Results as of end-December 2017 and end-June

2018 are compared with the results for the previous cumulative QIS report using data as of end-December 2015.<sup>14</sup>

The capital shortfalls as of the 30 June 2018 reporting date for Group 1 banks are around 70% lower than in the end-2015 cumulative QIS exercise but more than 15% higher than at the end-2017 reporting date. While the samples for the reporting periods differ slightly, this did not have a significant impact on the shortfalls.

For some banks, the main driver would be the increased minimum required capital (MRC) generated by fully phasing-in the final Basel III framework and especially by the increase in output floor, market risk and CVA contributions. Another driver for the increase in the capital shortfalls for the previously affected banks is the reduction in total capital over the period. The finalisation of the market risk framework which is not yet reflected in the numbers may mitigate the shortfalls to some extent.

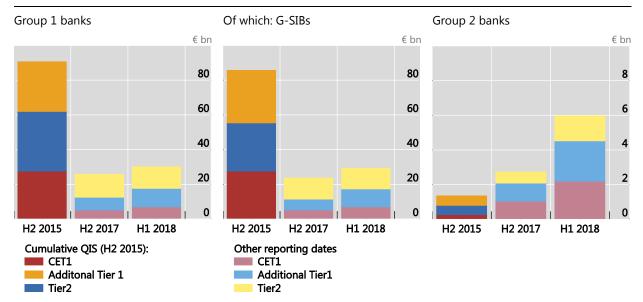
Overall, G-SIBs are the main contributors to the capital shortfalls for Group 1 banks. As in the cumulative QIS exercise and at the previous reporting date, they account for all of the CET1 and Tier 1 capital shortfall of Group 1 banks. Furthermore, their contribution increased to 95% (+3 percentage points) for the Tier 2 capital shortfall compared to end-2017 reporting date.

On the contrary, a significant increase in capital shortfalls is reported for Group 2 banks as of 30 June 2018 compared to the two previous exercises. Compared to end-December 2017, under the final revisions to the Basel III standards the shortfalls had more than doubled and reached €2.2, €2.3 and €1.4 billion (+120%, +130% and +100%) for CET1, additional Tier 1 and Tier 2 shortfalls, respectively. For Group 2 banks, this increase is driven by differences in the samples.

#### Combined capital shortfalls at the target level<sup>1</sup>

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

Graph 34



<sup>&</sup>lt;sup>1</sup> 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.22.

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

## 2.5 Total loss-absorbing capacity requirements for G-SIBs

#### 2.5.1 Initial Basel III framework

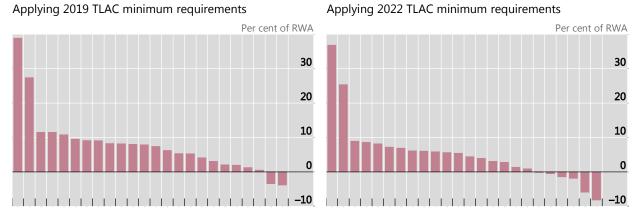
The Committee also collected data on additional total loss-absorbing capacity (TLAC) for G-SIBs, 24 of which participated in the exercise. Overall, applying the 2019 minimum requirements, two of the 24 G-SIBs in the sample have an incremental <sup>15</sup> TLAC shortfall. This is one fewer bank than at end-2018, when three of the sample G-SIBs had shortfalls. The shortfalls at end-June 2018 are up to 3.8% of each bank's RWA, totalling €23.4 billion (see Graph 35 for relative impact).

Applying the 2022 minimum requirements, six of the 24 G-SIBs in the sample have an incremental shortfall of up to 8.2% of RWA, totalling €68.0 billion. Compared with end-2017, the aggregate shortfall has decreased and the number of banks with shortfalls has decreased slightly from eight to six.

## Distribution of individual G-SIB's incremental TLAC surplus and shortfall across banks<sup>1</sup>

Fully phased-in initial Basel III standards, pure TLAC implementation<sup>2</sup>

Graph 35



<sup>&</sup>lt;sup>1</sup> Surplus is indicated as positive and shortfall as negative. <sup>2</sup> ie following the FSB TLAC Term Sheet rather than national implementation. Source: Basel Committee on Banking Supervision.

#### 2.5.2 Final Basel III framework

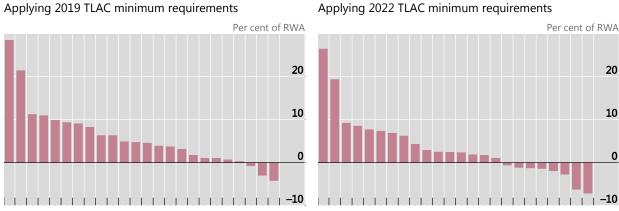
The final Basel III reforms, based on end-June 2018 data, resulted in no significant increase in aggregate capital requirements for the respondent banks. With regards to TLAC, the reforms had little effect on the number of banks or size of shortfalls against the 2019 TLAC requirements. However, relative to the 2022 TLAC requirements, the final Basel III reforms increases the number of banks reporting a TLAC shortfall (to eight from six against the initial Basel III standards) and the aggregate shortfall (€108.8 billion). However, and highlighting the range of effects that the final Basel III reforms have on different banks, there is no significant difference with respect to the range of shortfalls expressed as a percentage of RWA; in fact, the greatest shortfall of 7.1% RWA (relative to the 2022 requirements) is lower on this measure than on the initial Basel III standards.

<sup>&</sup>lt;sup>15</sup> The shortfall is incremental to any risk-based and leverage ratio shortfall discussed above.

## Distribution of individual G-SIB's incremental TLAC surplus and shortfall across banks<sup>1</sup>

Fully phased-in final Basel III standards

Graph 36



<sup>&</sup>lt;sup>1</sup> Surplus is indicated as positive and shortfall as negative.

Source: Basel Committee on Banking Supervision.

## 3. Level and composition of regulatory capital

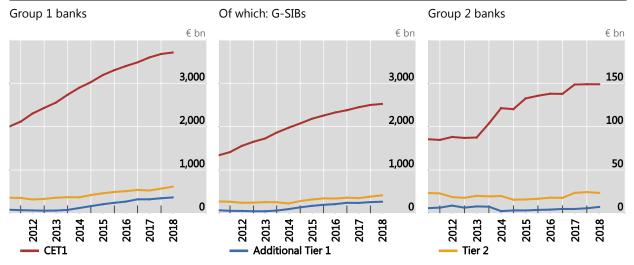
## 3.1 Level of capital

Graph 37 shows the development of the level of CET1 capital of banks in the consistent sample of banks assuming full implementation of Basel III for Group 1 banks, Group 2 banks as well as G-SIBs separately. From end-June 2017 to end-June 2018, the level of Group 1 banks' CET1 capital has increased by €115 billion (or 3.2%) to €3,712 billion.¹6 More than half of this increase, €76 billion, can be attributed to the G-SIBs in the Group 1 sample which collectively held €2,525 billion of CET1 capital at end-June 2018. Group 2 banks' CET1 is €149 billion, unchanged compared to the balance at end-June 2017.

The rise in overall CET1 capital among Group 1 banks appears largely due to profits generated, with particularly large profits shown by banks in the United States and China (combined accounting for more than 50% of all profits reported in Group 1). Furthermore, G-SIBs contributed close to 70% of the profits generated during H1 2018 for Group 1 banks.

<sup>16</sup> The lower absolute amounts compared to the previous report are mainly driven by exchange rate movements.

Consistent sample of banks, exchange rates as of 30 June 2018



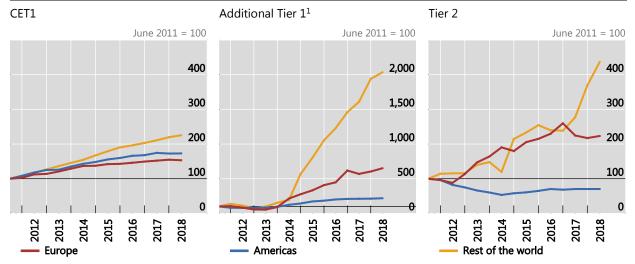
Source: Basel Committee on Banking Supervision. See Table C.23 for underlying data and sample size. Table C.24 provides an additional regional breakdown for Group 1 banks.

Graph 38 shows the evolution since June 2011 in fully phased-in Basel III capital for a consistent sample of Group 1 banks grouped by region. CET1 capital has grown for all regions with the rest of the world recording the highest growth of over 100% from 2011 and also has the highest current holdings of €1,691 billion compared to Europe at €1,118 billion and the Americas at €903 billion. Additional Tier 1 capital has been stable and flat until the first half of 2014 and thereafter it has grown for all regions, with the exception of Europe, where it dropped in the first half of 2017 but has recovered as at end-December 2017 and end-June 2018. However the additional Tier 1 holdings are relatively small compared to CET1 at only €126, €125 and €116 billion for Americas, Europe and the rest of the world, respectively. The highest growth in percentage terms was from the rest of the world, however from a low base of €6 billion. Tier 2 capital has been volatile for all regions with the Americas seeing a decrease between 2011 and 2014. Generally, Tier 2 capital since 2014 grew for the rest of the world, remained stable for the Americas and decreased for Europe in the previous period, however recovered over the current period to holdings of €232, €141 and €242 billion for Europe, Americas and the rest of the world, respectively (for further details see Table C.24).

#### Evolution of fully phased-in Basel III capital, by region

Consistent sample of Group 1 banks, exchange rates as of 30 June 2018

Graph 38



<sup>&</sup>lt;sup>1</sup> 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.26 for underlying data and sample size.

### 3.2 Profits, dividends and capital raised

Graph 39 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 on a global level. Group 1 banks' profits after tax have increased to around €180–210 billion per half year since the second half of 2014 and in the current period record profits¹7 have been noted to levels of €248.2 billion. The dividend payout ratios for Group 1 banks compared to the average over the previous year, reaching 36.1%. In turn, the dividend payout ratio for Group 2 banks increased in the current period compared to the decrease in the average value over the last year despite a slight decrease in profits.

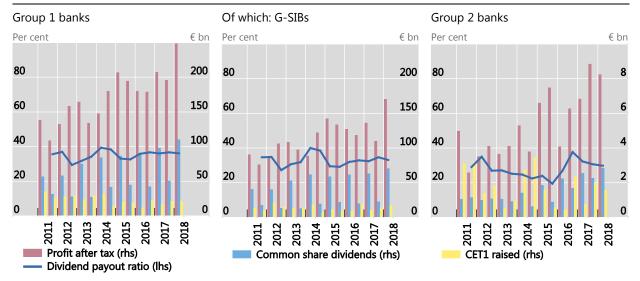
Graph 40 provides the regional breakdown for Group 1 banks. Since 2011, annual profits after tax have always been higher in the Americas and the rest of the world than in Europe, except for the previous period where Europe was higher than the Americas. Overall, around 22% of the profits have been generated by banks in Europe, almost 30% in the Americas and around 48% in the rest of the world. Furthermore, for the current period more than 70% of the CET1 capital raised has been raised by banks in the rest of the world.

Mainly generated by banks in the US as a result of the recent tax reforms.

### Profits, dividends, CET1 capital raised externally and dividend payout ratio<sup>1</sup>

Consistent sample of banks, exchange rates as of 30 June 2018

Graph 39



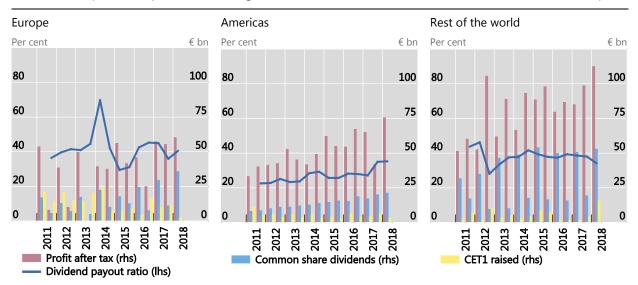
<sup>&</sup>lt;sup>1</sup> The dividend payout ratio is calculated as common share dividends divided by profits after tax by using a rolling 12 months window to improve comparability across countries with different dividend payment patterns.

Source: Basel Committee on Banking Supervision. See Table C.27 and Table C.29 for underlying data and sample size.

## Profits, dividends, CET1 capital raised externally and dividend payout ratio<sup>1</sup>, by region

Consistent sample of Group 1 banks, exchange rates as of 30 June 2018

Graph 40



<sup>&</sup>lt;sup>1</sup> 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.28 and Table C.30 for underlying data and sample size.

Over the first half of 2018, 62 out of the 104 Group 1 banks in the sample raised capital, regarding CET1 the total amount equals €22.2 billion (see Table 5). Of this amount, almost 80% were raised by the G-SIBs in the sample. It is noticeable that Group 1 banks primarily raised Tier 2 capital and additional Tier 1

(47.6%) rather than CET1 (22.2%) which could indicate that banks are now focusing on the remaining, not yet fully phased-in capital requirements such as the leverage ratio, TLAC and presumably the additional requirements stemming from Pillar 2 as for those regulations CET1 is not necessarily the exclusive form of eligible capital.

Capital raised during H1 2018

Full sample of banks, gross amounts, in billions of euros

Table 5

	Number of banks	Number of banks that raised capital	CET1	Add. Tier 1	Tier 2
Group 1 banks	104	62	22.2	20.4	27.2
Of which: Americas	21	17	3.4	6.3	3.0
Of which: Europe	36	21	2.5	8.2	11.7
Of which: Rest of the world	47	24	16.3	5.9	12.5
Of which: G-SIBs	29	21	17.3	13.5	14.1
Group 2 banks	82	27	7.0	3.2	2.4

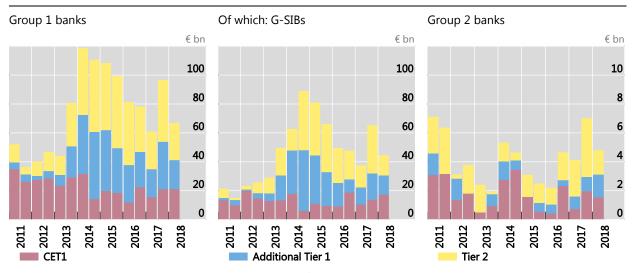
Source: Basel Committee on Banking Supervision.

Graph 41 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 on global level. However, for additional Tier 1 and Tier 2 capital, the time series for Group 1 banks and G-SIBs show a significant and continued increase in the amount of capital raised starting from the second half of 2013 with the exception of the current period. Group 2 banks had raised the highest amount of Tier 2 capital since the second half of 2011 during the last period, however for this period it has decreased from €4.0 billion to €1.7 billion.

#### Capital raised externally

Consistent sample of banks, exchange rates as of 30 June 2018

Graph 41



Source: Basel Committee on Banking Supervision. See Table C.29 for underlying data and sample size. Table C.30 provides an additional regional breakdown for Group 1 banks.

### 3.3 Composition of capital

The graphs below show the composition of total capital under transitional Basel III rules (Graph 42) and after fully phased-in Basel III (Graph 43). As expected and as observed for previous reporting dates, CET1 capital is the predominant form of capital with an average share of 79.1% and 82.8% for Group 1 and 2 banks, respectively. Under transitional rules, it is slightly lower at 76.7% for Group 1 banks. This difference is largely due to the disallowed eligibility of transitional Basel III additional Tier 1 or Tier 2 instruments for banks in many countries under Basel III. For example, this includes instruments that do not meet the requirements set out in the Committee's 13 January 2011 press release on loss absorbency at the point of non-viability).

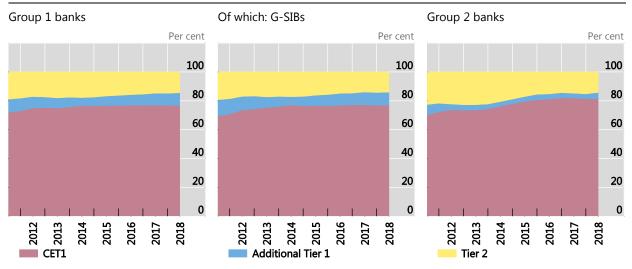
It is noticeable that for Group 1 banks under the fully phased-in Basel III standards, the positive trend of increasing the share of CET1 capital which had been observed during the first years of the monitoring exercise reversed in 2014 (Graph 43). Since then a decline in the share of CET1 (from 85.8% at the beginning of 2014 to 79.1% as of June 2018) can be observed simultaneously with a slight increase of additional Tier 1 elements (3.6% in 2014 and 7.8% at the end of June 2018), 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.

For Group 2 banks, a strong positive trend can be observed over time for the share of CET1 capital: it increases from 74.8% in 2011 to 82.8% in first half of 2018 which corresponds to a cutback of Tier 2 elements in a similar magnitude (a reduction from 20.1% to 13.1%). Here, it has to be mentioned that Group 2 banks started from a different level as regards to Tier 2, with its share equalling 20.1% in H1 2011 (Group 1: 14.2%).

#### Structure of regulatory capital under transitional initial Basel III rules

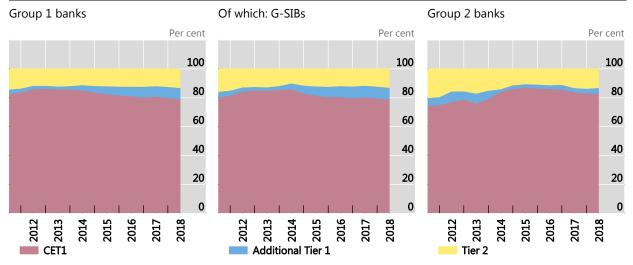
Consistent sample of banks

Graph 42



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

Consistent sample of banks Graph 43



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

With regard to the composition of Basel III CET1 capital itself, 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 94% of outstanding CET1 on average. On average, Accumulated Other Comprehensive Income (AOCI) contributes 5.2% to Group 1 banks' CET1 capital. Meanwhile, CET1 from recognised subsidiaries continues to provide minimal support to Group 1 banks' outstanding CET1 balances in most countries. For Group 2 banks, the share of paid-in capital and retained earnings in total CET1 capital is somewhat lower at 79.7%, while the 19.0% share of AOCI is higher compared to Group 1 banks.

### 3.4 Regulatory adjustments

For the current period, regulatory adjustments reduce overall gross CET1 (ie CET1 before adjustments) for a consistent sample of Group 1 banks by 14.6% (see Table B.5). The largest driver of Group 1 bank CET1 adjustments continues to be goodwill (8.6%) followed by deductions for intangibles, combined deferred tax asset (DTA) and other deductions (2.3%, 1.2% and 1.4%, respectively).

The impact of regulatory adjustments on Group 2 banks is somewhat lower and has remained constant, on average being at around 11.9% (see Table B.6). This result is driven by a limited number of large Group 2 banks. Without taking these banks into account the overall impact of CET1 deductions would decline considerably.

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.

## 4. Components and determinants of risk-based capital requirements

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

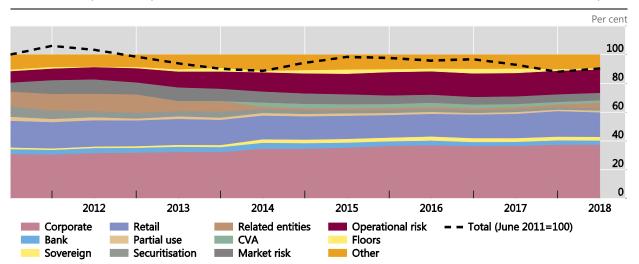
Graph 44 shows the share of different asset classes in overall minimum required capital (MRC) for a consistent sample of Group 1 banks.<sup>19</sup>

As of end-June 2018, credit risk continues to compose the dominant portion of overall MRC, with this category on average comprising 66.6% of total MRC for Group 1 banks considering a consistent sample over time. However, the share of credit risk has declined from 74.6% at end-June 2011 to its lowest share of 62.9% at end-December 2016 and since then slightly increased to 66.6% 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 time period from 31.0% at end-June 2011 to 37.6% at the current reporting date. Similarly, the share of operational risk MRC increased from 7.8% at the end of June 2011 to 16.2% at end-December 2015 and has been roughly stable since. The share of market risk declined slightly from 6.2% to 5.1% in the observed time period while the shares of "other" risk and of the floor requirement have been somewhat stable at around 9% to 10% and 1%, respectively.

## Share of MRC by asset class<sup>1</sup> according to current rules

Consistent sample of Group 1 banks

Graph 44



<sup>&</sup>lt;sup>1</sup> 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 which apply the standardised approach, general provisions may to some extent be recognised 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. 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 as "partial use".

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

Table 6 provides data on relative sizes of asset classes in terms of exposures as well as minimum required capital (MRC) for both Group 1 and Group 2 banks according to current rules at the reporting

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.

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 2018 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.<sup>20</sup> 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 Table 6 for Group 1 banks, it is observed that while the corporate, retail and sovereign asset classes comprise the overwhelming majority of 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 weight is 558.4% and 188.0%, respectively. For Group 2 banks, corporate, retail and sovereign asset classes also 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 purchased receivables. For CVA, although the share of CVA exposure is much higher for Group 1 banks than for Group 2 banks (11.6% and 0.6%, respectively), the respective average risk weights are much lower for Group 1 banks than for Group 2 banks (4.7% and 63.0%, respectively).

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 6.

### Average asset class/risk type size and average risk weight<sup>1</sup>

In per cent Table 6

		Group 1			Group 2	
	Size exposure	Size MRC	Average risk weight	Size exposure	Size MRC	Average risk weight
Credit risk; of which:	88.4	78.7	35.4	99.4	85.5	31.4
Corporate	29.4	43.4	58.5	20.7	36.3	64.1
Sovereign	19.6	2.8	5.7	28.3	3.6	4.7
Bank	6.4	3.8	23.8	9.7	6.0	22.4
Retail	22.1	16.0	28.7	29.5	20.5	25.5
Equity	0.7	3.3	188.0	0.9	4.5	184.0
Purchased receivables	0.1	0.1	35.5	0.0	0.0	104.5
Securitisation	1.8	1.3	28.4	0.8	1.0	46.4
Related entities	0.1	1.6	558.4	0.0	0.1	92.7
Past-due items	0.1	0.3	105.0	0.7	2.2	111.6
Other assets	3.9	5.1	52.1	1.2	2.9	91.1
Failed trades and non- DVP transactions	0.6	0.4	25.4	0.0	0.1	138.8
Not assigned <sup>2</sup>	3.4	5.2	60.1	7.6	10.0	48.5
Regulatory difference <sup>4</sup>		-4.6			-1.8	
CVA	11.6	1.4	4.7	0.6	0.9	63.0
Trading book CCR <sup>3</sup>		0.1			0.0	
Market risk		3.9			2.6	
Other trading book		0.1			0.0	
Operational risk		13.6			9.5	
Floor adjustment		1.6			0.2	
Other <sup>5</sup>		0.4			1.2	
Total	100.0	100.0	39.7	100.0	100.0	36.6

<sup>&</sup>lt;sup>1</sup> MRC figures in this table are based on the minimum total capital ratio (ie based on 8% of RWAs). <sup>2</sup> The "not assigned" asset class only includes those exposures subject to partial use of the standardised approach which could not be assigned to one of the other asset classes. <sup>3</sup> Counterparty credit risk in the trading book. <sup>4</sup> 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. <sup>5</sup> Includes the reconciliation asset class and other Pillar 1 capital requirements.

Source: Basel Committee on Banking Supervision

#### 4.2 Credit risk

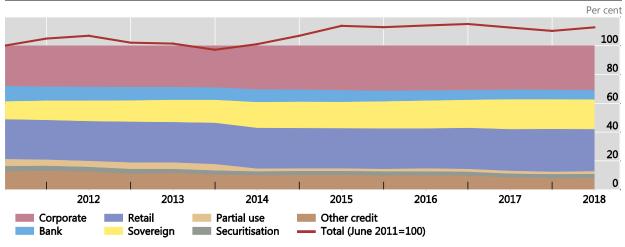
#### 4.2.1 Share of credit risk exposure by asset classes under the current rules

Graph 45 shows the evolution of exposure for the six major asset classes for a consistent sample of 36 Group 1 banks. In general the share of sovereign exposures has increased steadily in recent years from 12.4% to 20.5% while partial use, bank and other credit exposures have declined.

#### Share of credit exposure

#### Consistent sample of Group 1 banks

Graph 45



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

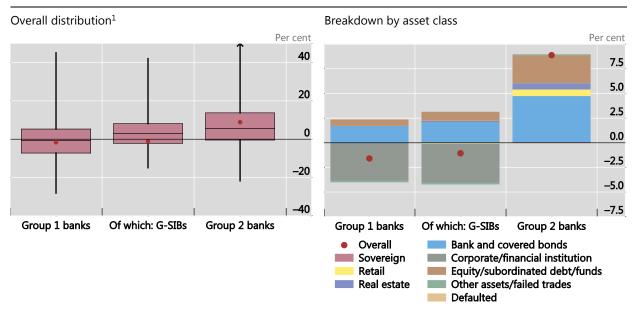
#### 4.2.2 Impact of revisions to the standardised and IRB approaches for credit risk on MRC

Graph 46 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 (+8.9%) 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 -1.6% (slight decrease of -1.1% for G-SIBs).

The right panel of Graph 46 breaks down the impact by asset class. For Group 1 banks, corporate exposures contribute -3.8% to the overall change, while the contributions of bank and equity exposures are positive at +1.7% and +0.6%, respectively. For Group 2 banks, bank and equity/subordinated debt exposures contribute +4.7% and +2.8% to the overall change in MRC. The contributions of real estate and retail asset classes account for a less significant +0.6% and +0.7%, 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 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 47 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.

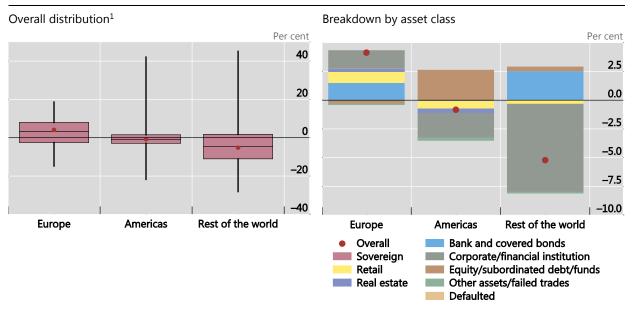


<sup>&</sup>lt;sup>1</sup> The median value is represented by a horizontal line, with 50% of the values falling in the 25th to 75th percentile range shown by the box. The upper and lower end points of the vertical lines generally show the range of the entire sample. In some cases, arrows at the top of 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.35 and Table C.36.

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

Group 1 banks Graph 47



<sup>&</sup>lt;sup>1</sup> 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.37 and Table C.38.

#### 4.2.3 Standardised approach for credit risk

### Impact of the revisions on MRC

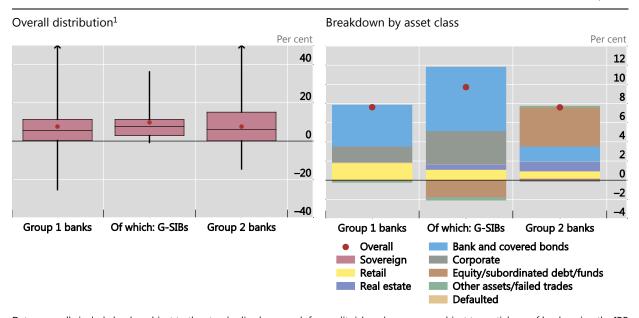
Graph 48 shows the changes in Tier 1 MRC due to the finalisation of the Basel III standards for credit risk exposures that are currently under the standardised approach. These data include exposures of banks subject to the standardised approach for credit risk as well as exposures of banks using the 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 which migrate to the standardised approach under the revised approach (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 side panel of the graph shows the overall distribution of the impact. In aggregate, the revised standardised approach for credit risk results in an increase in MRC of +7.6% for both Group 1 banks and Group 2 banks. The change in MRC for banks between the 25th and 95th percentiles of the distribution ranges from +0.3% to +41.2% for Group 1 banks, from +2.9% to +31.4% for G-SIBs and from +0.1% to +38.1% for Group 2 banks.

