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11 September 2014

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# Basel III monitoring exercise

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Results based on data as of 31 December 2013

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# Abbreviations

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<b>AQR</b>	Asset quality review
<b>ASF</b>	Available stable funding
<b>BCBS</b>	Basel Committee on Banking Supervision
<b>CCPs</b>	Central counterparties
<b>CET1</b>	Common equity tier 1
<b>CRD</b>	Capital Requirements Directive
<b>CRR</b>	Capital Requirements Regulation
<b>CVA</b>	Credit value adjustment
<b>DTA</b>	Deferred tax assets
<b>EBA</b>	European Banking Authority
<b>ECB</b>	European Central Bank
<b>G-SIBs</b>	Global systemically important banks
<b>HQLA</b>	High quality liquid assets
<b>ISG</b>	Impact Study Group
<b>IRBA</b>	Internal ratings-based approaches
<b>LCR</b>	Liquidity coverage ratio
<b>LR</b>	Leverage ratio
<b>MSR</b>	Mortgage servicing rights
<b>NSFR</b>	Net stable funding ratio
<b>RWA</b>	Risk-weighted assets
<b>RSF</b>	Required stable funding
<b>SFT</b>	Security financing transactions
<b>SSM</b>	Single supervisory mechanism

## Executive summary

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Since the finalisation of the new global regulatory framework ('Basel III') in December 2010<sup>1</sup>, its impact has been monitored semi-annually by the Basel Committee at a global level and the European Banking Authority (EBA) at the European level, using data provided by participating banks on a voluntary and confidential basis.

This report is the sixth publication of the EBA's Basel III monitoring exercise and summarises the results at EU level using data as of 31 December 2013<sup>2</sup>. A sample of 151 banks submitted data for this exercise, comprising 42 Group 1 banks and 109 Group 2 banks<sup>3</sup>. EU Member States' coverage of their banking system was notably high for Group 1 banks, reaching 100% coverage for many jurisdictions (aggregate coverage in terms of Basel II RWA: 94%), while for Group 2 banks it was lower, with a larger variation across jurisdictions (aggregate coverage: 29%). Furthermore, the analysis of Group 2 results showed there were a significant number of large but non-internationally-active banks, i.e. banks that, excluding international activity, have similar characteristics to Group 1 banks, hence the results presented in this report for Group 2 banks may not be as representative as for Group 1 banks<sup>4</sup>.

The monitoring exercise assumes there is full implementation of CRR/CRD IV requirements and definitions for the sections of this report referring to capital and RWA, including the requirements for SIBs. These sections are based on the CRD IV package (CRR and CRD IV), which is the European implementation of the Basel III framework. As the rules for the leverage ratio and liquidity ratios have not yet been adopted or fully implemented by the CRD IV package, the corresponding sections of this report are still based on Basel III rules. This monitoring exercise also assumes there is full implementation of the Basel III framework requirements and definitions<sup>5</sup> for the sections of this report referring to liquidity and leverage (for more details see section 1.3).

In addition, the monitoring exercise is based on the 'static balance sheet' assumption, i.e. capital elements are only included in the report if the eligibility criteria are fulfilled at the reference date of December 2013. The report thus does not take account of any planned management measures to increase capital or reduce RWA in the future. This monitoring exercise does not include any subjective assumptions about banks' future profitability and/or any behavioural responses to

<sup>1</sup> Basel Committee on Banking Supervision, *Basel III: A global framework for more resilient banks and banking systems*, December 2010 and revised June 2011; Basel Committee on Banking Supervision, *Basel III: International framework for liquidity risk measurement, standards and monitoring*, December 2010.

<sup>2</sup> Previous reports are available on the EBA website (<http://www.eba.europa.eu/risk-analysis-and-data/quantitative-impact-study/basel-iii-monitoring-exercise>).

<sup>3</sup> Group 1 banks are banks with Tier 1 capital in excess of EUR 3 billion and internationally active. All other banks are categorised as Group 2 banks. Among the Group 2 banks there are 21 banks that have a Tier 1 capital in excess of EUR 3 billion but which are not internationally active.

<sup>4</sup> There are 45 Group 2 banks that have Tier 1 capital in excess of EUR 1.5 billion. These banks account for about 80% of total Group 2 RWA (current definition of RWA) and are classified as 'large Group 2 banks'.

<sup>5</sup> Except for securitisation positions in the trading book that do not belong to the correlation trading portfolio as stated in Annex I, paragraph 16(a) of Directive 2006/49/EC.

economic conditions. As a consequence, the results in this report are not comparable with industry estimates, as the latter usually include assumptions about banks' future profitability, planned capital and/or further management actions that may mitigate the impact of Basel III provisions.

The actual capital and liquidity shortfalls do not include the results of the EBA-led AQR and stress testing exercises which might result in different capital shortfall figures.

### **Key results**

The main results of the monitoring exercise are summarised below. Whenever references and/or comparisons to previous period(s) are made, these are based on the analysis of the consistent sample, i.e. the same sample of banks over time.

### **Impact on regulatory capital ratios and estimated capital shortfall**

Assuming full implementation of the CRD IV package as of 31 December 2013 (i.e. without taking into account transitional arrangements), the CET1 capital ratios of Group 1 banks would fall from an average CET1 ratio of 12.4% under current rules, to an average CET1 ratio of 10.1% under the new framework. A total of 98% of Group 1 banks would be at or above the 4.5% minimum CET1 requirement, while 84% of Group 1 would be above the 7.0% CET1 target level (i.e. including the capital conservation buffer). The CET1 capital shortfall for Group 1 banks would be EUR 0.1 billion, with respect to the minimum requirement of 4.5%; and EUR 11.6 billion, with respect to the target level of 7.0%. The latter shortfall includes, where applicable, the additional regulatory surcharge for G-SIBs. As a point of reference, across the Group 1 sample the total profits after tax prior to dividends in the year preceding 31 December 2013 was EUR 62.3 billion.

