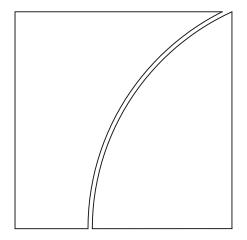
# Basel Committee on Banking Supervision



### Basel III Monitoring Report

March 2016



Queries regarding this document should be addressed to the Secretariat of the Basel Committee on Banking Supervision (e-mail: <a href="mailto:qis@bis.org">qis@bis.org</a> ).
banking supervision (e-mail. <u>qis@bis.org</u> ).
This publication is available on the BIS website ( <a href="www.bis.org/bcbs/qis/">www.bis.org/bcbs/qis/</a> ).  Grey underlined text in this publication shows where hyperlinks are available in the electronic version.
Grey undermied text in this publication shows where hypermins are available in the electronic version.
© Bank for International Settlements 2016. All rights reserved. Brief excerpts may be reproduced or translated provided the source is stated.
ISBN 92-9131-924-4 (print) ISBN 92-9197-924-4 (online)

### Basel III Monitoring Report

#### March 2016

Highli	ghts of the Basel III monitoring exercise as of 30 June 2015	1					
Detail	ed results of the Basel III monitoring exercise as of 30 June 2015	5					
1.	General remarks	5					
	1.1 Scope of the monitoring exercise	5					
	1.2 Sample of participating banks	6					
	1.3 Methodology	7					
	1.4 Data quality	7					
	1.5 Interpretation of results	7					
2.	Regulatory capital, capital requirements and capital shortfalls						
	2.1 Capital ratios	9					
	2.2 Capital shortfalls	12					
	2.3 Level of capital	14					
	2.4 Composition of capital	16					
	2.5 Leverage ratio	17					
	2.6 Relationship between the Basel III leverage ratio and risk-based capital requirement	ts20					
	2.7 Pending settlement transactions	22					
	2.8 Combined shortfall amounts	22					
3.	Liquidity	24					
	3.1 Liquidity Coverage Ratio	24					
	3.2 Net Stable Funding Ratio	27					
Comp	rehensive QIS on interest rate risk in the banking book	31					
Statist	tical Annex	41					
Previo	ous monitoring reports published by the Basel Committee	53					
Basel 1	III phase-in arrangements	55					

#### Conventions used in this report

billion thousand million trillion thousand billion

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 22 January 2016.

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

Chairman Mr Martin Birn, Secretariat of the Basel Committee on Banking Supervision,

Bank for International Settlements, Basel

The representatives in *italics* are members of the analysis team and provided analytical support at the Secretariat.

Argentina Ms Verónica Balzarotti Central Bank of Argentina

Australia Mr David Connolly Australian Prudential Regulation Authority

Belgium Ms Claire Renoirte National Bank of Belgium

Mr Sietse Bracke

Brazil Mr Joao Resende Central Bank of Brazil

Canada Mr Matthew Gordon Office of the Superintendent of Financial Institutions

China Ms Jin Wang China Banking Regulatory Commission
France Ms Anne-Sophie Borie-Tessier French Prudential Supervisory Authority

Ms Catherine Adenot Ms Dominique Durant

Mr Aurélien Violon

Germany Ms Dorothee Holl Deutsche Bundesbank

Mr Daniel Foos Ms Juliane Liefeldt Mr Ingo Torchiani Mr Amadeus Wissing

India Mr Santosh Pandey Reserve Bank of India Indonesia Mr Boyke W Suadi Indonesia FSA (OJK)

Italy Mr Francesco Piersante Bank of Italy

Mr Emiliano Sabatini

Japan Mr Jutaro Kaneko Bank of Japan

Ms Arfiya Eri

Mr Takahiro Ito Financial Services Agency

Korea Mr KyungHwan Sohn Financial Supervisory Service

Luxembourg Ms Natalia Katilova Surveillance Commission for the Financial Sector

Ms Marine Viegas

Mexico Mr Jonás Bernes National Banking and Securities Commission

Netherlands Mr Joost van der Burgt Netherlands Bank

Russia Mr Aleksandr Stezhkin Central Bank of the Russian Federation

Saudi Arabia Mr Suliman Aljabrin Saudi Arabian Monetary Agency
Singapore Ms Sandy Ho Monetary Authority of Singapore

South Africa Mr Jaco Vermeulen South African Reserve Bank

Spain Ms Elva Garcia Bank of Spain

Mr Paul Vigil Mr Peter Yen

Sweden Mr Andreas Borneus Finansinspektionen

Ms Amelie Stierna Sveriges Riksbank

Switzerland Mr Uwe Steinhauser Swiss Financial Market Supervisory Authority FINMA
Turkey Mr Erhan Cetinkaya Banking Regulation and Supervision Agency

Turkey Wil Errian Cethikaya Banking Regulation and Supervision Agency

United Kingdom Mr Pavel Izmaylov Prudential Regulation Authority

Ms Amy Jiang Mr Khushal Thakur

United States Mr Eric Kennedy Board of Governors of the Federal Reserve System

Ms Victoria Maizenberg

Ms Eva Shi Federal Reserve Bank of New York

Ms Andrea Plante Federal Deposit Insurance Corporation

Mr Andrew Carayiannis
Mr Joseph McPhail

Mr Benjamin Pegg Office of the Comptroller of the Currency

Mr Christopher Sadej

European Central Mr Gernot Stania ECB Single Supervisory Mechanism

Bank

Observers Mr Lampros Kalyvas European Banking Authority
Mr Gintaras Griksas European Commission

Secretariat Mr Davy Reinard Bank for International Settlements

Ms Bat-el Berger Mr Otakar Cejnar

Ms Alisa Dombrovskaya

Ms Lillie Lam Mr Roberto Ottolini Ms Crystal Pun Mr Christopher Zuin

#### Highlights of the Basel III monitoring exercise as of 30 June 2015

## All large internationally active banks meet Basel III minimum and CET1 target capital requirements

To assess the impact of the Basel III framework on banks,<sup>1</sup> 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. This report is the ninth publication of results from the Basel III monitoring exercise<sup>2</sup> and summarises the aggregate results using data as of 30 June 2015. 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 was provided for a total of 230 banks, including 101 large internationally active ("Group 1") banks and 129 other ("Group 2") banks.<sup>3</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 final Basel III requirements based on data as of 30 June 2015. 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. For this reason, the results are not comparable with current industry estimates, which tend to be based on forecasts and consider management actions to mitigate the impact, and they also incorporate estimates where information is not publicly available. 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, Basel III: A global framework for more resilient banks and the banking system, December 2010 and revised June 2011; Basel Committee on Banking Supervision, Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools, January 2013; Basel Committee on Banking Supervision, Basel III leverage ratio framework and disclosure requirements, January 2014, Basel Committee on Banking Supervision, Basel III: the net stable funding ratio, October 2014. These documents are available on the Committee's website at www.bis.org/bcbs/basel3.htm.

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.

#### Risk-based capital requirements

In the analysis of the risk-based capital requirements, this report focuses on the following items, assuming that the positions as of 30 June 2015 were subject to the fully phased-in Basel III standards:

- Changes to bank capital ratios under the Basel III requirements, and estimates of any capital deficiencies relative to fully phased-in minimum and target capital requirements (including capital surcharges for global systemically important banks G-SIBs);
- Changes to the definition of capital that result from the full phasing-in of the Basel III capital standard, referred to as common equity Tier 1 (CET1), including a reallocation of deductions to CET1, and changes to the eligibility criteria for additional Tier 1 and Tier 2 capital; and
- Increases in risk-weighted assets resulting from phasing-in changes to the definition of capital.

#### Capital ratios

Compared with the transitional Basel III framework, the average CET1 ratio under the fully phased-in Basel III framework<sup>4</sup> would decline from 11.9% to 11.5% for Group 1 banks. The Tier 1 capital ratios of Group 1 banks would decline on average from 13.2% to 12.2% and total capital ratios would decline from 15.8% to 13.9%. For Group 2 banks, the decline in capital ratios is slightly less pronounced than for Group 1. Assuming full phasing-in of Basel III, the aggregate CET1 ratio would decline from 13.1% to 12.8% and Tier 1 capital ratios would decline on average from 13.9% to 13.2%. Total capital ratios would decline by a slightly greater amount, on average from 16.0% to 14.5% due to the phase-out of Tier 2 instruments which will no longer be eligible in 2022.

#### CET1 capital shortfalls

Assuming full phasing-in of the Basel III requirements as of 30 June 2015, including changes to the definition of capital and risk-weighted assets, all Group 1 banks 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 according to the list of banks published by the Financial Stability Board in November 2015 where applicable. For Group 1 banks report no shortfall at the CET1 target level for the second consecutive reporting period.

Under the same assumptions, all Group 2 banks would meet the CET1 minimum capital requirement of 4.5%; however, the capital shortfall is estimated at €0.2 billion at the CET1 target level of 7.0%.

#### Leverage ratio

The average transitional Basel III Tier 1 leverage ratios (ie reflecting all applicable transitional arrangements to the definition of capital) would be 5.6% for Group 1 banks and for G-SIBs 5.5%, while it would amount to 5.6% for Group 2 banks. The average fully phased-in Basel III Tier 1 leverage ratios are 5.2% for both Group 1 banks and G-SIBs, while for Group 2 banks the average is 5.4%. Seven out of 106 Group 2 banks

- <sup>4</sup> See Section 1.1 for details on the scope of the exercise.
- See Financial Stability Board, 2015 update of list of global systemically important banks (G-SIBs), 3 November 2015, www.financialstabilityboard.org/wp-content/uploads/2015-update-of-list-of-global-systemically-important-banks-G-SIBs.pdf.
- The December 2014 shortfall figures have been adjusted to reflect changes in currency values through 30 June 2015.

with an aggregate shortfall of €4.3 billion would not meet a fully phased-in minimum Basel III Tier 1 leverage ratio of 3%, while all Group 1 banks now meet the requirement.

#### Combined shortfall amounts

This Basel III monitoring report also analyses the combined shortfall amounts needed to meet both risk-based capital and any applicable Tier 1 leverage ratio requirements (see Section 2.8).

For Group 1 banks, the leverage ratio has no impact on the capital shortfalls at the minimum or target levels. For Group 2 banks, the inclusion of the fully phased-in Basel III Tier 1 leverage ratio shortfall raises the additional Tier 1 capital shortfall at the minimum level from zero to  $\le$ 4.3 billion. At the target level, the additional Tier 1 capital shortfall rises by  $\le$ 4.3 billion (from  $\le$ 2.9 billion to  $\le$ 7.2 billion) when the Basel III Tier 1 leverage ratio requirement is included. In turn, this inclusion of applicable Basel III Tier 1 leverage ratio shortfalls increases the total capital shortfall from  $\le$ 0.3 billion to  $\le$ 4.6 billion considering all capital ratio minimums and from  $\le$ 8.6 billion to  $\ge$ 13.0 billion at the target level.

#### Liquidity standards

#### Liquidity Coverage Ratio

The Liquidity Coverage Ratio (LCR) was revised by the Committee in January 2013<sup>7</sup> and came into effect on 1 January 2015. This marks the first reporting period in which all banks are subject to the minimum 60% requirement that came into effect on 1 January 2015 according to the Basel III phase-in arrangements. The minimum requirement is initially set at 60% for 2015 and will then rise in equal annual steps of 10 percentage points to reach 100% in 2019. The end-June 2015 reporting period was the sixth data collection exercise for which a comprehensive calculation of the revised LCR standard could be conducted. Key observations from a comparison of current period to previous period results include:

- A total of 92 Group 1 and 68 Group 2 banks participated in the LCR monitoring exercise for the end-June 2015 reference period.<sup>8</sup>
- The average LCR for the Group 1 bank sample was 123.6%. For Group 2 banks, the average LCR was 140.1%. These figures compare to average LCRs of 125.3% and 144.3% for Group 1 banks and Group 2 banks, respectively, at end-December 2014.
- Of the 160 banks in the LCR sample, 84% reported a ratio that met or exceeded a 100% minimum requirement, compared with 81% at end-December 2014, while all banks reported an LCR at or above a 60% minimum requirement, compared with 95% at end-December 2014.
- The aggregate LCR shortfall at a minimum requirement of 100% was €57 billion, which represents approximately 0.1% of the more than €64.2 trillion in total assets of the aggregate sample. This compares to a shortfall of €147 billion (which represents approximately 0.2% of the €62.0 trillion total assets of the aggregate sample) as of end-December 2014. Since no bank reported an LCR

Basel Committee on Banking Supervision, Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools, January 2013, www.bis.org/publ/bcbs238.htm.

<sup>&</sup>lt;sup>8</sup> This significant drop in sample size from the previous reporting period is largely due to the exclusion of results for one jurisdiction due to data quality limitations.

below 60%, there was no LCR shortfall at a minimum requirement of 60%, compared to €70 billion at end-December 2014.

#### Net Stable Funding Ratio

The Net Stable Funding Ratio (NSFR) was revised by the Committee in October 2014. The end-June 2015 reporting period was the second data collection exercise for which a comprehensive calculation of the revised NSFR standard could be conducted. As such, comparisons to previous reporting periods are available beginning with this collection exercise. Key observations from the current period results include:

- A total of 100 Group 1 and 102 Group 2 banks participated in the NSFR monitoring exercise for the end-June 2015 reference period.
- The weighted average NSFR was 111.9% for Group 1 banks and 114.0% for Group 2 banks at end-June 2015 compared to 111.2% and 113.9% respectively, at end-December 2014.
- 79% of Group 1 banks and 83% of Group 2 banks meet or exceed the 100% minimum NSFR requirement, with 92% of Group 1 banks and 94% of Group 2 banks at an NSFR of 90% or higher as of end-June 2015.
- The aggregate NSFR shortfall which reflects 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 was €415 billion at end-June 2015 compared to €576 billion at end-December 2014. The shortfall was €374 billion and €41 billion at end-June 2015 for Group 1 and Group 2 banks, respectively, compared to €526 billion and €50 billion at end-December 2014.

