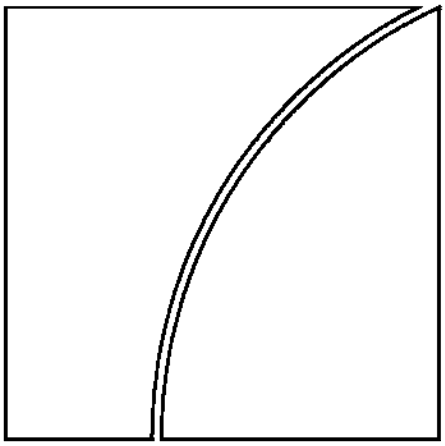
Basel Committee
on Banking Supervision



Results of the Basel III monitoring exercise as of 30 June 2011

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Results of the Basel III monitoring exercise as of 30 June 2011

Executive summary

In 2010, the Basel Committee on Banking Supervision[1] conducted a comprehensive quantitative impact study (C-QIS) using data as of 31 December 2009 to ascertain the impact on banks of the Basel III framework, published in December 2010.[2] The Committee intends to continue monitoring the impact of the Basel III framework in order to gather full evidence on its dynamics.

To serve this purpose, a semi-annual 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 jurisdiction. This report summarises the aggregate results of the latest Basel III monitoring exercise, using data as of 30 June 2011. The Committee believes that the information contained in the report will provide the relevant stakeholders with a useful benchmark for analysis.

Information for this report was submitted by individual banks to their national supervisors on a voluntary and confidential basis. A total of 212 banks participated in the study, including 103 Group 1 banks and 109 Group 2 banks.[3] Members' coverage of their banking sector is very high for Group 1 banks, reaching 100% coverage for some jurisdictions, while coverage is comparatively lower for Group 2 banks and varied across jurisdictions. The Committee appreciates the significant efforts contributed by both banks and national supervisors to this ongoing data collection exercise.

The report focuses on the following items:

- Changes to bank capital ratios under the new requirements, and estimates of any capital deficiencies relative to fully phased-in minimum and target capital requirements (to include capital charges for global systemically important banks – G-SIBs);

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[1] The Basel Committee on Banking Supervision consists of senior representatives of bank supervisory authorities and central banks from Argentina, Australia, Belgium, Brazil, Canada, China, France, Germany, Hong Kong SAR, India, Indonesia, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, Russia, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. It usually meets at the Bank for International Settlements (BIS) in Basel, Switzerland, where its permanent Secretariat is located.

[2] 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: International framework for liquidity risk measurement, standards and monitoring*, December 2010; Basel Committee on Banking Supervision, *Results of the comprehensive quantitative impact study*, December 2010. These documents are available at www.bis.org/bcbs/basel3.htm.

[3] Group 1 banks are those that have Tier 1 capital in excess of €3 billion and are internationally active. All other banks are considered Group 2 banks.

- Changes to the definition of capital that result from the new 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;
- Increases in risk-weighted assets resulting from changes to the definition of capital, securitisation, trading book and counterparty credit risk requirements;
- The international leverage ratio; and
- Two international liquidity standards – the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR).

With the exception of the transitional arrangements for non-correlation trading securitisation positions in the trading book, this report does not take into account any transitional arrangements such as phase-in of deductions and grandfathering arrangements. Rather, the estimates presented assume full implementation of the final Basel III requirements based on data as of 30 June 2011.[4] No assumptions have been made about banks' profitability or behavioural responses, such as changes in bank capital or balance sheet composition, since this date or in the future. For this reason the results are not comparable to current industry estimates, which tend to be based on forecasts and consider management actions to mitigate the impact, and incorporate estimates where information is not publicly available. The results presented in this report are also not comparable to the prior C-QIS, which evaluated the impact of policy questions that differ in certain key respects from the finalised Basel III framework.[5] As one example, the C-QIS did not consider the impact of capital surcharges for global systemically important banks.

Key results

Capital shortfalls

Assuming full implementation of the Basel III requirements as of 30 June 2011, including changes to the definition of capital and risk-weighted assets, and ignoring phase-in arrangements, Group 1 banks would have an overall shortfall of €38.8 billion for the CET1 minimum capital requirement of 4.5%, which rises to €485.6 billion for a CET1 target level of 7.0% (ie including the capital conservation buffer); the latter shortfall already includes the G-SIB surcharge where applicable. As a point of reference, the sum of profits after tax prior to distributions across the same sample of Group 1 banks in the second half of 2010 and the first half of 2011 was €356.6 billion.

Under the same assumptions, the capital shortfall for Group 2 banks included in the Basel III monitoring sample is estimated at €8.6 billion for the CET1 minimum of 4.5% and €32.4 billion for a CET1 target level of 7.0%. The sum of Group 2 bank profits after tax prior to distributions in the second half of 2010 and the first half of 2011 was €35.6 billion.

Further details on additional capital needs to meet the Basel III requirements are included in Section 2.

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[4] The new rules for counterparty credit risk are not fully accounted for in the report, as data for capital charges for exposures to central counterparties (CCPs) and stressed effective expected positive exposure (EEPE) could not be collected.

[5] See Basel Committee on Banking Supervision, *Results of the comprehensive quantitative impact study,* 16 December 2010 (www.bis.org/publ/bcbs186.htm).

Capital ratios

The average CET1 ratio under the Basel III framework would decline from 10.2% to 7.1% for Group 1 banks and from 10.1% to 8.3% for Group 2 banks. The Tier 1 capital ratios of Group 1 banks would decline, on average from 11.5% to 7.4% and total capital ratios would decline from 14.2% to 8.6%. As with the CET1 ratios, the decline in other capital ratios is comparatively less pronounced for Group 2 banks; Tier 1 capital ratios would decline on average from 10.9% to 8.6% and total capital ratios would decline on average from 14.3% to 10.6%.

Changes in risk-weighted assets

As compared to current risk-weighted assets, total risk-weighted assets increase on average by 19.4% for Group 1 banks under the Basel III framework. This increase is driven largely by charges against counterparty credit risk and trading book exposures. Securitisation exposures, principally those risk-weighted at 1250% under the Basel III framework (which were previously 50/50 deductions under Basel II), are also a significant contributor to the increase. Banks that have significant exposures in these areas influence the average increase in risk-weighted assets heavily. As Group 2 banks are less affected by the revised counterparty credit risk and trading book rules, these banks experience a comparatively smaller increase in risk-weighted assets of only 6.3%. Even within this sample, higher risk-weighted assets are attributed largely to Group 2 banks with counterparty and securitisation exposures (ie those subject to a 1250% risk weighting).

Leverage ratio

The weighted average current Tier 1 leverage ratio for all banks is 4.5%. For Group 1 banks, it is somewhat lower at 4.4% while it is 5.0% for Group 2 banks. The average Basel III Tier 1 leverage ratio for all banks is 3.5%. The Basel III average for Group 1 banks is 3.4%, and the average for Group 2 banks is 4.2%.