Compared to the previous exercise (reporting date end-June 2013), the results show an increase of 1.0 percentage points in the average CET1 ratio of Group 1 banks. The shortfall with respect to the 7% target level (also taking account of the capital surcharge for G-SIBs) fell from EUR 36.3 billion to EUR 11.6 billion, i.e. by 68.0%.

The average Tier 1 and total capital ratios of Group 1 banks would fall from 13.8% and 16.6% respectively under current rules, to 10.2% and 12.1% under the fully-implemented CRD IV package. Capital shortfalls corresponding to the minimum ratios (including the capital conservation buffer and the surcharge for G-SIBs) amount to EUR 41.0 billion (Tier 1 capital) and EUR 83.1 billion (total capital).

For Group 2 banks, the average CET1 ratio would fall from 13.2% under the current regime to 10.3% under the fully-implemented CRD IV package. Compared to the exercise as of end-June 2013, the results show an increase of 1.5 percentage points in the average CET1 ratio of Group 2 banks. The CET1 shortfall would be approximately EUR 9.2 billion for the target CET1 level of 7.0%. The average Tier 1 and total capital ratios of Group 2 banks would fall from 13.8% to 10.9% and from 16.6% to 12.8% respectively.

The increasing trend of full implementation of the CET1 ratio for Group 1 and Group 2 banks compared to the previous exercises is explained by changes in both the numerator and the denominator. Eligible CET1 capital has increased on all but one of the reference dates while the RWA have been falling continuously since December 2011.

These figures do not include any additional shortfalls that may arise from additional surcharges from any domestic systemically important banks framework<sup>6</sup>, the countercyclical buffer, the systemic risk buffer, or any other additional Pillar 2 surcharges the supervisor may levy upon the bank.

### Main drivers of changes in capital ratios

For Group 1 banks, the overall impact of full implementation of the CRD IV package on the CET1 ratio is attributed to both changes in the definition of capital and changes related to the calculation of RWA; while CET1 capital would fall by 10.4%, on average, compared to current rules, RWA would increase by 10.3%. For Group 2 banks, while the change in the definition of capital would result in a fall of 13.5% in CET1 capital, the new rules would increase the RWA of Group 2 banks by 11.0%. However, the figures are skewed by large Group 2 banks; if those are not included in the calculation, the average fall in CET1 capital and the average increase in RWA would be 3.0% and 5.3% respectively. Deductions relative to gross CET1 of both Group 1 and Group 2 banks are mainly driven by goodwill (12.0% and 7.7% respectively), followed by the treatment of intangibles (3.2%) for Group 1 banks, and deductions for other financial companies (5.3%) for Group 2 banks.

The main driver of the denominator of regulatory capital ratios for Group 1 banks are the changes in items that fall below the 10%/15% thresholds<sup>7</sup> (3.6%), followed by introduction of CVA capital charges which would result in an average RWA increase of 2.6%. For Group 2 banks, the main driver is the transition from Basel II 50/50 deductions to a 1250% risk weight (3.6%), followed by changes in items that fall below the 10%/15% thresholds (2.8%).

While the fully-implemented CRR-CRDIV CET1 ratio of Group 1 banks increases by one percentage point to 10.1% compared to the previous report, the fully-implemented CRR-CRDIV CET1 ratio of Group 2 banks increases from 8.8% to 10.3%, i.e. by 1.5 percentage points. This is driven by the increase in the CET1 levels and by the reductions in RWA. Section 2.3 analyses the total impact of the CRD IV package on the capital buffer that a bank holds above the minimum ratio<sup>8</sup> and considers the contribution of each of the five underlying drivers separately, i.e. the changes in the definition of capital, deductions, RWA, G-SIB surcharges and the minimum ratio. Estimates in this

<sup>6</sup> In addition, countries may have a D-SIB regime under which the capital charge for an existing G-SIB may be overruled by a higher D-SIB charge.

<sup>7</sup> The institutions should not deduct (a) deferred tax assets that are dependent on future profitability and arise from temporary differences; and (b) any direct, indirect and synthetic investment in a financial sector entity's CET1 (InvCET1) which in aggregate are (individually calculated for DTA and InvCET1) equal to or less than 10% of the CET1 items of the institution. This 10% threshold is increased to 15% during the period from 1 January 2014 to 31 December 2017.

<sup>8</sup> The total impact includes the reduction by 2.5 percentage points which is the difference between the CRR/CRD IV minimum ratio of 4.5% and the implicit minimum ratio for CET1 of 2% under current rules.

regard show that under Basel III the capital buffer above the regulatory minimum would be 5.9 percentage points lower for Group 1 banks and 5.4 percentage points lower for Group 2 banks than under the current regime. The share of the increased minimum requirements in the total impact of the Basel III framework on this capital buffer is about 43% and 46% for Group 1 and Group 2 banks respectively. For Group 1 banks, a significant average impact of 20% and 18% is attributed to the changes in RWA and G-SIB surcharges respectively. For Group 2 banks, the share of changes in RWA is 24% and that of deductions is 20%. At the current reporting date, the new definition of capital is only less significant for the reduction in the banks' capital buffer, amounting, on average, to 8% for Group 1 banks and 10% for Group 2 banks.

### Leverage ratio

This report takes into account the new Basel III leverage ratio framework, published together with the new disclosure requirements in January 2014<sup>9</sup>, which changes the method of calculating the leverage ratio exposure measure versus the previous framework. Compared with the previous reference date, there is a significant increase in banks' leverage ratios, which can be partly attributed to this recalibration.