The NSFR, including any potential revisions, will become a minimum standard by 1 January 2018.

Basel Committee on Banking Supervision, Basel III: The net stable funding ratio, October 2014, www.bis.org/bcbs/publ/d295.htm.

# Detailed results of the Basel III monitoring exercise as of 30 June 2015

#### 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. Subsequent to the initial comprehensive quantitative impact study published in December 2010, the Committee continues to monitor and evaluate the impact of these capital, leverage and liquidity requirements (collectively referred to as "Basel III") on a semiannual basis. This report summarises the results of the latest Basel III monitoring exercise using 30 June 2015 data.

#### 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 2015. 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 in July 2015.<sup>4</sup> The questionnaire covered components of eligible capital, the calculation of risk-weighted assets (RWA), the calculation of a leverage ratio and components of the liquidity metrics. The final data were submitted to the Secretariat of the Committee by 22 January 2016.

The purpose of the exercise is to provide the Committee with an ongoing assessment of the impact on participating banks of the capital and liquidity standards set out in the following documents:

- 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>.
- A list of previous publications is included in the Annex.
- The data for Japan are as of the end of March 2015, 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 2015, which corresponds to Canadian banks' fiscal second quarter-end.
- See Basel Committee on Banking Supervision, Instructions for Basel III implementation monitoring, July 2015, www.bis.org/bcbs/qis/.

- Revisions to the Basel II market risk framework<sup>5</sup> and Guidelines for computing capital for incremental risk in the trading book;<sup>6</sup>
- Enhancements to the Basel II framework<sup>7</sup> which include the revised risk weights for resecuritisations held in the banking book;
- Basel III: A global framework for more resilient banks and the banking system as well as the Committee's 13 January 2011 press release on loss absorbency at the point of non-viability;<sup>8</sup>
- Capital requirements for bank exposures to central counterparties; 9
- Global systemically important banks: updated assessment methodology and the additional loss absorbency requirement as well as the updated list of G-SIBs published by the Financial Stability Board in November 2015;<sup>10</sup>
- Basel III: the Liquidity Coverage Ratio and liquidity risk monitoring tools;<sup>11</sup>
- Basel III: the net stable funding ratio;<sup>12</sup> and
- Basel III leverage ratio framework and disclosure requirements. 13

#### 1.2 Sample of participating banks

Data were provided for a total of 230 banks, including 101 Group 1 banks and 129 Group 2 banks. <sup>14</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. Banks were asked to provide data at the consolidated level as of 30 June 2015. 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 small 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"), December 2011 ("H2 2011"), June 2012 ("H1 2012"), December 2012 ("H2 2012"), June 2013

- Basel Committee on Banking Supervision, *Revisions to the Basel II market risk framework*, July 2009, www.bis.org/publ/bcbs158.htm.
- Basel Committee on Banking Supervision, Guidelines for computing capital for incremental risk in the trading book, July 2009, www.bis.org/publ/bcbs159.htm.
- Basel Committee on Banking Supervision, Enhancements to the Basel II framework, July 2009, www.bis.org/publ/bcbs157.htm.
- The Committee's 13 January 2011 press release on loss absorbency at the point of non-viability is available at <a href="https://www.bis.org/press/p110113.htm">www.bis.org/press/p110113.htm</a>.
- Basel Committee on Banking Supervision, Capital requirements for bank exposures to central counterparties, July 2012, www.bis.org/publ/bcbs227.htm.
- Basel Committee on Banking Supervision, *Global systemically important banks: updated assessment methodology and the additional loss absorbency requirement*, July 2013, <a href="www.bis.org/publ/bcbs255.htm">www.bis.org/publ/bcbs255.htm</a>; Financial Stability Board, 2015 update of list of global systemically important banks (G-SIBs), 3 November 2015, www.financialstabilityboard.org/wp-content/uploads/2015-update-of-list-of-global-systemically-important-banks-G-SIBs.pdf.
- Basel Committee on Banking Supervision, Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools, January 2013, www.bis.org/publ/bcbs238.htm.
- Basel Committee on Banking Supervision, Basel III: the net stable funding ratio, October 2014, <a href="https://www.bis.org/bcbs/publ/d295.htm">www.bis.org/bcbs/publ/d295.htm</a>.
- Basel Committee on Banking Supervision, Basel III leverage ratio framework and disclosure requirements, January 2014, www.bis.org/publ/bcbs270.htm.
- <sup>14</sup> See Table A.1 in the Statistical Annex for details on the sample.

("H1 2013"), December 2013 ("H2 2013"), June 2014 ("H1 2014"), December 2014 ("H2 2014") and June 2015 ("H1 2015") reporting dates, in order to make more meaningful period-to-period comparisons. Unless noted otherwise, the consistent sample includes 91 Group 1 banks, of which 30 are G-SIBs, and 71 Group 2 banks. The 30 banks in the G-SIB time series analyses are those banks which have been classified as G-SIBs as of November 2015, 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

Unless otherwise noted, the impact assessment was carried out by comparing banks' capital positions under fully phased-in Basel III to the transitional Basel III framework as implemented by the national supervisor (ie with phase-in arrangements). The fully phased-in Basel III results are calculated without considering transitional arrangements pertaining to the phase-in of deductions and grandfathering arrangements set out in the Basel III framework. 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 was used instead.

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.

Reported average amounts in this document 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' risk-weighted assets for the total sample. Similarly, the average fully phased-in Basel III Tier 1 leverage ratio is the sum of all banks' fully phased-in Tier 1 capital for the total sample divided by the sum of all banks' Basel III leverage ratio exposures for the total sample.

To preserve confidentiality, many 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 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.

#### 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. 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 and data revisions also explain why results presented for the June 2015 reporting date may differ from the H1 2015 data point in graphs and tables showing the time series for the consistent sample of banks as described above.

- The actual impact of the new requirements 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 2015 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.
- 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 six 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.

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

Table 1 shows the aggregate capital ratios under the transitional and fully phased-in Basel III frameworks and the capital shortfalls if Basel III were fully phased-in ("view 2022"), both for the definition of capital and the calculation of risk-weighted assets, as of June 2015. Details of capital ratios and capital shortfalls are provided in Sections 2.1 and 2.2.

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

- For CET1, the highest form of loss-absorbing capital, the minimum requirement was raised to 4.5% and was phased in on 1 January 2015;
- For Tier 1 capital, the minimum requirement was raised to 6.0% and was phased in on 1 January 2015;
- For total capital, the minimum requirement remains at 8.0%;
- Regulatory adjustments (ie possibly stricter sets of deductions that apply under Basel III) will be 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, will be phased in by 1 January 2019; and
- The additional loss absorbency requirement for G-SIBs, which ranges from 1.0% to 3.5%, will be fully phased in by 1 January 2019. It will be applied as the extension of the capital conservation buffer and must be met with CET1.

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

Aggregate capital ratios and (incremental) capital shortfalls

Table 1

	Fully implemented requirement, in per cent		Basel III capital ratios, in per cent		Risk-based capital shortfalls, in billions of euros <sup>1</sup>		Combined risk-based capital and leverage ratio shortfalls, in billions of euros <sup>1</sup>	
	Min	Target <sup>2</sup>	Transitional	Fully phased-in	Min	Target <sup>2</sup>	Min	Target <sup>2</sup>
Group 1 banks								
CET1 capital	4.5	7.0-9.5	11.9	11.5	0.0	0.0	0.0	0.0
Tier 1 capital <sup>3</sup>	6.0	8.5-11.0	13.2	12.2	0.0	3.4	0.0	3.4
Total capital <sup>4</sup>	8.0	10.5-13.0	15.8	13.9	0.0	12.8	0.0	12.8
Sum					0.0	16.2	0.0	16.2
Of which: G-SIBs								
CET1 capital	4.5	8.0-9.5	11.8	11.4	0.0	0.0	0.0	0.0
Tier 1 capital <sup>3</sup>	6.0	9.5-11.0	12.9	12.2	0.0	0.0	0.0	0.0
Total capital <sup>4</sup>	8.0	11.5-13.0	15.5	13.9	0.0	11.4	0.0	11.4
Sum					0.0	11.4	0.0	11.4
Group 2 banks								
CET1 capital	4.5	7.0	13.1	12.8	0.0	0.2	0.0	0.2
Tier 1 capital <sup>3</sup>	6.0	8.5	13.8	13.2	0.0	2.9	4.3	7.2
Total capital <sup>4</sup>	8.0	10.5	16.0	14.5	0.3	5.6	0.3	5.6
Sum					0.3	8.6	4.6	13.0

<sup>&</sup>lt;sup>1</sup> The shortfall is calculated as the sum across individual banks where a shortfall is observed. The calculation includes all changes to risk-weighted assets (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. <sup>2</sup> The shortfalls at the target level include the capital conservation buffer and the capital surcharges for 30 G-SIBs as applicable. <sup>3</sup> The shortfalls presented in the Tier 1 capital row are *additional* Tier 1 capital shortfalls.

Source: Basel Committee on Banking Supervision.

#### 2.1 Capital ratios

As compared with transitional CET1, the average CET1 capital ratio of Group 1 banks would have fallen from 11.9% to 11.5% (a decline of 0.4 percentage points) when Basel III deductions and risk-weighted assets are fully taken into account. For Group 2 banks, the CET1 capital ratio declines from 13.1% under transitional rules to 12.8% as a result of the full phasing-in of Basel III (a reduction of 0.3 percentage points). Results continue to show significant variation across banks as shown in Graph 1 for the transitional Basel III rules and Graph 2 for fully phased-in Basel III. The reduction in CET1 ratios 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), <sup>15</sup> and by increases in risk-weighted assets (denominator). Since all countries in the sample have already implemented Basel III as of end-June 2015 the overall change in RWA is very limited and mainly due to different national phase-in plans.

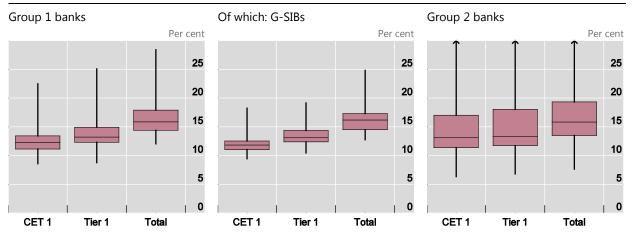
Tier 1 capital ratios of Group 1 banks would on average decline 1.0 percentage points from 13.2% to 12.2%, and total capital ratios of this same group would decline on average by 1.9 percentage points from 15.8% to 13.9%. Group 2 banks show similar declines in Tier 1 capital ratios (from 13.8% to 13.2%)

See also Table A.12 and Table A.13.

and total capital ratios (from 16.0% to 14.5%). 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.

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

Graph 1

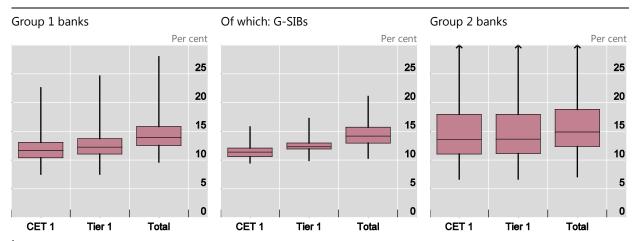


<sup>&</sup>lt;sup>1</sup> The median value is represented by a horizontal line, with 50% of the values falling in the range shown by the box. The upper and lower end points of the vertical lines generally show the range of the entire sample. In some cases, arrows at the top of the vertical line indicate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

Source: Basel Committee on Banking Supervision. See also Table A.2.

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

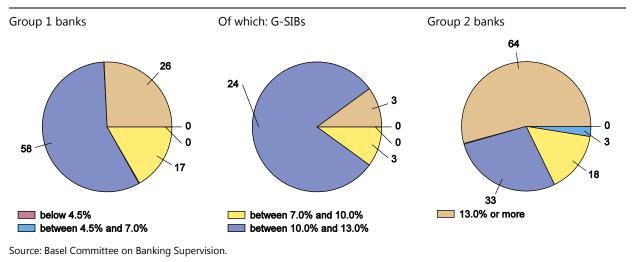
Graph 2



<sup>&</sup>lt;sup>1</sup> The median value is represented by a horizontal line, with 50% of the values falling in the 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.

Source: Basel Committee on Banking Supervision. See also Table A.3.

Graph 3 shows that, out of the 101 banks in the Group 1 sample, all show a CET1 ratio under fully phased-in Basel III that is above both the 4.5% minimum capital requirement and the 7.0% target ratio (ie the minimum capital requirement plus the capital conservation buffer). Of 118 banks in the Group 2 sample, all report a CET1 ratio equal to or higher than 4.5%, while 97% also achieve the target of 7.0%.



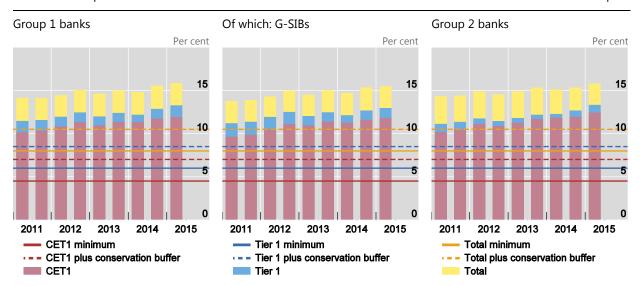
Graph 4 below shows the average capital ratios under transitional Basel III rules for a consistent sample of Group 1 and Group 2 banks for the periods end-June 2011, end-December 2011, end-June 2012, end-December 2012, end-June 2013, end-December 2014, end-December 2014 and

Average transitional Basel III CET1, Tier 1 and total capital ratios<sup>1</sup>

end-June 2015. Transitional capital ratios have not changed greatly.