Liquidity standards

Both liquidity standards are currently subject to an observation period which includes a review clause to address any unintended consequences prior to their respective implementation dates of 1 January 2015 for the LCR and 1 January 2018 for the NSFR. Basel III monitoring results for the end-June 2011 reporting period give an indication of the impact of the calibration of the standards and highlight several key observations:

- A total of 103 Group 1 and 102 Group 2 banks participated in the liquidity monitoring exercise for the end-June 2011 reference period.
- The weighted average LCR for Group 1 banks is 90% while the weighted average LCR for Group 2 banks is 83%. The aggregate LCR shortfall is €1.76 trillion which represents approximately 3% of the €58.5 trillion total assets of the aggregate sample.
- The weighted average NSFR is 94% for both Group 1 and Group 2 banks. The aggregate shortfall of required stable funding is €2.78 trillion.

1. General remarks

At its 12 September 2010 meeting, the Group of Governors and Heads of Supervision (GHOS), the Committee's oversight body, announced a substantial strengthening of existing capital requirements and fully endorsed the agreements it reached on 26 July 2010.[6] These capital reforms together with the introduction of two international liquidity standards, delivered on 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 and liquidity requirements (collectively referred to as "Basel III") on a semi-annual basis. This report summarises results of the latest Basel III monitoring exercise using 30 June 2011 data.[7]

1.1 Scope of the impact study

All but one of the 27 Committee member jurisdictions participated in Basel III monitoring exercise as of 30 June 2011. The estimates presented are based on data submitted by the participating banks to national supervisors in reporting questionnaires in accordance with the instructions prepared by the Committee in September 2011.[8] 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 results were initially submitted to the Secretariat of the Committee in October 2011.

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 proposals set out in the following documents:

- *Revisions to the Basel II market risk framework*[9] and *Guidelines for computing capital for incremental risk in the trading book;*[10]
- *Enhancements to the Basel II framework*[11] which include the revised risk weights for re-securitisations held in the banking book;

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

7 The data for Japan are as of the end of March 2011, 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 2011, which corresponds to Canadian banks' fiscal second-quarter end.

8 See Basel Committee on Banking Supervision, *Instructions for Basel III implementation monitoring*, September 2011 (www.bis.org/bcbs/qis/index.htm).

9 Basel Committee on Banking Supervision, *Revisions to the Basel II market risk framework*, July 2009 (www.bis.org/publ/bcbs158.htm).

10 Basel Committee on Banking Supervision, *Guidelines for computing capital for incremental risk in the trading book*, July 2009 (www.bis.org/publ/bcbs159.htm).

11 Basel Committee on Banking Supervision, *Enhancements to the Basel II framework*, July 2009 (http://www.bis.org/publ/bcbs157.pdf).

- *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;[12]
- *International framework for liquidity risk measurement, standards and monitoring;* and
- *Global systemically important banks: Assessment methodology and the additional loss absorbency requirement*.[13]

1.2 Sample of participating banks

A total of 212 banks participated in the study, including 103 Group 1 banks and 109 Group 2 banks. Group 1 banks are those that have Tier 1 capital in excess of €3 billion and are internationally active. All other banks are considered Group 2 banks. Banks were asked to provide data as of 30 June 2011 at the consolidated level. Subsidiaries of other banks are not included in the analyses to avoid double counting.

Table 1 shows the distribution of participation by jurisdiction. For Group 1 banks members' coverage of their banking sector was very high reaching 100% coverage for some jurisdictions. Coverage for Group 2 banks was comparatively lower and varied across jurisdictions.

[12] The Committee's 13 January 2011 press release on loss absorbency at the point of non-viability is available at www.bis.org/press/p110113.htm.

[13] Basel Committee on Banking Supervision, *Global systemically important banks: Assessment methodology and the additional loss absorbency requirement,* November 2011 (www.bis.org/publ/bcbs207.htm).

Table 1

Number of banks submitting data for the Basel III monitoring exercise

Jurisdiction	Group 1	Group 2
Australia	4	1
Belgium	1	2
Brazil	2	0
Canada	6	2
China	6	0
France	5	5
Germany	9	25
Hong Kong, SAR	0	7
India	5	5
Indonesia	0	2
Italy	2	11
Japan	13	5
Korea	5	3
Luxembourg	0	1
Mexico	0	5
Netherlands	3	17
Russia	0	1
Saudi Arabia	3	0
Singapore	3	0
South Africa	3	3
Spain	2	6
Sweden	4	0
Switzerland	2	4
Turkey	6	0
United Kingdom	6	4
United States	13	0
Total	**103**	**109**

Not all banks provided data relating to all parts of the Basel III framework. Accordingly, a small number of banks are excluded from individual sections of the Basel III monitoring analysis due to incomplete data.

1.3 Methodology

The impact assessment was carried out by comparing banks' capital positions under Basel III to the current regulatory framework implemented by the national supervisor.[14] With the exception of transitional arrangements for non-correlation trading securitisation positions in the trading book,[15] Basel III results are calculated without considering transitional arrangements pertaining to the phase-in of deductions and grandfathering arrangements.

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 capital for the total sample divided by the sum of all banks' risk-weighted assets for the total sample.

To maintain confidentiality, many of the results shown in this report are presented using box plots charts. These charts show the distribution of results as described by the median values (the thin red horizontal line) and the 75th and 25th percentile values (defined by the blue box). The upper and lower end points of the thin blue vertical lines show the values which are 1.5 times the range between the 25th and the 75th percentile above the 75th percentile or below the 25th percentile, respectively. This would correspond to approximately 99.3% coverage if the data were normally distributed. The red crosses indicate outliers.

To estimate the impact of implementing the Basel III framework on capital, comparisons are made between those elements of Tier 1 capital which are not subject to a limit under the national implementation of Basel I or Basel II, and CET1 under Basel III.

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 C-QIS, 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 that follow only to the extent they were able to provide sufficient quality data to complete the analyses.

For the liquidity elements, data quality has improved significantly throughout the iterations of the Basel III monitoring exercise, although it is still the case that some differences in banks' reported liquidity risk positions could be attributed to differing interpretations of the rules, rather than underlying differences in risk. Most notably individual banks appear to be using different methodologies to identify operational wholesale deposits and exclusions of liquid assets due to failure to meet the operational requirements.

1.5 Interpretation of results

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

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[14] Although banks in the United States are currently subject to Basel I capital requirements, most submitted data for this exercise on a Basel II basis.

[15] For non-correlation trading securitisations in the trading book, capital charges are calculated as the larger of the capital charge for net long or net short positions. After 31 December 2013, the charge for these positions will change to the sum of capital charges for net long and net short positions.