The right hand side panel provides a breakdown of the change of MRC by asset class. For Group 1 banks in the sample, the assets driving the overall change in MRC are banks and covered bonds (+4.3%), retail (+1.8%) and corporates (+1.6%). MRC for sovereign, real estate and defaulted exposures are largely unchanged. For Group 2 banks, MRC for equity and subordinated debt exposures increase by 4.1%. The increases of MRC for real estate, and bank and covered bond exposures are 1.0% and 1.6%, respectively. The changes in MRC for other asset classes are relatively smaller.

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

Graph 48



Data generally include banks subject to the standardised approach for credit risk and exposures subject to partial use of banks using the IRB approach for credit risk. 

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.39 and Table C.40.

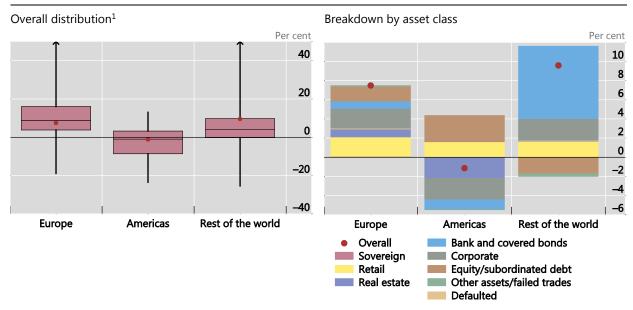
Graph 49 replicates the analysis of Graph 48 but breaks down the results for Group 1 banks by geographical region. Overall, the revised standardised approach, on average, has a larger impact on the MRC of banks in the rest of the world (+9.6%) and European banks (+7.5%) than on banks in the Americas

where the average MRC slightly decreases (-1.1%). The change in MRC for banks between the 25th and 95th percentile of the distribution ranges from +3.8% to +30.3% for European banks, from -8.6% to +13.0% for banks in the Americas, and from -0.1% to +44.8% for the rest of the world.

Looking at individual asset classes, the results are largely heterogeneous. Exposures to corporates are large contributors for banks in the rest of the world and European banks (+2.2% and +2.1%, respectively) while they have a negative impact on banks in the Americas (-2.2%). Conversely, equity exposures and subordinated debt increases for the Americas and Europe (+2.7% and +1.5%, respectively) while they have a negative impact on the rest of the world (-1.7%). Banks and covered bonds are the largest contributor for the rest of the world (+7.6%) while they show smaller effects on Europe (+0.8%) and a negative impact on the Americas (-1.0%). On the contrary, the new standards result in a similar increase in MRC for retail exposures in Europe (+2.0%), the rest of the world and the Americas (both +1.6%). The MRC for real estate exposures significantly decrease for the Americas (-2.2%), increase for European banks (+0.8%) and are almost flat for banks in the rest of the world (+0.1%).

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 49



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. 

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.41 and Table C.42.

#### Average risk weights

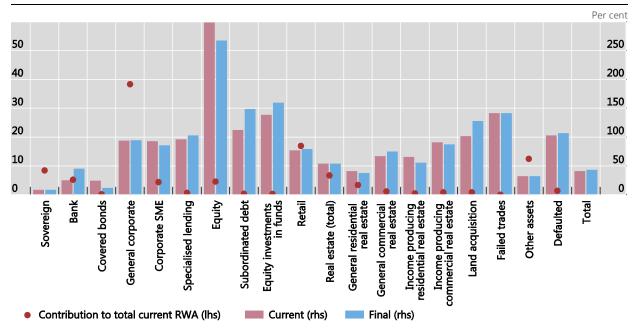
Graph 50 and Graph 51 provide additional detail on the current and revised average risk weights by asset class for Group 1 and Group 2 banks, respectively.

Overall, the average risk weight of Group 1 banks' exposures currently under the standardised approach increases from 40.4% to 42.9% (+2.5 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 112% to 148% (a 36 percentage point increase). Additionally, the asset classes land acquisition, equity investment in funds and exposures to banks show a significant increase of over 20 percentage points each. In relative terms, bank exposures

appear the most affected, with average risk weights increasing from 24.7% to 44.7% (an 81% increase), followed by subordinated debt (+32%) and land acquisition (+26%). On the contrary, equity exposures show the largest absolute decrease, from 298% to 267% (a 31 percentage point decrease), while standardised approach risk weights for covered bonds and income-producing residential real estate exposures show the biggest relative decrease (-52% and -15%, respectively). The decrease shown by equity exposures is driven by a small number of countries which 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



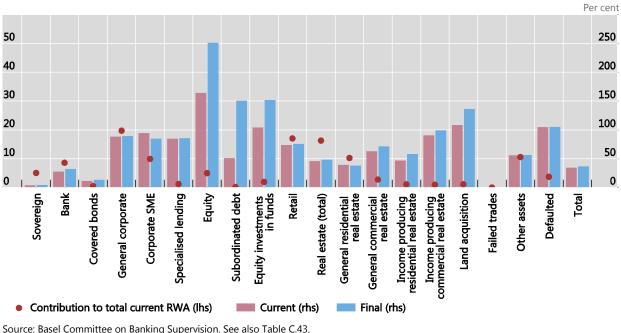


Source: Basel Committee on Banking Supervision. See also Table C.43 which includes a breakdown for G-SIBs. Table C.44 provides an additional regional breakdown.

Looking at Group 2 banks, the overall average risk weight under the standardised approach is estimated to increase by 2.4 percentage points from 34.0% to 36.4% when comparing the current with the revised framework. Similarly to Group 1 banks, subordinated debt and equity investment in funds show a large increase in both absolute and relative terms, moving from 51% to 150% and 104% to 152%, respectively. In contrast with Group 1 banks, equity exposures show one of the largest increases as well (from 164% to 251%), while the increase for bank exposures is relatively small (from 27% to 32%), especially when compared to Group 1 banks. Corporate small and medium-sized enterprises is the only asset class which shows a decline (from 94% to 84%).

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





#### 4.2.4 Internal ratings-based approach for credit risk

#### Impact of the revisions on MRC

Graph 52 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.

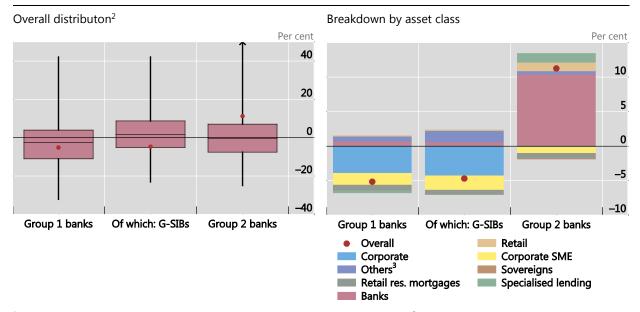
The left hand side panel of Graph 52 shows the overall distribution of the impact. In aggregate, the revisions to the IRB approach appear to result in a decrease in overall Tier 1 MRC for Group 1 banks (-5.2%) and G-SIBs (-4.7%), and an increase for Group 2 banks (+11.3%). The change in MRC for the banks between the 25th and 95th percentile of the distribution ranges from -11.1% to +20.2% for Group 1 banks and from -5.1% to +23.2% for G-SIBs. The range for Group 2 bank is wider, from -7.6% to +45.2%.

The right hand side panel of Graph 52 breaks down the impact by asset class. Exposures to corporates and to corporate SMEs are the main contributors to the overall decrease in MRC (-3.9% and -1.7%, 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 which experience the largest increases are banks (+0.7% for Group 1 banks, +10.4% for Group 2 banks) and other assets (+0.7% for Group 1 banks, +0.5% for Group 2 banks). The latter is mainly driven by equity exposures, whose RWA under the revised framework are calculated using the standardised approach instead of the IRB approaches.

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

Graph 52



<sup>&</sup>lt;sup>1</sup> The change is calculated as a percentage of current Tier 1 MRC across all IRB exposures. <sup>2</sup> 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. <sup>3</sup> "Others" include equity exposures, equity investments in funds and other assets.

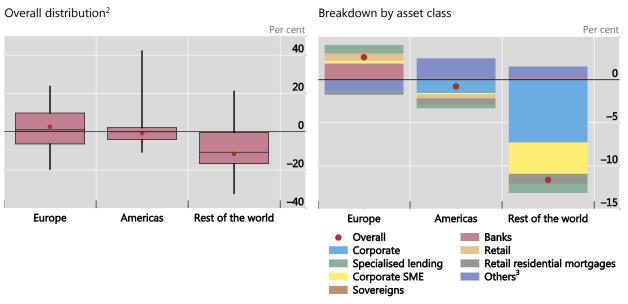
Source: Basel Committee on Banking Supervision. See also Table C.45 and Table C.46

Graph 53 replicates the analysis of Graph 52 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 ( $\pm$ 2.6%), to a slight decrease for banks in the Americas ( $\pm$ 0.8%) and to a significant decrease for banks in the rest of the world ( $\pm$ 11.6%). The impact is heterogeneous across banks: the change in MRC for the banks between the 25th and 95th percentile of the distribution ranges from  $\pm$ 6.4% to  $\pm$ 20.3% for Europe, from  $\pm$ 4.1% to  $\pm$ 36.0% for the Americas and from  $\pm$ 16.7% to  $\pm$ 11.0% for the rest of the world.

For European banks, exposures to banks (+1.8%), specialised lending and retail exposures (both +0.9%) 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 (-1.6%), retail residential mortgages (-0.6%) and other retail (-0.5%). For the rest of the world, the decrease in MRC is mainly driven by exposures to corporates (-7.3%) and corporate SMEs (-3.6%).

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

Group 1 banks Graph 53



<sup>&</sup>lt;sup>1</sup> The change is calculated as a percentage of current Tier 1 MRC across all IRB exposures. <sup>2</sup> 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. <sup>3</sup> "Others" include equity exposures, equity investments in funds and other assets.

Source: Basel Committee on Banking Supervision. See also Table C.47 and Table C.48

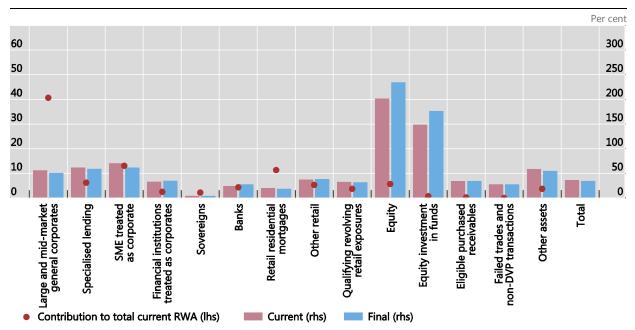
#### Average risk weights

Graph 50 and Graph 51 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 approach decreases from 36.3% to 34.4%. Looking at individual asset classes, exposures to SME treated as corporate and large and mid-sized corporates show the largest decrease, both in absolute and relative term, from 70% to 62% (a -11.9% decrease) and from 56% to 51% (a -9.2% decrease). Equity exposures and equity investments in funds show the largest increase, both in absolute and relative terms, from 202% to 234% (a 16.2% increase) and from 149% to 176% (an 18.4% increase). The increase in equity exposures is due to the migration of equity exposures from the IRB 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 54

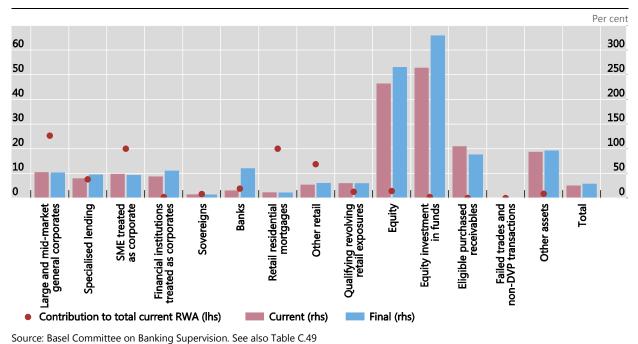


Source: Basel Committee on Banking Supervision. See also Table C.49 which includes a G-SIB breakdown. Table C.50 provides an additional regional breakdown.

The overall average risk weight of Group 2 banks' exposures currently under the IRB increases from 25.0% to 28.2%. Looking at individual asset classes, eligible purchased receivables show the largest absolute and relative decrease, from 105% to 88% (a -16.2% decrease), while banks (from 15% to 60%), equity investments in funds (from 264% to 329%) and financial institutions treated as corporates (from 43% to 55%) show the largest increase. Contrary to Group 1 banks, the average risk weight for specialised lending increases under the final framework (from 40% to 47%) while the impact on large and mid-sized corporates remains largely flat (from 52% to 51%).

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

Group 2 banks Graph 55



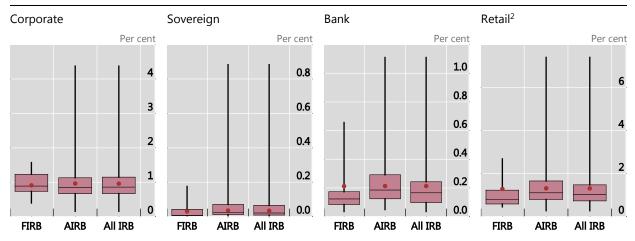
## Risk parameters by IRB asset classes under current rules

This section presents IRB risk parameters under current rules for a sample of Group 1 banks only. Graph 56 and Graph 57 illustrate weighted average probability of default (PD) and loss-given-default (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 (1.31% and 0.96%, respectively) while PDs for bank and sovereign portfolios are considerably lower (0.21% 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. For corporate and retail portfolios measured under the advanced IRB approach, PDs are slightly higher relative to those measured under 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.

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

## Exposure-weighted average PD for non-defaulted exposures by main asset classes<sup>1</sup>

Group 1 IRB banks Graph 56

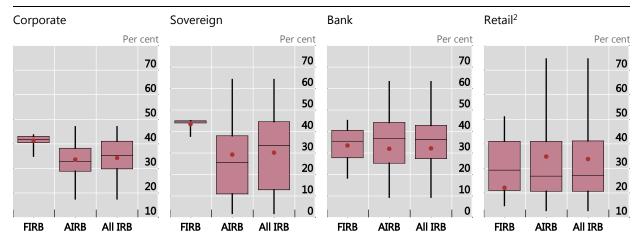


<sup>&</sup>lt;sup>1</sup> The median value is represented by a horizontal line, with 50% of the values falling in the 25th to 75th percentile range shown by the box. The upper and lower end points of the vertical lines generally show the range of the entire sample. The dots represent weighted averages. <sup>2</sup> 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.51 for underlying data and sample size.

## Exposure-weighted average LGD after credit risk mitigation for non-defaulted exposures by main asset classes<sup>1</sup>

Group 1 IRB banks Graph 57

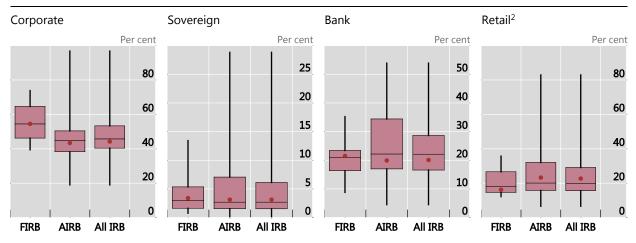


<sup>&</sup>lt;sup>1</sup> The median value is represented by a horizontal line, with 50% of the values falling in the 25th to 75th percentile range shown by the box. The upper and lower end points of the vertical lines generally show the range of the entire sample. The dots represent weighted averages. <sup>2</sup> 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 risk weights for non-defaulted exposures by main asset classes<sup>1</sup>

Group 1 IRB banks Graph 58

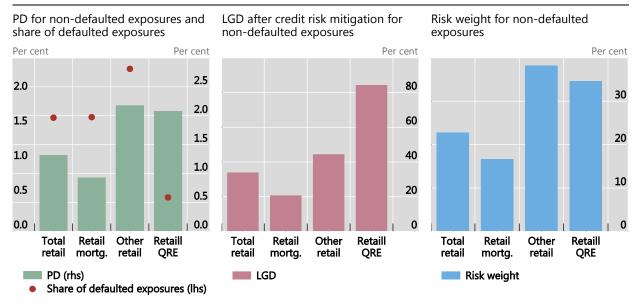


<sup>&</sup>lt;sup>1</sup> The median value is represented by a horizontal line, with 50% of the values falling in the 25th to 75th percentile range shown by the box. The upper and lower end points of the vertical lines generally show the range of the entire sample. The dots represent weighted averages. <sup>2</sup> 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 parameter values for retail sub-asset classes

Group 1 banks Graph 59



Source: Basel Committee on Banking Supervision. See Table C.54 for underlying data and sample size.

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

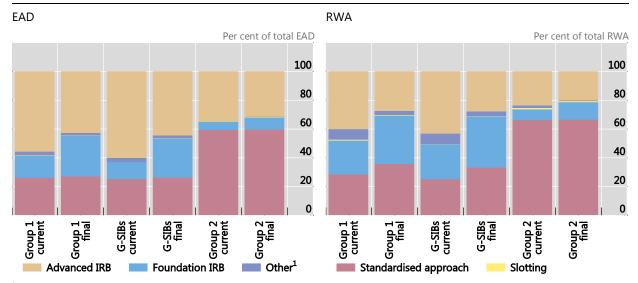
The left panel of Graph 60 shows the distribution of exposure at default (EAD) under different modelling and non-modelling approaches. For the purpose of this section, specialised lending refers to the EAD that

would be subject to the supervisory slotting criteria approach. For Group 1 banks overall modelling according to the advanced IRB approach available to banks currently stands at 55.6% of EAD and would be reduced by -13.1 percentage points to 42.5% of EAD. Exposures migrating to the standardised approach which mainly concerns equity exposures are expected to represent only 0.9% of total current EAD, while exposures under the foundation IRB approach are expected to increase from 15.2% to 28.3% of total EAD. The use of the advanced IRB approach for Group 2 banks would be reduced by -3.0 percentage points from the current 34.1% of EAD to 31.1%. Exposures under the standardised approach would be 59.9% of total EAD, while exposures under the foundation IRB approach would represent 8.5% of total EAD.

The right panel of Graph 60 replicates the exercise for the distribution of RWA. For Group 1 banks, RWA under the advanced IRB approach would be reduced by -12.7 percentage points to 27.2%. RWA under the standardised approach for Group 1 banks would make up 36.0% of total RWA, while RWA under the foundation IRB approach would make up 33.5%. For Group 2 banks, RWA under the advanced IRB approach would be reduced by -3.6 percentage points to 19.9%. RWA under the standardised approach for Group 2 banks would make up 66.7% of total RWA, while RWA under the foundation IRB approach would make up 12.1%.

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

Graph 60

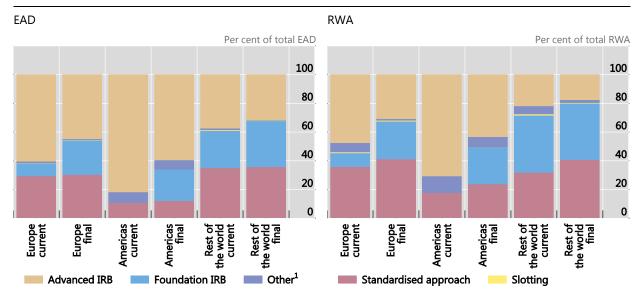


<sup>&</sup>lt;sup>1</sup> "Other IRB" includes equity exposures, equity investments in funds, failed trades and non-DVP transactions and other assets under the IRB approach for credit risk.

Source: Basel Committee on Banking Supervision. See also Table C.55 and Table C.56

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





<sup>&</sup>lt;sup>1</sup> "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.57 and Table C.58

Additional constraints to modelling will apply due to the introduction of risk parameter floors. The risk parameter floors introduce a 5 basis points PD floor,<sup>22</sup> 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 which 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.<sup>23</sup> 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;
- the prevalence of STC vs non-STC exposures and its relationship with the approach used for the calculation of capital requirements; and
- the contribution of securitisation exposures to the output floor.

#### General overview of the securitisation framework

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

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

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, <a href="www.bis.org/bcbs/publ/d374.htm">www.bis.org/bcbs/publ/d374.htm</a> and Basel Committee on Banking Supervision, Capital treatment for simple, transparent and comparable short-term securitisations, May 2018, <a href="www.bis.org/bcbs/publ/d442.htm">www.bis.org/bcbs/publ/d442.htm</a>.

- harmonisation of the treatment of banks operating under the standardised or IRB approaches;
- 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);<sup>24</sup>
- 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 (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 *Fifteenth progress report on adoption of the Basel regulatory framework*, <sup>25</sup> in October 2018 only eight Committee member jurisdictions have implemented the Basel III securitisation framework, while in the European Union the final rule is in place and due to enter in force in 1 January 2019. 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 128 banks submitted data of sufficient quality for securitisation, including 81 Group 1 banks (24 G-SIBs) and 47 Group 2 banks. Total securitisation exposures and RWA using the Basel III approaches across Group 1 banks were €1.26 trillion and €406.3 billion respectively, compared with €29.9 billion and €13.5 billion for Group 2 banks. Therefore, the Group 1 sample represents 98% of the total sample of securitisation exposures.

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. Two significant caveats are worthy of mention:

 Classification as STC or non-STC. 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.<sup>26</sup> It is likely that some banks have applied a portfolio-wide classification, assigning

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

Basel Committee on Banking Supervision, Fifteenth progress report on adoption of the Basel regulatory framework, October 2018, <a href="https://www.bis.org/bcbs/publ/d452.htm">www.bis.org/bcbs/publ/d452.htm</a>.

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.

either all or none of their exposures as STC-eligible. Table 8 shows that 67 banks (61%) reported no STC exposures and 10 banks (9%) reported all exposures as STC-eligible. Under this assumption, the majority of banks which 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.

Allocation of exposures under the previous and the Basel III securitisation frameworks. Mapping exposures from the previous risk-weighting approaches to the Basel III securitisation framework is not necessarily straightforward, depending on the approaches used by the banks and the composition of their securitisation portfolios. The previous framework included four ratingsbased approach look-up tables and two approaches for non-rated exposures, while the Basel III securitisation framework introduced a new hierarchy with three different approaches (SEC-IRBA, SEC-ERBA and SEC-SA) in addition to the IAA. The Basel III monitoring exercise does not require banks to distinguish their exposures based on the previous risk-weighting approach applied. Rather, banks were instructed to classify exposures by the expected treatment under the Basel III securitisation framework and show the total RWAs for those exposures determined according both the previous and the Basel III securitisation frameworks. Although banks were instructed to keep the exposures consistent across the previous and Basel III securitisation frameworks, several banks reported different exposures amounts for at least one of the possible approaches. In aggregate, the impact of this misreporting totals only 0.15% of the total exposure volume. This difference is significantly lower than had been observed in prior collections, which is indicative of banks' increasing familiarity with the instructions.

It should be noted that the Committee published its final standard on the capital treatment for short-term "simple, transparent and comparable" (STC) securitisations in May 2018 for immediate adoption. The standard sets out additional guidance and requirements for the purpose of applying preferential regulatory capital treatment for banks acting as investors in or as sponsors of STC short-term securitisations, typically in asset-backed commercial paper (ABCP) structures. The additional guidance and requirements in this standard are consistent with those for STC term securitisations set out in the Committee's July 2016 revisions to the securitisation framework.

The present data collection already includes exposures that the banks have classified as being compliant with the short-term STC criteria. However, these amounts are limited. In fact, data shows that out of 21 banks that have exposures towards ABCP conduits, so far only five banks have reported data for such category.<sup>27</sup> It is reasonable to expect that further reductions in risk weights for ABCP exposures will be seen in final standard estimates in subsequent data collections, once more banks are able to assess their ABCP-linked exposures against the 19 criteria for identifying STC short-term securitisations.

#### 4.2.6.3 Overview of securitisation exposures

Investment activity represent 58.1% of banks' exposures to securitisations, with the remaining split evenly between their roles as ABCP sponsors and originator (Table 7). 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.

<sup>27</sup> The exposures and RWA of the five banks represent 24% and 11% of the total exposure and total RWA for ABCP respectively.

#### Bank role exposure amounts and RWAs by country

In billions of euros Table 7

	Originator	Investor	Sponsor	Total
Exposure amounts	255.7	710.0	255.1	1,220.8
RWA	59.2	200.0	36.8	295.9

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 19% of their exposures as STC-eligible (compared to 13% as of December 2017) (Table 9). However, at the individual bank level, the STC share ranges widely with 61% of banks reporting all of their exposures as non-STC and 24% of banks reported that more than half of their total securitisation exposures as STC-eligible (Table 8). Possible reasons for this observation include banks making the choice to not classify their securitisation portfolios by STC eligibility and some jurisdictions not having implemented the Basel III securitisation framework or implemented the Basel III securitisation framework excluding the STC element. 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.

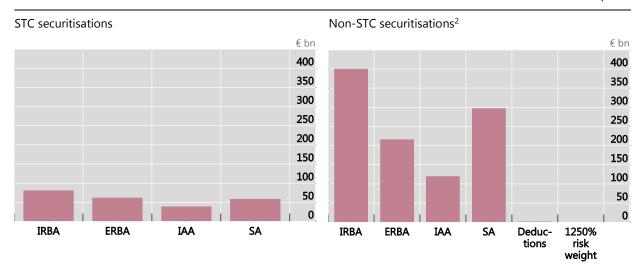
Number of banks per range of STC share							
	Share = 0%	0% < share ≤ 25%	25% < share ≤ 50%	50% < share ≤ 75%	75% < share < 100%	Share = 100%	
Total	67	11	5	7	9	10	
Source: Basel (	Source: Basel Committee on Banking Supervision.						

The Basel III securitisation framework also introduced a new hierarchy of three approaches (SEC-IRBA, SEC-ERBA and SEC-SA) for calculating risk weights. Consistent with the prescribed hierarchy, most exposures are risk-weighted by SEC-IRBA (38%) and SEC-ERBA<sup>28</sup> (34%) followed by SEC-SA (28%) (Graph 62).

<sup>&</sup>lt;sup>28</sup> Including the Internal Assessment Approach.

#### Securitisation exposure amounts by approach





<sup>&</sup>lt;sup>1</sup> The sample consists of 109 banks. <sup>2</sup> 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 9.

#### Impact of the Basel III securitisation framework

#### Change in RWA for securitisation exposures

Across all banks in the sample from jurisdictions that have not yet implemented the Basel III securitisation framework, the total RWA for securitisation exposures increases by €109 billion (35.1%) under the Basel III securitisation framework (Table 9). 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 €105.7 billion (97.1%) of the total increase. Within non-STC exposures, the 155.2% increase in RWA for securitisation exposures risk-weighted using IAA is due to those exposures currently subject to very low risk weights (11% on average) being transitioned to the Basel III securitisation framework. This revised standard (i) floors the risk weight for non-STC exposures at 15%; and (ii) more than doubles the risk weights for lowly rated short-term non-STC securitisation exposures. The increase on the RWA for securitisation exposures risk-weighted using IAA has been partially mitigated by the introduction of the short-term STC standard<sup>29</sup> in May 2018, where STC classification carrying a 10% risk weight floor has been made available for such exposures. STC exposures account for less than 4% of the expected increase in total RWA.