Consistent sample of banks<sup>2</sup>

Graph 4

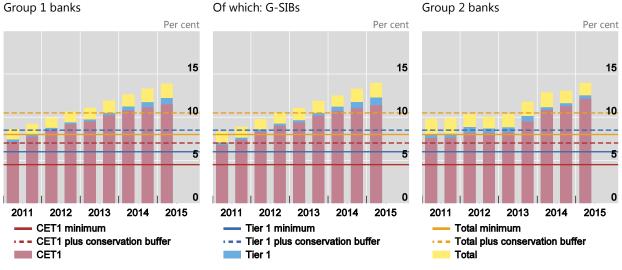


<sup>&</sup>lt;sup>1</sup> Before the implementation of the Basel III framework, results have been calculated on the basis of the relevant national regulatory frameworks in place at the reporting dates. <sup>2</sup> Group 1 includes 91 banks, G-SIB includes 30 banks and Group 2 includes 71 banks.

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

After full phasing in of Basel III (Graph 5), the CET1, Tier 1 and total capital ratios for this consistent sample of Group 1 banks improved by 0.3, 0.5 and 0.6 percentage points, respectively, over the previous six months. For Group 2 banks, the improvement in risk-based capital ratios over the reporting period was 0.9 percentage points each. The general improvement in fully phased-in Basel III capital ratios for both groups is due to Basel III-eligible capital added and, to a lesser extent, lower levels of deductions that reduce CET1, in spite of slightly higher overall risk-weighted assets.

Consistent sample of banks<sup>1</sup> Graph 5



<sup>&</sup>lt;sup>1</sup> Group 1 includes 91 banks, G-SIB includes 30 banks and Group 2 includes 71 banks.

Source: Basel Committee on Banking Supervision. See also Table A.5.

#### 2.2 Capital shortfalls

This section shows the capital shortfalls for the Group 1 and Group 2 bank samples assuming full phasing in of the Basel III requirements based on data as of 30 June 2015 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 30 G-SIBs as applicable.

Graph 6 and Graph 7 below as well as Table 1 above provide estimates of the amount of capital that Group 1 and Group 2 banks would need based on data as of 30 June 2015 in addition to capital already held at the reporting date, in order to meet the target CET1, Tier 1 and total capital ratios under Basel III assuming fully phased-in requirements and deductions. Under these assumptions, there is no CET1 capital shortfall for Group 1 or Group 2 banks with respect to the 4.5% CET1 minimum requirement. For a CET1 target of 7.0% (ie the 4.5% CET1 minimum plus the 2.5% capital conservation buffer) plus any capital surcharge for Group 1 G-SIBs as applicable according to the updated list of banks published by the Financial Stability Board in November 2015, the Group 1 banks also have no shortfall, while the shortfall for Group 2 banks is €0.2 billion. As a point of reference, the aggregate sum of after-tax profits prior to distributions for the six-month period ending 30 June 2015 for Group 1 and Group 2 banks was €307.2 billion and €14.7 billion, respectively.

Group 1 banks would not need additional Tier 1 or CET1 capital to meet the minimum Tier 1 capital ratio requirement of 6.0%. Assuming banks already hold 7.0% CET1 capital plus the surcharges on G-SIBs as applicable, Group 1 banks would need an additional €3.4 billion of additional Tier 1 or CET1 capital to meet the Tier 1 capital target ratio of 8.5% (ie the 6.0% Tier 1 minimum plus the 2.5% CET1 capital conservation buffer) plus the surcharges on G-SIBs as applicable, respectively. Group 2 banks need no additional Tier 1 or CET1 capital to meet the minimum Tier 1 capital requirement but require an additional €2.9 billion to meet the target ratio requirement.

Group 1 banks do not need additional Tier 2 or higher-quality capital to meet the minimum total capital ratio requirement of 8.0% but require an additional €12.8 billion of Tier 2 or higher-quality capital

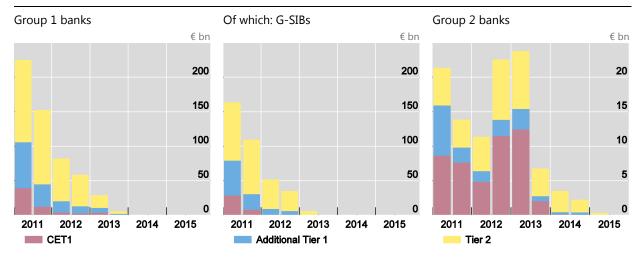
to meet the total capital target ratio of 10.5% (ie the 8.0% Tier 1 minimum plus the 2.5% CET1 capital conservation buffer) plus the surcharges on G-SIBs as applicable. Group 2 banks would need an additional €0.3 billion of Tier 2 or higher-quality capital to meet these respective total capital minimum and an additional €5.64 billion of Tier 2 or higher-quality capital to meet the total capital target ratio 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.

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

Fully phased-in Basel III, sample and exchange rates as at the reporting dates<sup>2</sup>

Graph 6



<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. <sup>2</sup> Group 1 includes 102 banks in H1 2011 and H2 2011, 101 banks in H1 2012 and H2 2012, 102 banks in H1 2013 and in H2 2013 and 98 in H1 2014, H2 2014 and 101 in H1 2015; Group 2 includes 109 banks in H1 2011, 107 in H2 2011, 104 in H1 2012, 115 in H2 2012, 118 in H1 2013, 113 in H2 2013, 114 in H1 2014, 109 in H2 2014 and 118 in H1 2015.

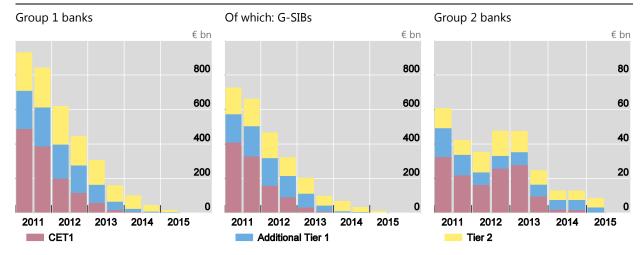
Source: Basel Committee on Banking Supervision. See also Table A.6.

At the CET1 target level of 7.0% plus the surcharges on G-SIBs as applicable, the aggregate CET1 shortfall remained zero over the six-month period ending 30 June 2015 (see Graph 7). Among Group 2 banks the CET1 shortfall at the 7.0% target level improved considerably, falling roughly 90% from December 2014.

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

Fully phased-in Basel III, sample and exchange rates as at the reporting dates<sup>2</sup>

Graph 7



<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. <sup>2</sup> Group 1 includes 102 banks in H1 2011 and H2 2011, 101 banks in H1 2012 and H2 2012, 102 banks in H1 2013 and in H2 2013, 98 in H1 2014 and H2 2014, and 101 in H1 2015; Group 2 includes 109 banks in H1 2011, 107 in H2 2011, 104 in H1 2012, 115 in H2 2012, 118 in H1 2013, 113 in H2 2013, 114 in H1 2014, 109 in H2 2014, and 118 in H1 2015.

Source: Basel Committee on Banking Supervision. See also Table A.7.

#### 2.3 Level of capital

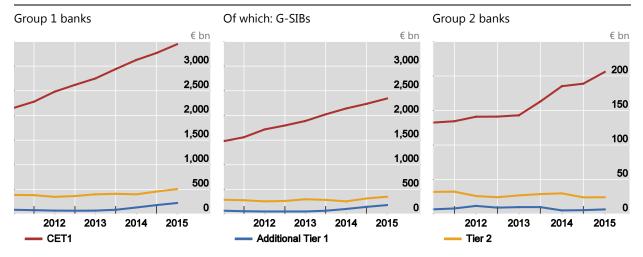
Graph 8 shows the development of the level of CET1 capital of banks in the consistent sample assuming full phasing-in of Basel III separately for Group 1 banks, Group 2 banks and G-SIBs. From end-December 2014 to end-June 2015, the level of Group 1 banks' CET1 has increased by €173 billion or 5.0% to €3,443 billion. Around two thirds of this increase, €109 billion, can be attributed to the G-SIBs in the sample which collectively held €2,346 billion of capital at June 2015. Group 2 banks' CET1 has increased by €17 billion or 9% to €206 billion.

Since end-June 2011, a consistent sample of Group 1 banks have increased their CET1 capital by 59.9%. The overall increase for the G-SIBs included in this sample is somewhat lower at 58.6%, while the CET1 of the consistent sample of Group 2 banks has increased by 54.9%.

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

Consistent sample of banks, 1 exchange rates as of 30 June 2015

Graph 8



<sup>&</sup>lt;sup>1</sup> Group 1 includes 92 banks, G-SIB includes 30 banks and Group 2 includes 73 banks.

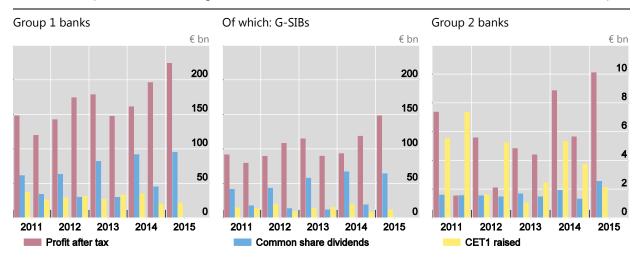
Source: Basel Committee on Banking Supervision. See also Table A.8.

The CET1 capital raised by the consistent sample of Group 1 banks (see Graph 9) varied between €37.3 billion in the first half of 2011 and €21.7 billion in the first half of 2015. Of these amounts, capital raised by the G-SIBs in the sample was 38.6% in the first half of 2011 and 53.0% in the second half of 2015. For the consistent sample of Group 2 banks, capital raised was the lowest in the first half of 2013 at slightly more than €1 billion, while the amount raised in the first half of 2015 was €2.1 billion.

#### Profits, dividends and CET1 capital raised

Consistent sample of banks,1 exchange rates as of 30 June 2015

Graph 9



<sup>&</sup>lt;sup>1</sup> Group 1 includes 90 banks, G-SIB includes 29 banks and Group 2 includes 72 banks.

Source: Basel Committee on Banking Supervision. See also Table A.9.

In the first half of 2015 the full sample of Group 1 banks raised €22.0 billion of CET1 capital (see Table 2). More than half of this amount was raised by G-SIBs within the sample. Group 2 banks collectively raised €11.3 billion of CET1 capital during the reporting period.

#### Capital raised during H1 2015

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

Table 2

	Number of banks	Number of banks that raised capital	CET1	Additional Tier 1	Tier 2
Group 1	100	67	22.0	47.4	47.5
of which: G-SIBs	30	29	11.5	38.3	36.9
Group 2	116	45	11.3	0.7	2.2

Source: Basel Committee on Banking Supervision.

#### 2.4 Composition of capital

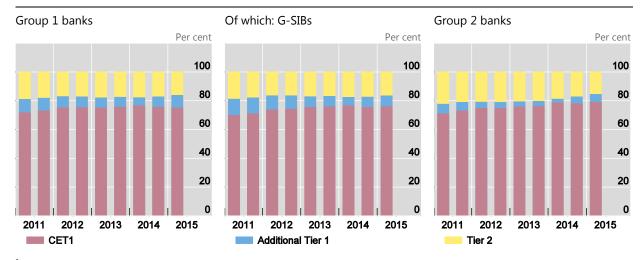
The graphs below show the composition of total capital for Group 1 and Group 2 banks under transitional Basel III rules (Graph 10) and after full phasing-in of Basel III (Graph 11).

For Group 1 banks, the share of fully phased-in Basel III CET1 to total capital is 82.5%. Additional Tier 1 and Tier 2 capital amount to 5.4% and 12.1% of the total capital of Group 1 banks, respectively. Of the Group 1 bank sample, approximately 35% hold Basel III CET1 representing 90% or more of Basel III total capital. In the Group 2 sample, banks hold a similar share of CET1 at 87.1% with shares of additional Tier 1 capital and Tier 2 capital amounting to 2.8% and 10.1%, respectively. Under transitional Basel III rules, the share of CET1 to total capital is lower at 75.1% for Group 1 banks and at 78.8% for Group 2 banks, with correspondingly higher shares of additional Tier 1 and Tier 2 capital.

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

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

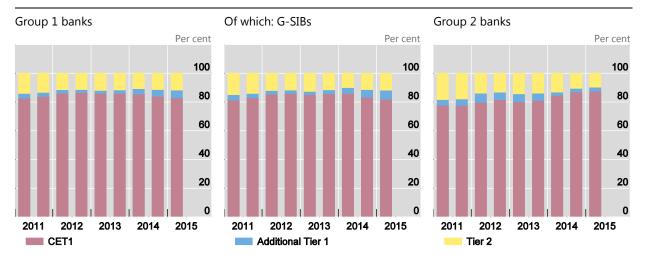
Graph 10



 $<sup>^{\</sup>rm 1}\,$  Group 1 includes 91 banks, G-SIB includes 30 banks and Group 2 includes 74 banks.

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

Consistent sample of banks<sup>1</sup> Graph 11



<sup>&</sup>lt;sup>1</sup> Group 1 includes 91 banks, G-SIB includes 30 banks and Group 2 includes 74 banks.

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

Regarding the composition of Basel III CET1 capital itself, retained earnings (55.0% for Group 1 banks and 38.3% for Group 2 banks) and paid-in capital (38.6% for Group 1 banks and 46.2% for Group 2 banks) comprise the predominant form of gross CET1 outstanding. Accumulated other comprehensive income (AOCI) makes up a substantial portion of CET1 outstanding in a few countries but contributes only 5.9% of gross CET1 on average for Group 1 banks and 11.5% for Group 2 banks. Meanwhile, total minority interest given recognition in CET1 contributes only a respective 0.8% and 4.0% to the outstanding CET1 balances of Group 1 and Group 2 banks.

#### 2.5 Leverage ratio

The results regarding the Basel III leverage ratio are provided using the two following measures of Tier 1 capital in the numerator:

- Transitional 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 Basel III Tier 1 capital.