- These results are not comparable to those shown in the C-QIS, which evaluated the impact of policy questions that differ in certain key respects from the finalised Basel III framework. As one example, the C-QIS did not consider the impact of capital surcharges for G-SIBs based on the initial list of G-SIBs announced by the Financial Stability Board in November 2011.[16]
- One member country, Switzerland, has already implemented certain elements of the Basel III framework pertaining to new rules for market risk and enhancements to the treatment of securitisations held in the banking book (often referred to collectively as "Basel 2.5"). For banks in this country, the results included in this report reflect the impact of adopting the Basel III requirements relative to the Basel II and Basel 2.5 frameworks already in place.
- The new rules for counterparty credit risk are not fully accounted for in the report, as data for capital charges for exposures to central counterparties (CCPs) and stressed effective expected positive exposure (EEPE) could not be collected.
- The actual impact of the new requirements will likely be lower than shown in this report given the phased-in implementation of the rules 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 2011 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. 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 are actually phased out over nine years.
- The treatment of deductions and non-qualifying capital instruments also affects figures reported in the leverage ratio section. The underestimation of Tier 1 capital will become less of an issue as the implementation date of the leverage ratio nears. In particular, in 2013, the capital amounts based on the capital requirements in place on the Basel III monitoring reporting date will reflect the amount of non-qualifying capital instruments included in capital at that time. These amounts will therefore be more representative of the capital held by banks at the implementation date of the leverage ratio.

[16] See Basel Committee on Banking Supervision, *Global systemically important banks: assessment methodology and the additional loss absorbency requirement,* November 2011; Financial Stability Board, *Policy measures to address systemically important financial institutions*, 4 November 2011. The list of G-SIBs will be updated annually.

2. Capital shortfalls and overall changes in regulatory capital ratios

Table 2 shows the aggregate capital ratios under the current and Basel III frameworks and the capital shortfalls if Basel III were fully implemented, both for the definition of capital and the calculation of risk-weighted assets as of 30 June 2011.

Table 2

Aggregate capital ratios and capital shortfalls

	Fully implemented requirement, in percent		**Actual capital ratios, in percent**		**Capital shortfalls, in € billions**	
	Minimum	**Minimum plus capital conservation buffer**	**Current**	**Basel III**	**Minimum**	**Minimum plus capital conservation buffer***
Group 1						
CET1	4.5	7.0	10.2	7.1	38.8	485.6
Tier 1	6.0	8.5	11.5	7.4	66.6	221.4
Total	8.0	10.5	14.2	8.6	119.3	223.2
Group 2						
CET1	4.5	7.0	10.1	8.3	8.6	32.4
Tier 1	6.0	8.5	10.9	8.6	7.3	16.6
Total	8.0	10.5	14.3	10.6	5.5	11.6

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 the higher tier capital requirements are fully met. See below for details. * The shortfalls including the capital conservation buffer also include the capital surcharges for 28 initial G-SIBs as applicable.

As compared to current CET1, the average CET1 capital ratio of Group 1 banks would have fallen by nearly one-third from 10.2% to 7.1% (a decline of 3.1 percentage points) when Basel III deductions and risk-weighted assets are taken into account. The reduction in the CET1 capital ratio of Group 2 banks is smaller (from 10.1% to 8.3%), which indicates that the new framework has greater impact on larger banks. Results show significant variation across banks as shown in Chart 1.

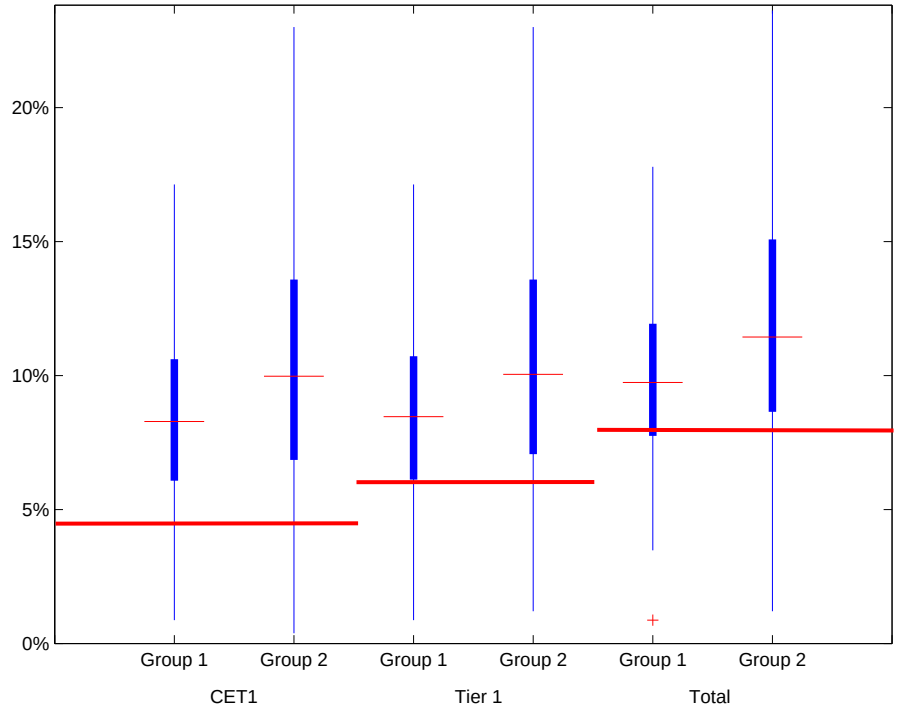
The reduction in CET1 ratios is driven by the new definition of eligible capital, by deductions that were not previously applied at the common equity level of Tier 1 capital in most jurisdictions (numerator) and by increases in risk-weighted assets (denominator). Banks engaged heavily in trading or counterparty credit activities tend to show the largest denominator effects as these activities attract substantively higher capital charges under the new framework.

Tier 1 capital ratios of Group 1 banks would on average decline 4.1 percentage points from 11.5% to 7.4%, and total capital ratios of this same group would decline on average by 5.6 percentage points from 14.2% to 8.6%. As with CET1, Group 2 banks show a more

moderate decline in Tier 1 capital ratios from 10.9% to 8.6%, and a decline in total capital ratios from 14.3% to 10.6%.

Chart 1

Basel III CET1, Tier 1 and total capital ratios, in percent[17]



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 will be raised to 4.5% and will be phased-in by 1 January 2015;
- For Tier 1 capital, the minimum requirement will be raised to 6.0% and will be phased-in by 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 2.5%, will be 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 all relevant phase-in arrangements.

[17] The thick red horizontal lines indicate the 4.5%, 6% and 8% minimum capital requirements (excluding the G-SIB surcharge) for CET1 capital, Tier 1 capital and total capital, respectively.