When applying SEC-IRBA for its holding of a note issued by an ABCP conduit that meets short-term STC capital criteria, a bank investor would use the note maturity as an input to the SEC-IRBA formula. The risk weight under the formulaic approaches would be determined by applying a 0.5 scalar to the "p"-parameter, with the "p" parameter floored at 0.3, and a risk weight floor of 10% for senior tranches and 15% for non-senior tranches.

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

Table 9

	Exposure				RWA	
	Current framework (€ bn)	Final standards (€ bn)	Change (%)	Current framework (€ bn)	Final standards (€ bn)	Change (%)
Non-STC securitisations: SEC-IRBA	401.1	399.8	-0.3	75.8	110.5	45.8
Non-STC securitisations: SEC-ERBA	215.5	215.6	0.0	43.9	86.2	96.3
Non-STC securitisations: IAA	119.5	119.5	0.0	13.7	34.9	155.2
Non-STC securitisations: SEC-SA	297.2	297.0	-0.1	113.6	121.0	6.6
Of which: resecuritisation	3.4	4.1	20.5	7.4	8.1	10.3
Non-STC securitisations: total	1,033.4	1,032.0	-0.1	246.9	352.6	42.8
STC securitisations: SEC-IRBA	80.0	80.3	0.4	18.5	21.9	18.4
STC securitisations: SEC-ERBA	61.9	61.6	-0.5	8.2	11.3	36.6
STC securitisations: SEC-IAA	38.6	38.6	0.0	6.5	7.3	12.7
STC securitisations: SEC-SA	58.4	58.4	0.0	22.7	19.1	-15.7
STC securitisations: total	238.9	238.8	0.0	55.9	59.6	6.6
Others (1250% RW)	0.7	0.6	-9.3	8.0	7.6	-4.2
Total	1,272.9	1,271.4	-0.1	310.8	419.8	35.1
Deducted (EU only)	1.4	1.4	-1.8	17.8	16.9	-4.9

<sup>&</sup>lt;sup>1</sup> The sample consists of 109 banks. Under the EU national framework banks are allowed, in alternative to risk weight an exposure to 1250%, to deduct it from Tier 1 capital. According to the final standards these exposures cannot be deducted and will be risk weighted.

Source: Basel Committee on Banking Supervision.

Jurisdictional level variation reflects differences in risk profiles of the participating banks. For example, for IRB banks with a portfolio of highly-rated securitisation exposures, the RWA could increase significantly due to the higher risk weight floor. Another example of changes in the framework that impacts the RWA amount is the risk weight applicable to exposures under the SEC-ERBA, which triple from 7% to 20% for a non-STC five year AAA-rated. On the other hand, banks holding a securitisation portfolio of senior tranches of sub-investment grade exposure would see RWA decrease.

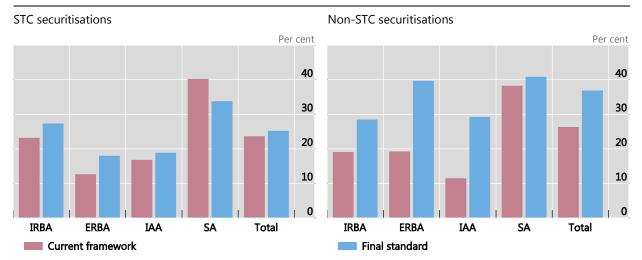
#### STC and non-STC exposures

Graph 63 compares the average risk weightings applicable to exposures under the previous and the Basel III securitisation frameworks, separated by compliance with STC criteria. Exposures subject to the SEC-SA show only slight differences, with risk weightings for STC exposures expected to drop, while non-STC exposures should see a similarly marginal increase. However, under the Basel III securitisation framework, relatively large increases in average risk weight can be observed for exposures treated under both the SEC-IRBA and the SEC-ERBA. On an overall basis, the average risk weight increased from 24% to 35% under the Basel III securitisation framework.<sup>30</sup>

<sup>&</sup>lt;sup>30</sup> STC exposures under the SEC-SA, in contrast to all other exposures, show a decrease in the average risk weights (-6 percentage points). However, it should be noted that those exposures only contribute around 4% of the overall securitisation EAD.

#### Average risk weight by approach





<sup>&</sup>lt;sup>1</sup> The sample consists of 96 banks. Total under non-STC securitisations includes deductions for EU and securitisations subject to a 1250% risk weight.

Source: Basel Committee on Banking Supervision. See also Table C.59.

Graph 64 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 total average risk weights for non-STC exposures is 11.5 percentage points higher than for STC exposures. The exposures risk-weighted using the SEC-ERBA shows the greatest difference (21.7 percentage points) in average risk weights between STC and non-STC exposures.

#### Average risk weight, final standards

All banks<sup>1</sup> Graph 64



 $<sup>^{1}\,</sup>$  The sample consists of 109 banks.

Source: Basel Committee on Banking Supervision. See alsoTable C.60.

Contribution of securitisation exposures to the output floor

This section compares the actual securitisation RWA as calculated using the final standards with its correspondent output floor RWA. Although the output floor requirements consider exclusively the total RWA, and not individual risk components such as securitisation exposures, this comparison enables the assessment of the contribution of securitisation exposures to the output floor.

The output floor RWA for securitisation exposures is 72.5% of the RWA calculated using only the standardised approaches (the SEC-ERBA, SEC-SA or a risk-weight of 1250%).<sup>31</sup> The actual approach to be used results from the hierarchy of approaches set out in the Basel III securitisation framework. In other words, exposures that originally fall under SEC-IRBA are risk-weighted using SEC-ERBA, the next approach, and if not possible, the SEC-SA. Similarly, the output floor RWA for exposures that would normally be subject to IAA is also derived from this hierarchy. Exposures originally risk-weighted using SEC-ERBA, SEC-SA or 1250% maintain their approach when calculating their output floor RWA.

In aggregate, the output floor RWA for securitisation exposures are expected to be 3.6% lower than the original RWA under the final standards, at the fully phased-in calibration of the output floor. The analysis of this result needs to consider two aspects. First, the data quality is expected to improve over time: the output floor was introduced with the Basel III reforms of December 2017 and will only start to be implemented from 1 January 2022. Due to the distant implementation date, banks might have not had yet the opportunity to update their internal systems and provide accurate data that reflect the risk-weighting of all exposures using only the standardised approaches. Second, the difference between the original and output floor RWAs does not directly reflect in MRC related to those exposures, since the output floor requirements apply to total RWA.

Contribution of securitisation MRC to total MRC

Overall, securitisation's contribution to aggregate MRC is expected to increase by 0.5% from 1.7% to 2.2%.

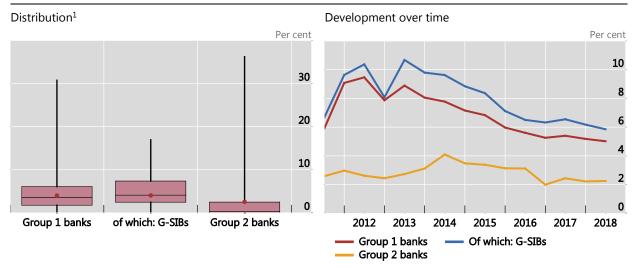
#### 4.3 Market risk

#### 4.3.1 Current market risk rules

The left panel of Graph 65 shows the distribution of the share of market risk MRC in total MRC under each participating jurisdiction's local implementation of the Basel 2.5 market risk framework. On average, the share of market risk MRC is 4.0% of total MRC for Group 1 banks and 2.6% of total MRC for Group 2 banks. However, there is significant dispersion across banks from zero to 36.2% across all participating banks.

As seen in the trends since 2011 shown in the right panel, market risk's contribution to the sample banks' consolidated capital requirements have 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 attributed to market risk decline by around half. The average share for Group 1 banks and G-SIBs is at a similar level as 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 estimates.

The calculations in this section assume the full implementation of the output floor calibrated at 72.5%, ie after the phase-in period.



<sup>&</sup>lt;sup>1</sup> 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.61 and Table C.62 for underlying data and sample size.

Graph 66 below presents time series decompositions of required market risk capital by bank group since end-June 2015. For Group 1 banks and in particular the G-SIBs among them, the internal models approach (IMA) comprises around two thirds to overall market risk MRC. The contribution of value-at-risk (VaR) and stressed VaR has increased since June 2015 primarily while the contribution of correlation trading portfolios – complex securitisation positions or credit derivatives – has decreased. For Group 2 banks, the internal models approach is much less relevant at only 17.9% of market risk MRC, and correlation trading portfolios are negligible. More than 80% of Group 2 banks' market risk capital requirements were calculated under the standardised approach, with both general and specific position risks jointly contributing 52.1% at the end-June 2018 reporting date.

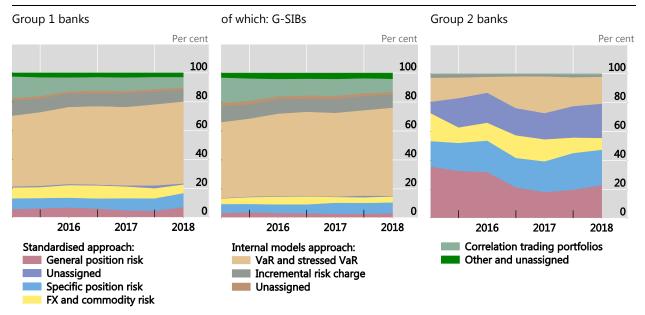
Graph 67 below shows the relation of the 10-day 99% confidence level stressed value-at-risk (VaR) to the current VaR under current market risk rules using a consistent sample of Group 1 banks. The left panel shows the time series since end-2011 for 23 banks. Under this longer run consistent sample, the ratio of stressed VaR to VaR has fluctuated around 200% with a peak at 247.9% in H1 2014 and another peak at 289.0% in H2 2016, since then it has decreased to 246.6%.

The right panel of Graph 67 shows the same ratio for a shorter run consistent sample including 33 additional banks which have provided data since 2015. For this larger sample of overall 56 banks, the ratio has continued to increase and reached its highest peak at end-June 2018 at 277.7%. This increase can be attributed at least partially to the low 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 time 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 environments, the ratio becomes elevated.

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

Consistent sample of banks, in per cent

Graph 66

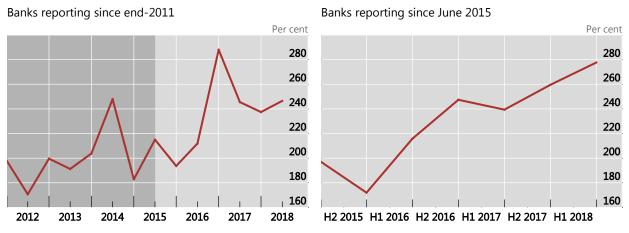


Source: Basel Committee on Banking Supervision. See Table C.63, Table C.64 and Table C.65 for underlying data and sample size.

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

Consistent sample of Group 1 banks

Graph 67



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

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

This section analyses expected impacts from implementation of the revised minimum capital requirements for market risk published in January 2016. Due to the timing of the data collection, the analyses in this

section do not reflect the impact of the finalised calibration published in January 2019.<sup>32</sup> Banks were instructed to make all calculations using the standard proposed in January 2016. Thus, all below references to impacts of the revised standard strictly reflect the data submitted by banks and do not include any effects from the recalibration. However, some attempt is made to qualitatively describe the likely effects of the recalibration on banks market risk capital requirements compared to the original January 2016 specifications. The next collection based on end-2018 data will fully reflect the final standards.

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 are revolved. In addition, the Basel III monitoring data for market risk 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 of the recently finalised revised market risk standards.

Another caveat in interpreting the capital impact on the internal models approach versus the standardised approach is the potential difference in the scope of trading desks that use models. Participating banks were instructed to calculate the internal models approach capital requirements for trading desks that are currently subject to the internal models approach, which means that it ignores (i) the potential for banks to change the scope of trading desks that use models; and (ii) the potential consequences of trading desk-level backtesting and the P&L attribution test results. However, this analysis includes the reported data of some banks that used its own judgement regarding desk-level internal models eligibility.

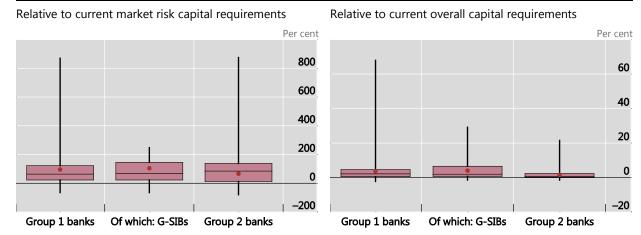
Also, evidence from previous reforms to the market risk capital framework has shown that banks have progressively reduced their overall trading book risk profile in response to strengthened capital requirements and changes in risk appetites. Subsequently, realised impacts of reforms have turned out lower than estimated.

A total of 77 banks, comprised of 60 Group 1 banks, of which 24 G-SIBs, and 17 Group 2 banks, have provided data on the revised minimum requirements for market risk at the end-June 2018 reporting date which were sufficiently complete to estimate the overall impact of the revised framework.

Graph 68 below shows the revised market risk standards' impact versus current market risk capital (left panel) and total capital requirements (right panel). While the average prospective Basel III market risk capital requirements across Group 1 and Group 2 banks relative to current *market risk* capital requirements are comparable, there is wide variability at the bank level. Outliers are far more extreme. However, as a portion of the banks' overall rather than only market risk capital requirements the revised standards result in a much more modest average increase of 3.7% for Group 1 banks and 1.6% for Group 2 banks.

<sup>&</sup>lt;sup>32</sup> Basel Committee on Banking Supervision, *Minimum capital requirements for market risk*, January 2019, www.bis.org/bcbs/publ/d457.htm.

Graph 68



<sup>&</sup>lt;sup>1</sup> 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.67.

#### 4.4 Operational risk

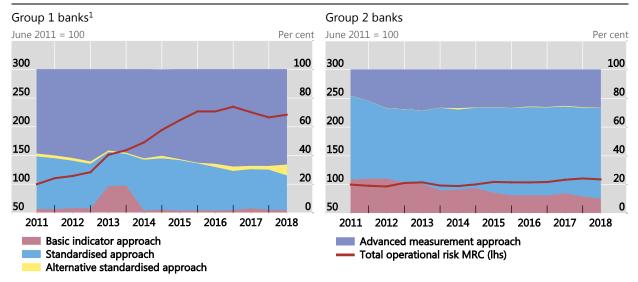
#### 4.4.1 Current operational risk rules

As depicted in Graph 69 below, MRC for operational risk has continuously increased until end-2016 and decreased slightly since. 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, which are factored into the calculation of MRC for operational risk under the AMA. For Group 1 banks and G-SIBs, the share of MRC for operational risk under the AMA has increased from 58.4% in 2011 to 66.1% in the latest reporting period, while the share of operational risk MRC as a percentage of total MRC is 13.7% for Group 1 banks and 15.3% 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, <sup>33</sup> 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 9.5%.

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

Consistent sample of banks Graph 69



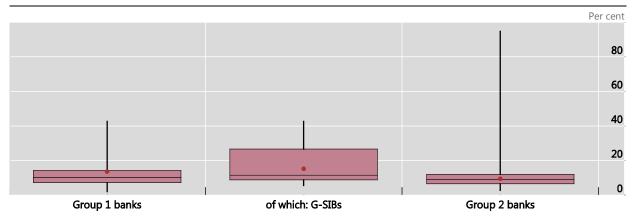
<sup>&</sup>lt;sup>1</sup> Some banks started reporting operational risk RWAs under the Basic Indicator Approach in 2013 and eventually migrated to the Standardised Approach in 2014.

Source: Basel Committee on Banking Supervision. See Table C.68 and Table C.69 for underlying data and sample size.

The dominance of indicator-based properties found in the standardised approaches for operational risk reflect the size of a bank rather than its risk exposure, which explains the limited variance of MRC for most Group 2 banks (see Graph 70). For Group 2 banks, the difference between the 25th and 75th quantile of the share of MRC for operational risk in total MRC is around 5.5 percentage points, while it is approximately 7.0 percentage points for Group 1 banks and 17.7 percentage points for G-SIBs. The outliers among Group 2 banks are mostly fee business-specialised banks in the sample where operational risk is virtually an exclusive risk, while outliers among Group 1 banks and G-SIBs are banks using AMA in which past loss events influence future operational risk exposure.

#### Distribution of share of MRC for operational risk in total MRC<sup>1</sup>

Graph 70



<sup>&</sup>lt;sup>1</sup> 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.70 and for underlying data and sample size.

#### 4.4.2 Final operational risk standards

The objective of the design and calibration of the revised operational risk framework is to ensure stable capital requirements that are simple to estimate and comparable while remaining risk-sensitive. The revisions aim to accomplish this objective by replacing the existing set of approaches<sup>34</sup> used for the estimation of operational risk capital requirements with the standardised approach (SA), which 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). Given the revised framework is largely based on accounting data which do not change greatly during the year, detailed analysis will only be provided in the reports on end-December data of each year.

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

The diagonal line represents points where an 8.5% fully phased-in Basel III Tier 1 target risk-based capital ratio results in the same amount of required fully phased-in Basel III Tier 1 capital as a fully phased-in Basel III Tier 1 leverage ratio of 3%. By construction, it also represents a multiple of 8.5%/3%≈2.83 between RWA and the Basel III leverage ratio exposure measure. Therefore, for banks plotted above the diagonal line, the Basel III Tier 1 leverage ratio requires more Tier 1 capital than the Tier 1 risk-based capital ratio (ie the Basel III Tier 1 leverage ratio becomes the constraining requirement). 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 71, three 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). All of these banks meet the Basel III Tier 1 target capital ratio of 8.5%. This graph also shows that the fully phased-in Basel III Tier 1 leverage ratio is constraining for 69 banks out of 166, including 39 Group 1 and 30 Group 2 banks (plotted above the diagonal line).

<sup>&</sup>lt;sup>34</sup> 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).

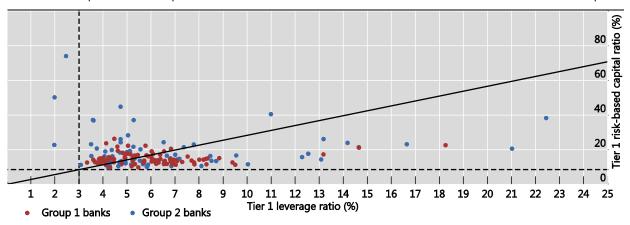
<sup>&</sup>lt;sup>35</sup> Calculated as the sum of a 6.0% Tier 1 minimum capital ratio plus 2.5% capital conservation buffer.

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, 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.

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

Consistent sample of banks, in per cent

Graph 71



Source: Basel Committee on Banking Supervision.

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

This section discusses the interaction between 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 72 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").<sup>37</sup>

Under the current framework 35.1% of Group 1 banks are constrained by the Basel III leverage ratio while 11.7% 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, 31.2% of Group 1 banks will be constrained by the floor while 28.6% 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 53.2% to 40.3%.

For the subset of G-SIBs, the Basel III leverage ratio is currently constraining for a slightly smaller share of banks (28.6%) as compared to Group 1 banks as a whole while the transitional Basel I-based floor constrains a slightly larger share of banks (25.0%). The remaining 46.4% of G-SIBs are constrained by the risk-based measure before application of the output floors. Under the revised framework, 32.1% of G-SIBs will be constrained by the output floor while the Basel III leverage ratio will be constraining for 21.4% of

<sup>&</sup>lt;sup>37</sup> Graph 72 does not distinguish between IRB and "pure SA" Group 1 banks as out of the 77 Group 1 banks in the sample only seven are "pure SA" banks.

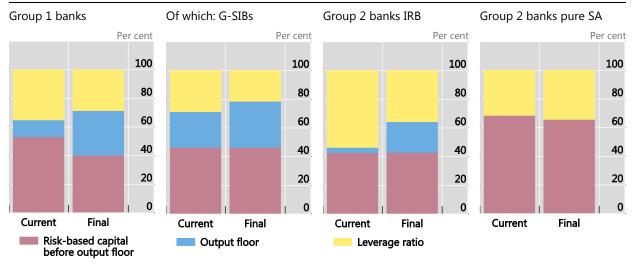
the G-SIBs. The remaining 46.4% of G-SIBs same as with the current framework will be constrained by the risk-based capital requirements before application of the output floor.

Of the Group 2 IRB banks in the sample, 53.6% are currently constrained by the Basel III leverage ratio while 3.6% 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 42.9% 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 application of the output floor will be unchanged at 42.9% and is lower than for G-SIBs but slightly higher than Group 1 banks. The Basel III leverage ratio will be constraining on 35.7% of Group 2 IRB banks while the share of Group 2 banks constrained by the output floor will significantly increase to 21.4%.

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 68.6% of banks and under the revised framework it will decrease to 65.7%. The Basel III leverage ratio is currently constraining for 31.4% of banks and under the revised framework it will increase to 34.3% share of these banks. The output floor will not become constraining for any of these banks, 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

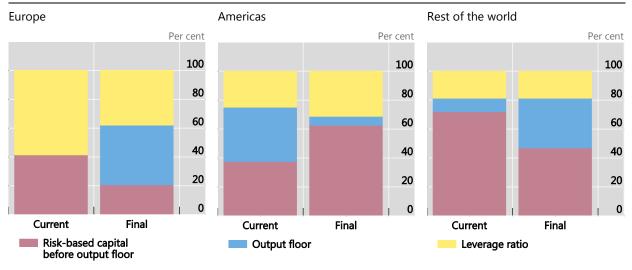
Graph 72



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

Graph 73 shows the percentage of banks constrained by different parts of the framework, by region. In Europe, the leverage ratio is the most binding constraint under the current standard with 58.6%. Under the final Basel III framework, the output floor is the most binding for Europe at 41.4%. In the Americas, currently the Basel I-based floor and risk-based capital are the most binding constraints with 37.5%. Under the final Basel III framework, the risk-based measure before application of the output floors is the most constraining for the Americas with 62.5%. For the rest of the world, 71.9% of the banks is constrained by risk-based capital requirements before application of the output floors under the current regime. Under the final Basel III framework, risk-based measure will remain the most binding at 46.9%.

Group 1 banks Graph 73



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

#### 6. Liquidity

#### 6.1 Liquidity Coverage Ratio

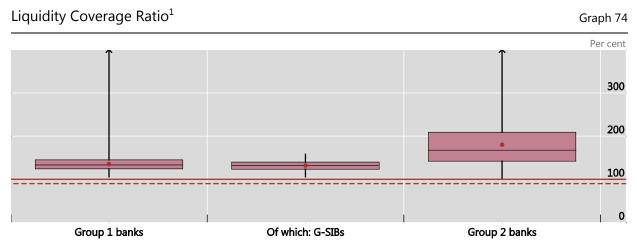
One of the two liquidity standards introduced by the Committee is the 30-day Liquidity Coverage Ratio (LCR), which promotes short-term resilience against potential liquidity disruptions. The LCR requires global banks to have sufficient high-quality liquid assets to withstand a stressed 30-day funding 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 and will continue to rise in equal annual steps of 10 percentage points to reach 100% in 2019.

Data provided by 171 banks (98 Group 1 and 73 Group 2) 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  $\leq$ 69.7 trillion.

The key takeaways from this iteration of the Basel III monitoring exercise concerning the aggregate analysis of the LCR are as follows:

- The weighted average LCR for Group 1 banks increased by 2.1 percentage points from the previous period to 135.1%. The weighted average LCR for Group 2 banks increased by 0.2 percentage points to 180.2%.
- All Group 1 and Group 2 banks in the sample reported an LCR that exceeded a minimum requirement of 100%, compared to 98.5% and 100.0% of the banks at end-December 2017. At end-June 2018, as a result all banks reported an LCR over 90% (the applicable minimum requirement since January 2018).

- The aggregate LCR shortfall at a minimum requirement of 100% is now non-existent for all banks. This compares to a combined shortfall of €7.0 billion as of end-December 2017.
- Banks reported a total of €13.1 trillion in eligible liquid asset holdings (post-haircut).



<sup>&</sup>lt;sup>1</sup> 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 lines represent the 90% minimum (2018, red dashed line) and the 100% minimum (2019, red solid line).

Source: Basel Committee on Banking Supervision. See Table C.74 for underlying data.

Basel III monitoring results show a zero shortfall (ie the difference between high-quality liquid assets and net cash outflows) at a 100% minimum requirement for both Group 1 and Group 2 banks as of end-June 2018. This compares to a combined shortfall of €7.0 billion as of end-December 2017. At the currently applicable minimum requirement of 90% the aggregate shortfall is consequently also zero for both Group 1 and Group 2 banks at end-June 2018, remaining the same as end-December 2017.

The key components of outflows and inflows are shown in Table 10. 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) as a percentage of balance sheet liabilities

Table 10

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Outflows to			
Retail deposits run-off	2.2	2.3	2.4
Unsecured wholesale funding run-off	12.0	12.5	5.8
Secured funding and collateral swaps	2.0	2.6	0.3
Additional requirements run-off	4.4	4.8	1.7
Other contingent funding obligations	1.8	1.9	1.9
Total outflows <sup>1</sup>	22.4	24.1	12.3
Inflows from			
Secured lending and collateral swaps	2.4	3.1	0.4
Contractual inflows from fully performing loans	2.8	2.7	1.7
Other cash inflows	2.3	2.5	1.1
Total inflows <sup>1,2</sup>	7.5	8.3	3.2

<sup>&</sup>lt;sup>1</sup> May contain rounding differences. <sup>2</sup> The 75% cap is only applied to the "total inflow" category, which leads the sum of the individual inflow categories for Group 2 banks 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

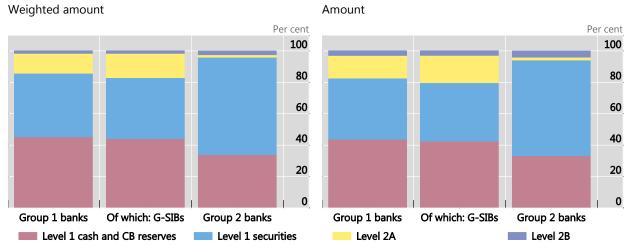
At end-June 2018, three Group 1 and four Group 2 banks are affected by cap on inflows.

#### 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 75. 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 which 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 85.8% of all eligible liquid assets). Level 1 assets also represent a significant portion of eligible liquid assets for Group 2 banks as well (together accounting for 96.0% of total eligible liquid assets).

#### Composition of holdings of eligible liquid assets

Graph 75



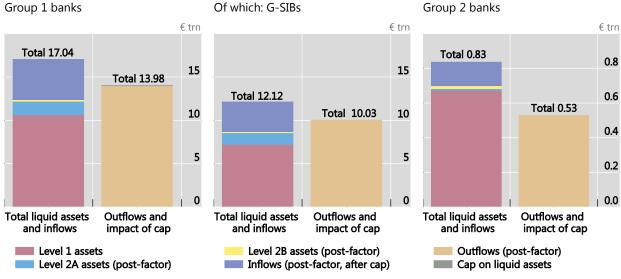
Source: Basel Committee on Banking Supervision. See Table C.75 for underlying data and sample size.

#### Caps on Level 2B and Level 2 assets

Due to the cap on liquid assets overall €7.2 billion of liquid assets are excluded from high-quality liquid assets. In total, four banks are constrained.