Following publication of the January 2014 Basel III leverage ratio framework, <sup>16</sup> the Basel III leverage ratio exposure measure in the denominator of the Basel III leverage ratio includes:

- on-balance sheet assets, excluding securities financing transactions and derivatives;
- securities financing transaction (SFT) exposures with limited recognition of netting of cash receivables and cash payables with the same counterparty under strict criteria;
- derivatives 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);

Basel Committee on Banking Supervision, Basel III leverage ratio framework and disclosure requirements, January 2014, www.bis.org/publ/bcbs270.pdf.

- 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.

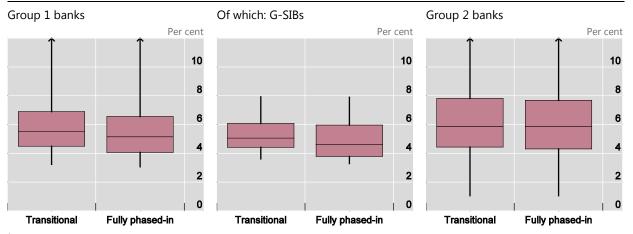
Total exposures of the 101 Group 1 banks and the 108 Group 2 banks in the sample were €78.3 trillion. Graph 12 presents summary statistics related to the distribution of Basel III leverage ratios based on transitional Basel III Tier 1 and fully phased-in Basel III Tier 1 capital. The graph provides this information for Group 1 banks, G-SIBs and Group 2 banks. The weighted average transitional Basel III Tier 1 leverage ratios would be 5.6% for Group 1 banks and for G-SIBs 5.5%, while it would amount to 5.6% for Group 2 banks. The weighted average fully phased-in Basel III Tier 1 leverage ratios are 5.2% for both Group 1 banks and G-SIBs, while for Group 2 banks the weighted average is 5.4%.

The analysis shows that Group 2 banks, while showing a greater dispersion as can be seen in Graph 12, are generally less leveraged than Group 1 banks, and this difference increases when fully phased-in Basel III Tier 1 capital is used as the numerator.

Under the transitional Basel III Tier 1 leverage ratio, seven banks in the sample would not meet the 3% ratio level, all of them being Group 2 banks. While this represents an increase of three banks compared to the previous report, this increase is due to changes in the sample composition. Under the fully phased-in Basel III Tier 1 leverage ratio, also seven banks in the sample would not meet the 3% ratio level, all of them still being Group 2 banks, with an aggregate shortfall of €4.3 billion.

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

Graph 12

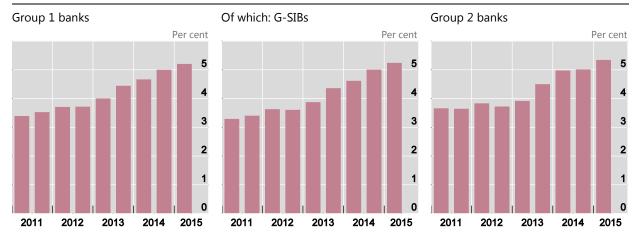


<sup>&</sup>lt;sup>1</sup> The median value is represented by a horizontal line, with 50% of the values falling in the range shown by the box. The upper and lower end points of the vertical lines generally show the range of the entire sample. Banks with Basel III leverage ratios above 12% are included in the calculation but are not shown in the graph.

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

Graph 13 shows how the fully phased-in Basel III Tier 1 leverage ratios have evolved over time for a consistent sample of 91 Group 1 and 73 Group 2 banks, as well as for 30 G-SIBs, which provided leverage ratio data for all reporting dates from June 2011 to June 2015.

Consistent sample of banks Graph 13



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

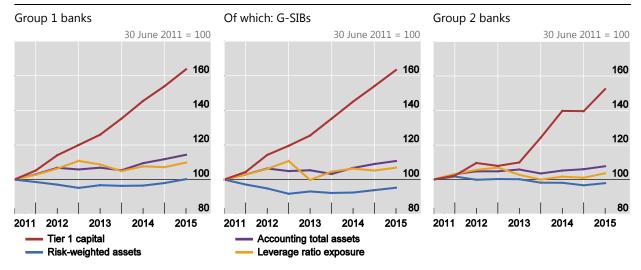
Source: Basel Committee on Banking Supervision. See also Table A.15.

Graph 14 shows the evolution of the components of the capital 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 2015. The four components are Basel III Tier 1 capital, risk-weighted assets and the leverage ratio exposure measure, all assuming full implementation of Basel III, as well as accounting total assets. For Group 1 banks, capital steadily increased over the period, whereas leverage ratio exposures, which had followed a similar pattern until end-2012, decreased during 2013 and then has been increasing somewhat since 2014. Nevertheless, since June 2012, changes in leverage ratio exposure, accounting total assets and risk-weighted assets have been relatively modest. For Group 2 banks these three time series evolve more closely and have remained rather stable over the last four years. Group 2 banks also report significant increases in fully phased-in Basel III Tier 1 capital over the last reporting periods.

### Tier 1 capital, risk-weighted assets, leverage ratio exposure and accounting total assets<sup>1</sup>

Consistent sample of banks, exchange rates as of 30 June 2015

Graph 14



<sup>&</sup>lt;sup>1</sup> Tier 1 capital, risk-weighted assets and leverage ratio exposure assume full implementation of Basel III. Note that the data points for H1 2013 use an approximation for the final definition of the Basel III leverage ratio exposure where gross instead of adjusted gross securities financing transaction values are used.

Source: Basel Committee on Banking Supervision. See also Table A.16.

### 2.6 Relationship between the Basel III leverage ratio and risk-based capital requirements

Table 3 below shows the migration of banks from *bounded* to *non-bounded* after Tier 1 capital rising to meet the target Tier 1 risk-based capital ratio.<sup>17</sup> It shows in particular that 3.4% of the banks in the sample do not meet the minimum Basel III leverage ratio of 3%, even after Tier 1 capital rising to meet the target risk-based Tier 1 capital requirements.

Share of banks meeting the fully phased-in Basel III leverage ratio before and after capital raising to meet the risk-based target Tier 1 ratio

In per cent Table 3

	_	Target Tier 1 ratio binding (<8.5% + G-SIB surcharge)?			Total after capital raising to meet
		Yes	No	Total	target Tier 1 ratio
Leverage ratio binding (<3%)?	Yes	0.5	2.9	3.4	3.4
	No	4.3	92.3	96.6	96.6
	Total	4.8	95.2	100.0	100.0

Source: Basel Committee on Banking Supervision.

<sup>&</sup>lt;sup>17</sup> That is, a Tier 1 minimum capital ratio of 6% plus a capital conservation buffer of 2.5% plus, where applicable, any G-SIB capital surcharges.

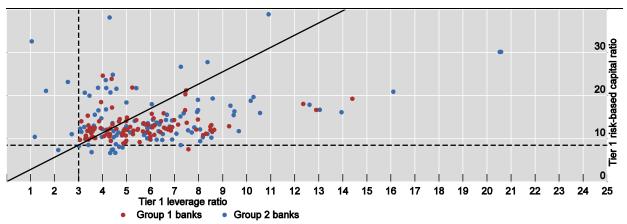
Graph 15 below shows the interaction between the fully phased-in Basel III Tier 1 leverage ratios (horizontal axis) and the fully phased-in Basel III Tier 1 risk-weighted capital ratios (vertical axis). Ratios of Group 1 banks are marked with red dots and those of Group 2 banks with blue dots. The dashed horizontal line represents a Tier 1 target 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 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 risk-weighted assets 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 capital ratio (ie the Basel III Tier 1 leverage ratio becomes the constraining requirement). <sup>19</sup> For banks plotted below the diagonal line, the target Tier 1 capital ratio requires more capital than the leverage ratio (ie the Tier 1 capital ratio remains the constraining requirement).

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

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

Graph 15



<sup>&</sup>lt;sup>1</sup> Banks with a risk-based Basel III Tier 1 capital ratio of more than 40% or a Basel III Tier 1 leverage ratio of more than 25% have been excluded from the graph.

Source: Basel Committee on Banking Supervision.

As shown in Graph 15, seven Group 2 banks do not meet the minimum fully phased-in Basel III Tier 1 leverage ratio of 3% (ie they are plotted left of the vertical dashed line). Among those, one bank also does not meet the Basel III Tier 1 target capital ratio of 8.5% (hence they are plotted in the southwest quadrant of Graph 15).

This graph also shows that the fully phased-in Basel III Tier 1 leverage ratio is constraining for 66 banks out of 207, including 34 Group 1 and 32 Group 2 banks – ie they are plotted above the diagonal line. Of these 66 banks, seven Group 2 banks also do not meet the minimum fully phased-in Basel III Tier 1 leverage ratio of 3% (hence they are plotted left of the vertical dashed line and above the diagonal line).

<sup>&</sup>lt;sup>18</sup> Consisting 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. As the G-SIB surcharges only apply to the risk-based requirement, the relevant proportion between risk-weighted assets and total leverage ratio exposure that determines whether the Basel III leverage ratio is constraining or not may vary on a bank by bank basis.

#### 2.7 Pending settlement transactions

Different accounting treatment of *pending settlement transactions* related to the *purchase or sale of financial assets* have been identified under IFRS and US GAAP with the potential of causing level playing field concerns across banks.

IFRS gives entities the option to apply trade or settlement date accounting for regular purchases or sales of financial assets<sup>20</sup> while US GAAP and Japanese GAAP require trade date accounting for banks and broker-dealers. In the latter case, for broker-dealers only, a netting option is provided to net the receivables and payables associated with pending settlement transactions.

The Committee received 153 valid submissions on the specific panel associated with the treatment of pending settlement transactions. <sup>21</sup> Table 4 shows the current distribution between Group 1 and Group 2 banks. According to this table, results differ across bank groups. Indeed, Group 2 banks tend to apply settlement date accounting, while the majority of Group 1 banks apply trade date accounting. Finally, banks using the trade date accounting with netting are mostly Group 1 banks.

Total number of banks by group and accounting treatment						
	Settlement date accounting	Trade date accounting without netting	Trade date accounting with netting			
Group 1	26	31	16			
Group 2	59	20	1			
Total	85	51	17			

<sup>&</sup>lt;sup>1</sup> Eight out of the 17 banks that have reported using trade date accounting with netting have also reported to be IFRS banks. While the issue is still under investigation it seems that these eight banks have interpreted the *conditional* netting that is allowed under IFRS (see IAS 32) as relevant for their accounting classification to our purpose, and have therefore provided the relevant data together with broker-dealers that apply *unconditional* netting according to the applicable accounting standards.

#### 2.8 Combined shortfall amounts

Graph 16 below shows a breakdown of risk-based capital shortfalls and combined risk-based and Basel III leverage ratio capital shortfalls for Group 1 banks, Group 2 banks and G-SIBs.

Each box consists of four bars. Note that the leftmost bar in each of the boxes (labelled with *Minimum*) shows the capital shortfall arising from a fully phased-in Basel III Tier 1 capital requirement of 6% and a fully phased-in Basel III total risk-based minimum capital requirement of 8%. In contrast, the second leftmost bar (also labelled with *Minimum*) shows the *combined* capital shortfall with respect to the fully phased-in Basel III Tier 1 capital ratio of 6%, the fully phased-in Basel III total risk-based minimum capital requirement of 8% *and* the fully phased-in Basel III Tier 1 leverage ratio requirement of 3%. These two bars are not applicable for Group 1 banks (and G-SIBs) as there is no shortfall at *minimum* level anymore.

Similarly, the first bar on the right side (labelled with *Target*) shows the capital shortfall arising from not meeting the fully phased-in Basel III Tier 1 risk-based capital target of 8.5% and the fully phased-in Basel III total capital target of 10.5% plus, where applicable, the G-SIB surcharges, whereas the rightmost

<sup>&</sup>lt;sup>20</sup> IFRS defines a *regular way purchase or sale* as a purchase or sale of a financial asset under a contract whose terms require delivery of the asset within the timeframe established generally by regulation or convention in the market place concerned. US GAAP provides a similar definition.

A submission has been considered *valid* where the bank has correctly reported the accounting treatment used. However, it is still possible that zero figures were reported (eg when there were no pending settlement transactions at the reporting date).

bar shows the *combined* shortfall arising from those *target* capital ratios *and* the fully phased-in Basel III Tier 1 leverage ratio of 3%.

All Group 1 banks meet the target level for CET1 capital. For Group 2 banks, the CET1 capital shortfall required to meet the target level is €0.2 billion (compared to €1.5 billion at end-December 2014). The CET1 shortfall amounts are driven purely by the risk-based capital requirements (the red bars do not change when introducing the Basel III Tier 1 leverage ratio requirement), since there is no minimum CET1 Basel III leverage ratio requirement examined here.<sup>22</sup>

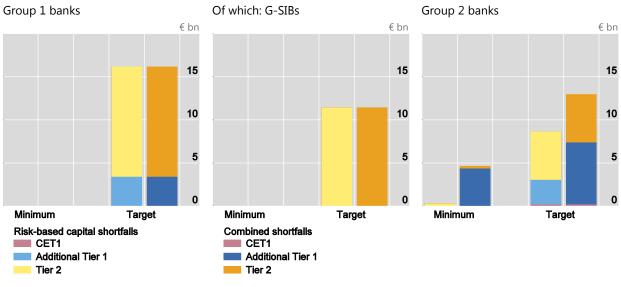
However, the Basel III Tier 1 leverage ratio causes an increase in the additional Tier 1 capital shortfall of Group 2 banks, both at the minimum and target levels. At the both levels, the Basel III Tier 1 leverage ratio raises the additional Tier 1 capital shortfall by €4.3 billion (from zero to €4.3 billion and from €2.9 billion to €7.2 billion, respectively).

If the Basel III Tier 1 leverage ratio is included in the calculation, Tier 2 capital shortfalls for the total capital targets are unchanged (ie the orange bars are equivalent to the yellow bars). This is explained by the fact that banks can also use the additional Tier 1 capital raised to meet the Basel III Tier 1 leverage ratio requirement in case there is a shortfall to meet the total risk-based capital ratio.