Chart 2 and Table 2 provide estimates of the amount of capital that Group 1 and Group 2 banks would need between 30 June 2011 and 1 January 2019 in addition to the capital they 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 target requirements and deductions as of 30 June 2011. Under these assumptions, the CET1 capital shortfall for Group 1 banks with respect to the 4.5% CET1 minimum requirement is €38.8 billion. The CET1 shortfall with respect to the 4.5% requirement for Group 2 banks, where coverage of the sector is considerably smaller, is estimated at €8.6 billion. 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 G-SIBs as applicable), Group 1 banks' shortfall is €485.6 billion and Group 2 banks' shortfall is €32.4 billion. The surcharges for G-SIBs are a binding constraint on 24 of the 28 G-SIBs included in this Basel III monitoring exercise. As a point of reference, the aggregate sum of after-tax profits prior to distributions for Group 1 and Group 2 banks in the same sample was €356.6 billion and €35.6 billion, respectively in the second half of 2010 and the first half of 2011.

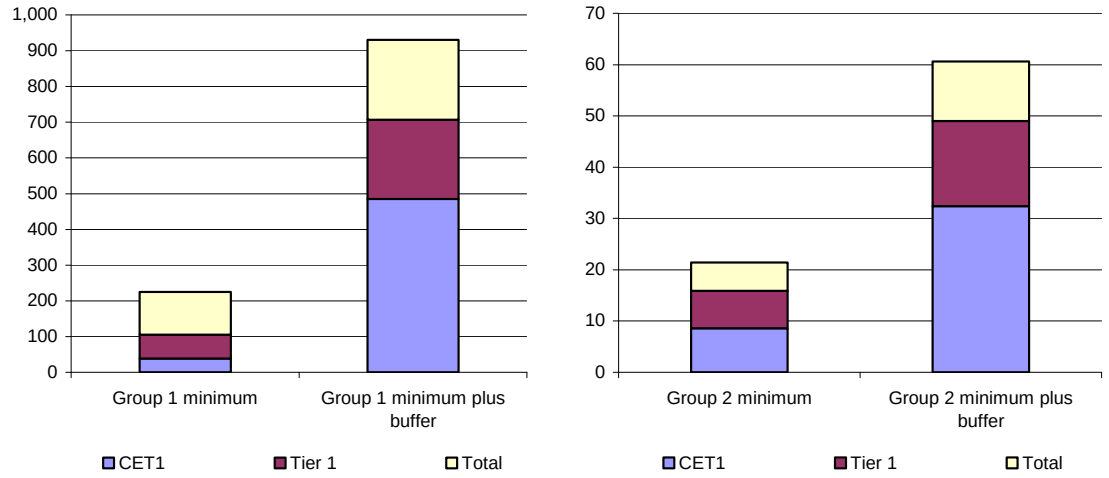
Assuming the 4.5% CET1 minimum capital requirements were fully met (ie, there were no CET1 shortfall), Group 1 banks would need an additional €66.6 billion to meet the minimum Tier 1 capital ratio requirement of 6.0%. Assuming banks already hold 7.0% CET1 capital, Group 1 banks would need and an additional €221.4 billion 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), respectively. Group 2 banks would need an additional €7.3 billion and an additional €16.6 billion to meet these respective Tier 1 capital minimum and target ratio requirements.

Assuming CET1 and Tier 1 capital requirements were fully met (ie, there were no shortfalls in either CET1 or Tier 1 capital), Group 1 banks would need an additional €119.3 billion to meet the minimum total capital ratio requirement of 8.0% and an additional €223.2 billion 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), respectively. Group 2 banks would need an additional €5.5 billion and an additional €11.6 billion to meet these respective total capital minimum and target ratio requirements.

As indicated above, no assumptions have been made about bank profits or behavioural responses, such as changes balance sheet composition, that will serve to ameliorate the impact of capital shortfalls over time.

Chart 2

Estimated overall capital shortfalls, participating Group 1 and Group 2 banks, in € billions[18]



3. Impact of the definition of capital on Common Equity Tier 1 capital

As noted above, reductions in capital ratios under the Basel III framework are attributed in part to capital deductions not previously applied at the common equity level of Tier 1 capital in most jurisdictions. Table 3 shows the impact of various deduction categories on the gross CET1 capital (ie, CET1 before deductions) of Group 1 and Group 2 banks.

In the aggregate, deductions reduce the gross CET1 of Group 1 banks under the Basel III framework by 32.0%. The largest driver of Group 1 bank deductions is goodwill, followed by combined deferred tax assets (DTAs) deductions,[19] and intangibles other than mortgage servicing rights. These deductions reduce Group 1 bank gross CET1 by 15.4%, 4.9%, and 3.6%, respectively. The category described as other deductions reduces Group 1 bank gross CET1 by 3.0% and pertain mainly to deductions for provision shortfalls relative to expected credit losses and deductions related to defined benefit pension fund schemes. Holdings of capital of other financial companies reduce the CET1 of Group 1 banks by 2.9%.[20] The category "Excess above 15%" refers to the deduction of the amount by which the aggregate of the three items subject to the 10% limit for inclusion in CET1 capital[21] exceeds 15% of a bank's CET1, calculated after all deductions from CET1. These 15% threshold bucket

[18] The figures for the minimum plus the capital conservation buffer also include the capital surcharge for G-SIBs as applicable.

[19] That is, both DTAs that are deducted in full under Basel III and DTAs that relate to temporary differences which are only deducted when they exceed the 10% limit.

[20] These holdings include reciprocal cross-holdings in common equity as well as small investments and significant investments in the common equity of other financial institutions where these investments exceed the 10% individual limit.

[21] Significant investments in the common shares of unconsolidated financial institutions, mortgage servicing rights (MSRs), and DTAs.

deductions reduce Group 1 bank gross CET1 by 2.1%. Deductions for MSRs exceeding the 10% limit have a minor impact on Group 1 CET1.

Deductions reduce the CET1 of Group 2 banks by 26.9%. Goodwill is the largest driver of deductions for Group 2 banks, followed by holdings of the capital of other financial companies, and combined DTAs deductions. These deductions reduce Group 2 bank CET1 by 10.5%, 4.4%, and 4.3%, respectively. Other deductions, which are driven significantly by deductions for provision shortfalls relative to expected credit losses, result in a 3.5% reduction in Group 2 bank gross CET1. Deductions for intangibles other than mortgage servicing rights and deductions for items in excess of the aggregate 15% threshold basket reduce Group 2 bank gross CET1 by 2.5% and 1.8%, respectively. Deductions for mortgage servicing rights above the 10% limit have no impact on Group 2 banks.

Table 3

CET1 deductions as a percentage of new CET1 capital gross of deductions

	N	Goodwill	Intangibles	DTAs*	Financials	MSRs	DTAs above threshold	Excess above 15%**	Other***	Total
Group 1 banks	103	–15.4	–3.6	–3.2	–2.9	–0.1	–1.7	–2.1	–3.0	–32.0
Group 2 banks	109	–10.5	–2.5	–0.8	–4.4	0.0	–3.5	–1.8	–3.5	–26.9

* DTA is the deferred tax assets that are deducted in full under Basel III (ie it excludes DTAs that are related to temporary differences, which are only deducted when they exceed a threshold). ** 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. *** Other includes deductions 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 and deductions from Additional Tier 1 capital to the extent they exceed a bank's Additional Tier 1 capital.