Assuming full implementation of Basel III, Group 1 banks show an average leverage ratio of 3.7%, while Group 2 banks' ratio is 4.5% as of December 2013. About 80% of the banks from both groups would thus fulfil the preliminary target level of 3.0%. The resulting shortfall of Tier 1 capital of those banks which do not fulfil a 3.0% leverage ratio fell substantially and amounts to EUR 21.6 billion for Group 1, compared to EUR 100.5 billion as of June 2013, and EUR 7.6 billion for Group 2 banks, compared to EUR 27.3 billion as of June 2013. The aggregated shortfall in Tier 1 capital due to the risk-based capital requirements of 6% (8.5% taking into account the capital conservation and G-SIB buffer) and the leverage ratio of 3% amounts to EUR 22.1 billion (EUR 52.9 billion) for Group 1 banks and EUR 9.8 billion (EUR 20.5 billion) for Group 2 banks. The leverage ratio is currently subject to an observation period which includes a review clause to address any unintended consequences prior to its implementation on 1 January 2018.

### Liquidity standards

This report has taken into account the developments in the definition and adequacy of the LCR<sup>10</sup> and the NSFR<sup>11</sup>. The LCR will be introduced on 1 January 2015 with a minimum requirement of 60%, rising gradually by 10 percentage points to reach 100% in 2019. The NSFR is envisaged to be introduced on 1 January 2018 with a minimum requirement of 100%.

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<sup>9</sup> Basel Committee on Banking Supervision, *Basel III leverage ratio framework and disclosure requirements*, January 2014 (<http://www.bis.org/publ/bcbs270.pdf>).

<sup>10</sup> Basel Committee on Banking Supervision, *Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools*, January 2013 ([www.bis.org/publ/bcbs238.pdf](http://www.bis.org/publ/bcbs238.pdf)).

<sup>11</sup> Basel Committee on Banking Supervision, *Basel III: the Net Stable Funding Ratio – consultative document*, January 2014 ([www.bis.org/publ/bcbs271.pdf](http://www.bis.org/publ/bcbs271.pdf)).

With regard to the Basel III LCR definition<sup>12</sup>, the average ratio for data as of end-December 2013 is 107% and 144% for Group 1 and Group 2 banks respectively. Three-quarters of all banks already meet the final 100% requirement, while 9% are below the 60% threshold. The overall shortfall to be closed by 2019 amounts to EUR 154 billion. However, this represents a conservative proxy of banks' actual shortfall as it does not reflect the surplus of the banks already meeting the full 100% requirement and does not include any assumptions about the reallocation of liquidity between banks and within the system. There has been an increase in banks' LCR over time, which can be attributed to structural adjustments (an increase in HQLA and a fall in net outflows) and to the recalibration of the LCR framework as published in January 2013.

With respect to the NSFR, Group 1 and Group 2 banks show an average ratio of 102% and 109% with an overall shortfall in stable funding of EUR 473 billion. A total of 78% of all banks already meet or exceed the minimum NSFR requirement. Compared with previous periods, there has been a continuous increase in banks' NSFR, which has been mainly caused by an increase in available stable funding for both groups. In addition, the increase in banks' NSFR compared with data as of June 2013 may also be partly driven by the recalibration of the NSFR.

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<sup>12</sup> The European Commission will issue a delegated act amending the CRR/CRD IV later in 2014.

# 1. General remarks

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Since the beginning of 2011, the impact of the new capital and liquidity standards ('Basel III') has been monitored and evaluated by the European Banking Authority (EBA) on a semi-annual basis. Until the reporting date June 2013, the exercise was based solely on the Basel III reform package. As of the reporting date December 2013, the sections referring to capital ratios, capital definition and RWA are based on the CRD IV package (CRR and CRD IV), which is the European implementation of the Basel III framework. As the rules for the leverage ratio and liquidity ratios have not yet been adapted or fully implemented by the CRD IV package, the corresponding sections of the report are still based on Basel III rules.

In October 2013, the ECB was mandated to conduct a comprehensive assessment<sup>13</sup> prior to assuming its new banking supervisory tasks in November 2014 as part of the SSM. This comprehensive assessment of the banks that will be subject to the ECB's direct supervision includes a 2014 EU-wide stress test examining the resilience of banks' balance sheets to stress scenarios. The results of the stress test will be published in October 2014. In contrast to the stress test, which is based on the capital definition of each jurisdiction and year of the stress test period (2014-2016), this report assumes the **full implementation of the CRD IV package** at the reference date in accordance with the rules that will be **in place in 2022**<sup>14</sup>.

This report is the sixth published report of the Basel III monitoring exercise<sup>15</sup> and presents the latest results based on consolidated data of European banks as of 31 December 2013. It provides an impact assessment of the following:

- changes to banks' capital ratios under the CRD IV package and estimates of any capital shortfalls; estimates of capital surcharges for G-SIBs are included, where applicable;
- changes to the definition of capital that result from the new capital standard (CET1);
- a reallocation of regulatory adjustments to CET1 and changes to the eligibility criteria for Tier 1 and total capital;
- changes in the calculation of RWA due to changes in the definition of capital and counterparty credit risk requirements;
- the introduction of a leverage ratio; and

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<sup>13</sup> <http://www.ecb.europa.eu/press/pr/date/2013/html/pr131023.en.html>

<sup>14</sup> According to the transitional provisions in Article 478(2) of the CRR, the competent authorities may defer full deduction of DTAs that existed prior to 1 January 2014, until 1 January 2024.

<sup>15</sup> Previous reports are available on the website of the EBA (<http://www.eba.europa.eu/risk-analysis-and-data/quantitative-impact-study/basel-iii-monitoring-exercise>).

- the introduction of LCR and NSFR.