Overall, the inclusion of applicable Basel III Tier 1 leverage ratio shortfalls has no impact on the capital shortfalls at the minimum or target levels for Group 1 banks. However, it increases the total capital shortfall for Group 2 banks by  $\in$ 4.3 billion at the minimum and target levels (from  $\in$ 0.3 billion to  $\in$ 4.6 billion and from  $\in$ 8.6 billion to  $\in$ 13.0 billion respectively).

### Risk-based capital shortfalls and combined risk-based and leverage ratio capital shortfalls

Fully phased-in Basel III Graph 16



Source: Basel Committee on Banking Supervision. See also Table 1.

The assumption is that banks will issue more additional Tier 1 capital to meet a Basel III Tier 1 leverage ratio requirement given that the risk-based requirements are already fulfilled.

#### 3. Liquidity

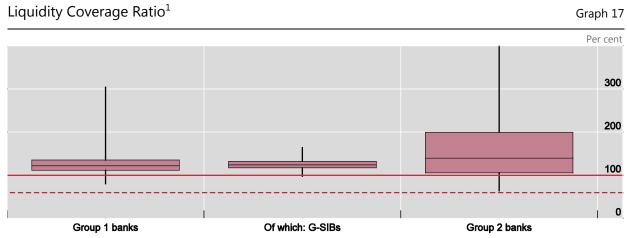
#### 3.1 Liquidity Coverage Ratio

One of the two liquidity standards introduced by the Committee is the 30-day Liquidity Coverage Ratio (LCR), which is intended to promote short-term resilience against potential liquidity disruptions. The LCR has been designed to require 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 that must be available to cover any net outflow, while the denominator comprises cash outflows less 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 initially set at 60% in 2015 and will then rise in equal annual steps of 10 percentage points to reach 100% in 2019.

Overall, 92 Group 1 and 68 Group 2 banks provided sufficient data in the end-June 2015 Basel III monitoring exercise to calculate the LCR according to the revised standard.<sup>23</sup> The average LCR was 123.6% for Group 1 banks and 140.1% for Group 2 banks, which compare to average LCRs of 125.3% and 144.3% for Group 1 banks and Group 2 banks, respectively, as of end-December 2014.

The aggregate numbers under the revised LCR standard do not speak to the range of results across participating banks. Graph 17 below gives an indication of the distribution of bank results. Some 84% of all banks in the Basel III monitoring sample already meet or exceed the final LCR minimum requirement of 100%, while all have LCRs that are at or above the initial 60% minimum requirement. These results compare to 81% and 95% of all banks meeting the 100% and 60% minimum requirements, respectively, as of end-December 2014.



<sup>&</sup>lt;sup>1</sup> The median value is represented by a horizontal line, with 50% of the values falling in the range shown by the box. The upper and lower end points of the thin vertical lines show the range of the entire sample. The sample is capped at 400%, meaning that all banks with an LCR above 400% were set to 400%. The red horizontal lines represent the 60% minimum (2015, dashed line) and the 100% minimum (2019, solid line)

Source: Basel Committee on Banking Supervision. See also Table A.17.

For the banks in the sample, Basel III monitoring results show a shortfall (ie the difference between high-quality liquid assets and net cash outflows) of €57 billion (which represents approximately

This significant drop in sample size from the previous reporting period is largely due to the exclusion of results for one jurisdiction due to data quality limitations.

0.1% of the €64.2 trillion total assets of the aggregate sample) as of end-June 2015. This compares to a shortfall of €147 billion (which represents approximately 0.2% of the €62.0 trillion total assets of the aggregate sample) as of end-December 2014. This number is reflective only of the aggregate shortfall for banks that are below an LCR minimum requirement of 100% and does not reflect surplus liquid assets at banks above a 100% requirement. Given that no bank reported an LCR below 60%, there was consequently no aggregate shortfall at a minimum requirement of 60% as of end-June 2015, compared with €70 billion as of end-December 2014.

The key components of outflows and inflows are shown in Table 5. Group 1 banks 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 within the Group 1 sample, whereas Group 2 banks, as a whole, are less reliant on these types of activities.

Category	Group 1	Group 2
Outflows to		
Unsecured retail and small business customers	2.4	2.7
Unsecured non-financial corporates	4.6	1.7
Unsecured sovereign, central bank, public sector entities (PSEs) and multilateral development banks (MDBs)	0.9	1.1
Unsecured financial institutions and other legal entities	5.4	2.4
Other unsecured wholesale funding incl. unsecured debt issuance	1.2	0.5
Secured funding and collateral swaps	2.0	0.5
Collateral, securitisations and own debt	0.7	0.6
Credit and liquidity facilities	2.0	0.8
Other contractual and contingent cash outflows including derivative payables	2.5	2.3
Total outflows <sup>2</sup>	21.1	12.1
Inflows from		
Financial institutions	2.1	1.0
Retail and small business customers, non-financial corporates, central banks and other entities	1.4	1.7
Secured lending and collateral swaps	2.1	0.4
Other cash inflows including derivative receivables	0.5	1.1
Total inflows <sup>2,3</sup>	6.0	3.5

<sup>&</sup>lt;sup>1</sup> Uses balance sheet component information reported on the net stable funding ratio worksheet. <sup>2</sup> May contain rounding differences. <sup>3</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

As at end-June 2015, no Group 1 and 5 Group 2 banks reported inflows that exceeded the 75% cap. Of these 5 Group 2 banks, all exhibit LCR ratios well above the minimum requirement of 100%.

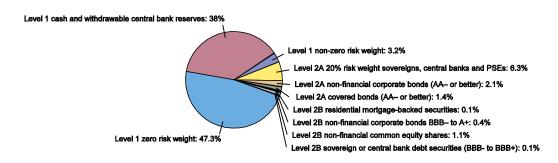
#### Composition of high-quality liquid assets

The composition of high-quality liquid assets (measured after application of the LCR haircuts) currently held at banks is depicted in Graph 18. The majority of Group 1 and Group 2 banks' holdings, in aggregate,

are comprised of Level 1 assets (almost 90%); however, the sample as a whole shows diversity in their holdings of eligible liquid assets. Within Level 1 assets, 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. By comparison, within the Level 2A asset class, the majority of holdings comprise 20% risk-weighted securities issued or guaranteed by sovereigns, central banks or public sector entities. Eligible non-financial common equity shares comprise the majority of holdings of Level 2B assets.

#### Composition of holdings of eligible liquid assets

All banks Graph 18



Source: Basel Committee on Banking Supervision.

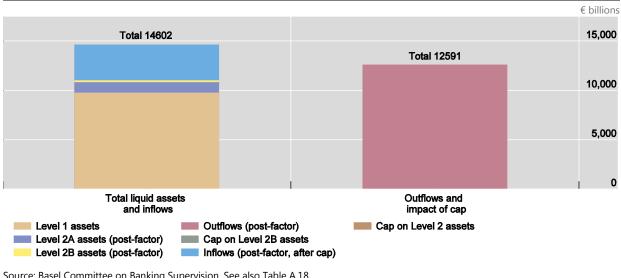
#### Caps on Level 2B and Level 2 assets

Due to the 15% Level 2B cap and the 40% overall Level 2 cap, €510 million of Level 2 assets are excluded from high-quality liquid assets. In total, four banks are constrained, of which three banks are constrained only by the Level 2B cap and one bank is constrained only by the Level 2 cap. No bank is constrained by both caps. Of the four total banks that are constrained, one fails to meet an LCR minimum requirement of 100%.

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

Graph 19 combines the above LCR components by comparing liquidity resources (pool of high-quality liquid assets and inflows) to outflows. Note that the €2,011 billion gross surplus shown in the graph differs from the €57 billion gross shortfall at an LCR minimum requirement of 100% that is noted above, as it is assumed here that excess assets at one bank can offset those 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.

All banks Graph 19



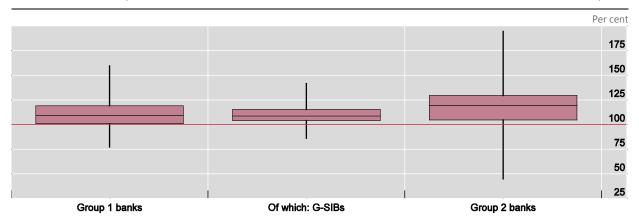
Source: Basel Committee on Banking Supervision. See also Table A.18.

#### 3.2 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.

Overall, 100 Group 1 and 102 Group 2 banks provided sufficient data in the end-June 2015 Basel III monitoring exercise to calculate the revised NSFR according to the standard issued by the Committee in October 2014. Some 79% of Group 1 banks and 83% of Group 2 banks already meet or exceed the 100% minimum NSFR requirement, with 92% of Group 1 banks and 94% of Group 2 banks at an NSFR of 90% or higher as of end-June 2015. This compares to 75% of Group 1 banks and 85% of Group 2 banks which met or exceeded the 100% minimum standard, with 92% of Group 1 banks and 93% of Group 2 banks that had an NSFR 90% or higher in the end-December 2014 period.

The weighted average NSFR was 111.9% for Group 1 banks and 114.0% for Group 2 banks at end-June 2015 compared to 111.2% and 113.8% respectively, at end-December 2014. Graph 20 shows the distribution of results for Group 1 and Group 2 banks; the red line indicates the 100% minimum requirement, the black horizontal lines inside the boxes indicate the median for the respective bank group.



<sup>&</sup>lt;sup>1</sup> The median value is represented by a horizontal line, with 50% of the values falling in the range shown by the box. The upper and lower end points of the thin vertical lines show the range of the entire sample.

Source: Basel Committee on Banking Supervision. See also Table A.17.

Banks in the sample had a shortfall of stable funding  $^{24}$  of €415 billion at end-June 2015 compared to €576 billion at end-December 2014. 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. Banks that are below the 100% required minimum have until 2018 to meet the standard. For the 100 Group 1 banks in the sample, the shortfall, as described above, is €374 billion at end-June 2015 compared to €526 billion at end-December 2014. For the 102 Group 2 banks in the sample, the shortfall, as described above, is €41 billion at end-June 2015 compared to €50 billion at end-December 2014.

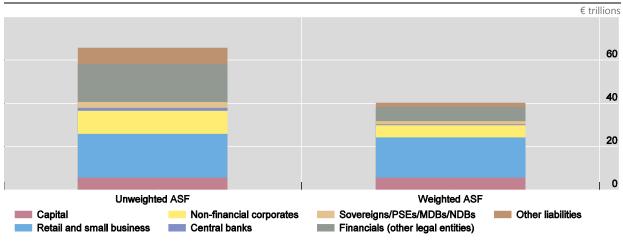
#### Stable funding sources

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%) and Group 2 banks (48%). To a lesser degree, banks in the sample utilised funding from financial counterparties, which represented roughly 16% of total weighted available stable funding. By comparison, funding from non-financial corporate counterparties accounted for 14% of total weighted available stable funding.

<sup>&</sup>lt;sup>24</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.

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

All banks Graph 21



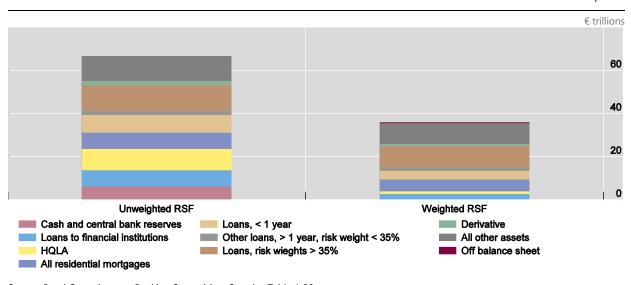
Source: Basel Committee on Banking Supervision. See also Table A.19.

#### **Funding requirements**

The NSFR 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 related to longer term assets such as loans. Loans with longer terms, including mortgages, represented roughly half of the stable funding requirement across all banks. By comparison, higher quality assets, such as HQLA securities, represented less than 5% of the total stable funding requirement. Assets encumbered for more than six months represented 11% of total stable funding requirement (the NSFR treats assets encumbered for less than six months as unencumbered).

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

All banks Graph 22



Source: Basel Committee on Banking Supervision. See also Table A.20.

Secretariat of the Basel Committee on Banking Supervision

Deutsche Bundesbank Germany Secretariat of the Basel Committee on Banking Supervision

## Comprehensive QIS on interest rate risk in the banking book

## Background

A Quantitative Impact Study (QIS) was conducted on end-June 2015 data in order to assess the feasibility and impact of the proposed revisions to the regulatory framework for interest rate risk in the banking book (IRRBB) outlined in the consultative document published by the Committee in June 2015.<sup>1</sup>

The consultative document presented two options for the capital treatment of IRRBB, namely:

- A Pillar 1 (minimum capital requirements) approach based primarily on a standardised approach; the consultative document proposed four different options for the standardised calculation of minimum capital requirements; and
- 2. An enhanced Pillar 2 approach under which banks would be allowed to use their internal measurement systems (IMS) for IRRBB (and credit spread risk in the banking book) for assessing their capital adequacy subject to supervisory review and approval and which includes quantitative disclosure of IRRBB based upon banks' internal measurement systems and the fallback standardised approach.
  - The main features of the proposed Pillar 1 standardised approach can be summarised as follows:
- The measure for calculating minimum capital requirements is mainly based on an *economic value* of equity (EVE) approach, but in order to mitigate incentives for banks to focus exclusively on hedging duration, the EVE measure has been complemented by a so-called *simple earnings* overlay (NII);
- Under both the EVE and NII measures, all future notional repricing cash flows of interest-rate sensitive assets, liabilities and off-balance sheet positions are projected into a series of predefined time buckets;
- However, for products in the banking book which have been identified as less or not amenable to standardisation (ie automatic interest rate options, non-maturity deposits (NMDs),<sup>2</sup> fixed rate loans with prepayments, term deposits with early redemption risk and fixed-rate loan commitments or pipelines) banks may be allowed to use their internal estimates, sometimes with constraints and fallbacks for slotting positions, and subject to supervisory approval;
- Regarding the interest rate shock scenarios, the baseline approach specifies six scenarios (including upward/downward parallel shifts, steepening, flattening, short rate up and down) selected based on criteria including the severity, redundancy and frequency of each scenario. For each shock scenario, the absolute shock levels are computed by multiplying the globally

Basel Committee on Banking Supervision, Interest rate risk in the banking book, consultative document, June 2015, www.bis.org/bcbs/publ/d319.htm.