4. Changes in risk-weighted assets

4.1 Overall results

Reductions in capital ratios under the Basel III framework are also attributed to increases in risk-weighted assets. Table 4 provides additional detail on the contributors to these increases, to include the following categories:

- **Definition of capital:** These columns measure the change in risk-weighted assets as a result of proposed changes to the definition of capital. The column heading "other" includes the effects of lower risk-weighted assets for exposures that are currently included in risk-weighted assets but receive a deduction treatment under Basel III. The column heading "50/50" measures the increase in risk-weighted assets applied to securitisation exposures currently deducted under the Basel II framework that are risk-weighted at 1250% under Basel III. The column heading

"threshold" measures the increase in risk-weighted assets for exposures that fall below the 10% and 15% limits for CET1 deduction;

- **Counterparty credit risk (CCR):** This column measures the increased capital charge for counterparty credit risk and the higher capital charge that results from applying a higher asset value correlation parameter against exposures to financial institutions under the IRB approaches to credit risk. Not included in CCR are risk-weighted asset effects of capital charges for exposures to central counterparties (CCPs) or any impact of incorporating stressed parameters for effective expected positive exposure (EEPE);
- **Securitisation in the banking book:** This column measures the increase in the capital charges for certain types of securitisations (eg, resecuritisations) in the banking book; and
- **Trading book:** This column measures the increased capital charges for exposures held in the trading book to include capital requirements against stressed value-at-risk, incremental default risk, and securitisation exposures in the trading book.

Risk-weighted assets for Group 1 banks increase overall by 19.4% for Group 1 banks. This increase is to a large extent attributed to higher risk-weighted assets for counterparty credit risk exposures, which result in an overall increase in total Group 1 bank risk-weighted assets of 6.6%. The predominant driver behind this figure is capital charges for counterparty credit risk as the higher asset value correlation parameter results in an increase in overall risk-weighted assets of only 1.0%.

Trading book exposures and securitisation exposures currently subject to deduction under Basel II, also contribute significantly to higher risk-weighted assets at Group 1 banks at 5.2% for each category.

Table 4

Changes in RWA by banking group, in percent

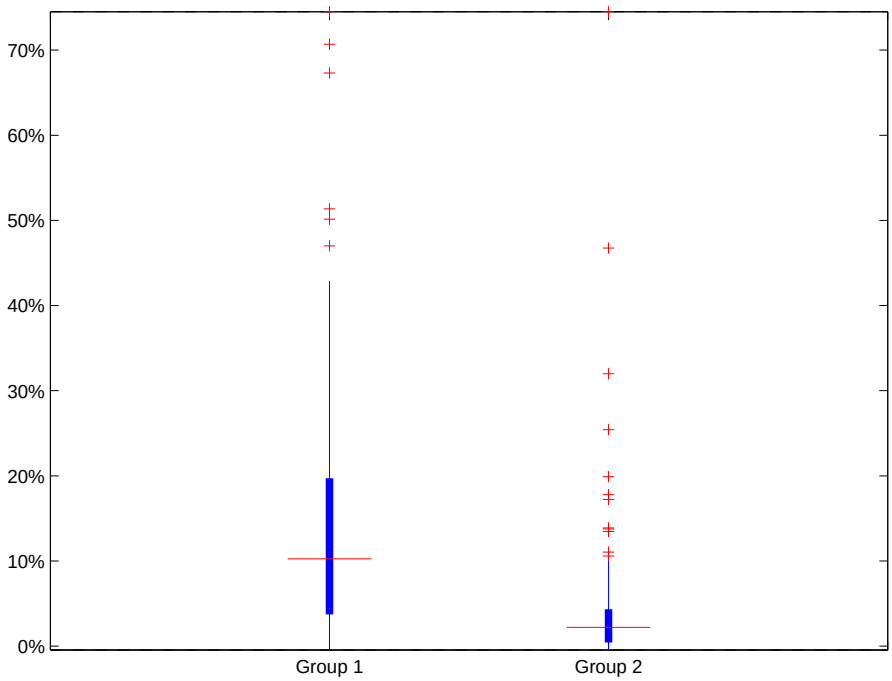
	N	Total	Definition of capital			CCR	Securitisation banking book	Trading book
			other	50/50	threshold			
Group 1 banks	102	19.4	–1.6	5.2	2.6	6.6	1.5	5.2
Group 2 banks	109	6.3	–0.7	2.3	1.9	2.2	0.1	0.5

Risk-weighted assets of Group 2 banks increase overall by 6.3%. Banks in this group tend to have smaller counterparty credit risk and trading book exposures, which explains the lower increase risk-weighted assets for Group 2 banks as compared to Group 1 banks. Securitisation exposures currently subject to deduction, counterparty credit risk exposures, and exposures that fall below the 10% and 15% CET1 eligibility limits are significant contributors to changes in risk-weighted assets for Group 2 banks.

Changes in risk-weighted assets show significant variation across banks as shown in Chart 3. Again, these differences are explained in large part by the extent of banks' counterparty credit risk and trading book exposures, which attract significantly higher capital charges under Basel III as compared to current rules.

Chart 3

Change in total risk-weighted assets, in percent



4.2 Impact of the revisions to the Basel II market risk framework

Table 5 shows further detail on the impact of the revised trading book capital charges on overall risk-weighted assets for Group 1 banks. The sample analysed here is smaller than the one in Table 4 as not all the Group 1 banks provided data on market risk exposures.[22]

For this reduced sample of banks, trading book exposures resulted in a 6.1% increase in total risk-weighted assets. The main contributors to this increase are stressed value-at-risk (stressed VaR), non-correlation trading securitisation exposures subject the standardised measurement method (column heading "SMM non-CTP"), and the incremental risk capital charge (IRC), which contribute 2.2%, 1.7%, and 1.4%. Less significant contributors to the increase in overall risk-weighted assets are capital charges for correlation trading exposures.[23] Increases in risk-weighted assets are partially offset by effects related to previous capital charges[24] and changes to the standardised measurement method (SMM).

[22] Group 2 banks are not presented separately because the market risk requirements have a very minor influence on overall Group 2 bank risk-weighted assets. Some of these banks do not have any trading books at all and are therefore not subject to any related capital charges.

[23] These capital charges consist of the comprehensive risk model for correlation trading exposures (including the floor, column heading "Correlation trading CRM"), and the standardised measurement method for correlation trading exposures not included in the model (column heading "Correlation trading SMM").

[24] Previous capital charges include the event risk surcharge and previous standardised or VaR-based charges for the specific risk capital requirements of securitisations.