#### Comparison of liquid assets and inflows to outflows and caps

Graph 76 combines the above LCR components by comparing liquidity resources (pool of high-quality liquid assets and inflows) to outflows. Note that the €3.06 trillion Group 1 gross surplus shown in the graph would differ if a gross shortfall at an LCR minimum requirement of 100% was still applicable, as it is assumed here that excess high-quality liquid assets at one bank can offset a liquidity shortfall at another. In practice the aggregate position in the industry is likely to lie somewhere between these two numbers depending on how efficiently banks redistribute liquidity around the system. Similarly, the gross surplus for Group 2 banks was €0.30 trillion compared to no gross shortfall at an LCR minimum requirement of 100% as highlighted above.



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

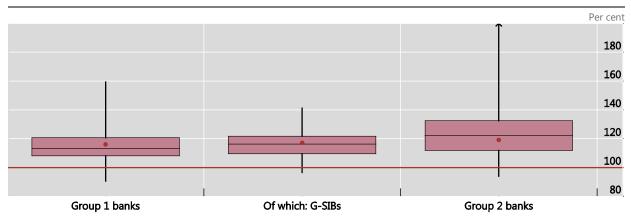
#### 6.2 Net Stable Funding Ratio

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 187 banks (104 Group 1 and 83 Group 2 banks) was of sufficient quality and coverage to be incorporated in the analysis in this report.<sup>38</sup> As of the reporting date, these banks had total assets of approximately €69.3 trillion. By comparison, 191 banks were included in the end-December 2017 exercise and 182 banks were included in the end-June 2017 exercise.

The weighted average NSFR was 116.0% for Group 1 banks and 119.2% for Group 2 banks at end-June 2018 compared with 116.0% and 118.5% respectively, at end-December 2017. Overall, 96.2% of Group 1 banks and 95.2% of Group 2 banks reported a ratio that met or exceeded 100% as of end-June 2018, while all banks report a ratio at or above 90%.

<sup>&</sup>lt;sup>38</sup> Group 1 banks are those that have Tier 1 capital in excess of €3 billion, are well diversified, and are internationally active. All other banks are considered Group 2 banks.



<sup>&</sup>lt;sup>1</sup> 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).

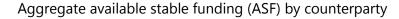
Source: Basel Committee on Banking Supervision. See Table C.74 for underlying data.

For the 104 Group 1 banks in the sample, the shortfall is €44.4 billion at end-June 2018 compared with €14.5 billion at end-December 2017. For the 83 Group 2 banks in the sample, the shortfall is €4.2 billion at end-June 2018 compared with €5.6 billion at end-December 2017. 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.<sup>39</sup>

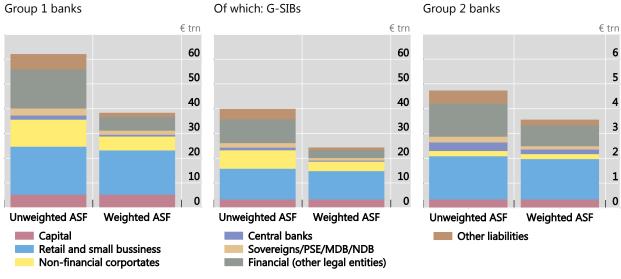
#### Stable funding sources

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 just under half of total weighted available stable funding for both Group 1 banks (46.7%) and Group 2 banks (45.7%). To a lesser degree, banks in the sample utilised funding from financial counterparties, which represented roughly 14.9% of total weighted available stable funding for Group 1 banks and 22.9% for Group 2 banks.

<sup>39</sup> 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.



Graph 78

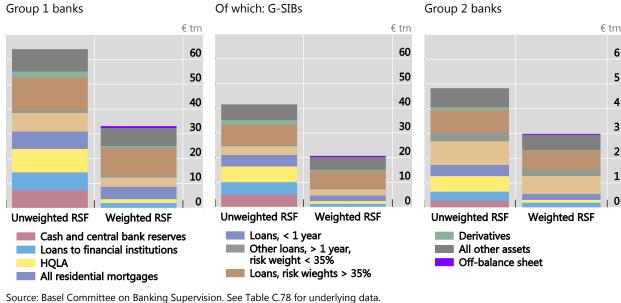


Source: Basel Committee on Banking Supervision. See Table C.77 for underlying data.

#### 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, represented 50.9% for Group 1 banks and 60.0% for Group 2 banks of the total weighted stable funding requirement. By comparison, HQLA securities represented less than 5% of the total weighted stable funding requirement at 4.8% for Group 1 banks and 3.3% 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 was 2.5%.



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

Graph 80 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.<sup>40</sup> Given the different samples of banks, results for the end-December 2016 and end-December 2017 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 135.4% at end-June 2018. The ratio was 134.4% and 134.2% at end-December 2017 and end-June 2017, respectively. Group 2 banks that have reported LCR data for each of the reporting periods since end-December 2012 show ratios that have trended lower for some periods. As of end-June 2018, the weighted average LCR of these banks is 166.0%. 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.<sup>41</sup> The weighted average NSFR for Group 1 banks was 115.6% at end-June 2018, 115.8% at end-December 2017 and 116.8% at end-June 2017. The weighted average NSFR for Group 2 banks was 119.6% at end-June 2018, 118.9% at end-December 2017 and 117.6% at end-June 2017.

At end-June 2018 with the consistent sample, all Group 1 and Group 2 banks comply with the 100% LCR minimum requirement in line with the rest of the sample for the current period.

The aggregate shortfall for Group 1 that do not meet the 100% NSFR requirement has generally declined for each of the respective standards since end-June 2012 with the exception of the current period

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.

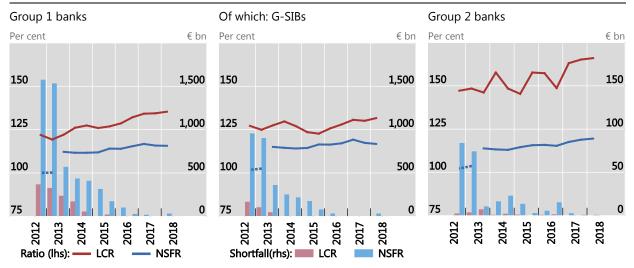
Graph 7 depicts the NSFR as calculated under different versions of the NSFR framework (released in December 2010, January 2014 and October 2014, respectively). Calculations performed according to the final standard approved by the Committee in October 2014 start with the end-December 2014 reporting period. See Basel Committee on Banking Supervision, Basel III: the net stable funding ratio, October 2014, www.bis.org/bcbs/publ/d295.htm.

where it has increased. The aggregate shortfall at the 100% NSFR minimum requirement was €28.9 billion for Group 1 banks and €0.8 billion for Group 2 banks at end-June 2018. This compares to shortfalls of €2.7 billion for Group 1 banks and €0.8 billion for Group 2 banks at end-December 2017, shortfalls of €14.9 billion and €2.6 billion at end-June 2017 and €25.2 billion and €15.2 billion at end-December 2016.

#### LCR, NSFR and related shortfalls at a 100% minimum requirement<sup>1</sup>

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

Graph 80



<sup>&</sup>lt;sup>1</sup> As described in the text, the NSFR time series depicts data reflecting NSFR standard released in December 2010, January 2014 and October 2014

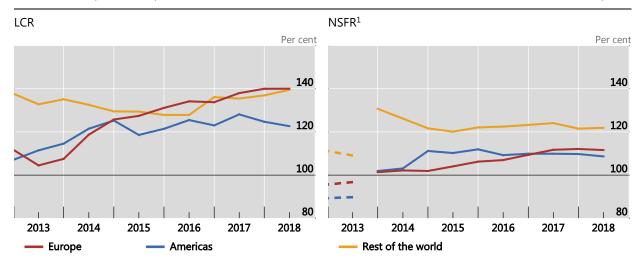
Source: Basel Committee on Banking Supervision. See Table C.79 and Table C.80 for underlying data and sample size.

Graph 81 displays the regional breakdown of the weighted average LCR and the weighted average NSFR<sup>42</sup> for a consistent sample of Group 1 banks across reporting periods since end-December 2012. The weighted average LCR at end-June 2018 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 and, to a lesser degree, the Americas have tended to gradually converge. 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 2018 for Group 1 banks in each of the three regions was well in excess of 100%. Europe and the Americas at 111.6% and 108.7% at end-June 2018 have lower average NSFRs compared with the rest of the world at 121.9%.

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.

Graph 81



<sup>&</sup>lt;sup>1</sup> As described in the text, the NSFR time series depicts data reflecting NSFR standard released in December 2010, January 2014 and October 2014.

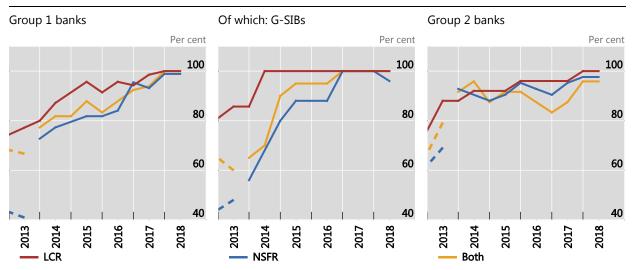
Source: Basel Committee on Banking Supervision. See Table C.81 for underlying data and sample size.

Graph 82 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 100.0% at end-June 2018, while the share of Group 2 banks meeting both requirements increased from 66.7% to 95.8% during the same period. Since end-December 2016 all G-SIBs meet both the LCR and NSFR 100% minimum requirements. Since the end-2017 reporting date this also holds true for all other Group 1 banks in the consistent sample.

#### Share of banks meeting the LCR and NSFR requirements<sup>1</sup>

Consistent sample of banks

Graph 82



<sup>&</sup>lt;sup>1</sup> As described in the text, the NSFR time series depicts data reflecting NSFR standard released in December 2010, January 2014 and October 2014. Samples for LCR and NSFR may differ. In particular, the bank showing an NSFR shortfall at the end-June 2018 reporting date is not included in the consistent LCR and combined time series.

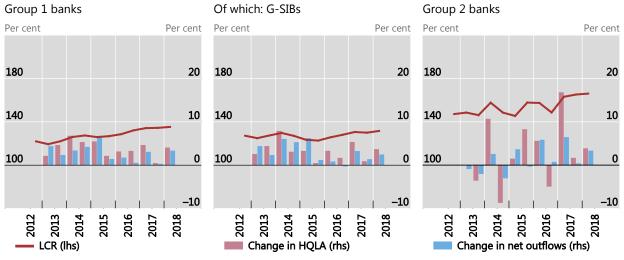
Source: Basel Committee on Banking Supervision. See Table C.82 for underlying data.

Graph 83 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, 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.

#### LCR and change in HQLA and net outflows

Consistent sample of banks, exchange rates as of 30 June 2018

Graph 83



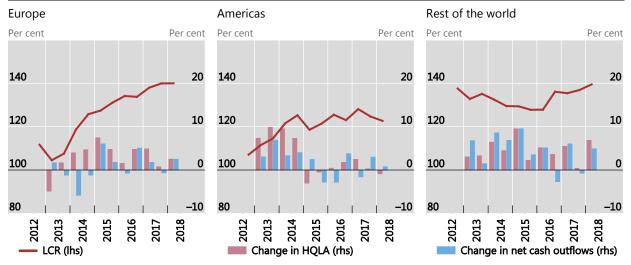
Source: Basel Committee on Banking Supervision. See Table C.83 for underlying data and sample size.

Graph 84 provides a breakdown by region of the results in Graph 83 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. This decomposition indicates in each of the three regions, changes in HQLA have been a slightly more important driver of changes in the weighted LCR, although both sources of changes have played a significant role.

#### LCR and change in HQLA and net outflows, by region

Consistent sample of Group 1 banks, exchange rates as of 30 June 2018

Graph 84



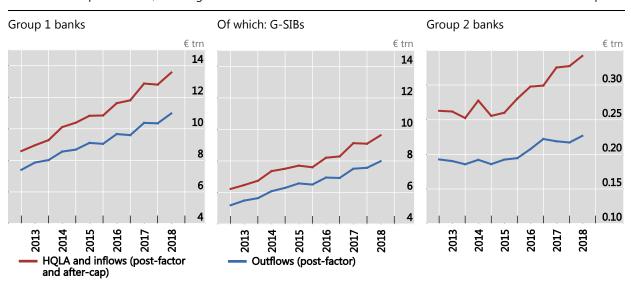
Source: Basel Committee on Banking Supervision. See Table C.84 for underlying data and sample size.

Graph 85 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 exceeded the balance of outflows for all periods since end-December 2012 for both Group 1 and Group 2 banks. This difference reached €2.59 trillion and €0.11 trillion for Group 1 and Group 2 banks, respectively, at end-June 2018.

#### High quality liquid assets and inflows versus outflows over time

Consistent sample of banks, exchange rates as of 30 June 2018

Graph 85



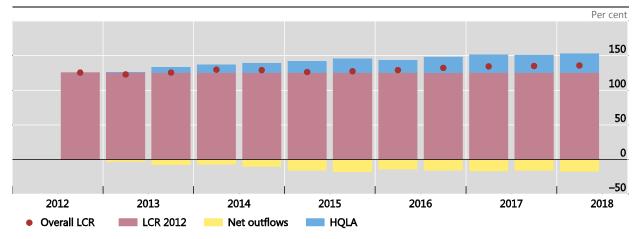
Source: Basel Committee on Banking Supervision. See Table C.85 for underlying data and sample size.

Graph 86 shows the evolution of the LCR and its drivers. Starting with the June 2012 LCR, the cumulative effect on the LCR of an increase in HQLA is added to the LCR, while the impact of cumulative increases in net outflows is subtracted from the baseline LCR. HQLA have grown faster over the years compared to the net outflows which has resulted in an overall improvement in the LCR over time.

#### Evolution of the LCR and its drivers

Consistent sample of Group 1 banks

Graph 86



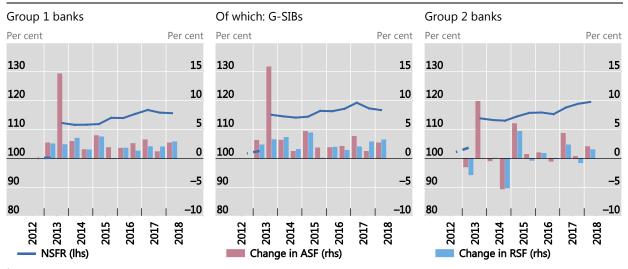
Source: Basel Committee on Banking Supervision. See Table C.86 for underlying data and sample size.

Graph 87 depicts the percentage change in ASF and RSF over time. For all bank groups, there were significant positive changes in ASF of more than 10 percentage points for the end-December 2013 also reflecting the changes to the definition of the NSFR standard. The change in ASF has since stabilised for Group 1 banks to between 1% and 3% per period; however, for Group 2 banks it is slightly volatile over time.

#### NSFR and change in ASF and RSF<sup>1</sup>

Consistent sample of banks, exchange rates as of 30 June 2018

Graph 87



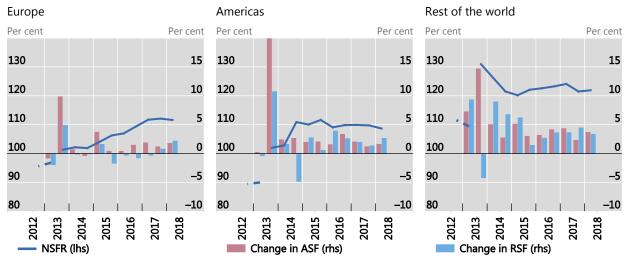
<sup>&</sup>lt;sup>1</sup> As described in the text, the NSFR analysis is based on NSFR standard released in December 2010, January 2014 and October 2014. Source: Basel Committee on Banking Supervision. See Table C.87 for underlying data and sample size.

Graph 88 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. The main impact of the definitional changes was an increase in ASF for most banks.

#### NSFR and change in ASF and RSF,1 by region

Consistent sample of Group 1 banks, exchange rates as of 30 June 2018

Graph 88



<sup>&</sup>lt;sup>1</sup> 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.88 for underlying data and sample size.

### Annex A: Basel III standards and phase-in arrangements

#### Basel III phase-in arrangements

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

Table A.1

	2018	As of 2019	
Leverage ratio	Migration to Pillar 1		
Minimum CET1 ratio	4.5%	4.5%	
Capital conservation buffer	1.875%	2.50%	
G-SIB surcharge	Phase-in	1.0%-2.5%	
Minimum common equity plus capital conservation buffer	6.375%	7.0%	
Phase-in of deductions from CET1 (including amounts exceeding the limit for DTAs, MSRs and financials)	100%	100%	
Minimum Tier 1 capital	6.0%	6.0%	
Minimum total capital	8.0%	8.0%	
Minimum total capital plus capital conservation buffer	9.875%	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	90%	100%	
Net stable funding ratio	Introduce minimum standard		

#### Final Basel III phase-in arrangements

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

Table A.2

	2022	2023	2024	2025	2026	2027
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					
	50%	55%	60%	65%	70%	
Output floor	Increase in RWA subject to 25% cap at national discretion.		р	72.5%		
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		vork for more resilient banks and the banking system, ww.bis.org/publ/bcbs189.htm				
Credit risk	Basel III: A global framework for more resilient banks and the banking system, www.bis.org/publ/bcbs189.htm Capital requirements for bank exposures to central counterparties, www.bis.org/publ/bcbs227.htm	Basel III: Finalising post-crisis reforms, www.bis.org/bcbs/publ/d424.htm  Capital requirements for bank exposures to centra counterparties, www.bis.org/publ/bcbs227.htm  Capital requirements for banks' equity investments in f				
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	Fundamental review of the trading book: A revised market framework, www.bis.org/publ/bcbs265.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 cree risk exposures, <u>www.bis.org/publ/bcbs279.htm</u>				
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 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 initial Basel III data have been provided<sup>1</sup>

Table B.1

		(-	Froup 1	Group 2 banks								
			noup 1	L Dariks					oroup 2	- Duriks		
	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	0
Australia (RW)	4	4	4	4	4	1	1	1	1	1	1	0
Belgium (EU)	2	2	2	2	2	2	2	2	2	2	2	1
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
France (EU)	5	5	5	5	5	5	2	2	2	2	2	2
Germany (EU)	7	7	7	7	7	7	27	27	27	27	27	8
India (RW)	7	5	6	7	7	1	3	2	1	3	3	0
Indonesia (RW)	0	0	0	0	0	0	2	2	2	1	2	1
Italy (EU)	2	2	2	2	2	2	11	11	10	11	11	10
Japan (RW)	16	16	16	16	16	16	3	3	3	3	3	3
Korea (RW)	6	6	0	0	6	6	2	2	0	0	2	2
Luxembourg (EU)	0	0	0	0	0	0	2	2	2	2	2	2
Mexico (AM)	1	1	1	0	1	1	5	5	5	0	5	5
Netherlands (EU)	3	3	3	3	3	2	5	5	5	5	5	1
Russia (EU)	1	1	0	0	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	3	0	0	0	0	0	0
South Africa (RW)	4	4	4	4	4	4	2	2	2	2	2	1
Spain (EU)	2	2	2	2	2	2	5	5	5	5	5	4
Sweden (EU)	4	4	4	4	4	4	3	3	3	3	3	2
Switzerland (EU)	2	2	2	2	2	2	0	0	0	0	0	0
Turkey (EU)	3	3	2	3	3	0	0	0	0	0	0	0
United Kingdom (EU)	5	5	5	5	4	5	4	4	4	4	4	3
United States (AM)	12	12	12	12	11	11	0	0	0	0	0	0
Total	106	104	97	98	104	81	83	82	76	73	83	47
Of which: G-SIBs	29						0					

<sup>&</sup>lt;sup>1</sup> 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.

#### Additional sample statistics

In billion euros Table B.2

	Number of banks	Tier 1 capital	Risk-weighted assets	Accounting total assets	Leverage total exposure
Group 1 banks	95	4,107	29,637	64,959	71,058
Of which: Europe	21	1,089	7,948	14,528	17,309
Of which: Americas	33	1,222	8,055	24,035	24,964
Of which: Rest of the world	41	1,797	13,634	26,397	28,785
Of which: G-SIBs	29	2,793	20,248	43,677	48,084
Group 2 banks	76	254	1,592	4,434	4,516

 $<sup>^{\</sup>rm 1}\,$  Tier 1 capital, RWA and leverage ratio exposure assume full implementation of Basel III.

Source: Basel Committee on Banking Supervision.

# Number of banks for which data have been included in the assessment of the impact of the final Basel III framework<sup>1</sup>

Table B.3

	Group 1 banks	Group 2 banks
Australia (RW)	3	0
Belgium (EU)	2	2
Brazil (AM)	2	0
Canada (AM)	6	2
China (RW)	6	0
France (EU)	5	2
Germany (EU)	7	24
India (RW)	2	0
Italy (EU)	2	10
Japan (RW)	14	3
Luxembourg (EU)	0	2
Mexico (AM)	1	4
Netherlands (EU)	3	5
Singapore (RW)	3	0
South Africa (RW)	4	2
Spain (EU)	2	4
Sweden (EU)	4	3
Switzerland (EU)	2	0
Turkey (EU)	1	0
United Kingdom (EU)	4	4
United States (AM)	7	0
Total	80	67

<sup>&</sup>lt;sup>1</sup> 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

# Number of banks for which data on the revised minimum capital requirements for market risk have been provided

Table B.4

	Total	Group 1 banks	Group 2 banks
Belgium (EU)	3	2	1
Brazil (AM)	5	5	0
Canada (AM)	4	4	0
China (RW)	6	6	0
France (EU)	6	5	1
Germany (EU)	8	4	4
India (RW)	8	7	1
Indonesia (RW)	2	0	2
Italy (EU)	9	2	7
Japan (RW)	10	10	0
Korea (RW)	8	6	2
Luxembourg (EU)	2	0	2
Mexico (AM)	1	1	0
Netherlands (EU)	3	3	0
Russia (EU)	1	1	0
Saudi Arabia (RW)	1	1	0
Singapore (RW)	3	3	0
South Africa (RW)	5	4	1
Spain (EU)	4	2	2
Sweden (EU)	2	2	0
Switzerland (EU)	1	1	0
United Kingdom (EU)	4	4	0
United States (AM)	6	6	0
Total	102	79	23

CET1 regulatory adjustments

Consistent sample of Group 1 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% <sup>2</sup>	Other <sup>3</sup>	Total
H1 2011	89	-15.4	-3.7	-3.3	-2.9	-1.8	-2.1	-3.0	-32.2
H2 2011	89	-14.0	-3.6	-2.8	-1.9	-1.6	-1.7	-3.7	-29.3
H1 2012	89	-13.3	-3.4	-2.5	-1.7	-1.2	-1.3	-3.4	-26.8
H2 2012	89	-12.4	-3.1	-2.7	-2.4	-1.2	-1.1	-2.8	-25.7
H1 2013	89	-12.0	-2.9	-2.7	-2.4	-1.0	-0.9	-2.1	-24.0
H2 2013	89	-11.2	-2.7	-2.4	-1.4	-0.5	-0.4	-1.5	-20.1
H1 2014	89	-10.8	-2.6	-2.2	-1.3	-0.4	-0.2	-1.4	-18.9
H2 2014	89	-10.3	-2.5	-2.0	-1.0	-0.4	-0.2	-1.8	-18.3
H1 2015	89	-10.0	-2.4	-1.9	-0.8	-0.3	-0.1	-1.7	-17.4
H2 2015	89	-9.5	-2.3	-1.8	-0.7	-0.3	-0.1	-1.8	-16.8
H1 2016	89	-9.3	-2.3	-1.8	-0.7	-0.2	-0.1	-2.2	-16.8
H2 2016	89	-9.0	-2.3	-1.6	-0.8	-0.3	-0.1	-2.0	-16.1
H1 2017	89	-8.7	-2.3	-1.6	-0.8	-0.2	-0.1	-1.6	-15.3
H2 2017	89	-8.7	-2.4	-1.3	-0.7	-0.1	-0.1	-1.5	-14.7
H1 2018	89	-8.6	-2.3	-1.2	-0.8	-0.1	-0.1	-1.4	-14.6

<sup>&</sup>lt;sup>1</sup> 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). <sup>2</sup> 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. <sup>3</sup> 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.

CET1 regulatory adjustments

Consistent sample of Group 2 banks, in per cent of CET1 capital prior to adjustments

Table B.6

	Number of banks	Goodwill	Intangibles	DTA <sup>1</sup>	Financials	DTA above threshold	Excess above 15% <sup>2</sup>	Other <sup>3</sup>	Total
H1 2011	40	-15.4	-3.5	-0.4	-4.2	-4.4	-2.1	-4.1	-34.1
H2 2011	40	-10.2	-3.5	-0.5	-4.5	-2.7	-1.5	-3.7	-26.7
H1 2012	40	-8.5	-3.4	-0.2	-4.3	-2.4	-1.6	-4.3	-24.7
H2 2012	40	-7.3	-3.3	-0.2	-5.1	-2.0	-1.3	-4.3	-23.4
H1 2013	40	-7.0	-3.2	-0.3	-4.9	-1.4	-1.2	-5.0	-23.1
H2 2013	40	-4.9	-3.2	-0.4	-3.7	-0.6	-0.8	-5.0	-18.5
H1 2014	40	-4.1	-2.9	-0.4	-2.5	0.0	-0.6	-1.6	-12.1
H2 2014	40	-2.6	-3.1	-0.9	-2.9	-0.5	-0.6	-2.6	-13.2
H1 2015	40	-2.5	-2.7	-0.7	-2.9	-0.2	-0.6	-2.1	-11.8
H2 2015	40	-2.5	-2.7	-0.9	-2.8	-0.2	-0.2	-2.4	-11.6
H1 2016	40	-2.4	-2.7	-1.2	-2.3	0.0	-0.2	-2.1	-10.8
H2 2016	40	-2.3	-2.7	-1.3	-3.3	-0.1	-0.3	-2.1	-12.0
H1 2017	40	-2.2	-2.5	-1.6	-2.6	-0.1	-0.1	-2.1	-11.2
H2 2017	40	-2.2	-2.8	-1.9	-2.7	-0.1	-0.3	-2.0	-11.9
H1 2018	40	-2.3	-2.8	-2.1	-2.6	-0.1	-0.3	-1.7	-11.9

<sup>&</sup>lt;sup>1</sup> 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). <sup>2</sup> 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. <sup>3</sup> 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.

# Annex C: Statistical Annex

#### Transitional initial Basel III CET1, Tier 1 and total capital ratios

In per cent Table C.1

	G	roup 1 ban	ks	Of	which: G-S	IBs	G	Group 2 banks			
	CET1	Tier 1	Total	CET1	Tier 1	Total	CET1	Tier 1	Total		
Max	23.6	26.3	30.4	16.6	19.0	21.5	61.7	74.0	74.0		
75th percentile	14.5	16.3	19.3	14.0	16.3	19.1	20.5	21.5	23.2		
Median	12.8	14.2	16.4	12.7	14.6	16.9	15.7	15.8	17.7		
25th percentile	11.3	12.8	14.7	11.5	13.1	14.8	12.9	13.2	14.9		
Min	9.4	9.8	12.3	10.9	11.8	13.5	7.5	9.0	11.5		
Weighted average	12.7	14.1	16.5	12.5	14.0	16.3	15.5	16.3	18.5		

Source: Basel Committee on Banking Supervision.