Non-maturity deposits (NMDs) are defined as liabilities of banks in which the depositor is free to withdraw at any time since they have no contractually agreed maturity date. Despite the contractual position, part of the balances of NMDs behaves as a long term, rate-insensitive liability (insensitive even to large interest rate shocks). Such NMDs are called *core deposits*.

determined shock parameter with the local interest rate levels, in order to reflect differences in the local rate environment, subject to defined caps and floors; and

• The proposal also includes an approach for calculating capital requirements for basis risk in the banking book, ie the risk of losses associated with relative changes in interest rates for financial instruments that have similar tenors but are priced of different reference rates.

The objective of the IRRBB QIS has been to inform the Committee's final policy decision and among others to:<sup>3</sup>

- 1. assess the outcome of the four proposed options for calculating minimum capital requirements using the standardised approach as set out in the June 2015 consultative document;
- 2. assess the outcome of banks' IMS to quantify their IRRBB;
- 3. assess the preliminary calibration of the standardised behavioural parameters in the consultative document with respect to banks' internal estimates; and
- 4. assess the pertinence of the design and calibration of the predefined interest rate shock scenarios also with a view of further reducing the numbers of scenarios.

This special feature summarises (i) a detailed analysis of the materiality of the components (ie EVE, NII, basis risk and net interest profit (NIP)) of the standardised approach for calculating minimum capital requirements; (ii) the overall results on the four options for the standardised approach for calculating minimum capital requirements as well as for the IMS; (iii) an analysis of the impact of the interest rate shock scenarios; and (iv) an analysis of the distribution of standardised as well as banks' internal estimates of behavioural parameters.

## Sample of banks and data quality

This special feature summarises voluntary and confidential data submissions from individual banks and their national supervisors. A total of 153 banks from 20 member countries provided data for this part of the study, including 79 large internationally active ("Group 1") banks, of which 23 G-SIBs, and 74 other ("Group 2") banks.

Other objectives of the IRRBB QIS include: (i) to test the proposed segmentation and the preliminarily proposed behavioural parameter values for slotting notional repricing cash flows to the predefined time buckets for NMDs; and (ii) to test the proposed approach for the treatment of automatic interest rate options.

Number of banks that provided data for IRRBB

Table 1

	Group 1 banks	Group 2 banks
Australia	4	0
Belgium	2	2
Brazil	4	0
Canada	6	0
France	5	1
Germany	4	31
India	4	4
Indonesia	0	1
Italy	1	6
Japan	13	4
Korea	5	3
Netherlands	2	8
Singapore	3	0
South Africa	3	1
Spain	2	4
Sweden	4	1
Switzerland	2	1
Turkey	1	0
United Kingdom	5	7
United States	9	0
Total	79	74

Source: Basel Committee on Banking Supervision.

In terms of the quality of the data submissions, a significant number of participating banks had difficulties reporting notional repricing cash flows for fixed rate loan commitments (pipelines), economic values of automatic interest rate options held in the banking book, basis risk exposures as well as NIP figures. Banks also experienced difficulties in specifically separating the notional repricing cash flows from retail transactional NMDs and either did not completely report those values, or chose the simplified approaches that did not require detailed reporting of the separated notional repricing cash flows. Table 2 shows the number of banks out of the 153 banks that submitted data for at least one currency in the QIS.

## Submission quality for selected panels

Number of banks providing the respective data

Table 2

	Retail NMD	Wholesale NMD	Pipelines	Automatic interest rate options	Basis risk commitments	NIP	Total
All Group 1 banks	76	76	35	30	49	65	79
Of which: G-SIBs	22	23	13	12	19	19	23
Group 2 banks	55	50	37	21	43	65	74

Source: Basel Committee on Banking Supervision.

## Key findings

#### Overall materiality of EVE measures vs general and basis risk NII measures

Total IRRBB capital requirements as per the consultative document are the result of some combination of EVE losses (including an add-on for the loss in economic value associated with explicit and embedded automatic interest rate options held in the banking book) and NII losses. The NII measure is broken down into a general NII and a basis risk NII component. The basis risk NII measure in turn is further broken down into a *reference* rate basis risk and a *tenor* basis risk component. NIP is an accounting based measure of the past net income in the banking book less overheads and other expenses.

Table 3 shows that the weighted average **delta NII** as a percentage of CET1 capital is around 3% for both Group 1 and Group 2 banks. The impact of the reference rate and tenor rate basis is similar for Group 1 and Group 2 banks, but this is probably due to the difficulty banks had in reporting the information on basis risk. Table 3 also shows that the materiality of EVE is much higher than the materiality of NII (including basis risk).

#### Materiality of EVE, NII, basis risk and NIP

As a percentage of CET1 capital

Table 3

		Group 1	L banks			Group 2 banks			
	Weighted average	Standard deviation	Median	Number of banks	Weighted average	Standard deviation	Median	Number of banks	
$\Delta EVE$	11.2	21.9	6.1	74	19.0	80.1	17.5	64	
Total ∆NII	2.7	4.8	2.2	64	3.0	2.8	3.2	45	
General ∆NII	1.7	3.0	1.2	77	1.1	2.0	1.2	68	
Reference rate basis	0.9	1.9	0.3	71	1.2	2.0	0.9	53	
Tenor basis	0.3	0.5	0.1	66	0.6	0.8	0.1	50	
NIP	6.7	11.2	5.8	70	8.2	22.4	6.6	70	

# Minimum capital requirements under the IRRBB standardised approach and the banks' internal measurement systems

Table 4 shows the distribution of the *hypothetical* CET1 ratios under the four consulted options for the IRRBB standardised approach as well as under the banks' IMS. From the data received in the QIS, 83 banks (49 Group 1 banks, including 16 G-SIBs, and 34 Group 2 banks) were able to report the impact under all four of the consulted options, as well as under their IMS.

Compared to the current total Pillar 1 capital requirements under Basel III, the CET1 ratios using national implementation rules, adding minimum capital requirements for IRRBB calculated based on option 1 (pure EVE capital requirements measure) of the proposed standardised approach would, on a weighted average basis for a consistent sample of banks, lead to a decline of the CET1 ratios from 12.2% to 10.3% for Group 1 banks. For G-SIBs within Group 1 banks, the weighted average CET1 ratio would decline from 12.0% to 10.1%, and for Group 2 banks, the impact is even greater, with the corresponding CET1 ratios declining from 12.1% to 9.3%.

A similar impact is observed under options 2 and 3. Option 2 considers the highest of the EVE and NII loss measures as the minimum capital requirement. Option 3 is similar to option 2, but allows banks to offset earnings-based gains from the same interest rate scenario against EVE-based losses. The capital impact under option 4 is smaller as compared to the other options. Under option 4, which allows for an offset through NIP (which is based on past accounting profit and loss measures) against EVE and earnings-based losses, the CET1 ratios would decline from 12.2% to 10.9% for Group 1 banks. For G-SIBs within Group 1 banks, the weighted average CET1 ratio would decline from 12.0% to 10.6%, and for Group 2 banks the CET1 ratios would decline from 12.1% to 10.0%. However, the numbers need to be interpreted with caution as many banks used approximations and estimations to calculate their NIP values (ie option 4).

#### Change in CET1 capital ratios due to the proposed IRRBB capital requirements<sup>1</sup>

National implementation as of reporting date, consistent sample of banks, in per cent

Table 4

	Group 1 banks	Of which: G-SIBs	Group 2 banks	Number of banks
CET1 capital ratios disregarding any IRRBB capital requirements	12.2	12.0	12.1	83
Option 1	10.3	10.1	9.3	83
Option 2	10.2	10.1	9.3	83
Option 3	10.2	10.1	9.3	83
Option 4	10.9	10.6	10.0	83
Internal measurement systems (IMS) (based on economic value of equity)	11.1	11.1	10.0	83

<sup>&</sup>lt;sup>1</sup> **Option 1**: EVE measure only; **Option 2**: Maximum of EVE and NII measures; **Option 3**: Maximum of EVE and NII measures with some short-term offsets for EVE; **Option 4**: Maximum of EVE and NII measures with a risk-based threshold.

Source: Basel Committee on Banking Supervision.

This subsection further compares banks' IMS for IRRBB with the standardised approach options proposed in the consultative document. As the IMS numbers reported in the QIS are measured by an EVE measure only, it is best compared to the standardised approach measure under option 1, which is also a purely EVE-based measure.

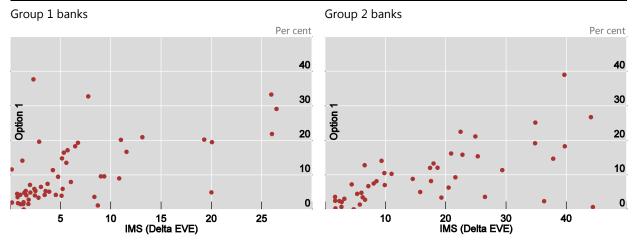
Graph 1 below provides scatter plots of IMS numbers and numbers based on option 1 of the standardised approach. The left panel displays for each Group 1 bank, the IMS-based measure of  $\Delta$ EVE

(horizontal axis) and the corresponding standardised measure of  $\Delta EVE$  (vertical axis) both expressed as a percentage of CET1. The right panel of Graph 1 shows the results of the same analysis for Group 2 banks.

#### $\Delta$ EVE: option 1 vs IMS<sup>1</sup>

As a percentage of CET1 capital as of reporting date

Graph 1



<sup>&</sup>lt;sup>1</sup> Two Group 1 banks and eight Group 2 banks with option 1 to CET1 ratio of above 50% and IMS (delta EVE) to CET1 ratio of above 50% are not shown in the graph.

Source: Basel Committee on Banking Supervision.

In general, banks with a high IMS-based impact of interest rate shocks (horizontal axis) tend to exhibit also higher standardised IRRBB measures (vertical axis). This correlation is more pronounced for Group 1 banks than for Group 2 banks. Overall, the correlation between the outcome of banks' IMS and option 1 in the sample is relatively high at 0.827. The vast majority of Group 1 banks and around one-third of Group 2 banks have both IMS-based and standardised IRRBB measures of EVE below 10% of their CET1, indicating that the difference between their IMS and the standardised approach is relatively low.

#### Impact of interest rate shock scenarios on EVE

The standardised methodology of the consultative document considers the change in EVE under six different interest rate shock scenarios, namely (1) a parallel upward shift; (2) a parallel downward shift; (3) a steepening of the yield curve; (4) a flattening of the yield curve; (5) a short-end upward shift; and (6) a short-end downward shift. For each bank, the scenarios are rank ordered from 1 to 6 with respect to the generated EVE loss (ie the interest rate shock scenario generating the maximum EVE loss is ranked 1, etc). The impact of the interest rate shock scenarios is shown in Table 5 and Table 6.

### Materiality of shock scenarios for EVE

Group 1 banks Table 5

	ΔEVE/EVE (%)	Number of cases leading to highest EVE loss	Average rank	Number of banks	
Scenario 1: Parallel up	17.5	45	2.0	74	
Scenario 2: Parallel down	3.6	13	4.0	74	
Scenario 3: Steepener	9.8	5	3.4	74	
Scenario 4: Flattener	2.1	3	4.2	74	
Scenario 5: Short up	11.3	3	2.9	74	
Scenario 6: Short down	1.4	4	4.5	74	

Source: Basel Committee on Banking Supervision.

#### Materiality of shock scenarios for EVE

Group 2 banks Table 6

	ΔEVE/EVE (%)	Number of cases leading to highest EVE loss	Average rank	Number of banks	
Scenario 1: Parallel up	15.2	37	2.1	63	
Scenario 2: Parallel down	2.3	9	4.1	63	
Scenario 3: Steepener	11.7	11	2.9	63	
Scenario 4: Flattener	1.6	1	4.4	63	
Scenario 5: Short up	7.8	3	3.0	63	
Scenario 6: Short down	1.3	2	4.5	63	

Source: Basel Committee on Banking Supervision.

### Analysis of behavioural parameters

#### Stability rates and pass-through rates of non-maturity deposits

Non-maturity deposits (NMDs) are defined as liabilities of banks in which the depositor is free to withdraw at any time since they have no contractually agreed maturity date. Despite the contractual position, part of the balances of NMDs behaves as a long term, rate-insensitive liability (insensitive even to a large interest rate shock). Such NMDs are called *core deposits*.

Under the Time Series Approach (TIA) proposed in the consultative document banks are required to estimate so-called stability rates, ie the proportion of NMDs that is found to remain undrawn with a high degree of likelihood, and pass-through rates, ie the rate-sensitive part of the stable deposits, to determine the proportion of core deposits, subject to constraints. Three segments of NMDs are prescribed under the TIA, namely (i) retail transactional NMDs; (ii) retail non-transactional NMDs; and (iii) wholesale NMDs. Non-core deposits are assumed to reprice overnight whereas core deposits must either be slotted *uniformly* across time buckets up to six years or alternatively, at the bank's discretion, up to six years provided the average maturity does not exceed three years. Table 7 below provides an overview of the

proposed values for the stability caps, pass-through floors and the implied cap on core deposits for the three NMD segments.

#### Stability caps and pass-through floors for NMDs by segment

In per cent Table 7

	Stability cap	Pass-through floor	Implied cap on core NMDs
Retail/transactional	80	25	60 (=0.8(1-0.25))
Retail/non-transactional	70	30	49
Wholesale	65	50	33

Source: Basel Committee on Banking Supervision, Interest rate risk in the banking book, consultative document, June 2015, p 21.

Table 8 below shows weighted average values of the stability and pass-through rates across Group 1 and Group 2 banks applying the proposed constraints (standardised) and the unconstrained estimates in the QIS sample. The last column shows the average implied maturity of core deposits.