Table 5

Change in trading book-related capital charges relative to overall capital requirements, Group 1 banks, in percent

	N	Total	stressed VaR	SMM*	IRC and securitisation						Other
					Overall	IRC	SMM non-CTP	Correlation trading		Prev. charge	
								CRM	SMM		
Average	96	6.1	2.2	–0.3	3.6	1.4	1.7	0.7	0.2	–0.6	0.5

* Includes the elimination of the preferential 4% risk weight for certain equity exposures subject to the standardised measurement method and any other changes in national implementations of the standardised measurement method.

4.3 Impact of the rules on counterparty credit risk (CVA only)

Credit valuation adjustment (CVA) risk capital charges lead to a 7.3% increase in total RWA for the subsample of 77 banks which provided the relevant data (6.6% on the full Group 1 sample). A larger fraction of the total effect is attributable to the application of the standardised method than to the advanced method. The impacts on Group 2 banks are smaller but still significant, adding up to an overall 2.9% increase in RWA over a subsample of 63 banks (2.2% for the full Group 2 sample), totally attributable to the standardised method. Further detailed are provided in Table 6.

Table 6

Changes in RWA for credit valuation adjustment (CVA), in percent

	N	CVA vs credit RWA	Of which		CVA vs total RWA	Of which	
			Stand. method	Adv. method		Stand. method	Adv. method
Group 1 banks	77	8.7	5.0	3.7	7.3	4.2	3.1
Group 2 banks	63	3.2	3.2	0.0	2.9	2.9	0.0

5. Findings regarding the leverage ratio

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

- Basel III Tier 1, which is the fully phased-in Basel III definition of Tier 1 capital, and

- Current Tier 1, which is Tier 1 capital eligible under the Basel II agreement (the phase-in period of Basel III begins in 2013).

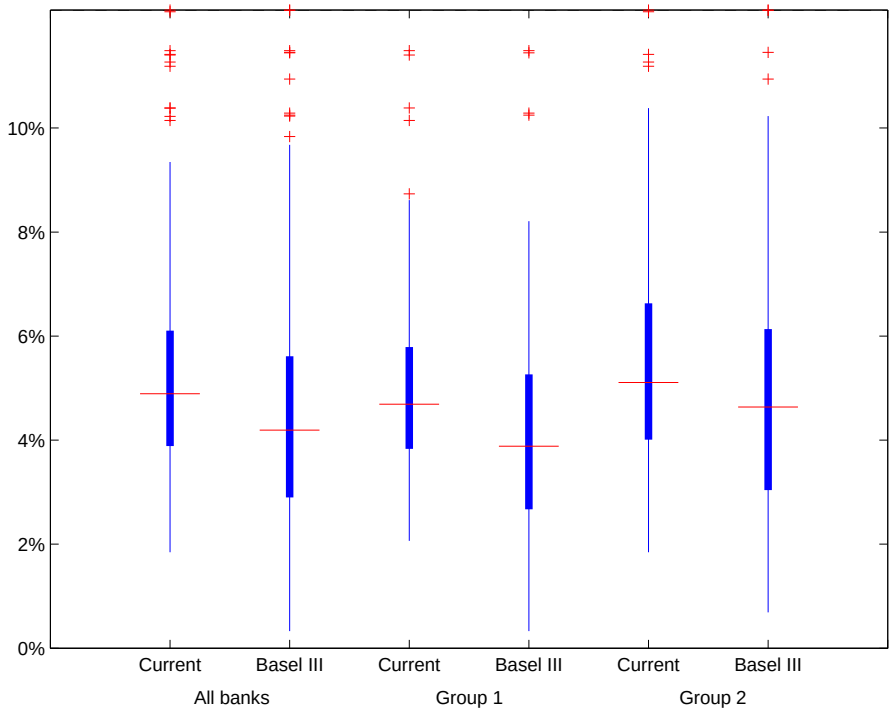
Total exposures of Group 1 banks according to the definition of the denominator of the leverage ratio were €59.2 trillion while total exposures for Group 2 banks were €5.6 trillion.

One important element in understanding the results of the leverage ratio section is the terminology used to describe a bank's leverage. Generally, when a bank is referred to as having more leverage, or being more leveraged, this refers to a multiple (eg 33 times) as opposed to a ratio (eg 3%). Therefore, a bank with a *high* level of leverage will have a *low* leverage ratio.

Chart 4 presents leverage ratios based on Basel III Tier 1 and current Tier 1 capital. The chart provides this information for all banks, Group 1 banks and Group 2 banks.

Chart 4

Basel III Tier 1 and current Tier 1 leverage ratios, in percent



The weighted average current Tier 1 leverage ratio for all banks is 4.5%. For Group 1 banks, it is somewhat lower at 4.4% while it is 5.0% for Group 2 banks. The average Basel III Tier 1 leverage ratio for all banks is 3.5%. The Basel III average for Group 1 banks is 3.4%, and the average for Group 2 banks is 4.2%.

The analysis shows that Group 2 banks are generally less leveraged than Group 1 banks, and this difference increases under Basel III when the requirements are fully phased in. It is likely that a portion of this effect is due to the changes in the definition of capital, which, as seen in Section 2, are likely to affect Group 1 banks to a greater extent than Group 2 banks.

Under the current Tier 1 leverage ratio, 17 banks would not meet the 3% Tier 1 leverage ratio level, including six Group 1 banks and 11 Group 2 banks. Under the Basel III Tier 1 leverage ratio, 63 banks would not meet the 3% Tier 1 leverage ratio level, including 36 Group 1 banks and 27 Group 2 banks.

6. Liquidity

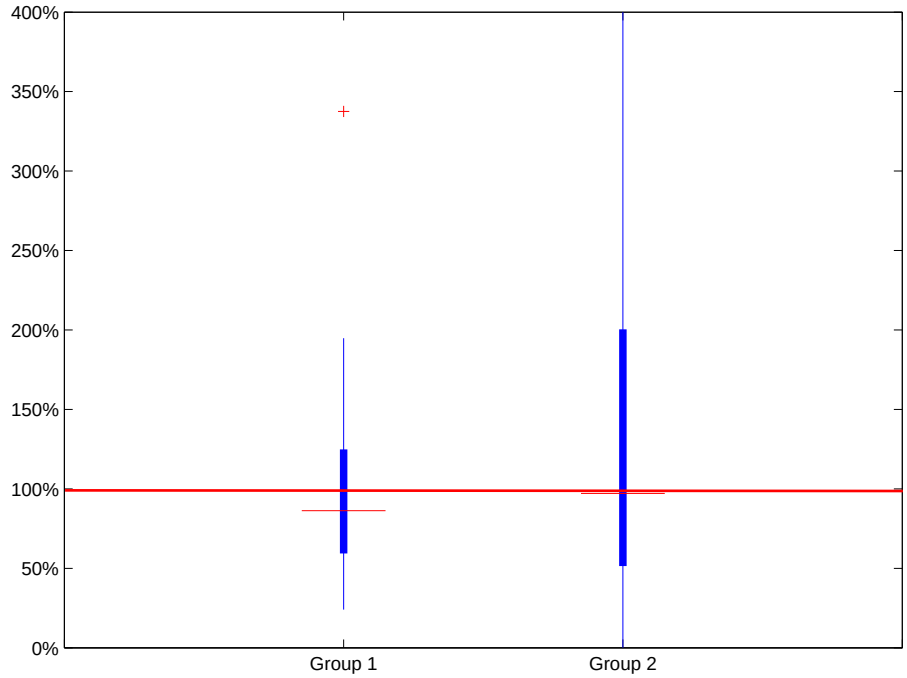
6.1 Liquidity coverage ratio

One of the two standards introduced by the Committee is a 30-day liquidity coverage ratio (LCR) which is intended to promote short-term resilience to 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 is comprised of cash outflows less cash inflows (subject to a cap at 75% of outflows) that are expected to occur in a severe stress scenario.