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

In per cent Table C.2

	G	roup 1 banl	ks	Of	which: G-S	IBs	G	Group 2 banks			
	CET1	Tier 1	Total	CET1	Tier 1	Total	CET1	Tier 1	Total		
Max	23.6	26.3	30.5	16.6	19.1	21.6	61.9	74.1	74.1		
75th percentile	14.5	15.7	18.6	14.0	15.4	17.9	21.2	21.5	23.3		
Median	12.8	14.1	16.0	12.6	14.5	16.3	15.3	15.4	17.1		
25th percentile	11.5	12.6	14.1	11.5	13.1	14.8	11.8	12.4	14.3		
Min	9.2	9.6	11.5	10.5	11.2	12.5	8.6	9.8	10.0		
Weighted average	12.7	13.9	16.0	12.5	13.8	15.8	15.1	15.8	17.9		

# Transitional initial Basel III CET1, Tier 1 and total capital ratios<sup>1</sup>

Consistent sample of banks, in per cent

Table C.3

		Group	1 banks			Of which	n: 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	86	10.0	11.3	14.0	29	9.6	11.0	13.7	40	10.7	11.8	15.2
H2 2011	86	10.2	11.5	14.0	29	9.8	11.3	13.8	40	11.1	12.0	15.4
H1 2012	86	10.7	11.9	14.3	29	10.5	11.8	14.2	40	11.6	12.2	15.8
H2 2012	86	11.3	12.4	15.0	29	11.1	12.4	14.9	40	11.2	11.8	15.4
H1 2013	86	10.9	11.9	14.5	29	10.9	11.9	14.4	40	11.7	12.3	16.0
H2 2013	86	11.3	12.3	14.9	29	11.3	12.3	14.8	40	12.3	12.8	16.5
H1 2014	86	11.3	12.1	14.7	29	11.1	11.9	14.4	40	12.2	12.7	16.1
H2 2014	86	11.7	12.6	15.3	29	11.5	12.5	15.1	40	12.2	12.7	15.7
H1 2015	86	11.9	12.9	15.5	29	11.7	12.9	15.3	40	12.8	13.4	16.2
H2 2015	86	12.2	13.3	15.9	29	12.1	13.3	15.8	40	13.0	13.6	16.1
H1 2016	86	12.2	13.4	15.9	29	12.0	13.3	15.6	40	13.2	13.8	16.3
H2 2016	86	12.6	13.8	16.3	29	12.5	13.8	16.1	40	13.7	14.2	16.6
H1 2017	86	12.6	13.9	16.3	29	12.5	13.9	16.1	40	14.1	14.6	17.2
H2 2017	86	13.0	14.4	16.9	29	12.8	14.2	16.6	40	15.4	16.0	18.8
H1 2018	86	12.7	14.1	16.5	29	12.5	14.0	16.3	40	14.6	15.4	17.9

 $<sup>^{1}</sup>$  Before the implementation of the Basel III framework, results have been calculated on the basis of the relevant national regulatory frameworks in place at the reporting dates.

# Transitional initial Basel III CET1, Tier 1 and total capital ratios, by region<sup>1</sup>

Consistent sample of Group 1 banks, in per cent

Table C.4

		Eur	оре			Ame	ericas			Rest of t	he world	
	Number of banks	CET1	Tier 1	Total	Number of banks	CET1	Tier 1	Total	Number of banks	CET1	Tier 1	Total
H1 2011	31	10.2	12.0	14.5	19	9.7	11.2	13.7	36	10.0	10.6	13.6
H2 2011	31	10.1	11.8	14.2	19	9.9	11.6	13.9	36	10.5	11.0	13.9
H1 2012	31	11.0	12.6	14.8	19	10.6	12.1	14.2	36	10.6	11.0	13.9
H2 2012	31	11.3	12.9	15.3	19	11.5	12.9	15.1	36	11.0	11.4	14.5
H1 2013	31	11.9	13.2	15.9	19	10.9	12.3	14.3	36	10.1	10.6	13.5
H2 2013	31	12.4	13.7	16.7	19	11.3	12.7	14.7	36	10.4	11.0	13.7
H1 2014	31	11.5	12.6	15.6	19	11.4	12.3	14.1	36	11.1	11.5	14.3
H2 2014	31	12.0	13.3	16.3	19	11.7	12.7	14.7	36	11.4	12.0	14.8
H1 2015	31	12.3	13.7	16.7	19	12.2	13.3	15.4	36	11.3	12.1	14.6
H2 2015	31	12.7	14.3	17.5	19	12.2	13.3	15.4	36	11.8	12.7	15.1
H1 2016	31	12.7	14.2	17.6	19	12.1	13.4	15.6	36	11.9	12.7	14.9
H2 2016	31	13.3	15.0	18.4	19	12.5	13.9	16.0	36	12.1	12.9	15.1
H1 2017	31	13.5	15.3	18.6	19	12.7	14.3	16.3	36	12.0	12.9	14.9
H2 2017	31	14.2	16.0	19.1	19	12.5	14.2	16.2	36	12.5	13.5	15.8
H1 2018	31	13.5	15.5	18.5	19	12.3	14.0	16.0	36	12.4	13.4	15.6

<sup>&</sup>lt;sup>1</sup> Before the implementation of the Basel III framework, results have been calculated on the basis of the relevant national regulatory frameworks in place at the reporting dates.

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

Consistent sample of banks, in per cent

Table C.5

		Group	1 banks			Of whicl	n: 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	86	7.2	7.5	8.8	29	6.8	7.1	8.5	40	7.5	8.1	10.2
H2 2011	86	7.7	8.0	9.3	29	7.4	7.7	9.1	40	7.4	7.9	10.0
H1 2012	86	8.5	8.8	9.9	29	8.3	8.6	9.9	40	7.8	8.6	10.3
H2 2012	86	9.2	9.4	10.7	29	9.0	9.3	10.7	40	7.6	8.2	9.8
H1 2013	86	9.5	9.7	11.1	29	9.3	9.6	10.9	40	7.8	8.5	10.3
H2 2013	86	10.2	10.5	11.9	29	10.1	10.4	11.8	40	9.5	10.3	12.1
H1 2014	86	10.8	11.2	12.6	29	10.5	11.1	12.3	40	11.3	11.5	13.4
H2 2014	86	11.1	11.7	13.2	29	10.9	11.6	13.1	40	11.4	11.7	13.2
H1 2015	86	11.5	12.2	13.9	29	11.3	12.2	13.9	40	12.4	12.7	14.3
H2 2015	86	11.8	12.7	14.5	29	11.6	12.6	14.4	40	12.6	12.9	14.5
H1 2016	86	12.0	12.9	14.7	29	11.8	12.8	14.6	40	12.9	13.3	15.0
H2 2016	86	12.3	13.4	15.3	29	12.2	13.4	15.3	40	13.1	13.6	15.3
H1 2017	86	12.5	13.6	15.5	29	12.3	13.6	15.3	40	14.0	14.5	16.7
H2 2017	86	12.9	14.1	16.1	29	12.6	13.9	15.8	40	15.0	15.6	18.1
H1 2018	86	12.7	13.9	16.0	29	12.5	13.8	15.8	40	14.3	15.0	17.3

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

Consistent sample of Group 1 banks, in per cent

Table C.6

		Eur	ope		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	31	6.6	6.7	7.7	19	6.1	6.8	9.2	36	9.0	9.1	9.7
H2 2011	31	6.8	7.0	7.9	19	7.1	7.7	10.1	36	9.4	9.5	10.2
H1 2012	31	7.8	8.0	8.9	19	7.9	8.5	10.6	36	9.8	9.9	10.6
H2 2012	31	8.4	8.5	9.7	19	8.5	9.1	11.1	36	10.5	10.6	11.3
H1 2013	31	9.2	9.4	11.0	19	8.9	9.5	11.3	36	10.2	10.3	11.0
H2 2013	31	10.2	10.4	12.3	19	9.7	10.4	12.1	36	10.5	10.6	11.4
H1 2014	31	10.8	11.3	13.4	19	10.1	11.0	12.5	36	11.3	11.4	12.0
H2 2014	31	11.2	11.8	13.9	19	10.5	11.6	13.1	36	11.3	11.6	12.7
H1 2015	31	11.6	12.3	14.7	19	11.2	12.6	14.3	36	11.6	12.0	13.1
H2 2015	31	12.1	13.0	15.6	19	11.2	12.6	14.3	36	12.0	12.5	13.7
H1 2016	31	12.2	13.2	16.0	19	11.5	13.1	15.0	36	12.0	12.6	13.7
H2 2016	31	12.9	14.4	17.6	19	11.8	13.4	15.3	36	12.2	12.8	13.9
H1 2017	31	13.3	14.6	17.4	19	12.3	14.0	15.9	36	12.1	12.8	14.0
H2 2017	31	13.7	15.1	17.9	19	12.3	14.0	15.9	36	12.7	13.6	15.1
H1 2018	31	13.5	15.0	17.8	19	12.2	13.9	15.8	36	12.4	13.3	15.1

# Fully phased-in initial Basel III Tier 1 capital ratios and changes in RWA and Tier 1 capital

Consistent sample of banks, exchange rates as of 30 June 2018, in per cent

Table C.7

		Group	1 banks			Of whicl	h: G-SIBs		Group 2 banks			
			Chan	ge			Cha	nge			Cha	nge
	Number of banks	Tier 1 ratio	Tier 1 capital	RWA	Number of banks	Tier 1 ratio	Tier 1 capital	RWA	Number of banks	Tier 1 ratio	Tier 1 capital	RWA
H1 2011	86	7.5			29	7.1			39	8.2		
H2 2011	86	8.0	5.2	-1.5	29	7.7	4.7	-2.5	39	8.2	0.8	1.4
H1 2012	86	8.8	8.3	-1.5	29	8.6	9.2	-2.2	39	8.8	5.5	-2.4
H2 2012	86	9.4	5.2	-2.2	29	9.3	5.6	-2.8	39	8.4	-4.2	1.4
H1 2013	86	9.7	5.0	1.6	29	9.6	4.6	1.9	39	8.6	1.8	-1.2
H2 2013	86	10.5	7.4	-0.4	29	10.4	8.4	-0.4	39	10.4	16.4	-3.5
H1 2014	86	11.2	7.4	0.3	29	11.1	7.4	0.9	39	11.7	11.6	-0.5
H2 2014	86	11.7	5.7	1.7	29	11.6	6.9	1.6	39	11.8	-0.6	-1.6
H1 2015	86	12.2	6.3	1.6	29	12.2	6.3	1.5	39	12.8	9.3	0.9
H2 2015	86	12.7	4.4	0.7	29	12.6	4.3	0.6	39	13.0	2.7	1.0
H1 2016	86	12.9	3.5	1.7	29	12.8	3.5	1.9	39	13.3	2.2	-0.5
H2 2016	86	13.4	3.8	-0.3	29	13.4	3.3	-1.3	39	13.6	0.4	-2.0
H1 2017	86	13.6	2.9	1.3	29	13.6	2.5	1.6	39	14.6	7.9	1.1
H2 2017	86	14.1	2.7	-0.7	29	13.9	2.5	0.2	39	15.7	0.6	-6.5
H1 2018	86	13.9	1.4	2.7	29	13.8	1.3	1.8	39	15.1	1.1	5.1

# Fully phased-in initial Basel III Tier 1 capital ratios and changes in RWA and Tier 1 capital, by region

Consistent sample of Group 1 banks, exchange rates as of 30 June 2018, in per cent

Table C.8

		Eur	оре			Ame	ericas		F	Rest of th	ne world	
			Cha	nge			Cha	nge			Char	nge
	Number of banks	Tier 1 ratio	Tier 1 capital	RWA	Number of banks	Tier 1 ratio	Tier 1 capital	RWA	Number of banks	Tier 1 ratio	Tier 1 capital	RWA
H1 2011	31	6.7			19	6.8			36	9.1		
H2 2011	31	7.0	2.8	-1.2	19	7.7	5.8	-6.1	36	9.5	7.1	2.6
H1 2012	31	8.0	8.5	-4.9	19	8.5	7.8	-2.1	36	9.9	8.4	3.4
H2 2012	31	8.5	0.6	-5.7	19	9.1	5.9	-2.1	36	10.6	8.9	1.9
H1 2013	31	9.4	5.8	-3.4	19	9.5	8.0	-3.1	36	10.3	7.6	11.2
H2 2013	31	10.4	7.5	-3.7	19	10.4	7.6	-2.0	36	10.6	7.2	3.8
H1 2014	31	11.3	8.6	0.5	19	11.0	7.6	1.9	36	11.4	6.3	-0.9
H2 2014	31	11.8	1.6	-3.2	19	11.6	4.8	-0.2	36	11.6	10.0	7.3
H1 2015	31	12.3	4.1	0.5	19	12.6	6.4	-2.1	36	12.0	8.1	4.9
H2 2015	31	13.0	1.9	-3.6	19	12.6	3.2	3.0	36	12.5	7.1	2.5
H1 2016	31	13.2	2.5	0.7	19	13.1	4.6	8.0	36	12.6	3.5	3.0
H2 2016	31	14.4	5.2	-3.2	19	13.4	1.4	-1.4	36	12.8	4.3	2.5
H1 2017	31	14.6	0.7	-1.2	19	14.0	3.6	-0.4	36	12.8	4.1	4.0
H2 2017	31	15.1	2.2	-1.2	19	14.0	-0.9	-0.7	36	13.6	5.2	-0.4
H1 2018	31	15.0	0.0	0.7	19	13.9	0.7	1.4	36	13.3	2.8	4.8

## Evolution of fully phased-in Basel III capital

Group 1 banks, 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 (cumulative contribution since 2011)
H2 2009	5.7	0.0		0.00		
H1 2011		7.2				
H2 2011		7.2	0.2	0.1	0.2	0.0
H1 2012		7.2	0.4	0.2	0.3	0.4
H2 2012		7.2	0.7	0.4	0.4	0.4
H1 2013		7.2	0.9	0.3	0.5	0.6
H2 2013		7.2	1.1	0.4	0.6	0.9
H1 2014		7.2	1.2	0.4	0.7	1.3
H2 2014		7.2	1.5	0.2	0.8	1.4
H1 2015		7.2	1.7	0.0	0.9	1.7
H2 2015		7.2	2.1	-0.1	0.9	1.7
H1 2016		7.2	2.2	-0.3	1.0	1.9
H2 2016		7.2	2.5	-0.3	1.1	1.8
H1 2017		7.2	2.7	-0.4	1.1	2.0
H2 2017		7.2	3.0	-0.4	1.2	1.9
H1 2018	0.0	7.2	3.2	-0.7	1.3	1.7

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

	G	roup 1 ban	ks	Of	which: G-S	IBs	Group 2 banks			
	CET1	Tier 1	Total	CET1	Tier 1	Total	CET1	Tier 1	Total	
Max	29.4	29.4	29.4	15.5	19.4	21.1	78.2	87.5	87.5	
95th percentile	19.2	20.0	22.8	14.4	16.5	18.6	38.8	39.0	41.1	
75th percentile	14.2	15.4	18.2	12.6	14.5	16.6	17.4	18.7	22.6	
Median	12.6	13.6	15.5	11.8	13.2	15.5	13.2	13.3	15.7	
25th percentile	11.3	12.4	13.9	10.8	12.2	13.6	10.9	11.0	12.2	
5th percentile	9.0	9.7	11.1	8.6	9.7	11.1	9.1	9.2	10.3	
Min	8.3	8.9	10.2	8.4	9.5	11.0	2.7	2.8	2.8	
Weighted average	12.2	13.4	15.4	12.0	13.2	15.2	13.6	14.1	15.9	

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

In per cent Table C.11

	G	Group 1 banks			which: G-S	SIBs	Group 2 banks			
	CET1	Tier 1	Total	CET1	Tier 1	Total	CET1	Tier 1	Total	
Max	29.4	29.4	29.4	15.5	16.7	18.2	78.2	87.5	87.5	
95th percentile	19.0	19.0	21.0	14.3	16.2	18.1	38.8	39.0	41.1	
75th percentile	13.0	14.4	16.5	12.5	13.7	16.3	16.2	17.0	19.6	
Median	12.0	13.0	15.1	11.1	12.6	15.3	13.0	13.2	14.9	
25th percentile	10.6	11.8	13.2	10.1	11.5	13.2	10.5	10.9	12.1	
5th percentile	8.4	9.3	10.8	8.3	9.3	10.6	9.1	9.2	10.3	
Min	7.9	8.1	10.1	7.9	8.6	10.1	2.7	2.8	2.8	
Weighted average	11.7	12.9	14.8	11.6	12.8	14.7	13.0	13.5	15.3	

Source: Basel Committee on Banking Supervision.

## Total changes in Tier 1 MRC at the target level<sup>1</sup>

In per cent, camples as at the reporting dates

Table C.12

	Gr	oup 1 bar	nks	Of	which: G-S	SIBs	Group 2 banks			
	H2 2015	H2 2017	H1 2018	H2 2015	H2 2017	H1 2018	H2 2015	H2 2017	H1 2018	
Max	52.2	52.0	61.1	43.4	52.0	61.1	36.7	53.3	114.5	
95th percentile	38.0	31.8	31.6	39.3	42.2	34.9	15.8	23.2	35.7	
75th percentile	12.9	18.2	19.9	17.7	23.6	25.9	4.7	11.4	16.0	
Median	1.0	4.5	5.7	8.5	12.7	15.7	1.2	3.1	1.8	
25th percentile	-7.5	-3.9	-2.3	-9.2	-4.0	-2.5	-0.3	-1.9	-0.5	
5th percentile	-17.0	-15.1	-14.3	-22.9	-16.1	-13.9	-11.4	-14.9	-6.1	
Min	-27.8	-33.1	-15.4	-27.8	-16.1	-15.4	-46.5	-57.7	-40.4	
Weighted average	-0.5	3.2	5.3	-1.7	2.8	5.7	3.8	5.8	9.0	

<sup>&</sup>lt;sup>1</sup> 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 are already added to MRC under the current rules such that they were not reflected in the *change* in MRC.

# Transitional initial and fully phased-in final Basel III Tier 1 leverage ratios<sup>1</sup>

In per cent Table C.13

	Group :	1 banks	Of which	n: G-SIBs	Group 2	2 banks
	Transitional	Fully phased-in	Transitional	Fully phased-in	Transitional	Fully phased-in
Max	16.8	18.3	8.2	8.3	21.4	22.4
95th percentile	9.4	9.5	7.7	7.8	13.1	13.2
75th percentile	7.0	6.9	6.5	6.6	7.2	7.1
Median	6.0	6.0	5.5	5.7	5.3	5.2
25th percentile	4.7	4.5	4.8	4.4	4.6	4.5
5th percentile	4.0	3.8	4.1	3.9	3.3	3.1
Min	3.5	3.3	4.0	3.8	2.0	2.0
Weighted average	5.9	5.8	5.9	5.8	5.5	5.4

 $<sup>^{\,1}</sup>$  Group 1 includes 90 banks, G-SIB includes 27 banks and Group 2 includes 70 banks.

## Fully phased-in Basel III Tier 1 leverage ratios and component changes<sup>1</sup>

Consistent sample of banks,<sup>2</sup> exchange rates as of 30 June 2018, in per cent

Table C.14

	Group 1 banks			Of	which: G-S	SIBs	Gı	roup 2 bar	ıks
		Cł	nange		Cł	nange		Cł	nange
	Leverage ratio	Tier 1 capital	Exposure measure	Leverage ratio	Tier 1 capital	Exposure measure	Leverage ratio	Tier 1 capital	Exposure measure
H1 2011	3.5			3.5			3.0		
H2 2011	3.6	5.2	2.3	3.6	4.7	2.9	2.9	-2.0	1.9
H1 2012	3.8	8.5	3.5	3.8	9.2	3.5	3.2	10.2	0.9
H2 2012	3.8	5.2	4.5	3.8	5.8	5.1	2.9	-7.4	1.9
H1 2013	4.0	4.7	-1.1	4.0	4.6	-0.3	3.1	1.2	-5.3
H2 2013	4.5	7.8	-3.6	4.5	8.8	-4.1	3.9	22.2	-3.9
H1 2014	4.7	6.8	2.1	4.7	6.8	1.9	4.4	13.9	1.4
H2 2014	5.1	6.4	-0.6	5.1	6.9	-0.6	4.5	-2.0	-3.9
H1 2015	5.3	6.2	2.1	5.3	6.3	1.9	4.9	11.6	2.2
H2 2015	5.6	4.3	-1.6	5.6	4.5	-2.0	5.1	2.2	-0.9
H1 2016	5.6	3.3	3.1	5.7	3.5	3.2	5.0	0.0	1.9
H2 2016	5.8	3.3	-1.1	5.9	3.3	-1.6	4.9	-1.3	0.1
H1 2017	5.8	2.9	3.6	5.9	2.6	3.8	5.2	9.2	3.5
H2 2017	6.0	2.3	-0.2	6.0	2.3	0.2	5.3	-0.5	-2.0
H1 2018	5.8	1.1	2.9	5.9	1.3	2.8	5.1	-0.3	2.1

<sup>&</sup>lt;sup>1</sup> 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. <sup>2</sup> Group 1 includes 66 banks, G-SIB includes 27 banks and Group 2 includes 30 banks.

# Fully phased-in Basel III leverage ratios and component changes, 1 by region

Consistent sample of Group 1 banks,<sup>2</sup> exchange rates as of 30 June 2018, in per cent

Table C.15

		Europe			Americas		Res	t of the w	orld
		Cł	nange		Ch	ange		Cł	nange
	Leverage ratio	Tier 1 capital	Exposure measure	Leverage ratio	Tier 1 capital	Exposure measure	Leverage ratio	Tier 1 capital	Exposure measure
H1 2011	2.7			4.2			4.2		
H2 2011	2.9	2.5	-2.5	4.0	5.8	8.8	4.3	7.5	3.6
H1 2012	3.0	8.9	2.7	4.3	7.8	2.3	4.5	8.9	5.9
H2 2012	2.9	0.3	4.7	4.2	5.8	6.8	4.8	9.2	2.2
H1 2013	3.2	4.9	-4.1	4.2	0.7	0.3	5.0	8.1	2.1
H2 2013	3.7	8.8	-6.9	4.8	7.6	-4.7	5.3	7.2	2.2
H1 2014	4.0	7.2	0.5	5.1	7.6	0.2	5.3	5.7	5.8
H2 2014	4.2	2.6	-2.7	5.4	4.8	-1.0	5.7	11.1	2.4
H1 2015	4.4	3.9	-0.1	5.8	6.4	0.0	5.8	7.9	6.4
H2 2015	4.7	2.5	-5.0	6.0	3.2	0.0	6.2	6.5	0.7
H1 2016	4.6	2.0	3.5	6.1	4.5	1.8	6.1	3.4	3.6
H2 2016	5.1	4.6	-4.6	6.3	1.4	-0.4	6.3	3.9	2.0
H1 2017	5.0	0.8	1.8	6.3	3.6	2.5	6.1	3.9	6.0
H2 2017	5.2	1.4	-2.6	6.3	-1.0	-0.2	6.3	5.4	2.1
H1 2018	5.0	-0.5	3.6	6.2	0.7	2.1	6.3	2.6	2.8

<sup>&</sup>lt;sup>1</sup> 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. <sup>2</sup> Europe includes 23 banks, the Americas include 18 banks and the rest of the world includes 25 banks.

Tier 1 capital, RWA, Basel III leverage ratio exposure<sup>1</sup> and accounting total assets

Consistent sample of banks,<sup>2</sup> exchange rates as of 30 June 2018, June 2018 = 100

Table C.16

-		Group 3	1 banks			Of which	n: 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	97.8	102.3	102.1	104.7	97.4	102.9	101.7	98.0	101.3	101.9	102.9
H1 2012	114.2	95.9	105.8	105.9	114.3	95.5	106.5	105.9	108.0	99.6	102.8	102.7
H2 2012	120.1	93.9	110.6	105.5	120.9	93.6	112.0	106.0	100.0	101.2	104.8	104.1
H1 2013	125.8	95.3	109.4	106.8	126.4	95.6	111.7	107.7	101.2	98.9	99.3	101.9
H2 2013	135.6	94.7	105.5	105.1	137.5	95.3	107.1	106.2	123.7	93.7	95.4	98.7
H1 2014	144.8	94.7	107.7	109.1	146.9	96.0	109.1	110.1	140.8	93.0	96.7	99.5
H2 2014	154.1	96.2	107.1	111.6	157.1	97.6	108.4	112.6	138.0	89.3	93.0	97.8
H1 2015	163.7	97.6	109.4	113.9	167.0	98.9	110.5	115.0	154.0	89.7	95.0	98.9
H2 2015	170.6	98.2	107.6	112.5	174.5	99.6	108.3	113.2	157.4	89.3	94.2	97.7
H1 2016	176.3	99.9	110.9	118.1	180.7	101.5	111.7	119.2	157.4	88.2	95.9	99.9
H2 2016	182.2	99.2	109.7	116.7	186.7	100.5	109.9	117.7	155.3	85.4	96.0	98.8
H1 2017	187.4	100.7	113.7	119.6	191.6	102.1	114.1	120.7	169.6	86.9	99.3	101.4
H2 2017	191.7	100.9	113.5	120.4	196.0	102.4	114.3	121.9	168.8	84.2	97.4	100.3
H1 2018	193.8	102.5	116.7	123.3	198.6	104.3	117.5	125.0	168.3	83.2	99.4	101.6

<sup>&</sup>lt;sup>1</sup> Tier 1 capital, RWA and leverage ratio exposure assume full implementation of Basel III. 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. <sup>2</sup> Group 1 includes 66 banks, G-SIB includes 27 banks and Group 2 includes 30 banks.

Tier 1 capital, RWA, Basel III leverage ratio exposure<sup>1</sup> and accounting total assets, by region

Consistent sample of Group 1 banks<sup>2</sup>, exchange rates as of 30 June 2018, June 2018 = 100

Table C.17

		Eur	оре			Ame	ricas		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	102.5	98.0	97.5	102.7	105.8	93.9	108.8	99.9	107.5	102.6	103.6	103.0
H1 2012	111.6	92.3	100.1	104.9	114.0	92.0	111.3	102.8	117.0	106.1	109.7	110.1
H2 2012	112.0	87.5	104.7	101.9	120.7	90.0	118.8	105.0	127.8	108.0	112.2	111.7
H1 2013	117.5	84.4	100.4	99.4	121.5	87.2	119.2	106.4	138.2	121.2	114.5	119.1
H2 2013	127.9	81.1	93.5	93.4	130.8	85.4	113.5	107.3	148.2	125.7	117.0	122.3
H1 2014	137.1	80.6	93.9	95.8	140.7	87.1	113.8	110.3	156.7	124.4	123.8	129.7
H2 2014	140.7	78.3	91.4	98.1	147.5	87.0	112.7	112.3	174.1	133.2	126.8	132.8
H1 2015	146.3	78.0	91.2	96.6	157.0	85.1	112.7	114.0	187.8	141.4	134.8	142.0
H2 2015	149.9	75.5	86.7	92.5	162.0	87.6	112.7	113.9	200.1	143.8	135.8	144.0
H1 2016	152.9	75.5	89.8	98.9	169.4	88.3	114.7	117.9	206.8	149.2	140.7	149.6
H2 2016	160.0	72.9	85.6	93.2	171.7	87.0	114.2	118.7	214.9	152.0	143.6	153.2
H1 2017	161.3	72.0	87.1	93.0	177.9	86.7	117.1	122.0	223.1	159.3	152.2	160.7
H2 2017	163.4	71.0	84.9	91.7	176.2	86.0	116.8	123.0	235.2	162.3	155.4	165.2
H1 2018	162.6	71.3	88.0	94.7	177.4	87.3	119.2	125.1	241.4	166.2	159.6	168.2

<sup>&</sup>lt;sup>1</sup> Tier 1 capital, RWA and leverage ratio exposure assume full implementation of Basel III. 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.