The relevant policy documents and acts are:

- *Regulation (EU) No 575/2013 of the European Parliament and of the Council;*
- *Basel III: International framework for liquidity risk measurement, standards and monitoring;*<sup>16</sup>
- *Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools*<sup>17</sup>;
- *Basel III: The Net Stable Funding Ratio*<sup>18</sup>; and,
- *Global systemically important banks: Assessment methodology and the additional loss absorbency requirement.*<sup>19</sup>

## 1.1 Sample of participating banks

The report includes an analysis of data submitted by 42 Group 1 banks from 13 countries and 109 Group 2 banks from 16 countries. Table 1 shows the distribution of banks by jurisdiction. Group 1 banks are those that have Tier 1 capital in excess of EUR 3 billion and are internationally active. All other banks are defined as Group 2 banks.

Coverage of the banking sector is high, reaching 100% of Group 1 banks in some countries (aggregate coverage in terms of Basel II RWA: 94%). Coverage of Group 2 banks is lower and varies across countries (aggregate coverage: 29%). Furthermore, the analysis of Group 2 results is driven by a significant number of large but non-internationally-active banks, i.e. banks that, excluding the international activity, have similar characteristics to those in Group 1 banks. Hence the results presented in this report for Group 2 banks may not be as representative as the results for Group 1 banks.

The separation between large and small Group 2 banks has been carried out according to a Tier 1 capital threshold of EUR 1.5 billion. Group 2 banks with less than EUR 1.5 billion Tier 1 capital have been classified as small, while the ones with Tier 1 capital equal to or higher than EUR 1.5 billion have been classified as large.

<sup>16</sup> Basel Committee on Banking Supervision, *Basel III: International framework for liquidity risk measurement, standards and monitoring*, December 2010.

<sup>17</sup> Basel Committee on Banking Supervision, *Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools*, January 2013.

<sup>18</sup> Basel Committee on Banking Supervision, *Consultative Document, Basel III: the Net Stable Funding Ratio*, January 2014 ([www.bis.org/publ/bcbs271.pdf](http://www.bis.org/publ/bcbs271.pdf)).

<sup>19</sup> Basel Committee on Banking Supervision, *Globally systemically important banks: Assessment methodology and the additional loss absorbency requirement*, November 2011.

Not all banks provided data for all parts of the reporting template. Accordingly, a small number of banks are excluded from individual sections of the monitoring analysis due to incomplete data. In all sections, comparisons with previous periods are based on a consistent sample of banks, i.e. including only those banks that reported the data required for all reporting dates, to allow for period-to-period comparisons.

**Table 1: Number of banks submitting data for the monitoring exercise**

	<b>Group 1</b>	<b>Group 2</b>
Austria	3	3
Belgium	1	2
Denmark	1	3
France	5	5
Germany	8	38
Ireland	3	1
Italy	2	11
Luxembourg	—	1
Malta	—	4
Netherlands	3	16
Norway	1	5
Poland	—	5
Portugal	3	3
Spain	2	4
Sweden	4	3
United Kingdom	6	5
<b>Total</b>	<b>42</b>	<b>109</b>

## 1.2 Method

### ‘Composite bank’ weighting scheme

Average amounts in this document have been calculated by creating a composite bank at a total sample level, which implies that the total sample averages are weighted. For example, the average CET1 capital ratio is the sum of all banks’ CET1 capital for the total sample, divided by the sum of all banks’ RWA for the total sample. Similarly, the average Tier 1 leverage ratio is the sum of all banks’ Tier 1 capital for the total sample, divided by the sum of all banks’ leverage ratio exposures for the total sample.

### Box plots illustrate the distribution of results

To guarantee data confidentiality, most charts show box plots which show the distribution of the results among participating banks. The box plots are defined as follows:

Thick red line:	Respective minimum requirement
Dotted lines:	Respective minima plus the capital conservation buffer (capital)
Thin red line:	Median value (50% of the observations are below this value, 50% are above this value)
'x':	Mean (weighted average)
Blue box:	25th and 75th percentile values. A percentile is the value of a variable below which a certain per cent of observations fall. For example, the 25th percentile is the value below which 25% of the observations are found.
Black vertical lines ('whiskers'):	The upper end point represents the 95th percentile value, the lower end point the 5th percentile value.

### 1.3 Interpretation of results

The impact assessment in this report was carried out by comparing banks' capital positions under CRR/CRD IV to the currently applied (CRD III) regulatory framework (including revised rules on market risk exposures) which has been implemented in European countries since the end of December 2011. With the exception of transitional arrangements for non-correlation trading securitisation positions in the trading book,<sup>20</sup> results are calculated assuming **full implementation of the CRR/CRD IV package**, i.e. without considering transitional arrangements related to the phase-in of deductions and grandfathering arrangements. The CRR/CRD IV 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. These capital amounts thus underestimate the amount of Tier 1 capital and total capital held as they do not give any recognition for non-qualifying instruments that are actually being phased out over a nine-year horizon. It is worth mentioning that the cross-country comparability of the deductions relating to the gains and losses on exposures to central governments in the 'available for sale' portfolio<sup>21</sup> might be hampered by the different timeline that national competent authorities might have chosen, in line with the national discretion allowed by the CRR on how to phase in the new and harsher deductions from regulatory capital, in conjunction with the implementation of the IFRS 9 the date of which is as yet unknown.

The treatment of deductions and non-qualifying capital instruments under the assumption of full implementation of Basel III also affects figures reported in the leverage ratio section. The potential underestimation of Tier 1 capital will become less of an issue as the **implementation date of the leverage ratio approaches**. In the course of 2014, the capital amounts based on the capital requirements in place on the reporting date of Basel III implementation monitoring will reflect the amount of non-qualifying capital instruments included in capital at that time. These

<sup>20</sup> 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.

<sup>21</sup> Article 467(2) of the CRR.

amounts will therefore be more representative of the capital held by banks at the implementation date of the leverage ratio (for more details see section 5).

The monitoring exercise is based on **static balance sheet assumptions**, i.e. capital elements are only included if the eligibility criteria have been fulfilled at the reporting date. Planned bank measures to increase capital or reduce RWA are not taken into account. This allows **actual** changes in bank capital to be identified instead of identifying changes which are simply based on alterations in underlying modelling assumptions. As a consequence, monitoring results are not comparable to industry estimates as the latter usually include assumptions about banks' future profitability, planned capital and/or management actions that mitigate the impact of Basel III or the CRR/CRD IV package.