## Constrained and unconstrained parameter values for NMDs for the main currency

Table 8

		rtion of posits (%)		ough rate leposits (%)	Average applied maturity of core deposits (years)		
	Standardised internal Standardised inte		Unconstrained internal estimates	Standardised	Unconstrained internal estimates		
Retail transactional							
Group 1	70.5	76.0	29.7	20.4	2.6	3.9	
Group 2	66.5	72.4	28.0	16.4	3.5	4.5	
Retail non- transactional							
Group 1	61.9	75.1	40.0	39.8	2.6	2.9	
Group 2	62.8	67.1	36.3	25.7	2.5	3.5	
Wholesale							
Group 1	50.7	59.0	50.8	40.9	2.6	3.0	
Group 2	47.7	52.4	48.3	25.6	2.4	3.8	

Source: Basel Committee on Banking Supervision.

The results show that the imposed constraints have a significant impact on the average implied maturity of core deposits across all segments in particular for Group 2 banks.

#### Analysis of prepayment rates

The ability of a borrower to repay a fixed rate loan is an important behavioural option on banks' balance sheets. Prepayments, or parts thereof, for which the economic cost is not charged to the borrower, are referred to as uncompensated prepayments. The consultative document proposed a standardised fallback and an internal estimates approach for slotting the notional repricing cash flows of loan products where the economic cost of prepayments is never charged, or only charged for prepayments above a certain threshold.

Under the standardised fallback banks are required to apply a scalar multiplier under each of the six prescribed interest rate shock scenarios to the so-called *conditional prepayment rate* (CPR) for the

baseline interest rate scenario 0 to slot their notional repricing cash flows. Under the internal estimates approach banks may use their unconstrained *internally measured prepayment speeds* (IMPS) under each of the six prescribed interest rate shock scenarios to slot their notional repricing cash flows. Table 9 below shows the weighted average CPR and IMPS under the baseline interest rate scenarios as well as following the six prescribed interest rate shock scenarios.<sup>4</sup>

## Weighted average of the CPR and the IMPS of fixed rate loans subject to prepayment risk of the main currency for all banks

In per cent Table 9

	Baseline scenario	Scenario 1: Parallel up	Scenario 2: Parallel down	Scenario 3: Steepener	Scenario 4: Flattener	Scenario 5: Short up	Scenario 6: Short down
CPR	6.8	5.1	13.7	5.8	10.3	6.2	8.2
IMPS	6.8	6.0	9.0	6.3	8.3	6.4	7.3

Source: Basel Committee on Banking Supervision.

The results show that the range of the weighted average CPR values is wider than the range of banks' IMPS values under the six prescribed interest rate shock scenarios.

<sup>&</sup>lt;sup>4</sup> Note that by construction CPR and IMPS are the same under the baseline scenario.

## **Statistical Annex**

## Number of banks for which data have been provided

Table A.1

		Gro	oup 1 banks				Gro	oup 2 banks		
	All	RWA and capital	Leverage	LCR	NSFR	All	RWA and capital	Leverage	LCR	NSFR
Argentina	0	0	0	0	0	2	2	2	2	2
Australia	4	4	4	4	4	1	1	1	1	1
Belgium	2	2	2	2	2	3	3	2	2	2
Brazil	2	2	2	2	2	0	0	0	0	0
Canada	6	6	6	6	6	2	2	2	2	2
China	6	6	6	6	6	0	0	0	0	0
France	5	5	5	5	5	5	5	5	3	4
Germany	8	8	8	0	8	42	42	36	0	35
Hong Kong SAR	0	0	0	0	0	0	0	0	0	0
India	5	5	5	5	5	5	5	5	5	5
Indonesia	0	0	0	0	0	2	2	2	2	2
Italy	2	2	2	2	2	14	14	13	13	13
Japan	14	14	14	14	14	4	4	4	4	4
Korea	5	5	5	5	5	3	3	3	3	3
Luxembourg	0	0	0	0	0	1	1	1	1	1
Mexico	0	0	0	0	0	7	7	7	7	4
Netherlands	3	3	3	3	3	9	9	9	9	9
Russia	1	1	1	1	1	0	0	0	0	0
Saudi Arabia	3	3	3	3	3	0	0	0	0	0
Singapore	3	3	3	3	3	0	0	0	0	0
South Africa	3	3	3	3	3	2	2	2	2	2
Spain	2	2	2	2	2	6	6	6	5	6
Sweden	4	4	4	4	4	6	5	1	0	0
Switzerland	2	2	2	2	2	5	3	4	4	4
Turkey	3	3	3	3	3	0	0	0	0	0
United Kingdom	5	5	5	4	4	10	10	3	3	3
United States	13	13	13	13	13	0	0	0	0	0
Total	101	101	101	92	100	129	126	108	68	102
of which: G-SIBs	30									

## Current CET1, Tier 1 and total capital ratios

In per cent Table A.2

	Group 1 banks			Of	Of which: G-SIBs			Group 2 banks		
	CET1	Tier 1	Total	CET1	CET1 Tier 1 Total		CET1	Tier 1	Total	
Max	22.5	25.1	28.4	18.2	19.1	24.8	71.9	72.0	72.0	
75th percentile	13.4	14.9	17.9	12.5	14.3	17.3	17.0	18.0	19.3	
Median	12.3	13.2	15.9	11.8	13.1	16.2	13.1	13.3	15.8	
25th percentile	11.1	12.3	14.4	11.0	12.4	14.5	11.4	11.7	13.5	
Min	8.6	8.8	12.0	9.4	10.5	12.8	6.3	6.8	7.6	

Source: Basel Committee on Banking Supervision.

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

In per cent Table A.3

	G	iroup 1 banl	(S	Of	which: G-SI	[Bs	Group 2 banks			
	CET1	Tier 1	Total	CET1	Tier 1	Total	CET1	Tier 1	Total	
Max	22.6	24.6	28.0	15.8	17.2	21.1	71.8	71.8	71.8	
75th percentile	13.1	13.7	15.8	12.1	13.0	15.7	18.0	18.0	18.8	
Median	11.7	12.2	14.0	11.4	12.3	14.2	13.5	13.6	14.9	
25th percentile	10.4	11.0	12.5	10.6	11.9	13.0	11.0	11.1	12.4	
Min	7.6	7.6	9.6	9.5	9.9	10.3	6.7	6.7	7.1	

#### Current CET1, Tier 1 and total capital ratios

In per cent, consistent sample of banks<sup>2</sup>

Table A.4

	G	Group 1 banks			Of which: G-SIBs			Group 2 banks		
	CET1	Tier 1	Total	CET1	Tier 1	Total	CET1	Tier 1	Total	
H1 2011	10.1	11.4	14.1	9.6	11.2	13.8	10.1	11.1	14.3	
H2 2011	10.3	11.5	14.1	9.8	11.4	13.9	10.5	11.3	14.4	
H1 2012	10.8	11.9	14.4	10.5	11.9	14.3	11.1	11.7	14.8	
H2 2012	11.3	12.4	15.0	11.1	12.5	15.0	10.8	11.4	14.5	
H1 2013	10.9	12.0	14.6	10.9	12.0	14.5	11.2	11.8	14.9	
H2 2013	11.3	12.4	15.0	11.4	12.4	15.0	11.6	12.2	15.3	
H1 2014	11.3	12.2	14.8	11.2	12.1	14.7	11.8	12.2	15.1	
H2 2014	11.7	12.8	15.5	11.6	12.6	15.3	11.9	12.6	15.3	
H1 2015	11.9	13.2	15.8	11.8	12.9	15.5	12.4	13.3	15.8	

 $<sup>^{1}</sup>$  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-SIB includes 30 banks and Group 2 includes 71 banks.

Source: Basel Committee on Banking Supervision.

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

In per cent, consistent sample of banks<sup>1</sup>

Table A.5

	G	Group 1 banks			f which: G-SI	Bs	Group 2 banks			
	CET1	Tier 1	Total	CET1	Tier 1	Total	CET1	Tier 1	Total	
H1 2011	7.1	7.4	8.6	6.7	7.0	8.3	7.6	8.0	9.8	
H2 2011	7.7	7.9	9.2	7.3	7.6	8.9	7.6	8.1	9.9	
H1 2012	8.5	8.7	9.9	8.3	8.6	9.8	8.2	8.8	10.3	
H2 2012	9.1	9.4	10.6	9.0	9.2	10.5	8.1	8.7	10.0	
H1 2013	9.5	9.7	11.1	9.4	9.6	11.1	8.2	8.8	10.3	
H2 2013	10.2	10.5	11.9	10.1	10.5	11.9	9.5	10.1	11.8	
H1 2014	10.8	11.2	12.6	10.7	11.2	12.5	10.8	11.1	12.9	
H2 2014	11.1	11.7	13.3	11.0	11.7	13.3	11.2	11.6	13.0	
H1 2015	11.4	12.2	13.9	11.4	12.2	13.9	12.1	12.5	13.9	

 $<sup>^{\</sup>rm 1}\,$  Group 1 includes 91 banks, G-SIB includes 30 banks and Group 2 includes 71 banks.

#### Estimated capital shortfalls at the minimum level

In billions of euros, fully phased-in Basel III, sample and exchange rates as at the reporting dates<sup>1</sup>

Table A.6

	Group 1 banks			Ot	which: G-SI	Bs	Group 2 banks			
	CET1	Add. Tier 1	Tier 2	CET1	Add. Tier 1	Tier 2	CET1	Add. Tier 1	Tier 2	
H1 2011	38.8	66.6	119.3	27.9	50.9	84.5	8.6	7.3	5.5	
H2 2011	11.9	32.5	107.7	7.6	22.6	79.1	7.6	2.1	4.1	
H1 2012	3.7	16.2	61.8	0.0	8.7	42.9	4.8	1.6	5.0	
H2 2012	2.2	10.2	45.7	0.0	5.6	29.4	11.4	2.3	8.7	
H1 2013	3.3	6.9	18.6	0.0	0.0	5.6	12.4	3.0	8.4	
H2 2013	0.1	1.4	3.6	0.0	0.0	0.2	2.0	0.7	4.0	
H1 2014	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	3.1	
H2 2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.8	
H1 2015	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	

<sup>&</sup>lt;sup>1</sup> The sample of banks is not consistent (Group 1 includes 102 banks in H1 2011 and H2 2011, 101 banks in H1 2012 and H2 2012, 102 banks in H1 2013 and in H2 2013 and 98 in H1 2014 and H2 2014 and 101 in H1 2015; Group 2 includes 109 banks in H1 2011, 107 in H2 2011, 104 in H1 2012, 115 in H2 2012, 118 in H1 2013, 113 in H2 2013, 114 in H1 2014, 109 in H2 2014 and 118 in H1 2015).

Source: Basel Committee on Banking Supervision.

## Estimated capital shortfalls at the target level

In billions of euros, fully phased-in Basel III, sample and exchange rates as at the reporting dates<sup>1</sup>

Table A.7

	C	Group 1 banks			f which: G-SI	Bs	Group 2 banks			
	CET1	Add. Tier 1	Tier 2	CET1	Add. Tier 1	Tier 2	CET1	Add. Tier 1	Tier 2	
H1 2011	485.6	221.4	223.2	406.4	164.4	155.3	32.4	16.6	11.6	
H2 2011	384.1	226.3	232.0	326.6	175.2	159.4	21.7	11.9	8.6	
H1 2012	197.9	197.0	224.0	155.9	160.8	149.4	16.0	7.3	12.0	
H2 2012	115.0	158.9	171.3	89.5	123.8	109.0	25.6	7.4	14.6	
H1 2013	57.5	104.5	143.8	30.2	80.3	92.4	27.7	7.5	12.3	
H2 2013	15.1	48.8	95.4	7.5	33.9	57.7	9.4	6.9	8.3	
H1 2014	3.9	18.6	78.8	0.0	8.6	60.2	1.8	5.6	5.6	
H2 2014	0.0	6.5	38.8	0.0	3.8	29.3	1.5	5.9	5.5	
H1 2015	0.0	3.4	12.8	0.0	0.0	11.4	0.2	2.9	5.6	

<sup>&</sup>lt;sup>1</sup> The sample of banks is not consistent (Group 1 includes 102 banks in H1 2011 and H2 2011, 101 banks in H1 2012 and H2 2012, 102 banks in H1 2013 and in H2 2013 and 98 in H1 2014 and H2 2014 and 101 in H1 2015; Group 2 includes 109 banks in H1 2011, 107 in H2 2011, 104 in H1 2012, 115 in H2 2012, 118 in H1 2013, 113 in H2 2013, 114 in H1 2014, 109 in H2 2014 and 118 in H1 2015).

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

In billions of euros, consistent sample of banks<sup>1</sup>, exchange rates as of 30 June 2015

Table A.8

	G	Group 1 banks			f which: G-SI	IBs	Group 2 banks			
	CET 1	Add. Tier 1	Tier 2	CET 1	Add. Tier 1	Tier 2	CET 1	Add. Tier 1	Tier 2	
H1 2011	2,153	86	388	1,479	68	289	133	7	32	
H2 2011	2,281	77	384	1,559	56	281	134	8	32	
H1 2012	2,483	71	348	1,715	53	256	141	12	26	
H2 2012	2,621	67	365	1,797	52	264	141	9	24	
H1 2013	2,751	69	401	1,888	52	299	143	10	27	
H2 2013	2,943	88	410	2,023	69	286	163	10	29	
H1 2014	3,126	133	401	2,141	104	256	185	5	30	
H2 2014	3,270	181	457	2,237	147	316	189	6	24	
H1 2015	3,443	225	504	2,346	182	351	206	7	24	

<sup>&</sup>lt;sup>1</sup> Group 1 includes 92 banks, G-SIB includes 30 banks and Group 2 includes 73 banks.

Source: Basel Committee on Banking Supervision.