103 Group 1 and 102 Group 2 banks provided sufficient data in the 30 June 2011 Basel III monitoring exercise to calculate the LCR according to the Basel III liquidity framework. The weighted average LCR was 90% for Group 1 banks and 83% for Group 2 banks. These aggregate numbers do not speak to the range of results across the banks. Chart 5 below gives an indication of the distribution of bank results; the thick red line indicates the 100% minimum requirement, the thin red horizontal lines indicate the median for the respective bank group. 45% of the banks in the Basel III monitoring sample already meet or exceed the minimum LCR requirement and 60% have LCRs that are at or above 75%.

Chart 5

Liquidity coverage ratio, in percent[25]



For the banks in the sample, Basel III monitoring results show a shortfall of liquid assets of €1.76 trillion (which represents approximately 3% of the €58.5 trillion total assets of the

[25] In the chart banks' LCRs have been capped at 400%.

aggregate sample) as of 30 June 2011, if banks were to make no changes whatsoever to their liquidity risk profile. This number is only reflective of the aggregate shortfall for banks that are below the 100% requirement and does not reflect surplus liquid assets at banks above the 100% requirement. Banks that are below the 100% required minimum have until 2015 to meet the standard by scaling back business activities which are most vulnerable to a significant short-term liquidity shock or by lengthening the term of their funding beyond 30 days. Banks may also increase their holdings of liquid assets.

The key components of outflows and inflows are shown in Table 7. Group 1 banks show a notably larger percentage of total outflows, when compared to 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, for Group 2 banks, retail activities, which attract much lower stress factors, comprise a greater share of funding activities.

Table 7

LCR outflows and inflows (post-factor) as a percentage of balance sheet liabilities*

Category	Group 1 banks	Group 2 banks
Outflows to…		
Unsecured retail and small business customers	2.1%	2.5%
Unsecured non-financial corporates	4.5%	2.9%
Unsecured sovereign, central bank, public sector entities (PSEs) and other counterparties	1.4%	0.8%
Unsecured financial institutions and other legal entities	5.1%	3.8%
Other unsecured wholesale funding incl. unsecured debt issuance	1.5%	0.7%
Secured funding and collateral swaps	1.8%	1.2%
Collateral, securitisations and own debt	0.8%	0.3%
Credit and liquidity facilities	2.6%	0.7%
Other contractual and contingent cash outflows including derivative payables	1.2%	0.6%
Total outflows**	**21.1%**	**13.6%**
Inflows from…		
Financial institutions	2.3%	2.6%
Retail and small business customers, non-financial corporates and other entities	1.7%	1.6%
Secured lending	1.7%	0.7%
Other cash inflows including derivative receivables	0.1%	0.1%
Total inflows***	**5.8%**	**5.0%**

* As reported in the net stable funding ratio. ** May contain rounding differences. *** For the purposes of this table, the 75% cap is only applied to the "total inflow" category.

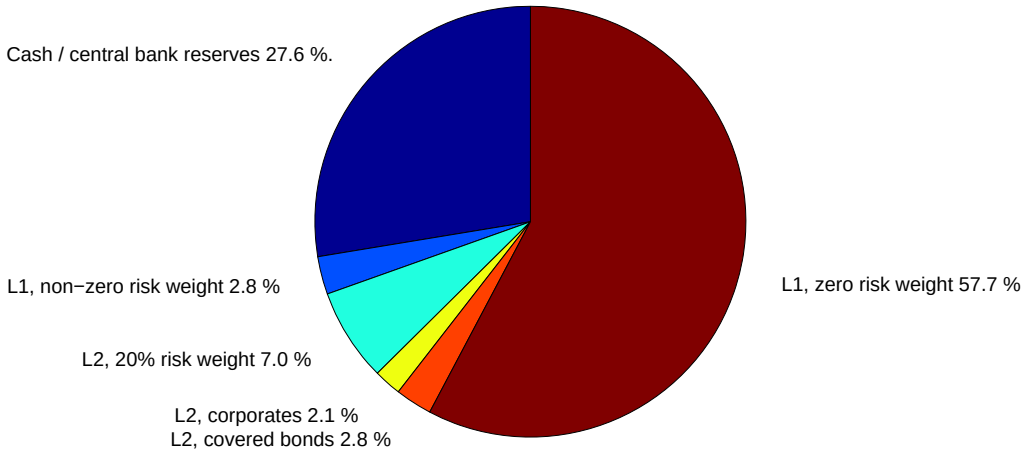
Cap on inflows

No Group 1 and 19 Group 2 banks reported inflows that exceeded the cap. Of these, six fail to meet the LCR, so the cap is binding on them. Of the banks impacted by the cap on inflows, 18 have inflows from other financial institutions that are in excess of the excluded portion of inflows.

The composition of high quality assets currently held at banks is depicted in Chart 6. The majority of Group 1 and Group 2 banks' holdings, in aggregate, are comprised of Level 1 assets; however the sample, on 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 PSEs, and cash and central bank reserves comprising significant portions of the qualifying pool. Comparatively, within the Level 2 asset class, the majority of holdings is comprised of 20% risk-weighted securities issued or guaranteed by sovereigns, central banks or PSEs, and qualifying covered bonds.