<sup>&</sup>lt;sup>2</sup> Group 1 includes 66 banks. Europe includes 23 banks, Americas include 18 banks and the rest of the world includes 25 banks.

#### Changes in leverage ratio MRC due to revisions in the final standards<sup>1</sup>

In per cent Table C.18

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Max	49.7	49.7	14.4
95th percentile	28.2	35.7	5.5
75th percentile	15.8	25.5	0.7
Median	0.8	18.8	0.0
25th percentile	0.0	16.4	-0.6
5th percentile	-3.1	9.8	-4.9
Min	-10.8	7.5	-10.0
Weighted average	15.6	22.9	0.1

<sup>&</sup>lt;sup>1</sup> 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 due to revisions to the exposure measure in the final standards<sup>1</sup>

In per cent Table C.19

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Max	12.3	12.3	14.4
95th percentile	6.1	10.9	5.5
75th percentile	1.3	1.3	0.7
Median	0.1	0.0	0.0
25th percentile	-0.7	-2.0	-0.6
5th percentile	-6.4	-6.8	-4.9
Min	-14.0	-14.0	-10.0
Weighted average	-0.1	-0.2	0.1

<sup>&</sup>lt;sup>1</sup> To the extent a bank could not provide a component under the 2017 exposure measure, the relevant component of the 2014 measure was used.

## Estimated combined capital shortfalls at the minimum level

Fully phased-in initial Basel III standards, sample and exchange rates as at the reporting dates, in billions euros

Table C.20

		Group	1 banks			Of whicl	n: 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	105	38.8	225.8	46.9	29	31.7	174.6	10.3	102	8.6	17.6	3.5
H2 2011	105	11.9	195.5	39.3	29	7.6	155.9	11.6	100	7.6	16.6	3.2
H1 2012	104	3.7	172.4	17.4	29	0.1	142.2	0.0	97	4.8	16.0	4.1
H2 2012	104	2.2	179.9	13.3	29	0.0	153.3	0.3	108	11.4	16.4	6.8
H1 2013	105	3.3	111.4	11.5	29	0.0	96.3	7.6	111	12.4	16.2	7.6
H2 2013	105	0.1	39.5	3.2	29	0.0	31.8	0.0	106	2.0	7.2	3.7
H1 2014	99	0.0	7.0	0.0	28	0.0	4.7	0.0	103	0.1	3.3	3.1
H2 2014	101	0.0	3.1	1.3	29	0.0	2.7	0.0	93	0.0	4.3	1.8
H1 2015	103	0.0	0.0	0.0	29	0.0	0.0	0.0	98	0.0	4.3	0.3
H2 2015	104	0.0	0.0	0.0	29	0.0	0.0	0.0	95	0.0	1.5	0.2
H1 2016	103	0.0	0.0	0.0	29	0.0	0.0	0.0	96	0.0	2.9	0.0
H2 2016	102	0.0	0.0	0.0	28	0.0	0.0	0.0	85	0.0	2.0	0.0
H1 2017	99	0.0	0.0	0.0	28	0.0	0.0	0.0	82	0.0	1.9	0.0
H2 2017	79	0.0	0.0	0.0	29	0.0	0.0	0.0	66	0.0	1.1	0.0
H1 2018	93	0.0	0.0	0.0	29	0.0	0.0	0.0	75	0.0	1.9	0.0

#### Estimated combined capital shortfalls at the target level

Fully phased-in initial Basel III standards, sample and exchange rates as at the reporting dates, in billions euros

Table C.21

		Group	1 banks			Of which	n: 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	105	485.9	232.7	214.8	29	387.3	157.3	138.2	102	32.1	23.2	10.0
H2 2011	105	384.4	240.6	221.2	29	311.2	171.2	141.8	100	21.3	23.8	7.2
H1 2012	104	197.9	232.4	206.1	29	159.4	174.1	126.1	97	16.0	19.3	9.6
H2 2012	104	115.0	225.1	148.3	29	82.2	174.2	85.8	108	25.5	18.4	12.1
H1 2013	105	57.5	161.5	134.2	29	39.0	127.6	94.1	111	27.7	18.6	10.0
H2 2013	105	15.2	73.4	90.7	29	11.8	54.4	63.9	106	9.4	11.6	7.0
H1 2014	99	4.1	25.5	74.8	28	3.9	17.8	64.2	103	1.6	7.4	5.1
H2 2014	101	0.7	14.2	40.1	29	0.0	5.0	29.6	93	1.4	6.9	5.0
H1 2015	103	0.0	3.1	12.6	29	0.0	0.0	11.6	98	0.2	7.0	5.0
H2 2015	104	0.0	3.5	4.7	29	0.0	0.0	1.8	95	0.2	2.8	4.2
H1 2016	103	0.0	1.4	2.7	29	0.0	0.0	0.9	96	0.0	3.9	4.0
H2 2016	102	0.0	0.0	0.3	28	0.0	0.0	0.0	85	0.0	3.1	1.2
H1 2017	99	0.0	0.0	0.0	28	0.0	0.0	0.0	82	0.0	2.0	0.1
H2 2017	79	0.0	0.0	0.0	29	0.0	0.0	0.0	66	0.0	1.1	0.0
H1 2018	93	0.0	0.0	0.0	29	0.0	0.0	0.0	75	0.0	1.9	0.1

Source: Basel Committee on Banking Supervision.

## Combined capital shortfalls at the target level<sup>1</sup>

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

Table C.22

	Gr	oup 1 bar	nks	Of	which: G-S	SIBs	Group 2 banks			
	H2 2015	H2 2017	H1 2018	H2 2015	H2 2017	H1 2018	H2 2015	H2 2017	H1 2018	
CET1	27.6	5.2	7.0	27.6	5.2	7.0	0.3	1.0	2.2	
Additional Tier 1	28.8	7.3	10.6	27.8	6.3	10.3	0.5	1.0	2.3	
Tier 2	34.3	13.3	12.6	30.3	12.2	12.0	0.6	0.7	1.4	

<sup>&</sup>lt;sup>1</sup> 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.

# Level of capital after full phasing in of Basel III standards

Consistent sample of Group 1 banks, exchange rates as of 30 June 2018, 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
H1 2011	91	2,001	83	360	29	1,338	71	276	41	86	6	23
H2 2011	91	2,117	74	356	29	1,415	59	268	41	85	7	23
H1 2012	91	2,304	68	320	29	1,555	55	243	41	88	9	19
H2 2012	91	2,433	62	332	29	1,652	48	247	41	87	7	18
H1 2013	91	2,557	64	362	29	1,729	49	260	41	88	8	20
H2 2013	91	2,735	80	373	29	1,864	64	257	41	104	8	20
H1 2014	91	2,900	124	370	29	1,974	98	229	41	121	3	20
H2 2014	91	3,028	168	422	29	2,075	140	285	41	120	3	16
H1 2015	91	3,190	209	464	29	2,183	172	320	41	133	3	16
H2 2015	91	3,302	244	494	29	2,257	198	345	41	136	4	17
H1 2016	91	3,399	272	512	29	2,328	213	342	41	138	4	18
H2 2016	91	3,487	323	539	29	2,381	244	363	41	138	5	18
H1 2017	91	3,597	323	528	29	2,449	242	351	41	149	5	24
H2 2017	91	3,676	349	571	29	2,500	258	384	41	149	6	25
H1 2018	91	3,712	368	615	29	2,525	268	415	41	149	7	24

# Level of capital after full phasing in of Basel III standards

Consistent sample of Group 1 banks, exchange rates as of 30 June 2018, in billions of euros

Table C.24

		Eur	оре			Am	ericas			Rest of th	ne 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	33	729	19	104	19	522	58	201	39	750	6	56
H2 2011	33	749	20	100	19	566	46	193	39	801	8	63
H1 2012	33	819	16	91	19	615	45	165	39	871	6	64
H2 2012	33	831	11	118	19	652	47	150	39	950	4	64
H1 2013	33	879	10	152	19	657	48	132	39	1,022	6	78
H2 2013	33	939	18	170	19	704	54	120	39	1,092	9	82
H1 2014	33	996	41	197	19	745	71	106	39	1,159	11	66
H2 2014	33	1,002	53	187	19	773	82	116	39	1,253	32	119
H1 2015	33	1,035	64	213	19	810	99	121	39	1,345	46	129
H2 2015	33	1,041	79	223	19	833	105	130	39	1,428	60	141
H1 2016	33	1,062	86	238	19	866	115	141	39	1,470	70	133
H2 2016	33	1,088	119	270	19	875	120	137	39	1,523	84	132
H1 2017	33	1,107	110	233	19	910	121	141	39	1,580	92	154
H2 2017	33	1,128	117	225	19	900	122	141	39	1,648	111	205
H1 2018	33	1,118	125	232	19	903	126	141	39	1,691	116	242

# Evolution of fully phased-in Basel III capital

Consistent sample of banks, exchange rates as of 30 June 2018, June 2011 = 100

Table C.25

		Group	1 banks			Of which	n: 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	91	100.0	100.0	100.0	29	100.0	100.0	100.0	41	100.0	100.0	100.0
H2 2011	91	105.8	90.1	98.9	29	105.8	83.7	97.0	41	99.0	110.4	97.9
H1 2012	91	115.1	82.1	89.1	29	116.2	78.0	88.2	41	103.1	147.4	80.0
H2 2012	91	121.6	75.0	92.3	29	123.4	68.3	89.5	41	101.8	109.5	76.4
H1 2013	91	127.8	77.1	100.7	29	129.2	69.5	94.2	41	102.4	132.8	86.1
H2 2013	91	136.7	97.1	103.6	29	139.3	90.6	93.1	41	121.2	126.7	83.5
H1 2014	91	144.9	149.6	102.9	29	147.5	137.6	82.9	41	141.8	43.0	85.7
H2 2014	91	151.3	203.3	117.2	29	155.1	197.1	103.3	41	140.6	55.7	67.2
H1 2015	91	159.4	253.2	128.8	29	163.1	242.4	116.2	41	155.1	55.2	68.2
H2 2015	91	165.0	295.9	137.3	29	168.7	278.8	125.1	41	158.5	65.8	71.9
H1 2016	91	169.8	329.1	142.3	29	174.0	300.8	124.0	41	161.3	72.5	76.9
H2 2016	91	174.2	390.6	149.8	29	178.0	344.7	131.5	41	161.0	83.9	76.4
H1 2017	91	179.8	390.9	146.7	29	183.0	341.3	127.4	41	173.7	85.1	100.5
H2 2017	91	183.7	422.9	158.6	29	186.8	364.4	139.4	41	174.1	98.1	104.4
H1 2018	91	185.5	445.2	170.8	29	188.7	378.2	150.6	41	174.1	123.5	100.2

# Evolution of fully phased-in Basel III capital, by region

Consistent sample of Group 1 banks, exchange rates as of 30 June 2018, June 2011 = 100

Table C.26

		Eu	irope			Am	ericas			Rest o	f 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	33	100.0	100.0	100.0	19	100.0	100.0	100.0	39	100.0	100.0	100.0
H2 2011	33	102.7	104.4	96.2	19	108.5	80.7	96.0	39	106.8	137.1	114.3
H1 2012	33	112.3	82.9	88.0	19	117.8	78.9	82.3	39	116.0	111.0	115.6
H2 2012	33	113.9	56.1	113.4	19	125.0	81.0	74.8	39	126.6	78.0	115.8
H1 2013	33	120.6	53.1	146.9	19	125.8	83.0	66.0	39	136.2	98.1	139.8
H2 2013	33	128.8	90.7	164.2	19	134.9	93.8	60.1	39	145.5	152.2	147.8
H1 2014	33	136.7	214.4	190.1	19	142.7	123.4	53.1	39	154.5	194.4	119.8
H2 2014	33	137.4	276.2	179.7	19	148.1	142.6	57.9	39	167.0	567.5	214.4
H1 2015	33	141.9	331.2	205.2	19	155.3	172.6	60.5	39	179.2	801.0	233.0
H2 2015	33	142.8	407.8	215.1	19	159.7	183.1	64.6	39	190.3	1,053.0	254.2
H1 2016	33	145.7	446.9	229.6	19	166.0	200.1	70.2	39	196.0	1,229.0	239.6
H2 2016	33	149.3	617.2	259.8	19	167.7	208.5	68.3	39	203.0	1,459.3	238.5
H1 2017	33	151.9	570.1	224.6	19	174.5	209.7	70.3	39	210.6	1,609.7	277.0
H2 2017	33	154.7	603.8	217.2	19	172.5	211.5	70.2	39	219.7	1,939.9	368.8
H1 2018	33	153.4	649.4	223.1	19	173.0	218.9	70.3	39	225.4	2,033.6	436.1

# Profits, dividends and dividend payout ratio<sup>1</sup>

Consistent sample of banks, exchange rates as of 30 June 2018, in billions of euros

Table C.27

		Gro	oup 1 ba	ınks			Of v	vhich: G-	-SIBs			Gro	up 2 ba	nks	
	Number of banks	Profit after tax	nmon share dividend	payou	dend It ratio %)	Number of banks	Profit after tax	nmon share dividend	Divid payou (%		Number of banks	Profit after tax	Common share dividend	payou	dend It ratio %)
	Number	Profit a	Common divide	6m	12m	Number	Profit a	Common divider	6m	12m	Number	Profit a	Commo	6m	12m
H1 2011	89	137.9	56.4	40.9		28	90.2	40.4	44.8		41	5.0	1.0	21.0	
H2 2011	89	108.3	31.2	28.8	35.6	28	75.7	17.1	22.6	34.7	41	2.6	1.1	44.5	29.0
H1 2012	89	132.3	57.7	43.7	37.0	28	88.0	39.9	45.3	34.8	41	3.5	1.0	28.0	35.0
H2 2012	89	158.0	27.7	17.5	29.4	28	106.1	13.0	12.3	27.3	41	4.1	1.1	26.0	26.9
H1 2013	89	164.2	74.8	45.6	31.8	28	108.2	52.7	48.7	30.7	41	3.6	1.0	28.3	27.1
H2 2013	89	133.8	26.9	20.1	34.2	28	97.4	12.8	13.1	31.8	41	4.1	0.9	22.3	25.1
H1 2014	89	147.5	83.8	56.8	39.4	28	88.4	61.5	69.7	40.0	41	5.3	1.4	26.6	24.7
H2 2014	89	179.7	41.4	23.1	38.3	28	121.7	19.3	15.9	38.5	41	3.8	0.6	16.7	22.5
H1 2015	89	206.6	86.3	41.8	33.1	28	142.2	58.4	41.1	29.4	41	6.6	1.9	28.1	23.9
H2 2015	89	194.2	44.6	22.9	32.6	28	133.3	21.9	16.4	29.1	41	7.5	0.9	11.8	19.4
H1 2016	89	179.8	89.5	49.8	35.8	28	126.8	61.1	48.2	31.9	41	4.1	2.2	54.5	26.9
H2 2016	89	178.6	41.8	23.4	36.6	28	118.2	19.5	16.5	32.9	41	6.3	1.7	26.7	37.6
H1 2017	89	207.2	97.2	46.9	36.0	28	135.9	62.8	46.2	32.4	41	6.8	2.5	37.3	32.2
H2 2017	89	195.5	50.4	25.8	36.6	28	109.8	22.4	20.4	34.7	41	8.8	2.3	25.5	30.7
H1 2018	89	248.2	109.9	44.3	36.1	28	170.2	70.3	41.3	33.1	41	8.2	2.8	34.4	29.8

<sup>&</sup>lt;sup>1</sup> 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.

# Profits, dividends and dividend payout ratio<sup>1</sup>, by region

Consistent sample of Group 1 banks, exchange rates as of 30 June 2018, in billions of euros

Table C.28

			Europ	ре			,	America	S			Rest	of the v	vorld	
	of banks	Number of banks of contract tarks of contract ta		ratio	Number of banks	Profit after tax	Common share dividend	Divid payou (%		Number of banks	Profit after tax	Common share dividend	payou	dend It ratio %)	
	Number	Profit a	Commo	6m	12m	Number	Profit a	Commo	6m	12m	Number	Profit a	Commo	6m	12m
H1 2011	32	53.4	16.8	31.5		19	33.2	8.0	24.0		38	51.3	31.6	61.7	
H2 2011	32	7.9	5.5	69.5	36.4	19	40.3	8.6	21.2	22.5	38	60.1	17.1	28.5	43.8
H1 2012	32	38.4	12.8	33.5	39.6	19	41.4	10.0	24.2	22.7	38	52.5	34.9	66.5	46.2
H2 2012	32	9.9	7.2	72.4	41.4	19	42.6	11.0	26.0	25.1	38	105.5	9.4	9.0	28.1
H1 2013	32	49.6	17.2	34.6	40.9	19	52.7	11.1	21.2	23.3	38	61.9	46.5	75.2	33.4
H2 2013	32	-0.2	4.8	-2085.7	44.6	19	45.1	12.0	26.7	23.7	38	88.9	10.1	11.3	37.5
H1 2014	32	39.2	22.3	56.9	69.7	19	41.7	12.6	30.2	28.4	38	66.5	48.9	73.5	37.9
H2 2014	32	37.4	9.9	26.4	42.0	19	49.1	14.0	28.5	29.3	38	93.2	17.6	18.8	41.6
H1 2015	32	55.9	17.7	31.6	29.5	19	62.1	14.6	23.5	25.7	38	88.5	54.0	61.0	39.4
H2 2015	32	41.4	12.6	30.4	31.1	19	54.9	15.5	28.3	25.7	38	97.9	16.5	16.8	37.8
H1 2016	32	45.7	24.4	53.4	42.5	19	54.4	15.3	28.1	28.2	38	79.7	49.8	62.5	37.3
H2 2016	32	24.9	7.5	30.2	45.2	19	67.1	18.7	27.8	27.9	38	86.6	15.6	18.1	39.4
H1 2017	32	57.3	29.4	51.3	44.9	19	65.0	17.2	26.5	27.2	38	85.0	50.6	59.5	38.6
H2 2017	32	55.2	11.0	19.9	35.9	19	41.7	20.1	48.2	35.0	38	98.6	19.3	19.6	38.1
H1 2018	32	60.2	35.7	59.3	40.5	19	75.5	21.3	28.1	35.3	38	112.5	52.9	47.0	34.2

<sup>&</sup>lt;sup>1</sup> 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.

Capital raised externally

Consistent sample of banks, exchange rates as of 30 June 2018, in billions of euros

Table C.29

		Group 1	banks		C	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	89	35.0	4.7	12.3	28	13.5	1.6	6.1	41	3.1	1.5	2.5
H2 2011	89	26.2	5.2	4.8	28	10.1	3.6	1.1	41	3.2	0.0	3.2
H1 2012	89	27.6	2.8	9.6	28	20.0	1.0	2.3	41	1.4	1.5	0.3
H2 2012	89	28.7	5.0	12.9	28	14.7	3.7	7.0	41	1.8	0.0	2.0
H1 2013	89	23.6	7.6	12.8	28	13.0	5.3	10.5	41	0.5	0.0	1.9
H2 2013	89	29.2	21.6	29.7	28	13.6	17.2	18.8	41	1.0	8.0	0.2
H1 2014	89	31.8	40.9	45.7	28	18.0	30.0	14.6	41	2.8	1.3	1.3
H2 2014	89	14.3	46.5	49.6	28	6.3	41.9	40.6	41	3.5	0.7	0.5
H1 2015	89	20.0	42.1	46.0	28	11.1	33.5	36.3	41	1.6	0.0	1.5
H2 2015	89	18.7	30.9	49.5	28	9.8	23.2	33.0	41	0.6	0.6	1.3
H1 2016	89	11.9	26.0	43.3	28	9.2	16.3	23.9	41	0.4	0.6	1.1
H2 2016	89	22.5	24.5	31.1	28	18.9	9.1	19.6	41	2.3	0.4	1.9
H1 2017	89	15.8	19.2	25.8	28	10.5	11.9	15.0	41	0.7	0.9	2.5
H2 2017	89	21.2	32.7	42.6	28	13.9	18.2	33.1	41	2.0	1.0	4.0
H1 2018	89	21.3	19.9	25.3	28	17.3	13.5	13.6	41	1.6	1.6	1.7

# Capital raised externally, by region

Consistent sample of Group 1 banks, exchange rates as of 30 June 2018, in billions of euros

Table C.30

	Europe			Americas				Rest of the world				
	Number of banks	CET1	Add. Tier 1	Tier 2	Number of banks	CET1	Add. Tier 1	Tier 2	Number of banks	CET1	Add. Tier 1	Tier 2
H1 2011	32	21.0	1.4	9.2	19	11.4	3.2	3.1	38	2.6	0.0	0.0
H2 2011	32	13.7	3.4	1.1	19	5.4	1.6	2.7	38	7.0	0.1	1.0
H1 2012	32	20.7	0.0	3.4	19	5.5	2.8	4.9	38	1.3	0.0	1.3
H2 2012	32	14.6	1.3	6.4	19	3.8	2.4	6.5	38	10.3	1.3	0.0
H1 2013	32	14.4	0.0	8.7	19	6.0	5.7	4.2	38	3.2	1.8	0.0
H2 2013	32	20.3	11.0	20.4	19	3.8	7.4	8.5	38	5.1	3.2	0.9
H1 2014	32	23.6	25.5	24.6	19	5.5	13.5	2.1	38	2.7	1.9	19.0
H2 2014	32	7.0	15.0	11.7	19	3.3	10.1	15.8	38	4.0	21.5	22.1
H1 2015	32	7.1	14.1	26.3	19	4.1	15.6	13.6	38	8.7	12.4	6.2
H2 2015	32	9.0	9.8	22.1	19	2.7	5.8	11.7	38	7.0	15.3	15.8
H1 2016	32	4.1	8.9	21.4	19	6.6	8.7	12.9	38	1.3	8.3	9.0
H2 2016	32	16.9	7.5	12.8	19	3.7	3.3	7.9	38	1.9	13.7	10.4
H1 2017	32	10.3	10.1	13.8	19	4.1	1.8	7.4	38	1.3	7.3	4.6
H2 2017	32	11.2	9.6	6.2	19	6.3	4.3	1.9	38	3.7	18.8	34.5
H1 2018	32	2.5	7.7	11.0	19	3.1	6.3	3.0	38	15.7	5.9	11.4

# Structure of regulatory capital under transitional initial Basel III rules<sup>1</sup>

Consistent sample of banks,<sup>2</sup> in per cent

Table C.31

	(	Group 1 banks		Of which: G-SIBs			Group 2 banks			
	CET1	Add. Tier 1	Tier 2	CET1	Add. Tier 1	Tier 2	CET1	Add. Tier 1	Tier 2	
H1 2011	71.9	9.3	18.9	69.5	11.2	19.3	70.4	7.0	22.6	
H2 2011	73.1	8.8	18.1	71.0	10.5	18.5	72.5	5.9	21.6	
H1 2012	75.0	7.9	17.0	73.6	9.4	17.0	73.8	4.0	22.2	
H2 2012	75.4	7.4	17.3	74.5	8.9	16.6	73.5	3.8	22.7	
H1 2013	75.0	7.0	17.9	75.4	7.3	17.3	73.6	3.7	22.7	
H2 2013	75.7	6.8	17.5	76.1	7.0	16.9	74.5	3.3	22.2	
H1 2014	76.8	5.5	17.7	77.2	5.7	17.2	76.3	3.2	20.6	
H2 2014	76.5	6.1	17.4	76.5	6.6	16.9	77.9	3.3	18.8	
H1 2015	76.8	6.6	16.6	76.7	7.2	16.1	79.6	3.4	17.0	
H2 2015	76.7	7.1	16.2	76.6	7.8	15.6	80.8	3.8	15.4	
H1 2016	76.9	7.4	15.7	77.0	8.1	14.8	81.1	3.7	15.2	
H2 2016	77.1	7.6	15.3	77.2	8.2	14.6	82.2	3.5	14.3	
H1 2017	77.1	8.1	14.7	77.4	8.7	13.9	82.0	3.3	14.7	
H2 2017	76.9	8.3	14.7	77.0	8.8	14.3	81.6	3.2	15.1	
H1 2018	76.7	8.8	14.5	76.9	9.2	14.0	81.3	4.6	14.2	

 $<sup>^1</sup>$  Before the implementation of the Basel III framework, results have been calculated on the basis of the relevant national regulatory frameworks in place at the reporting dates.  $^2$  Group 1 includes 91 banks, G-SIBs include 29 banks and Group 2 includes 41 banks.

# Structure of regulatory capital under fully phased-in initial Basel III standards

Consistent sample of banks, 1 in per cent

Table C.32

	(	Group 1 banks		Of which: G-SIBs			Group 2 banks			
	CET1	Add. Tier 1	Tier 2	CET1	Add. Tier 1	Tier 2	CET1	Add. Tier 1	Tier 2	
H1 2011	82.7	3.2	14.2	80.1	4.1	15.8	74.8	5.1	20.1	
H2 2011	83.7	2.8	13.5	81.8	3.4	14.9	75.0	5.6	19.4	
H1 2012	86.0	2.4	11.6	84.3	2.9	12.8	77.2	7.3	15.5	
H2 2012	86.4	2.0	11.5	85.2	2.4	12.4	78.9	5.6	15.4	
H1 2013	85.8	2.0	12.2	85.1	2.3	12.6	76.2	6.7	17.1	
H2 2013	85.8	2.4	11.8	85.5	2.8	11.7	79.2	5.8	15.0	
H1 2014	85.3	3.6	11.1	85.8	4.2	10.0	84.2	1.9	13.9	
H2 2014	83.7	4.6	11.7	83.0	5.5	11.4	86.3	2.5	11.2	
H1 2015	82.6	5.4	12.0	81.6	6.4	12.0	87.2	2.3	10.5	
H2 2015	81.7	6.1	12.2	80.5	7.1	12.3	86.6	2.6	10.8	
H1 2016	81.3	6.5	12.2	80.7	7.4	11.8	86.1	2.7	11.2	
H2 2016	80.2	7.5	12.3	79.7	8.3	12.1	85.9	3.1	11.0	
H1 2017	80.9	7.3	11.9	80.4	8.0	11.6	84.0	2.9	13.1	
H2 2017	80.0	7.6	12.4	79.6	8.2	12.2	83.0	3.3	13.7	
H1 2018	79.1	7.8	13.1	78.7	8.4	12.9	82.8	4.1	13.1	

 $<sup>^{\</sup>rm 1}\,$  Group 1 includes 91 banks, G-SIBs include 29 banks and Group 2 includes 41 banks.