## Profits, dividends and CET1 capital raised

In billions of euros, consistent sample of banks<sup>1</sup>, exchange rates as of 30 June 2015

Table A.9

	Group 1 banks			0	of which: G-SIE	Bs	Group 2 banks			
	Profit after tax	Common share dividend	CET1 raised	Profit after tax	Common share dividend	CET1 raised	Profit after tax	Common share dividend	CET1 raised	
H1 2011	147.8	61.3	37.3	91.5	41.2	14.4	7.4	1.6	5.5	
H2 2011	119.6	34.0	26.3	79.2	17.4	14.0	1.5	1.6	7.4	
H1 2012	142.4	63.2	29.2	89.3	43.1	19.9	5.6	1.5	1.6	
H2 2012	174.3	29.9	31.3	108.0	13.4	9.5	2.1	1.5	5.2	
H1 2013	178.7	82.0	27.0	114.5	57.6	13.9	4.8	1.7	1.0	
H2 2013	147.0	29.8	33.5	89.5	11.7	15.4	4.4	1.5	2.4	
H1 2014	161.2	91.8	34.7	93.3	66.9	18.8	8.9	1.9	5.3	
H2 2014	196.2	45.0	20.3	118.4	18.8	8.3	5.6	1.3	3.7	
H1 2015	223.9	95.0	21.7	147.9	64.1	11.5	10.1	2.5	2.1	

 $<sup>^{\</sup>rm 1}\,$  Group 1 includes 90 banks, G-SIB includes 29 banks and Group 2 includes 72 banks.

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

In per cent, consistent sample of banks<sup>2</sup>

Table A.10

	Group 1 banks			Ot	f which: G-SI	Bs	Group 2 banks			
	CET1	Add. Tier 1	Tier 2	CET1	Add. Tier 1	Tier 2	CET1	Add. Tier 1	Tier 2	
H1 2011	71.8	9.3	18.9	69.9	11.4	18.8	71.1	6.7	22.3	
H2 2011	73.0	8.9	18.1	71.1	10.9	18.0	73.1	5.9	21.1	
H1 2012	75.0	7.9	17.0	73.7	9.9	16.5	74.9	4.2	20.9	
H2 2012	75.3	7.4	17.3	74.3	9.3	16.5	74.9	4.0	21.2	
H1 2013	75.0	7.1	17.9	75.5	7.4	17.1	75.7	3.7	20.6	
H2 2013	75.6	6.8	17.5	75.9	7.1	17.0	76.2	3.3	20.5	
H1 2014	76.5	5.8	17.7	76.5	6.0	17.6	78.6	2.6	18.8	
H2 2014	75.5	7.2	17.2	75.5	7.1	17.4	78.0	4.7	17.3	
H1 2015	75.1	8.5	16.3	76.0	7.5	16.5	78.8	5.5	15.7	

<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. <sup>2</sup> Group 1 includes 91 banks, G-SIB includes 30 banks and Group 2 includes 74 banks.

Source: Basel Committee on Banking Supervision.

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

In per cent, consistent sample of banks<sup>1</sup>

Table A.11

	G	iroup 1 bank	S	0	f which: G-SI	Bs	Group 2 banks			
	CET1	Add. Tier 1	Tier 2	CET1	Add. Tier 1	Tier 2	CET1	Add. Tier 1	Tier 2	
H1 2011	82.4	3.2	14.5	81.0	3.7	15.3	77.4	3.9	18.7	
H2 2011	83.5	2.8	13.7	82.5	3.0	14.5	77.2	4.5	18.3	
H1 2012	85.8	2.4	11.8	85.0	2.6	12.4	79.4	6.4	14.2	
H2 2012	86.2	2.1	11.7	85.5	2.4	12.1	81.3	5.1	13.6	
H1 2013	85.6	2.1	12.3	84.6	2.3	13.1	79.7	5.6	14.7	
H2 2013	85.6	2.4	12.0	85.3	2.8	11.9	80.6	5.1	14.2	
H1 2014	85.2	3.6	11.2	85.6	4.1	10.3	84.2	2.3	13.5	
H2 2014	83.6	4.6	11.8	82.9	5.4	11.7	86.6	2.5	10.9	
H1 2015	82.5	5.4	12.1	81.5	6.3	12.2	87.1	2.8	10.1	

 $<sup>^{\</sup>rm 1}$  Group 1 includes 91 banks, G-SIB includes 30 banks and Group 2 includes 74 banks.

#### CET1 regulatory adjustments

Group 1 banks, in per cent of CET1 capital prior to adjustments

Table A.12

	Number of banks	Goodwill	Intangibles	$DTA^1$	Financials	DTA above threshold	Excess above 15% <sup>2</sup>	Other <sup>3</sup>	Total
H1 2011	91	-15.3	-3.7	-3.3	-3.0	-1.8	-2.1	-3.0	-32.1
H2 2011	91	-14.0	-3.5	-2.8	-1.9	-1.6	-1.6	-3.7	-29.2
H1 2012	91	-13.2	-3.3	-2.5	-1.7	-1.1	-1.3	-3.4	-26.7
H2 2012	91	-12.3	-3.1	-2.6	-2.4	-1.2	-1.1	-2.8	-25.6
H1 2013	91	-11.9	-2.9	-2.7	-2.4	-1.0	-0.9	-2.1	-23.9
H2 2013	91	-11.2	-2.7	-2.4	-1.4	-0.5	-0.4	-1.5	-20.0
H1 2014	91	-10.7	-2.6	-2.2	-1.3	-0.4	-0.2	-1.4	-18.8
H2 2014	91	-10.3	-2.5	-2.0	-0.9	-0.4	-0.2	-1.5	-18.2
H1 2015	91	-10.0	-2.4	-1.9	-0.7	-0.3	-0.1	-1.5	-17.3

<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

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

Table A.13

	Number of banks	Goodwill	Intangibles	$DTA^1$	Financials	DTA above threshold	Excess above 15% <sup>2</sup>	Other <sup>3</sup>	Total
H1 2011	73	-14.0	-3.4	-0.4	-4.3	-3.8	-2.0	-4.2	-32.1
H2 2011	73	-8.8	-3.2	-0.5	-4.5	-1.9	-1.3	-4.3	-24.5
H1 2012	73	-8.0	-2.9	-0.4	-4.4	-2.0	-1.3	-4.3	-23.3
H2 2012	73	-7.3	-2.9	-0.9	-4.7	-2.0	-1.1	-4.3	-23.2
H1 2013	73	-7.2	-2.8	-1.2	-5.0	-1.5	-1.2	-4.7	-23.6
H2 2013	73	-5.8	-2.9	-0.9	-4.2	-0.4	-0.8	-5.0	-19.9
H1 2014	73	-5.0	-2.7	-0.8	-3.0	0.0	-0.5	-2.1	-14.0
H2 2014	73	-4.1	-2.8	-1.1	-3.3	-0.3	-0.5	-2.3	-14.6
H1 2015	73	-3.8	-2.6	-0.8	-3.1	-0.2	-0.5	-1.8	-12.9

<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.

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

In per cent Table A.14

	Grou	p 1 banks	Of wh	ich: G-SIBs	Group	o 2 banks
	Transitional	Fully phased-in	Transitional	Fully phased-in	Transitional	Fully phased-in
Max	14.4	14.4	7.9	7.9	27.4	29.3
75th percentile	6.9	6.6	6.1	6.0	7.8	7.7
Median	5.5	5.2	5.1	4.6	5.9	5.9
25th percentile	4.5	4.1	4.4	3.8	4.4	4.3
Min	3.2	3.1	3.6	3.3	1.1	1.1
Weighted average	5.6	5.2	5.5	5.2	5.6	5.4

## Fully phased-in Basel III Tier 1 leverage ratios

Consistent sample of banks, in per cent

Table A.15

	Group 1 banks	Of which: G-SIBs	Group 2 banks
H1 2011	3.4	3.3	3.7
H2 2011	3.5	3.4	3.6
H1 2012	3.7	3.6	3.8
H2 2012	3.7	3.6	3.7
H1 2013	4.0	3.9	3.9
H2 2013	4.4	4.4	4.5
H1 2014	4.7	4.6	5.0
H2 2014	5.0	5.0	5.0
H1 2015	5.2	5.2	5.3

Source: Basel Committee on Banking Supervision.

Tier 1 capital, risk-weighted assets, leverage ratio exposure and accounting total assets

Consistent sample of banks, exchange rates as of 30 June 2015

Table A.16

	H1 2011	H2 2011	H1 2012	H2 2012	H1 2013	H2 2013	H1 2014	H2 2014	H1 2015
Group 1 banks									
Tier 1 capital	100.0	105.3	114.0	120.0	125.9	135.3	145.4	154.0	163.7
Risk-weighted assets	100.0	98.6	97.1	95.2	96.7	96.4	96.5	98.0	100.2
Leverage total exposure	100.0	102.8	106.3	110.8	108.7	104.9	107.6	107.2	109.8
Accounting total assets	100.0	103.0	106.8	105.8	106.8	105.4	109.5	111.8	114.4
Of which: G-SIBs									
Tier 1 capital	100.0	104.4	114.2	119.5	125.4	135.2	145.1	154.1	163.3
Risk-weighted assets	100.0	97.2	94.9	91.8	93.1	92.3	92.5	93.9	95.3
Leverage total exposure	100.0	102.8	106.1	110.7	99.8	104.7	106.3	105.2	106.9
Accounting total assets	100.0	102.9	106.4	104.9	105.4	103.2	106.7	109.0	110.7
Group 2 banks									
Tier 1 capital	100.0	102.3	109.6	108.0	109.9	124.3	139.8	139.7	152.5
Risk-weighted assets	100.0	101.8	99.9	100.3	100.2	98.2	98.1	96.6	97.9
Leverage total exposure	100.0	103.2	105.6	106.9	102.8	100.0	101.7	101.1	103.6
Accounting total assets	100.0	103.2	104.8	104.8	105.9	103.5	105.3	106.0	107.7

H1 2011 = 100.

## Liquidity coverage ratio and net stable funding ratio

In per cent Table A.17

	Liquidity coverage ratio			Net stable funding ratio			
	Group 1 banks	Of which: G-SIBs	Group 2 banks	Group 1 banks	Of which: G-SIBs	Group 2 banks	
Max	303.9	163.8	400.0	159.5	141.4	194.5	
75th percentile	135.4	132.0	199.8	119.0	115.2	129.4	
Median	121.9	123.9	139.9	109.1	108.6	119.4	
25th percentile	111.3	117.0	105.6	101.0	104.1	104.7	
Min	80.4	97.6	64.2	77.2	86.2	44.9	
Weighted average	123.6	123.4	140.1	111.9	114.6	114.0	

Comparison of pool of high-quality liquid assets to outflows an	nd cap
All banks, in billions of euros	Table A.18
Total liquid assets and inflows	
Level 1 assets	9,733.3
Level 2A assets (post-factor)	1,066.4
Level 2B assets (post-factor)	190.4
Inflows (post-factor, after cap)	3,611.9
Total	14,601.9
Outflows and impact of cap	
Outflows (post-factor)	12,590.6
Cap on Level 2 assets	0.1
Cap on Level 2B assets	0.4
Total	12,591.2

## Aggregate available stable funding (ASF) by counterparty

All banks, in trillions of euros

Table A.19

	Unweighted ASF	Weighted ASF
	5.6	5.6
Retail and small business	20.2	18.6
Non-financial corporates	10.7	5.5
Central banks	1.4	0.5
Sovereigns/PSEs/MDBs/NDBs	2.7	1.5
Financials (other legal entities)	17.5	6.5
Other liabilities	7.6	1.9
Total	65.6	40.2

Source: Basel Committee on Banking Supervision.

## Aggregate required stable funding (RSF) by category

All banks, in trillions of euros

Table A.20

51

Unweighted RSF	Weighted RSF
6.0	0.0
7.6	2.5
9.9	1.4
7.5	5.4
8.2	4.1
1.8	1.3
12.0	10.1
2.0	1.0
11.5	9.6
	0.4
66.4	35.8
	6.0 7.6 9.9 7.5 8.2 1.8 12.0 2.0 11.5

## Previous monitoring reports published by the Basel Committee

Results of the comprehensive quantitative impact study, December 2010, www.bis.org/publ/bcbs186.htm.

Results of the Basel III monitoring exercise as of 30 June 2011, April 2012, www.bis.org/publ/bcbs217.htm.

Results of the Basel III monitoring exercise as of 31 December 2011, September 2012, www.bis.org/publ/bcbs231.htm.

Results of the Basel III monitoring exercise as of 30 June 2012, March 2013, www.bis.org/publ/bcbs243.htm.

Basel III monitoring report, September 2013, www.bis.org/publ/bcbs262.htm.

Basel III monitoring report, March 2014, www.bis.org/publ/bcbs278.htm.

Basel III monitoring report, September 2014, www.bis.org/publ/bcbs289.htm.

Basel III monitoring report, March 2015, www.bis.org/bcbs/publ/d312.htm.

Basel III monitoring report, September 2015, www.bis.org/bcbs/publ/d334.htm.

## Basel III phase-in arrangements

## Basel III phase-in arrangements

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

	2015	2016	2017	2018	As of 2019
Leverage ratio	Parallel run until 1 Jan 2017 Disclosure started 1 Jan 2015			Migration to Pillar 1	
Minimum CET1 ratio	4.5%	4.5%	4.5%	4.5%	4.5%
Capital conservation buffer		0.625%	1.25%	1.875%	2.50%
G-SIB surcharge			Phase-in		1.0%-2.5%
Minimum common equity plus capital conservation buffer	4.5%	5.125%	5.75%	6.375%	7.0%
Phase-in of deductions from CET1 (including amounts exceeding the limit for DTAs, MSRs and financials)	40%	60%	80%	100%	100%
Minimum Tier 1 capital	6.0%	6.0%	6.0%	6.0%	6.0%
Minimum total capital	8.0%	8.0%	8.0%	8.0%	8.0%
Minimum total capital plus capital conservation buffer	8.0%	8.625%	9.25%	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			3	
Liquidity coverage ratio	60%	70%	80%	90%	100%
Net stable funding ratio				Introduce minimum standard	

55