Chart 6

Composition of holdings of all eligible liquid assets (all banks)



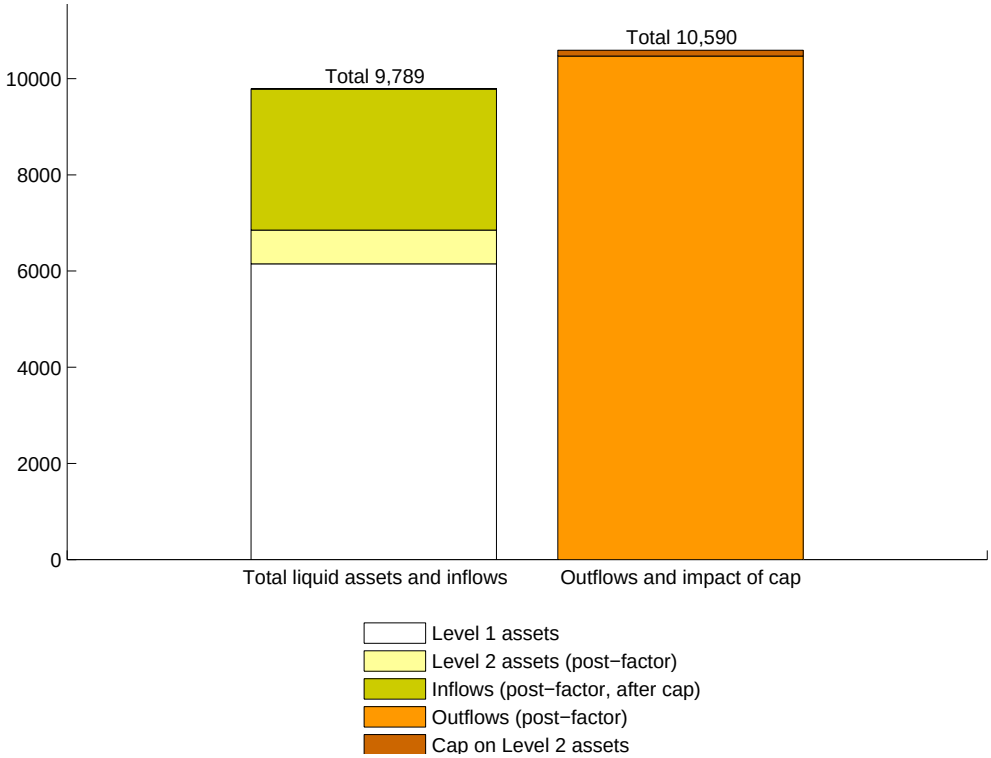
Cap on Level 2 assets

€121 billion of Level 2 liquid assets were excluded because reported Level 2 assets were in excess of the 40% cap as currently operationalised. 34 banks currently reported assets excluded, of which 24 (11% of the total sample) had LCRs below 100%.

Chart 7 combines the above LCR components by comparing liquidity resources (buffer assets and inflows) to outflows. Note that the €800 billion difference between the amount of liquid assets and inflows and the amount of outflows and impact of the cap displayed in the chart is smaller than the €1.76 trillion gross shortfall noted above as it is assumed here that surpluses at one bank can offset shortfalls at other banks. In practice the aggregate shortfall in the industry is likely to lie somewhere between these two numbers depending on how efficiently banks redistribute liquidity around the system.

Chart 7

Comparison of buffer and inflows to outflows and cap (€ billions, all banks)



6.2 Net stable funding ratio

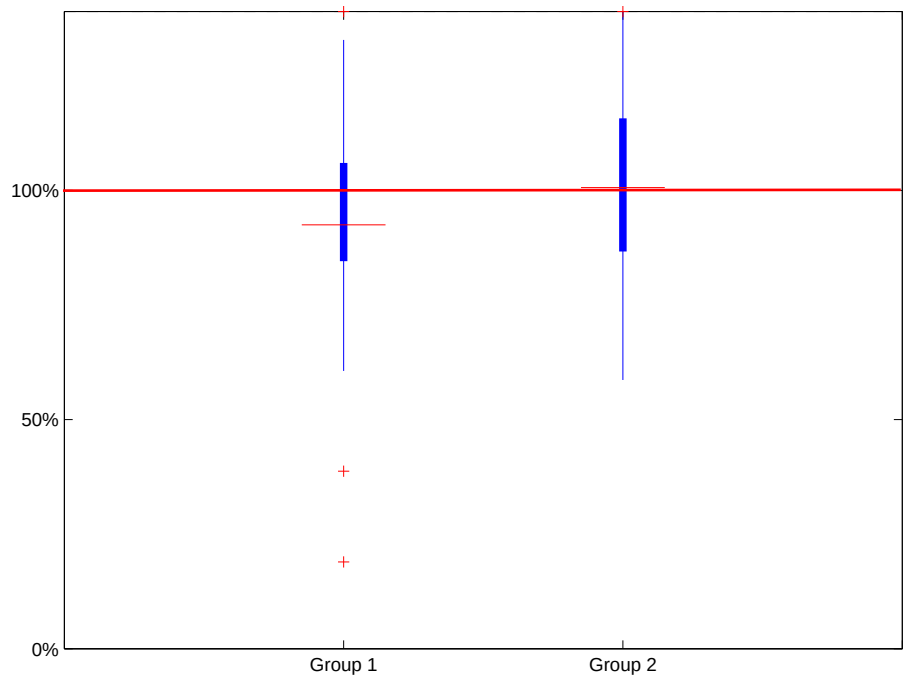
The second standard is the net stable funding ratio (NSFR), a longer-term structural ratio to address liquidity mismatches and provide incentives for banks to use stable sources to fund their activities.

103 Group 1 and 102 Group 2 banks provided sufficient data in the 30 June 2011 Basel III monitoring exercise to calculate the NSFR according to the Basel III liquidity framework. 46% of these banks already meet or exceed the minimum NSFR requirement, with three-quarters at an NSFR of 85% or higher.

The weighted average NSFR for each of the Group 1 bank and Group 2 samples is 94%. Chart 8 shows the distribution of results for Group 1 and Group 2 banks; the thick red line indicates the 100% minimum requirement, the thin red horizontal lines indicate the median for the respective bank group.

Chart 8

Net stable funding ratio, in percent



The results show that banks in the sample had a shortfall of stable funding[26] of €2.78 trillion at the end of June 2011, if banks were to make no changes whatsoever to their funding structure. This number is only reflective 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 and can take a number of measures to do so, including by lengthening the term of their funding or reducing maturity mismatch.

It should be noted that the shortfalls in the LCR and the NSFR are not necessarily additive, as decreasing the shortfall in one standard may result in a similar decrease in the shortfall of the other standard, depending on the steps taken to decrease the shortfall.

[26] 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.

Annex

Phase-in arrangements

(shading indicates transition periods – all dates are as of 1 January)

	2011	2012	2013	2014	2015	2016	2017	2018	As of 1 Jan 2019
Leverage ratio	Supervisory monitoring		Parallel run 1 Jan 2013 – 1 Jan 2017 Disclosure starts 1 Jan 2015					Migration to Pillar 1	
Minimum CET1 ratio			3.5%	4.0%	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			3.5%	4.0%	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)				20%	40%	60%	80%	100%	100%
Minimum Tier 1 capital			4.5%	5.5%	6.0%	6.0%	6.0%	6.0%	6.0%
Minimum total capital			8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Minimum total capital plus conservation buffer			8.0%	8.0%	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						

Liquidity coverage ratio	Observation period begins				Introduce minimum standard				
Net stable funding ratio	Observation period begins							Introduce minimum standard	