One of the core elements of the new Basel III capital definition is the introduction of CET1, which was not defined under the current regulatory regime (CRD III). To make comparisons between the current and the new regulatory regime, CET1 elements according to the current regulatory framework are defined as those elements of Tier 1 capital as currently defined which are not subject to a limit under the respective national implementation of Basel II.

## 1.4 Data quality

Participating banks submitted comprehensive and detailed non-public data on voluntary and best-efforts basis. National supervisors worked closely with banks to guarantee data quality, completeness and consistency with the reporting instructions. Only banks which provided data of sufficient quality have been included in the sample for each type of analysis below.

As far as liquidity elements are concerned, data quality has improved significantly after the experience gained from working on the Basel III monitoring exercise. Nevertheless, some differences in banks' reported liquidity risk positions could still be attributed to differing interpretations of the Basel III rules. Most notably, individual banks appear to be using different methods to identify operational wholesale deposits and exclude liquid assets which fail to meet operational requirements.

## 2. Overall impact on regulatory capital ratios and estimated capital shortfall

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### 2.1 Capital ratios

The Basel III framework is intended, inter alia, to increase the resilience of the banking sector by strengthening both the quantity and quality of regulatory capital. Higher quantitative minimum requirements, stricter rules for the definition of capital and for the calculation of RWA have to be met. As this monitoring exercise assumes full implementation of the European version of Basel III (without accounting for any transitional arrangements<sup>22</sup>), it compares capital ratios under current rules with capital ratios that banks would have if CRD IV requirements were fully implemented at the reporting date.

Full implementation of the CRD IV package has specific implications for the monitoring results in this report. The CRR/CRD IV capital figures herein assume that all common equity deductions have been fully phased in and all non-qualifying capital instruments have been fully phased out. These amounts may thus underestimate the amount of Tier 1 capital and total capital currently held by banks as they do not give any recognition for non-qualifying instruments to be phased out during the transitional period.

Table 2 shows the aggregate change in CET1, Tier 1 and total capital ratios under the assumption that all banks implemented CRR/CRD IV requirements fully as of 31 December 2013.

For Group 1 banks, the impact on the average CET1 ratio is a reduction from 12.4% under current rules to 10.1% under Basel III (a fall of 2.3 percentage points) while the average Tier 1 and total capital ratio would fall from 13.8% to 10.2% (or 3.6 percentage points) and from 16.6% to 12.1% (or 4.5 percentage points) respectively.

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<sup>22</sup> For details on the transitional arrangements, see paragraphs 94 and 95 of the Basel III framework.

**Table 2: CET1, Tier 1 and total capital ratios by Group, in per cent**

	Number of banks	CET1		Tier 1		Total capital	
		Current	CRR/ CRD IV	Current	CRR/ CRD IV	Current	CRR/ CRD IV
<b>Group 1</b>	<b>39</b>	<b>12.4</b>	<b>10.1</b>	<b>13.8</b>	<b>10.2</b>	<b>16.6</b>	<b>12.1</b>
<b>Group 2</b>	<b>100</b>	<b>13.2</b>	<b>10.3</b>	<b>13.8</b>	<b>10.9</b>	<b>16.6</b>	<b>12.8</b>
Large Group 2	41	13.4	10.2	14.0	10.9	16.8	12.8
Small Group 2	59	12.0	11.1	12.9	11.2	15.5	12.8

The fall in the CET1 ratio is driven both by a decrease in the level of capital (the numerator of the ratio), due to the new definition of capital, and by an increase in RWA (the denominator of the ratio). For Group 1 banks, the changes in these two main variables are very similar, i.e. on average, CET1 capital falls by 10.4% and RWA increase by 10.3%. Banks heavily engaged in activities subject to counterparty credit risk tend to show the largest denominator effects as these activities attract substantially higher capital charges under the new framework. The data show that the percentage change in RWA is strongly positively correlated with the percentage change in CVA. The correlation coefficient is estimated at 0.72<sup>23</sup>.

For Group 2 banks, the change in the definition of capital results in a decline of 13.5% in the level of CET1 capital and an increase in the level of RWA by 11.0%. Note that changes in CET1 capital and RWA levels for Group 2 banks are driven mainly by large Group 2 banks. The average decline in CET1 capital and the average increase in RWA for large Group 2 banks are higher than the average figures for the entire Group 2 sample. If large Group 2 banks are excluded from the sample, the average fall in CET1 capital and the average increase in RWA are merely 3.0% and 5.3% respectively.

Figure 1 presents the basic descriptive statistics on capital ratios for the participating Group 1 and Group 2 banks. It shows the respective regulatory minimum requirement (thick red line), the weighted average (indicated by 'x') and the median (thin red line), i.e. the median value/50th percentile. Dotted lines indicate the minima plus the capital conservation buffer.

Figure 1 thus shows that the capital ratios for Group 2 banks fall within larger ranges (i.e. the distance between the 95% and the 5% percentile is greater), and the distance between 75th percentile (indicated by the upper line of the box under which 75% of the observations fall) and 25th percentile (indicated by the lower line of the box and 25% of the observations fall under this line) is larger for Group 2 banks. This is due to the larger heterogeneity within the Group 2 sample since it consists of a large number of banks covering a broad range of business models. In

<sup>23</sup> The correlation coefficient between two variables is defined as the covariance of the variables over the product of their standard deviations. The value of the coefficient falls within the unit circle and the higher the value of the coefficient, the stronger the correlation is between the two variables. A positive (or negative) coefficient shows a correlation in the same (or opposite) direction.

addition, the median value for Group 2 banks is higher than that of Group 1 banks for all capital ratios.