Table C.33

	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	34	31.0	3.5	1.1	18.6	2.8	7.2	10.4	0.0	6.2	7.8	1.1	10.3	100.0	100.0
H2 2011	34	30.7	3.2	1.1	18.3	2.2	5.8	11.5	0.0	9.6	8.1	1.1	8.4	100.0	106.1
H1 2012	34	31.8	3.4	1.2	18.2	2.0	4.4	11.9	0.0	10.1	8.6	0.2	8.3	100.0	103.4
H2 2012	34	31.9	3.4	1.2	17.9	1.4	3.9	12.8	0.0	8.3	9.8	0.9	8.4	100.0	98.6
H1 2013	34	32.5	3.6	1.4	17.9	1.8	3.7	6.7	0.2	9.4	11.0	1.6	10.1	100.0	94.0
H2 2013	34	32.4	3.5	1.3	17.5	1.7	4.1	7.2	0.2	8.5	11.9	2.6	9.1	100.0	90.2
H1 2014	34	34.7	4.2	2.5	16.5	1.7	2.6	1.6	3.1	7.7	13.3	1.0	11.1	100.0	88.8
H2 2014	34	34.8	3.8	2.5	16.2	1.7	2.4	1.5	3.2	7.2	14.0	2.3	10.6	100.0	94.3
H1 2015	34	35.5	3.5	2.6	16.1	1.6	2.1	1.4	2.9	6.9	14.3	2.9	10.3	100.0	98.4
H2 2015	34	36.6	3.3	2.6	15.7	1.4	2.0	1.5	2.8	6.1	16.2	2.0	9.9	100.0	97.7
H1 2016	34	37.1	3.2	2.8	15.8	1.3	1.8	1.6	3.0	5.6	16.3	1.9	9.6	100.0	95.9
H2 2016	34	36.5	2.9	2.6	16.5	1.1	1.7	1.5	2.5	5.3	16.4	3.2	9.7	100.0	96.8
H1 2017	34	36.6	2.9	2.5	17.0	1.2	1.8	1.6	2.1	5.4	16.1	3.1	9.6	100.0	93.0
H2 2017	34	37.6	2.9	2.6	17.7	1.0	1.7	1.7	1.9	5.3	16.4	1.1	10.0	100.0	88.1
H1 2018	34	37.6	2.8	2.6	17.0	1.3	1.6	3.7	1.8	5.1	16.2	1.0	9.2	100.0	90.4

<sup>&</sup>lt;sup>1</sup> 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 which apply the standardised approach, general provisions may to some extent be recognised 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.

## Share of credit exposure

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

Table C.34

	Number of banks	Corporate	Retail	Sovereign	Bank	Other credit	Partial use	Securitisation	Total	Total (June 2011=100)
H1 2011	36	27.8	27.6	12.4	10.7	12.9	4.9	3.6	100.0	100.0
H2 2011	36	28.2	27.4	13.5	9.8	13.3	4.4	3.5	100.0	104.9
H1 2012	36	28.3	27.6	14.3	9.7	12.7	4.2	3.3	100.0	106.9
H2 2012	36	28.5	28.3	14.9	9.2	11.4	4.6	3.1	100.0	102.1
H1 2013	36	28.5	28.0	15.4	9.0	11.7	4.5	2.9	100.0	101.5
H2 2013	36	28.7	28.7	15.9	8.7	10.8	4.5	2.7	100.0	97.3
H1 2014	36	30.2	28.3	17.9	8.8	10.2	2.0	2.7	100.0	101.1
H2 2014	36	30.3	27.9	18.3	8.4	10.5	1.9	2.6	100.0	107.0
H1 2015	36	30.7	27.8	18.3	8.1	10.5	1.9	2.7	100.0	113.7
H2 2015	36	31.1	28.1	18.8	7.5	10.1	1.6	2.8	100.0	112.9
H1 2016	36	30.8	27.8	19.3	7.1	10.2	2.0	2.8	100.0	114.0
H2 2016	36	30.6	28.4	19.6	6.7	9.9	1.9	2.8	100.0	115.0
H1 2017	36	30.3	28.9	20.7	6.7	8.7	1.9	2.7	100.0	112.6
H2 2017	36	30.5	29.6	20.7	6.5	8.1	1.8	2.8	100.0	110.3
H1 2018	36	30.8	29.2	20.5	6.5	8.4	1.9	2.7	100.0	112.7

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.35

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Max	45.1	42.1	860.3
95th percentile	18.4	24.8	35.4
75th percentile	5.3	8.1	13.8
Median	-0.7	3.0	5.7
25th percentile	-7.2	-2.2	-0.4
5th percentile	-17.3	-10.4	-9.0
Min	-28.1	-14.9	-21.7
Weighted average	-1.6	-1.1	8.9

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

In per cent Table C.36

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Sovereign	0.0	0.0	0.1
Bank and covered bonds	1.7	2.1	4.7
Retail	0.0	-0.1	0.7
Real estate	0.0	0.1	0.6
Defaulted	0.0	0.0	0.0
Corporate / financial institutions treated as corporate	-3.8	-3.9	0.0
Equity / subordinated debt / funds	0.6	0.9	2.8
Other assets / failed trades / eligible purchased receivables	-0.1	-0.1	0.1
Total	-1.6	-1.1	8.9

Source: Basel Committee on Banking Supervision.

## 

Group 1 banks, in per cent

Table C.37

	Europe	Americas	Rest of the world
Max	18.6	42.1	45.1
95th percentile	17.5	31.9	21.0
75th percentile	7.9	1.5	1.7
Median	3.3	-0.8	-4.6
25th percentile	-2.5	-2.9	-11.0
5th percentile	-11.8	-17.5	-24.1
Min	-14.8	-21.8	-28.1
Weighted average	4.1	-0.8	-5.2

# 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
Sovereign	0.0	-0.1	0.0
Bank and covered bonds	1.5	0.0	2.5
Retail	1.0	-0.7	-0.3
Real estate	0.3	-0.4	0.0
Defaulted	0.0	0.0	0.0
Corporate / financial institutions treated as corporate	1.5	-2.1	-7.6
Equity / subordinated debt / funds	-0.3	2.6	0.3
Other assets / failed trades / eligible purchased receivables	-0.1	-0.3	-0.1
Total	4.1	-0.8	-5.2

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<sup>1</sup>

In per cent Table C.39

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Max	83.9	36.1	91.6
95th percentile	41.2	31.4	38.1
75th percentile	11.4	11.2	15.1
Median	5.5	7.6	6.0
25th percentile	0.3	2.9	0.1
5th percentile	-9.3	-0.3	-4.2
Min	-25.4	-0.7	-14.6
Weighted average	7.6	9.7	7.6

<sup>&</sup>lt;sup>1</sup> 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 which 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.

### Changes in Tier 1 MRC for exposures subject to the standardised approach for credit risk due to the final Basel III standards<sup>1</sup>

In per cent Table C.40

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Sovereign	0.0	0.0	0.2
Retail	1.8	1.1	0.8
Defaulted	0.1	0.0	0.0
Corporate	1.6	3.5	-0.1
Bank and covered bonds	4.3	6.7	1.6
Equity / subordinated debt / funds	-0.1	-1.8	4.1
Other assets / failed trades	-0.1	-0.3	0.1
Real estate	0.1	0.6	1.0
Total	7.6	9.7	7.6

<sup>&</sup>lt;sup>1</sup> 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 which 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 to not 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, by region

Group 1 banks, in per cent

Table C.41

	Europe	Americas	Rest of the world
Max	78.7	13.0	83.9
95th percentile	30.3	13.0	44.8
75th percentile	16.0	3.3	9.7
Median	8.8	-0.9	3.9
25th percentile	3.8	-8.6	-0.1
5th percentile	0.2	-23.4	-5.6
Min	-18.9	-23.4	-25.4
Weighted average	7.5	-1.1	9.6

<sup>&</sup>lt;sup>1</sup> 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 which migrate to the SA under the revised approach (eg IRB equity exposures).

# 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.42

	Europe	Americas	Rest of the world
Sovereign	0.1	0.0	0.0
Retail	2.0	1.6	1.6
Defaulted	0.1	0.0	0.1
Corporate	2.1	-2.2	2.2
Bank and covered bonds	0.8	-1.0	7.6
Equity / subordinated debt / funds	1.5	2.7	-1.7
Other assets / failed trades	0.1	0.0	-0.3
Real estate	0.8	-2.2	0.1
Total	7.5	-1.1	9.6

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

In per cent Table C.43

	Group 1 banks			Of	which: G-SI	Bs	G	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	8.4	8.3	8.3	10.0	9.0	9.0	5.1	3.7	3.9	
Bank	5.2	24.7	44.7	6.2	26.4	53.8	8.6	27.2	31.9	
Covered bonds	0.2	24.2	11.5	0.0	19.2	17.2	0.5	11.2	13.3	
General corporate	38.4	93.3	94.3	39.2	93.7	96.9	19.7	88.0	89.0	
Corporate SME	4.4	92.4	85.1	3.3	92.5	84.9	10.0	94.0	84.3	
Specialised lending	0.7	95.9	102.4	0.3	99.8	105.6	1.2	84.6	85.4	
Equity	4.6	298.3	266.8	5.5	437.8	276.2	5.0	163.6	250.7	
Subordinated debt	0.3	112.1	148.1	0.4	109.8	155.9	0.3	50.6	150.3	
Equity investments in funds	0.3	138.2	159.4	0.0	119.2	221.8	2.0	103.9	151.5	
Retail	17.0	76.6	78.8	13.7	72.4	73.5	17.0	73.4	75.2	
Real estate (total)	6.7	53.6	53.5	5.9	48.8	52.5	16.3	45.7	48.1	
General residential real estate	3.4	40.8	37.5	3.5	40.0	40.0	10.3	38.6	37.7	
General commercial real estate	1.2	66.7	74.7	1.1	57.9	68.9	2.8	62.6	71.0	
Income-producing residential real estate	0.5	65.4	55.3	0.3	76.9	80.1	1.1	46.6	58.0	
Income-producing commercial real estate	0.8	90.5	86.8	0.3	74.6	89.4	1.0	90.2	98.8	
Land acquisition	0.9	101.3	127.6	0.7	100.0	125.4	1.1	108.1	135.9	
Failed trades	0.0	141.0	141.0	0.0	139.0	139.0	0.0	0.0	0.0	
Other assets	12.4	31.8	31.6	14.0	29.1	28.7	10.6	55.6	56.1	
Defaulted	1.4	102.5	106.5	1.3	102.6	105.3	3.7	104.4	104.9	
Total	100.0	40.4	42.9	100.0	38.0	41.1	100.0	34.0	36.4	

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

Group 1 banks, in per cent

Table C.44

	Europe		Ame	ricas	Rest of the world		
	Current	Final	Current	Final	Current	Final	
Sovereign	7.9	7.9	8.1	8.2	8.6	8.6	
Bank	16.1	20.6	34.1	26.8	27.2	54.0	
Covered bonds	18.3	17.1	25.3	10.4	21.5	14.7	
General corporate	93.2	95.1	96.1	91.8	92.7	94.4	
Corporate SME	93.1	85.9	92.9	85.6	91.5	84.0	
Specialised lending	99.3	102.9	81.9	101.4	94.0	102.1	
Equity	207.9	265.0	99.3	215.0	550.2	295.0	
Subordinated debt	151.5	190.4			108.1	143.9	
Equity investments in funds	92.1	148.8	176.1	206.1	149.8	158.0	
Retail	71.5	74.3	87.6	80.7	76.6	82.7	
Real estate (total)	46.6	49.8	69.6	56.1	62.0	61.8	
General residential real estate	37.1	35.5	48.6	35.0	46.9	44.6	
General commercial real estate	58.4	68.8	100.0	106.8	94.9	91.1	
Income-producing residential real estate	64.6	68.3	77.8	37.8	54.2	44.9	
Income-producing commercial real estate	69.3	88.0	101.4	83.3	100.0	97.3	
Land acquisition	104.6	136.7	85.7	118.6	102.2	121.6	
Failed trades	126.3	126.3	117.1	117.1	274.1	274.1	
Other assets	68.8	68.6	41.9	41.3	25.1	24.8	
Defaulted	110.6	114.5	106.0	112.8	89.2	93.4	
Total	41.4	43.6	60.0	57.5	37.3	40.4	

# 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.45

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Max	42.1	42.1	1,359.3
95th percentile	20.2	23.2	45.2
75th percentile	4.0	8.8	7.1
Median	-2.6	1.6	-0.3
25th percentile	-11.1	-5.1	-7.6
5th percentile	-24.2	-19.2	-15.8
Min	-32.2	-23.1	-25.0
Weighted average	-5.2	-4.7	11.3

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
Banks	0.7	0.6	10.4
Corporate	-3.9	-4.3	-0.1
Corporate SME	-1.7	-2.1	-0.9
Others	0.7	1.7	0.5
Retail	0.1	0.1	1.2
Retail res. mortgages	-0.8	-0.6	-0.8
Sovereigns	0.0	0.0	-0.1
Specialised lending	-0.3	0.0	1.3
Total	-5.2	-4.7	11.3

# 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.47

	Europe	Americas	Rest of the world	
Max	23.6	42.1	21.1	
95th percentile	20.3	36.0	11.0	
75th percentile	9.7	2.2	-0.4	
Median	1.0	-0.1	-10.7	
25th percentile	-6.4	-4.1	-16.7	
5th percentile	-14.9	-9.7	-28.8	
Min	-19.6	-10.6	-32.2	
Weighted average	2.6	-0.8	-11.6	

Source: Basel Committee on Banking Supervision.

# Changes in Tier 1 MRC for exposures subject to 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				
Banks	1.8	0.2	0.3				
Corporate	0.1	-1.6	-7.3				
Corporate SME	0.3	-0.1	-3.6				
Others	-1.3	2.3	1.2				
Retail	0.9	-0.5	-0.1				
Retail res. mortgages	-0.4	-0.6	-1.1				
Sovereigns	0.0	-0.1	0.0				
Specialised lending	0.9	-0.4	-1.0				
Total	2.6	-0.8	-11.6				
Source Paral Committee on Papiling Cupanisian							

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

In per cent Table C.49

	Gr	oup 1 bank	(S	Of	which: G-SI	Bs	Gı	roup 2 bank	(S
	Contrib. to total RWA	Current	Final	Contrib. to total RWA	Current	Final	Contrib. to total RWA	Current	Final
Large and mid-market general corporates	40.6	55.7	50.6	43.2	56.7	50.9	25.3	51.7	51.1
Specialised lending	6.2	61.6	59.0	5.4	59.0	58.7	7.6	39.5	46.9
SME treated as corporate	13.1	69.9	61.6	12.8	80.5	68.5	20.0	48.6	46.0
Financial institutions treated as corporates	2.5	32.7	34.7	2.7	33.1	34.9	0.5	43.2	54.7
Sovereigns	2.2	4.1	4.1	2.6	4.7	4.6	1.6	7.1	6.8
Banks	4.3	23.7	27.4	3.7	26.8	30.8	3.8	14.9	60.0
Retail residential mortgages	11.4	19.8	18.3	11.0	22.5	21.3	20.0	11.2	10.8
Other retail	5.4	36.8	37.7	4.4	38.6	39.3	13.7	26.6	29.9
Qualifying revolving retail exposures	3.7	32.5	31.7	3.9	34.4	33.3	2.5	29.8	29.8
Equity	5.7	201.6	234.2	5.1	172.3	228.8	2.8	231.7	264.9
Equity investments in funds	0.8	148.5	175.8	0.6	131.1	180.7	0.4	263.8	329.0
Eligible purchased receivables	0.3	33.7	34.3	0.3	33.0	33.4	0.0	104.6	87.7
Failed trades and non- DVP transactions	0.0	27.4	27.6	0.1	27.2	27.5	0.0		
Other assets	3.7	58.5	54.5	4.2	64.2	59.4	1.7	93.3	96.0
Total	100.0	36.3	34.4	100.0	38.2	36.3	100.0	25.0	28.2

# IRB approach risk weights under the current and the final Basel ${\tt III}$ standards, by region

Group 1 banks, in per cent

Table C.50

		Europe			Americas		Res	t of the wo	rld
	Contrib. to total RWA	Current	Final	Contrib. to total RWA	Current	Final	Contrib. to total RWA	Current	Final
Large and mid-market general corporates	38.5	48.5	48.3	36.7	51.1	47.6	43.0	62.9	53.7
Specialised lending	7.4	45.7	51.4	6.9	65.8	62.6	5.3	78.1	65.7
SME treated as corporate	9.6	46.2	48.3	3.9	74.7	71.9	19.7	79.5	65.9
Financial institutions treated as corporates	2.7	26.0	29.0	5.0	38.5	39.0	1.2	34.9	37.4
Sovereigns	2.7	4.9	4.9	5.2	6.8	6.7	0.5	1.3	1.3
Banks	5.7	19.6	28.8	4.5	29.1	29.4	3.4	25.4	27.5
Retail residential mortgages	12.6	12.8	12.4	9.2	22.1	20.5	12.0	25.8	23.5
Other retail	8.5	31.0	34.6	5.3	45.2	42.3	4.0	39.0	38.2
Qualifying revolving retail exposures	2.1	30.1	30.5	9.1	36.3	34.4	2.2	28.3	28.2
Equity	7.6	299.8	257.2	4.0	116.8	185.7	5.2	197.1	251.2
Equity investments in funds	0.2	241.1	327.9	1.0	93.2	143.6	1.0	198.2	192.0
Eligible purchased receivables	0.1	20.1	24.6	0.2	32.3	32.1	0.4	37.7	37.5
Failed trades and non- DVP transactions	0.0	33.2	33.2	0.2	26.8	27.1	0.0	118.4	132.0
Other assets	2.4	62.3	59.6	8.9	45.5	41.4	2.0	129.0	129.3
Total	100.0	28.5	29.5	100.0	33.7	33.0	100.0	44.0	39.3

 ${\it Source: Basel \ Committee \ on \ Banking \ Supervision.}$ 

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

Group 1 IRB banks, in per cent

Table C.51

	(	Corporate	)	9	Sovereigr	1		Bank			Retail <sup>1</sup>	
	FIRB	AIRB	All	FIRB	AIRB	All	FIRB	AIRB	All	FIRB	AIRB	All
Number of banks	18	57	75	18	55	73	18	56	74	16	55	71
Max	1.57	4.37	4.37	0.18	0.88	0.88	0.66	1.11	1.11	2.69	7.41	7.41
95th percentile	1.45	2.63	2.21	0.10	0.24	0.20	0.30	0.88	0.74	1.85	3.90	3.72
75th percentile	1.23	1.13	1.15	0.04	0.07	0.06	0.17	0.29	0.24	1.23	1.66	1.48
Median	0.89	0.84	0.86	0.01	0.02	0.02	0.12	0.19	0.17	0.78	1.11	1.03
25th percentile	0.73	0.67	0.67	0.00	0.01	0.01	0.08	0.12	0.10	0.59	0.80	0.73
5th percentile	0.48	0.42	0.43	0.00	0.00	0.00	0.06	0.06	0.06	0.45	0.43	0.44
Min	0.39	0.15	0.15	0.00	0.00	0.00	0.04	0.05	0.04	0.45	0.27	0.27
Weighted average	0.91	0.96	0.96	0.03	0.03	0.03	0.21	0.21	0.21	1.29	1.31	1.31

 $<sup>^1</sup>$  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.

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

Group 1 IRB banks, in per cent

Table C.52

	(	Corporate	9	9	Sovereigr	า		Bank			Retail <sup>1</sup>	
	FIRB	AIRB	All	FIRB	AIRB	All	FIRB	AIRB	All	FIRB	AIRB	All
Number of banks	18	57	75	18	55	73	18	56	74	16	55	71
Max	43.6	47.0	47.0	45.0	64.2	64.2	45.1	63.2	63.2	50.9	74.6	74.6
95th percentile	43.6	43.4	43.6	45.0	46.6	45.6	43.8	59.8	59.5	45.2	68.8	67.6
75th percentile	43.0	38.2	41.1	45.0	38.1	44.6	40.6	44.2	42.8	41.0	40.9	41.2
Median	41.8	32.9	35.4	44.9	25.7	33.6	35.5	36.7	36.3	29.3	26.8	27.0
25th percentile	40.5	28.9	29.8	44.0	11.0	12.9	27.8	25.2	27.4	21.0	20.7	20.7
5th percentile	35.9	21.7	23.7	37.9	6.1	6.7	24.4	13.7	15.0	15.9	15.7	15.6
Min	35.0	17.6	17.6	37.8	1.9	1.9	18.4	9.5	9.5	14.9	12.9	12.9
Weighted average	41.3	33.6	34.2	43.4	29.3	30.2	33.6	32.0	32.2	22.1	34.8	33.8

<sup>&</sup>lt;sup>1</sup> 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.

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

Group 1 IRB banks, in per cent

Table C.53

	Corporate		Sovereign			Bank			Retail <sup>1</sup>			
	FIRB	AIRB	All	FIRB	AIRB	All	FIRB	AIRB	All	FIRB	AIRB	All
Number of banks	18	57	75	18	55	73	18	56	74	16	55	71
Max	73.9	96.8	96.8	13.4	28.8	28.8	35.3	53.9	53.9	35.7	82.9	82.9
95th percentile	73.0	55.4	67.4	9.5	16.1	15.9	31.4	45.0	42.4	30.8	46.6	43.6
75th percentile	64.6	50.4	53.3	5.3	7.1	6.1	23.4	34.4	28.6	26.6	32.0	29.1
Median	54.5	44.8	45.8	2.9	2.7	2.7	20.9	22.2	22.1	18.2	20.1	19.7
25th percentile	46.2	38.3	40.4	1.6	1.6	1.5	16.3	17.0	16.6	14.7	15.9	15.7
5th percentile	40.7	24.5	27.8	1.0	0.4	0.5	12.9	7.0	7.6	13.8	9.7	10.0
Min	39.4	19.0	19.0	0.7	0.0	0.0	8.7	4.5	4.5	12.2	6.5	6.5
Weighted average	54.5	43.3	44.3	3.4	3.1	3.1	21.5	19.9	20.1	16.2	23.2	22.7

<sup>&</sup>lt;sup>1</sup> 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.

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

Group 1 IRB banks, in per cent

Table C.54

	Number of banks	Average PD non-defaulted exposures	Share of defaulted exposures	Average LGD non-defaulted exposures
Retail residential mortgages	71	0.92	1.6	20.6
Other retail	71	2.18	2.4	44.3
Retail QRE	59	2.08	0.5	84.2

The results in this table include only banks from countries where data for defaulted exposures are available separately by retail sub-asset classes.

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

In per cent Table C.55

	Group 1 banks		Of which	: G-SIBs	Group 2 banks	
	Current	Final	Current	Final	Current	Final
Advanced IRB	55.6	42.5	59.9	44.2	34.1	31.1
Foundation IRB	15.2	28.3	11.8	27.2	5.6	8.5
Other <sup>1</sup>	2.6	1.8	2.9	2.0	0.3	0.2
Standardised approach	26.3	27.2	25.4	26.6	59.6	59.9
Slotting	0.3	0.2	0.0	0.0	0.4	0.3

<sup>&</sup>lt;sup>1</sup> "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.56

	Group 1	Group 1 banks		: G-SIBs	Group 2 banks	
	Current	Final	Current	Final	Current	Final
Advanced IRB	39.9	27.2	42.9	27.5	23.5	19.9
Foundation IRB	23.6	33.5	24.3	35.6	7.4	12.1
Other <sup>1</sup>	7.3	2.9	7.4	3.3	1.6	0.6
Standardised approach	28.6	36.0	25.3	33.5	66.4	66.7
Slotting	0.7	0.4	0.1	0.1	1.0	0.7

<sup>&</sup>lt;sup>1</sup> "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.

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

In per cent Table C.57

	Europe		Amer	ricas	Rest of the world	
	Current	Final	Current	Final	Current	Final
Advanced IRB	60.3	44.7	81.6	59.4	37.2	31.3
Foundation IRB	8.7	24.0	0.0	21.9	25.9	32.0
Other <sup>1</sup>	1.3	0.7	7.5	6.4	1.4	0.6
Standardised approach	29.5	30.4	10.9	12.3	35.1	35.9
Slotting	0.3	0.3	0.0	0.0	0.4	0.2

<sup>&</sup>lt;sup>1</sup> "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.58

	Euro	Europe		ricas	Rest of the world	
	Current	Final	Current	Final	Current	Final
Advanced IRB	47.4	30.7	70.5	43.1	21.8	17.5
Foundation IRB	9.5	26.3	0.1	25.5	39.8	39.2
Other <sup>1</sup>	6.5	1.2	11.6	7.5	5.6	2.0
Standardised approach	36.0	41.2	17.8	23.9	31.9	40.9
Slotting	0.7	0.6	0.0	0.0	0.9	0.5

<sup>&</sup>lt;sup>1</sup> "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.

#### Average risk weight by approach In per cent Table C.59 IRBA ERBA IAA SA Total STC securitisations Current framework 23.1 12.6 16.7 40.2 23.6 Final standard 27.3 17.9 18.8 33.7 25.2 Non-STC securitisations Current framework 19.0 19.2 11.4 38.2 26.2 Final standard 28.4 39.6 29.2 40.8 36.8 Source: Basel Committee on Banking Supervision.

Average risk weight, final standards									
	IRBA	ERBA	IAA	SA	Total				
STC securitisations	27.3	18.3	18.8	32.8	24.9				
Non STC securitisations	27.6	40.0	29.2	40.7	36.5				
Source: Basel Committee on Bank	ring Supervision.								

#### Share of market risk MRC in total MRC

In per cent Table C.61

	Group 1 banks	of which: G-SIBs	Group 2 banks
Max	30.7	16.9	36.2
95th percentile	12.2	12.5	11.7
75th percentile	6.1	7.4	2.5
Median	3.6	4.1	0.4
25th percentile	1.7	2.5	0.0
5th percentile	0.0	0.9	0.0
Min	0.0	0.0	0.0
Weighted average	4.0	4.0	2.6

 $<sup>^{\,1}\,</sup>$  Group 1 includes 93 banks, G-SIB includes 30 banks and Group 2 includes 85 banks.