**Figure 1: Distribution of CET1, T1 and total capital ratio by Group, in per cent**

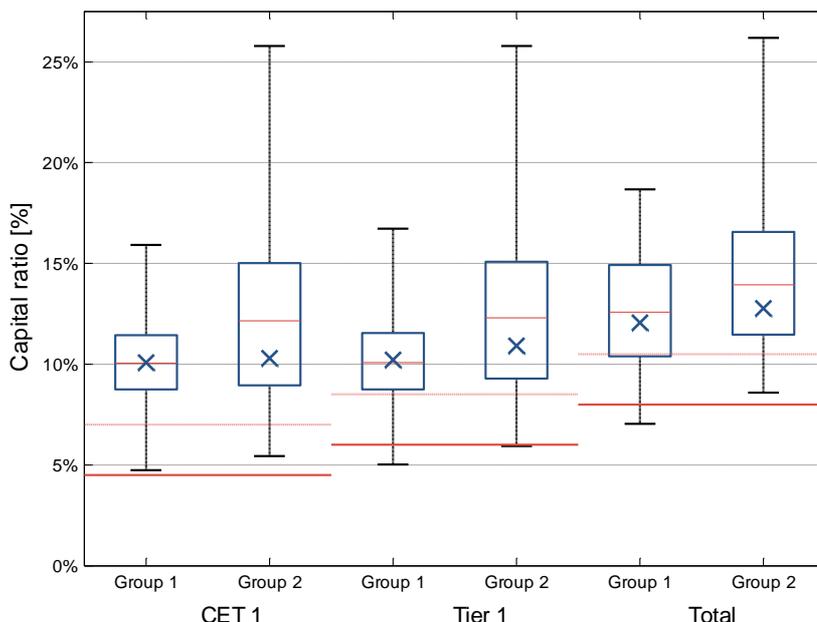
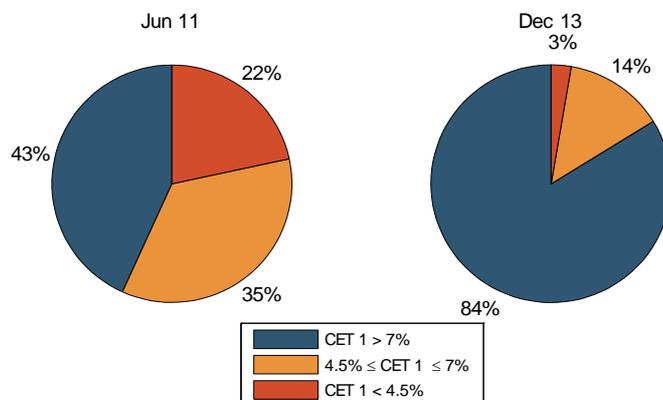


Figure 2 shows the distribution of CRR/CRD IV CET1 ratios among Group 1 banks. As of December 2013, 98% of Group 1 banks in the sample have a CET1 ratio equal to or higher than 4.5%, the minimum capital requirement and 84% of Group 1 banks have a CET1 ratio above the 7.0% target ratio, which is the minimum capital requirement plus the capital conservation buffer.

In comparison to the previous report, banks have increased their capital ratios. The share of Group 1 banks with a CET1 ratio above 7% increased by 2 percentage points and the share of Group 1 banks having a CET1 ratio between 4.5% and 7.0% increased by 1 percentage point. In line with the increases in the capital position of the banks, the share of banks with a CET1 ratio below 4.5% fell by 2 percentage points.

Since June 2011, the increase in the CET1 capital ratios of Group 1 banks has been more significant, as Figure 2 indicates. During the period of June 2011 – December 2013, the share of Group 1 banks with CET1 a ratio equal to or above 4.5% increased by about 20 percentage points.

**Figure 2: Distribution of CET1 ratios under CRR/CRD IV, Group 1 banks, in per cent**



The share of Group 2 banks with a CET1 ratio of at least 4.5% was 97% in December 2013, an increase of 2 percentage points from June 2013 and an increase of 10 percentage points from June 2011. In the current sample, as indicated in Figure 3, 88% of the Group 2 banks report a CET1 ratio above 7% and 9% of the Group 2 banks report a CET1 ratio within the range [4.5%; 7%].

**Figure 3: Distribution of CET1 ratios under CRR/CRD IV, Group 2 banks, in per cent**

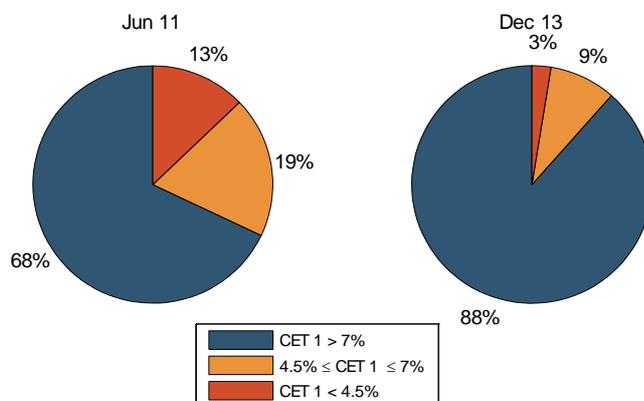


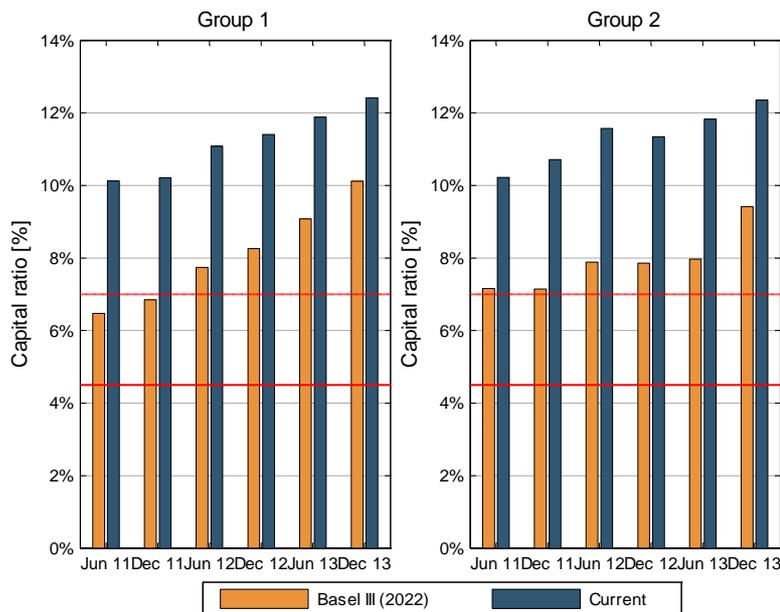
Figure 4 shows the trend in the CET1 ratio for the period of June 2011 to December 2013. Note that the sample for the analysis only includes banks that submitted data for all reporting dates. The current CET1 ratio for Group 1 banks increased from just over 10% to 12.5% during this period. The increase from the previous reporting period of June 2013 was about 0.5 percentage points. Similarly, CET1 ratio for Group 1 banks under the CRD IV package increased by over 10% in December 2013. The overall CET1 increase from June 2011 is 3.6 percentage points.

The trend is fairly similar for Group 2 banks. Between June 2013 and December 2013, the current CET1 ratio and the CET1 ratio under CRR/CRD IV increased by 0.5 percentage points and 1.4 percentage points respectively.

Monitoring results suggest that especially Group 1 banks have steadily increased their capital ratio over time. The increase over the last periods implies that banks already try to meet market expectations well in advance of the full implementation of Basel III framework.

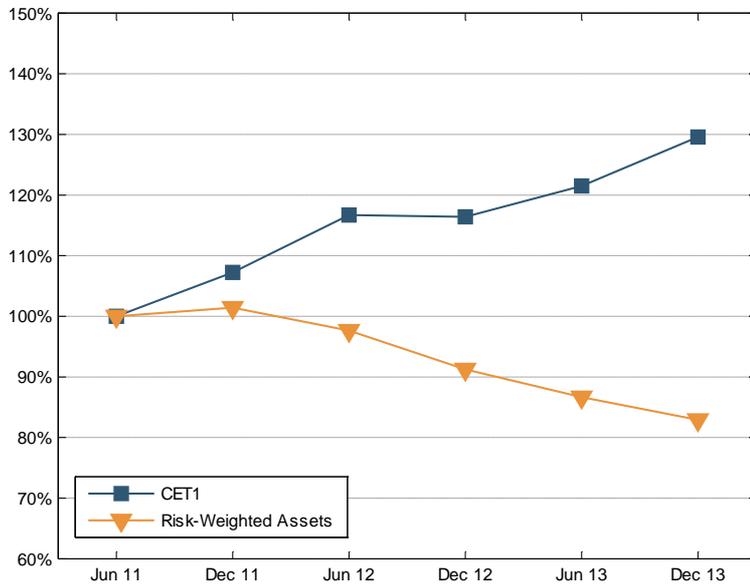
The trend is reasonable as it appears to be a consequence of the new regulatory environment that has been going through a process of change towards a SSM. Large and systemically important banks have been facing a comprehensive assessment, carried out by the ECB and national competent authorities. This assessment consists of a supervisory risk assessment to review key risks, the AQR to enhance transparency and review the quality of assets, and the stress test exercise to examine the resilience of banks to stressed economic conditions where the EBA has either provided its recommendations (AQR) or undertaken a coordinating role (stress tests).

**Figure 4: Change in CET1 ratios over time by Group, in per cent**



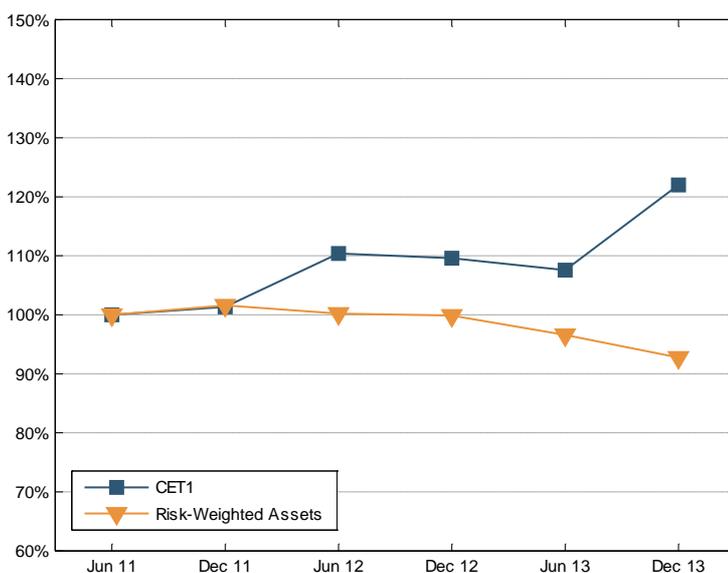
The upward trend in the CET1 ratio for Group 1 and Group 2 banks is explained by changes in the numerator and the denominator (Figure 5). While there is an increase of eligible CET1 capital in all but one observation period, RWAs have been falling since December 2011.

**Figure 5: Change in CET1 capital versus RWA over time, Group 1, in per cent**



While the CET1 capital for Group 2 remains at the same level between June 2012 and June 2013, Figure 6 indicates a sharp increase of CET1 capital between June and December 2013. This sharp increase is driven by few large banks that have raised large amounts of CET1 capital during that period. The RWA of Group 2 banks have developed similarly to that of Group 1 banks. Nevertheless, the reduction is less pronounced.