#### Share of market risk MRC in total MRC

Consistent sample of banks, in per cent

Table C.62

	Group 1 ba	ınks	Of which: G-	-SIBs	Group 2 bar	nks
	Number of banks	Share	Number of banks	Share	Number of banks	Share
H1 2011	36	5.9	14	6.6	17	2.6
H2 2011	36	9.1	14	9.6	17	3.0
H1 2012	36	9.5	14	10.4	17	2.6
H2 2012	36	7.9	14	8.1	17	2.4
H1 2013	36	8.9	14	10.7	17	2.7
H2 2013	36	8.1	14	9.8	17	3.1
H1 2014	36	7.8	14	9.6	17	4.1
H2 2014	36	7.2	14	8.8	17	3.5
H1 2015	36	6.8	14	8.4	17	3.4
H2 2015	36	6.0	14	7.1	17	3.1
H1 2016	36	5.6	14	6.5	17	3.1
H2 2016	36	5.3	14	6.3	17	2.0
H1 2017	36	5.4	14	6.5	17	2.4
H2 2017	36	5.2	14	6.2	17	2.2
H1 2018	36	5.0	14	5.9	17	2.3

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.63

	ks	Stan	dard measu	rement met	hod	Internal	models ap	proach	ng	
	Number of banks	General position risk	Specific position risk	FX and commodity risk	Unassigned	VaR and stressed VaR	Incremental risk charge	Unassigned	Correlation trading portfolios	Other and unassigned
H1 2015	103	5.9	7.5	7.5	0.7	48.8	10.5	1.6	15.1	2.3
H2 2015	103	6.5	7.0	7.6	8.0	50.9	9.4	1.7	13.1	2.9
H1 2016	103	7.0	6.8	8.6	8.0	53.2	9.5	1.4	9.7	2.9
H2 2016	103	6.3	7.0	9.1	0.6	54.1	8.7	2.1	9.3	2.8
H1 2017	103	5.0	8.5	8.1	0.7	54.3	9.4	1.5	9.6	2.9
H2 2017	103	4.7	8.7	7.0	1.8	56.1	8.9	1.7	8.4	2.6
H1 2018	103	7.2	9.6	6.0	0.6	56.9	8.2	1.5	7.2	2.8

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

Consistent sample of G-SIBs, in per cent

Table C.64

	ks	Stan	dard measu	rement met	hod	Internal	models ap	proach	ing	
	Number of banks	General position risk	Specific position risk	FX and commodity risk	Unassigned	VaR and stressed VaR	Incremental risk charge	Unassigned	Correlation trading portfolios	Other and unassigned
H1 2015	29	3.4	6.2	3.8	0.3	52.0	10.9	2.2	18.1	3.1
H2 2015	29	3.9	5.8	4.4	0.4	53.7	9.8	2.4	15.9	3.7
H1 2016	29	3.5	5.9	4.9	0.4	57.1	9.8	2.0	12.3	4.1
H2 2016	29	3.2	6.1	5.6	0.2	58.0	8.9	2.4	11.6	3.9
H1 2017	29	2.7	7.7	3.8	0.3	58.0	9.6	2.1	11.9	4.0
H2 2017	29	2.9	7.6	3.8	1.2	59.0	9.6	2.0	10.4	3.6
H1 2018	29	3.3	7.4	4.2	0.3	60.9	8.9	1.9	9.2	4.0

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.65

	ks	Stan	dard measu	rement met	thod	Internal	models app	oroach	ing	
	Number of banks	General position risk	Specific position risk	FX and commodity risk	Unassigned	VaR and stressed VaR	Incremental risk charge	Unassigned	Correlation trading portfolios	Other and unassigned
H1 2015	72	35.9	17.7	19.5	7.6	16.7	2.4	0.0	0.2	0.0
H2 2015	72	32.8	19.4	10.8	20.3	14.2	2.3	0.0	0.2	0.0
H1 2016	72	32.0	21.8	12.4	20.7	11.0	1.8	0.0	0.3	0.0
H2 2016	72	21.5	20.4	15.6	18.9	22.0	1.4	0.0	0.3	0.0
H1 2017	72	18.2	21.2	15.3	18.2	25.4	1.4	0.0	0.3	0.0
H2 2017	72	19.8	25.4	10.8	21.8	20.0	1.7	0.0	0.6	0.0
H1 2018	72	26.7	25.4	7.5	21.6	16.9	1.0	0.0	0.8	0.0

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

Consistent sample of banks, 1 in per cent

Table C.66

	Group	1 banks
	Banks reporting since end-2011	Banks reporting since June 2015
H2 2011	198.1	
H1 2012	170.7	
H2 2012	199.7	
H1 2013	191.2	
H2 2013	203.8	
H1 2014	247.9	
H2 2014	182.9	
H1 2015	214.9	197.2
H2 2015	193.7	172.0
H1 2016	211.9	215.9
H2 2016	288.0	247.4
H1 2017	245.5	239.4
H2 2017	237.5	259.5
H1 2018	246.6	277.7

<sup>&</sup>lt;sup>1</sup> The consistent sample of banks reporting since end-2011 consists of 23 banks, while the consistent sample of banks reporting since June 2015 consists of 56 banks.

Source: Basel Committee on Banking Supervision.

#### Impact of revised minimum capital requirements for market risk

In per cent Table C.67

	Change relati	ve to total current mar	ket risk MRC	Change	e relative to total curre	ent MRC
	Group 1	Of which: G-SIBs	Group 2	Group 1	Of which: G-SIBs	Group 2
Max	870.6	248.3	875.2	68.0	29.2	21.5
95% percentile	225.6	208.9	377.0	21.0	23.4	9.8
75th percentile	122.5	145.1	138.4	4.6	6.5	2.3
Median	63.9	69.3	85.6	2.1	2.0	0.7
25th percentile	23.5	23.4	12.8	0.5	0.7	0.2
5th percentile	-58.9	-58.2	-57.4	-1.7	-0.6	-1.1
Min	-64.3	-64.3	-79.3	-2.3	-1.4	-1.5
Weighted average	95.2	104.6	66.3	3.7	4.0	1.6

Total MRC for operational risk and share of approaches under the current rules

Consistent sample of Group 1 banks, 1 in per cent

Table C.68

	Total June 2011 = 100	Basic indicator approach	Standardised approach	Alternative standardised approach	Advanced measurement approach
H1 2011	100.0	2.9	36.7	2.0	58.4
H2 2011	110.6	2.7	35.7	1.9	59.7
H1 2012	114.4	3.5	33.1	1.9	61.5
H2 2012	121.1	3.4	31.1	1.7	63.9
H1 2013	151.1	18.9	23.9	0.9	56.3
H2 2013	159.2	19.4	22.0	0.8	57.9
H1 2014	173.0	1.9	35.5	0.9	61.8
H2 2014	194.5	2.4	35.9	1.7	60.0
H1 2015	211.3	1.9	35.1	0.7	62.3
H2 2015	226.8	2.0	32.7	0.5	64.8
H1 2016	226.9	2.0	30.3	2.2	65.6
H2 2016	234.9	2.1	27.3	3.0	67.5
H1 2017	225.5	3.4	27.2	2.4	67.0
H2 2017	216.5	2.3	28.1	2.5	67.1
H1 2018	221.1	2.0	24.4	7.4	66.1

<sup>&</sup>lt;sup>1</sup> Group 1 includes 79 banks.

#### Total MRC for operational risk and share of approaches under the current rules

Consistent sample of Group 2 banks<sup>1</sup>, in per cent

Table C.69

	Total June 2011 = 100	Basic indicator approach	Standardised approach	Alternative standardised approach	Advanced measurement approach
H1 2011	100.0	23.6	58.2	0.1	18.0
H2 2011	98.0	24.3	54.2	0.1	21.4
H1 2012	96.8	24.4	48.8	0.1	26.7
H2 2012	102.7	21.4	51.1	0.2	27.3
H1 2013	103.7	20.5	51.2	0.1	28.2
H2 2013	98.3	16.2	57.3	0.2	26.3
H1 2014	97.4	16.5	55.9	1.0	26.6
H2 2014	100.3	17.7	55.9	0.2	26.1
H1 2015	104.6	14.5	59.1	0.2	26.1
H2 2015	103.9	12.7	60.6	0.2	26.5
H1 2016	103.8	12.8	61.2	0.5	25.5
H2 2016	104.4	12.6	61.3	0.3	25.8
H1 2017	108.3	14.1	60.4	0.5	25.0
H2 2017	110.6	12.0	61.6	0.5	25.9
H1 2018	109.1	10.4	63.1	0.2	26.3

<sup>&</sup>lt;sup>1</sup> Group 2 includes 33 banks.

Source: Basel Committee on Banking Supervision.

# Distribution of share of MRC for operational risk in total MRC under the current rules<sup>1</sup>

In per cent Table C.70

	Group 1 banks	of which: G-SIBs	Group 2 banks
Max	42.7	42.7	94.7
95th percentile	27.5	38.6	21.5
75th percentile	14.2	26.6	12.1
Median	10.2	11.5	9.1
25th percentile	7.2	8.9	6.6
5th percentile	4.0	6.0	4.1
Min	2.1	5.6	2.8
Weighted average	13.7	15.3	9.5

 $<sup>^{\</sup>rm 1}\,$  Group 1 includes 98 banks, G-SIB includes 29 banks and Group 2 includes 83 banks.

#### Changes in operational risk capital requirements<sup>1</sup>

In per cent Table C.71

	G	roup 1 ban	ks	Of	which: G-S	SIBs	Group 2 banks		
	•	Migratio	Migration from		Migration from			Migration from	
	Total	AMA	Other	Total	AMA	Other	Total	AMA	Other
Max	583.1	102.1	583.1	124.4	78.7	124.4	637.4	94.4	637.4
75th percentile	23.9	26.5	16.1	26.0	21.8	53.6	30.7	76.7	22.1
Median	-3.7	-2.7	-11.6	-0.6	-0.6	-12.0	-4.1	22.6	-7.9
25th percentile	-25.3	-17.0	-31.3	-29.9	-15.7	-32.3	-33.2	-34.4	-32.9
Min	-52.0	-44.3	-47.0	-44.3	-44.3	-34.5	-73.6	-73.6	-56.5
Weighted average	-4.3	-6.8	3.9	-6.4	-8.3	-0.3	14.9	14.7	14.9

<sup>&</sup>lt;sup>1</sup> Figures do not show supervisor-imposed 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 which 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<sup>1</sup>

In per cent Table C.72

	Group 1 banks  Current Final		Of which:	Of which: G-SIBs		Group 2 banks IRB		Group 2 banks pure SA	
			Current	Final	Current	Final	Current	Final	
Risk-based capital	53.2	40.3	46.4	46.4	42.9	42.9	68.6	65.7	
Output floors	11.7	31.2	25.0	32.1	3.6	21.4	0.0	0.0	
Leverage ratio	35.1	28.6	28.6	21.4	53.6	35.7	31.4	34.3	

<sup>&</sup>lt;sup>1</sup> Group 1 includes 77 banks, G-SIB includes 28 banks, Group 2 (IRB) includes 28 banks and Group 2 (SA only) includes 35 banks. Source: Basel Committee on Banking Supervision.

#### Banks constrained by different parts of the framework<sup>1</sup>, by region

Group 1 banks, in per cent

Table C.73

	Euro	ре	Ame	ricas	Rest of the world	
	Current	Final	Current	Final	Current	Final
Risk-based capital	41.4	20.7	37.5	62.5	71.9	46.9
Output floors	0.0	41.4	37.5	6.3	9.4	34.4
Leverage ratio	58.6	37.9	25.0	31.3	18.8	18.8

<sup>&</sup>lt;sup>1</sup> Europe includes 29 banks, the Americas include 16 banks and the rest of the world includes 32 banks.

#### Liquidity coverage ratio and net stable funding ratio

In per cent Table C.74

		Liquidity coverage ra	atio		Net stable funding ratio				
	Group1	Of which: G-SIBs	Group 2	Group1	Of which: G-SIBs	Group 2			
Max	445.1	158.1	2,042.7	159.4	141.2	493.5			
75th percentile	145.2	140.2	209.0	120.7	121.8	132.5			
Median	133.8	132.8	167.8	113.2	116.3	122.1			
25th percentile	124.4	123.6	142.3	108.0	109.6	111.9			
Min	105.8	105.8	101.5	90.7	96.5	94.0			
Weighted average	135.1	132.0	180.2	116.0	117.1	119.2			

Source: Basel Committee on Banking Supervision.

#### Composition of holdings of eligible liquid assets

In per cent Table C.75

	Group	1 banks	Of whic	h: G-SIBS	Group 2 banks	
	Amount	Weighted amount	Amount	Weighted amount	Amount	Weighted amount
Level 1 cash and CB reserves	43.8	45.3	42.6	44.1	33.2	33.9
Level 1 securities	38.9	40.5	37.2	38.9	61.0	62.1
Level 2A	14.3	12.7	17.3	15.4	1.9	1.6
Level 2B	3.0	1.6	2.9	1.6	4.0	2.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

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

In trillions of euros Table C.76

	Group 1 banks	Of which: G-SIBs	Group 2 banks
Total liquid assets and inflows			
Level 1 assets	10.61	7.21	0.67
Level 2A assets (post-factor)	1.57	1.34	0.01
Level 2B assets (post-factor)	0.20	0.14	0.02
Inflows (post-factor, after cap)	4.66	3.44	0.14
Total	17.04	12.13	0.84
Outflows and impact of cap			
Outflows (post-factor)	13.98	10.03	0.53
Cap	0.03	-0.01	0.00
Total	14.01	10.03	0.53

#### Aggregate available stable funding (ASF) by counterparty

In trillions of euros Table C.77

	Group 1 banks		Of which	n: G-SIBs	Group 2 banks	
	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
Capital	5.4	5.4	3.5	3.5	0.4	0.4
Retail and small business	19.4	17.9	12.3	11.4	1.7	1.6
Non-financial corporates	10.9	5.6	7.5	3.8	0.3	0.2
Central banks	1.7	0.7	1.1	0.5	0.2	0.2
Sovereigns/PSEs/MDBs/NDBs	2.9	1.6	1.8	1.0	0.2	0.1
Financials (other legal entities)	15.8	5.7	9.5	3.2	1.3	0.8
Other liabilities	6.1	1.4	4.1	0.8	0.5	0.2
Total	62.0	38.3	39.8	24.2	4.7	3.5

#### Aggregate required stable funding (RSF) by category

In trillions of euros Table C.78

	Group 1	. banks	Of which	: G-SIBs	Group 2	2 banks
	Unweighted RSF	Weighted RSF	Unweighted RSF	Weighted RSF	Unweighted RSF	Weighted RSF
Cash and central banks reserves	7.2	0.0	5.0	0.0	0.3	0.0
Loans to financial institutions	7.3	2.2	5.2	1.5	0.4	0.2
HQLA	9.4	1.6	6.4	1.1	0.6	0.1
All residential mortgages	7.0	5.0	3.5	2.5	1.0	0.7
Loans, < 1 year	7.5	3.7	4.6	2.3	0.5	0.2
Other loans, > 1 year, risk weight < 35%	1.1	0.8	0.5	0.4	0.3	0.3
Loans, risk weights > 35%	13.0	11.0	8.1	6.8	0.9	0.8
Derivative	2.6	0.9	1.9	0.6	0.1	0.0
All other assets	8.8	7.4	6.1	5.1	0.7	0.6
Off-balance sheet		0.5		0.3		0.0
Total	64.1	33.0	41.4	20.6	4.8	3.0

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.79

	Grou	Group 1 banks		nich: G-SIBs	Group 2 banks	
	Ratio (%)	Shortfall (€ bn)	Ratio (%)	Shortfall (€ bn)	Ratio (%)	Shortfall (€ bn)
H2 2012	121.9	365.6	127.2	165.5	147.2	2.3
H1 2013	119.3	324.4	125.0	101.1	148.5	3.6
H2 2013	122.1	234.3	127.5	44.9	146.1	7.1
H1 2014	126.1	169.8	129.7	0.0	157.7	0.8
H2 2014	127.4	52.1	127.0	0.0	148.5	2.0
H1 2015	125.9	4.0	123.5	0.0	145.4	0.9
H2 2015	126.8	18.4	122.7	0.0	157.8	0.0
H1 2016	128.6	2.9	125.7	0.0	157.4	0.7
H2 2016	132.1	3.4	128.0	0.0	148.7	1.4
H1 2017	134.2	0.1	130.7	0.0	163.1	0.1
H2 2017	134.4	0.0	130.1	0.0	165.2	0.0
H1 2018	135.4	0.0	131.6	0.0	166.0	0.0

#### NSFR and related shortfalls at 100% minimum requirement

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

Table C.80

	Grou	Group 1 banks		nich: G-SIBs	Grou	ıp 2 banks
	Ratio (%)	Shortfall (€ bn)	Ratio (%)	Shortfall (€ bn)	Ratio (%)	Shortfall (€ bn)
H2 2012	100.1	1,572.4	101.8	954.1	102.2	83.6
H1 2013	100.2	1,530.5	102.6	899.8	103.7	74.1
H2 2013	112.2	568.3	115.1	356.0	113.9	10.4
H1 2014	111.6	431.7	114.5	249.5	113.3	16.3
H2 2014	111.7	406.9	114.1	216.5	113.1	22.8
H1 2015	111.9	313.0	114.4	174.0	114.6	13.5
H2 2015	114.0	170.7	116.5	74.6	115.7	2.8
H1 2016	114.0	96.7	116.4	27.3	115.9	5.3
H2 2016	115.4	25.2	117.2	0.0	115.3	15.2
H1 2017	116.8	14.9	119.2	0.0	117.6	2.6
H2 2017	115.8	2.7	117.3	0.0	118.9	0.8
H1 2018	115.6	28.9	116.7	28.9	119.6	0.8

Source: Basel Committee on Banking Supervision.

#### LCR and NSFR, by region

Consistent sample of Group 1 banks, 1 in per cent

Table C.81

	Europe		Americas	3	Rest of the world	
_	LCR	NSFR	LCR	NSFR	LCR	NSFR
2012 H2	111.7	95.7	107.1	89.3	137.7	111.1
2013 H1	104.5	96.8	111.5	89.8	132.8	109.1
2013 H2	107.5	101.3	114.5	101.9	135.2	130.7
2014 H1	118.7	102.2	121.5	103.1	132.5	126.2
2014 H2	125.8	101.9	125.3	111.1	129.5	121.7
2015 H1	127.4	104.0	118.6	110.3	129.4	120.1
2015 H2	131.1	106.3	121.4	111.9	127.8	122.1
2016 H1	134.2	107.0	125.5	109.2	127.9	122.5
2016 H2	133.8	109.4	123.1	109.9	136.1	123.2
2017 H1	137.9	111.7	128.1	109.9	135.5	124.1
2017 H2	140.0	112.1	124.7	109.7	136.9	121.5
2018 H1	140.0	111.6	122.7	108.7	139.5	121.9

<sup>&</sup>lt;sup>1</sup> For LCR Europe includes 22 banks, the Americas include 16 banks and the rest of the world includes 32 banks. For NSFR Europe includes 31 banks, the Americas include 16 banks and the rest of the world includes 41 banks.

#### Share of banks meeting the LCR and NSFR requirements

Consistent sample of banks, 1 in per cent

Table C.82

	Gı	Group 1 banks		Of-	which: G-S	SIBs	Group 2 banks		
	LCR	NSFR	Both	LCR	NSFR	Both	LCR	NSFR	Both
H2 2012	74.3	43.2	68.2	81.0	44.0	65.0	76.0	61.9	66.7
H1 2013	77.1	40.9	66.7	85.7	48.0	60.0	88.0	69.0	79.2
H2 2013	80.0	72.7	77.3	85.7	56.0	65.0	88.0	92.9	91.7
H1 2014	87.1	77.3	81.8	100.0	68.0	70.0	92.0	90.5	95.8
H2 2014	91.4	79.5	81.8	100.0	80.0	90.0	92.0	88.1	87.5
H1 2015	95.7	81.8	87.9	100.0	88.0	95.0	92.0	90.5	91.7
H2 2015	91.4	81.8	83.3	100.0	88.0	95.0	96.0	95.2	91.7
H1 2016	95.7	84.1	87.9	100.0	88.0	95.0	96.0	92.9	87.5
H2 2016	94.3	95.5	92.4	100.0	100.0	100.0	96.0	90.5	83.3
H1 2017	98.6	93.2	93.9	100.0	100.0	100.0	96.0	95.2	87.5
H2 2017	100.0	98.9	100.0	100.0	100.0	100.0	100.0	97.6	95.8
H1 2018	100.0	98.9	100.0	100.0	96.0	100.0	100.0	97.6	95.8

<sup>&</sup>lt;sup>1</sup> Samples for LCR and NSFR may differ. In particular, the bank showing an NSFR shortfall at the end-June 2018 reporting date is not included in the consistent LCR and combined time series.

Source: Basel Committee on Banking Supervision.

#### LCR and change in HQLA and net outflows

Consistent sample of banks,1 exchange rates as of 30 June 2018, in per cent

Table C.83

		Group 1 banks			Of-which	: G-SIBs	Group 2 banks		
		Change				Change		Chang	
	LCR	HQLA	Net outflows	LCR	HQLA	Net outflows	LCR	HQLA	Net outflows
H2 2012	121.9			127.2			147.2		
H1 2013	119.3	2.1	4.3	125.0	2.5	4.4	148.5	0.0	-0.8
H2 2013	122.1	4.6	2.3	127.5	4.4	2.3	146.1	-3.5	-2.0
H1 2014	126.1	6.7	3.3	129.7	7.8	6.0	157.7	10.7	2.5
H2 2014	127.4	5.3	4.2	127.0	3.1	5.3	148.5	-8.7	-3.0
H1 2015	125.9	5.4	6.7	123.5	3.3	6.2	145.4	1.5	3.6
H2 2015	126.8	2.1	1.4	122.7	0.4	1.1	157.8	8.2	-0.2
H1 2016	128.6	3.1	1.7	125.7	3.3	8.0	157.4	5.6	5.8
H2 2016	132.1	3.2	0.5	128.0	1.6	-0.2	148.7	-4.9	0.7
H1 2017	134.2	4.6	3.0	130.7	5.3	3.2	163.1	16.8	6.4
H2 2017	134.4	0.4	0.2	130.1	0.9	1.3	165.2	1.6	0.4
H1 2018	135.4	4.0	3.3	131.6	3.6	2.4	166.0	3.8	3.3

 $<sup>^{1}\,</sup>$  Group 1 includes 70 banks, G-SIB includes 21 banks and Group 2 includes 25 banks.

#### LCR and change in HQLA and net outflows, by region

Consistent sample of banks,<sup>1</sup> exchange rates as of 30 June 2018, in per cent

Table C.84

	Europe			Americas			Rest of the world		
		(	Change		Change				Change
	LCR	HQLA	Net outflows	LCR	HQLA	Net outflows	LCR	HQLA	Net outflows
H2 2012	111.7			107.1			137.6		
H1 2013	104.5	-4.9	1.6	111.5	7.3	3.1	132.8	3.0	6.8
H2 2013	107.5	1.6	-1.2	114.5	9.9	6.9	135.1	3.3	1.5
H1 2014	118.7	4.0	-5.8	121.5	9.6	3.3	132.5	6.5	8.6
H2 2014	125.8	4.7	-1.2	125.3	7.3	4.0	129.5	4.5	6.8
H1 2015	127.4	7.4	6.0	118.6	-3.0	2.4	129.4	9.5	9.6
H2 2015	131.1	4.7	1.8	121.4	-0.5	-2.8	127.8	2.3	3.6
H1 2016	134.2	1.5	-0.7	125.5	0.4	-2.8	127.8	5.2	5.1
H2 2016	133.8	4.8	5.1	123.1	1.8	3.8	136.1	3.7	-2.7
H1 2017	137.9	4.9	1.7	128.1	2.4	-1.6	135.5	5.5	6.0
H2 2017	140.0	0.8	-0.7	124.7	0.2	3.0	136.9	0.4	-0.7
H1 2018	140.0	2.5	2.5	122.7	-0.9	0.8	139.5	6.9	4.9

 $<sup>^{\,1}\,</sup>$  Europe includes 22 banks, the Americas include 16 banks and the rest of the world includes 32 banks.

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 30 June 2018, in trillions of euros

Table C.85

	Group 1 k	oanks	Of which:	G-SIBs	Group 2 b	anks
	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	8.59	7.40	6.22	5.19	0.26	0.19
H1 2013	8.96	7.87	6.47	5.49	0.26	0.19
H2 2013	9.29	8.02	6.75	5.64	0.25	0.19
H1 2014	10.11	8.56	7.35	6.08	0.28	0.19
H2 2014	10.39	8.69	7.51	6.29	0.26	0.19
H1 2015	10.82	9.11	7.70	6.57	0.26	0.19
H2 2015	10.85	9.05	7.60	6.50	0.28	0.19
H1 2016	11.62	9.67	8.20	6.95	0.30	0.21
H2 2016	11.81	9.60	8.28	6.92	0.30	0.22
H1 2017	12.87	10.38	9.13	7.51	0.33	0.22
H2 2017	12.80	10.35	9.09	7.56	0.33	0.22
H1 2018	13.57	10.98	9.63	7.98	0.34	0.23

 $<sup>^{1}\,</sup>$  Group 1 includes 68 banks, G-SIBs include 19 banks and Group 2 includes 21 banks.

#### Evolution of the LCR and its drivers

Consistent sample of Group 1 banks, in per cent

Table C.86

	LCR 2012	HQLA	Net outflows
H2 2012	125.4	0.0	
H1 2013	125.4	0.3	-3.0
H2 2013	125.4	7.5	-7.5
H1 2014	125.4	11.2	-6.9
H2 2014	125.4	13.8	-10.2
H1 2015	125.4	16.3	-15.5
H2 2015	125.4	19.8	-17.8
H1 2016	125.4	17.7	-14.1
H2 2016	125.4	22.5	-15.7
H1 2017	125.4	25.7	-16.6
H2 2017	125.4	25.1	-15.8
H1 2018	125.4	27.4	-17.1

Source: Basel Committee on Banking Supervision.

#### NSFR and change in ASF and RSF

Consistent sample of banks, 1 exchange rates as of 30 June 2018, in per cent

Table C.87

_	Group 1 banks			Of which: G-SIBS			Group 2 banks		
_	Change				Cha	nge		Change	
	NSFR	ASF	RSF	NSFR	ASF	RSF	NSFR	ASF	RSF
H2 2012	100.1			101.8			102.2		
H1 2013	100.2	2.7	2.5	102.6	3.1	2.3	103.7	-1.5	-2.8
H2 2013	112.2	14.7	2.4	115.1	15.9	3.3	113.9	9.9	0.0
H1 2014	111.6	3.0	3.5	114.5	3.2	3.7	113.3	-0.4	0.1
H2 2014	111.7	1.6	1.5	114.1	1.2	1.6	113.1	-5.3	-5.1
H1 2015	111.9	4.0	3.7	114.4	4.7	4.4	114.6	6.1	4.7
H2 2015	114.0	1.9	0.0	116.5	1.8	0.1	115.7	0.7	-0.3
H1 2016	114.0	1.8	1.8	116.4	1.9	2.0	115.9	1.0	0.9
H2 2016	115.4	2.6	1.3	117.2	2.1	1.4	115.3	-0.5	-0.1
H1 2017	116.8	3.3	2.1	119.2	3.8	2.0	117.6	4.3	2.3
H2 2017	115.8	1.2	2.0	117.3	1.2	2.9	118.9	0.4	-0.8
H1 2018	115.6	2.7	2.9	116.7	2.7	3.2	119.6	2.1	1.5

 $<sup>^{\</sup>rm 1}\,$  Group 1 includes 88 banks, G-SIB includes 25 banks and Group 2 includes 42 banks.

#### NSFR and change in ASF and RSF, by region

Consistent sample of Group 1 banks,1 exchange rates as of 30 June 2018, in per cent

Table C.88

		Europe		Americas			Rest of the world		
_	Change				С	hange		Change	
	NSFR	ASF	RSF	NSFR	ASF	RSF	NSFR	ASF	RSF
H2 2012	95.7			89.5			111.5		
H1 2013	96.8	-0.8	-1.9	90.0	0.2	-0.3	109.4	7.2	9.3
H2 2013	101.3	9.9	4.9	102.0	25.5	10.7	131.0	14.7	-4.2
H1 2014	102.2	0.7	-0.1	102.8	2.4	1.6	126.2	5.0	9.0
H2 2014	101.9	-0.3	-0.1	110.9	2.7	-4.8	121.5	2.7	6.8
H1 2015	104.0	3.7	1.6	110.0	2.0	2.8	120.2	5.1	6.2
H2 2015	106.3	0.4	-1.7	111.6	2.0	0.6	122.1	3.0	1.4
H1 2016	107.0	0.4	-0.3	109.1	1.5	3.9	122.6	3.1	2.7
H2 2016	109.4	1.5	-0.8	109.9	3.3	2.6	123.2	4.1	3.6
H1 2017	111.7	1.8	-0.3	109.9	2.0	2.0	124.1	4.3	3.6
H2 2017	112.1	1.2	0.8	109.7	1.2	1.4	121.5	2.3	4.5
H1 2018	111.6	1.8	2.2	108.7	1.6	2.6	121.9	3.7	3.4

 $<sup>^{\,1}</sup>$  Europe includes 32 banks, the Americas include 21 banks and the rest of the world includes 42 banks.

### Previous monitoring reports published by the Basel Committee

December 2010 Results of the comprehensive quantitative impact study, December 2010,

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