**Figure 6: Change in CET1 capital versus RWA over time, Group 2, in per cent**



## 2.2 Capital shortfall

Table 3 provides estimates of the additional amount of capital that Group 1 and Group 2 banks would need in order to meet the target CET1, Tier 1 and total capital ratios under the CRD IV package. The estimates assume fully phased-in target requirements and deductions as of December 2013. In the analysis, the capital shortfall is calculated as the difference between capital requirements and eligible capital on bank level and represents the incremental capital needs assuming capital requirements for successively higher quality capital layers have been met.

For Group 1 banks, the CET1 capital shortfall is EUR 0.1 billion at a minimum requirement of 4.5% and EUR 11.6 billion at a target level of 7.0%<sup>24</sup>. With respect to Tier 1 and total capital ratios, the capital shortfall amounts to EUR 2.8 billion and EUR 3.8 billion respectively.

The analysis for the current Basel III monitoring exercise includes 14 G-SIBs. All of these banks meet the 7.0% CET1 target ratio and all but one also meet the threshold of 7.0% plus the additional surcharges for G-SIBs. The surcharge is thus a binding constraint on one G-SIB in the sample<sup>25</sup>. The analysis identifies an improvement since the previous analysis of June 2013, where there were three banks for which the surcharges were a binding constraint.

For Group 2 banks, the CET1 capital shortfall is EUR 2.0 billion at a minimum requirement of 4.5% and EUR 9.2 billion at a target level of 7.0%. The Tier 1 and total capital shortfall without the capital conservation buffer amount to EUR 2.7 billion and EUR 6.5 billion respectively.

**Table 3: Capital shortfall by Group, in EUR billion**

	Number of banks	Minimum			Minimum plus buffers		
		CET1 4.5%	Tier1 6%	Total 8%	CET1 7%	Tier1 8.5%	Total 10.5%
<b>Group 1</b>	<b>39</b>	<b>0.1</b>	<b>2.8</b>	<b>3.8</b>	<b>11.6</b>	<b>41.0</b>	<b>83.1</b>
<b>Group 2</b>	<b>100</b>	<b>2.0</b>	<b>2.7</b>	<b>6.5</b>	<b>9.2</b>	<b>14.2</b>	<b>20.7</b>
Large Group 2	41	2.0	2.2	5.6	8.0	11.9	17.8
Small Group 2	59	0.0	0.5	0.9	1.2	2.2	2.9

Group 1 banks have been continuously cutting the capital shortfall over the last few years as shown in Figure 7. The aggregate decrease in capital shortfall is broadly similar across different categories of capital (i.e. CET1, Tier 1 and total capital). Between June 2011 and December 2013, capital shortfall for Group 1 banks fell by 83.8%. The change of 51.2% from the previous reporting date was the highest relative change since June 2011.

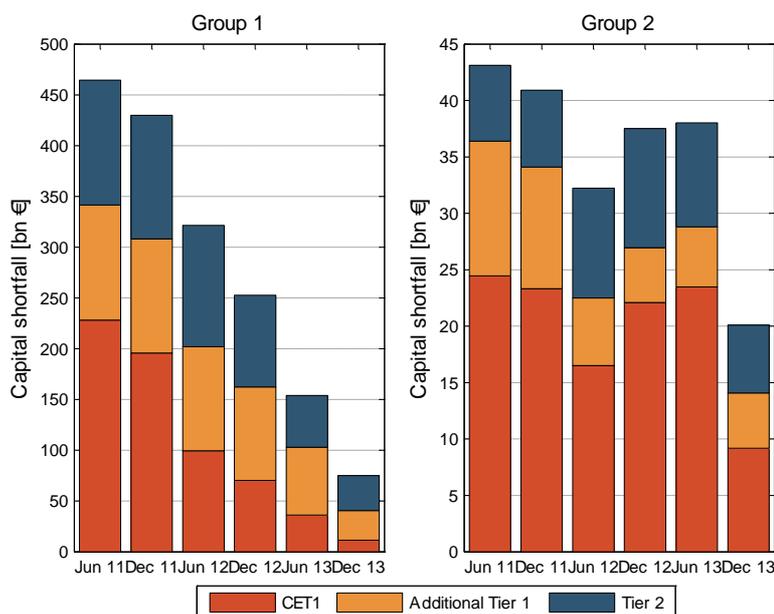
<sup>24</sup> The calculation method in this report may overstate the actual shortfall for those banks affected by the 10% and 15% threshold deductions because the decline in deductions due to higher thresholds is not taken into account.

<sup>25</sup> The capital surcharge for G-SIBs is 'binding' if a bank's shortfall is solely caused by the additional G-SIB surcharge (i.e. the bank meets the CET1 target ratio of 7%, but it does not fulfil the target ratio of 7% including the G-SIB surcharge).

However, this downward trend of the shortfall should be also assessed in conjunction with the additional Pillar II capital requirements that are not considered in the analysis (arising from e.g. Asset Quality Review and stress testing exercises).

For Group 2 banks, the shortfall increased from June 2012 to June 2013. The trend was reversed from June 2013. In December 2013, the aggregate capital shortfall for Group 2 banks almost halved (fell by 47.1%) to EUR 20.7 billion.

**Figure 7: Change in capital shortfall by type of capital under Basel III by Group, in EUR billion**



### 2.3 Impact of CRR/CRD IV on banks’ capital buffers

This sub-section breaks down the components of the CRR/CRD IV package that can affect banks’ capital buffers and shows the impact of these components as of December 2013.

The CRR/CRD IV package has an impact on the banks’ capital buffers through:

- the new definition of eligible capital;
- changes in capital deductions;
- changes in RWA;
- introducing new minimum capital ratios; and
- including the G-SIB surcharge.

The total impact of the new rules is the difference between the capital buffer above the minimum capital ratio that a bank holds under CRR/CRD IV and the buffer under the current regime. This

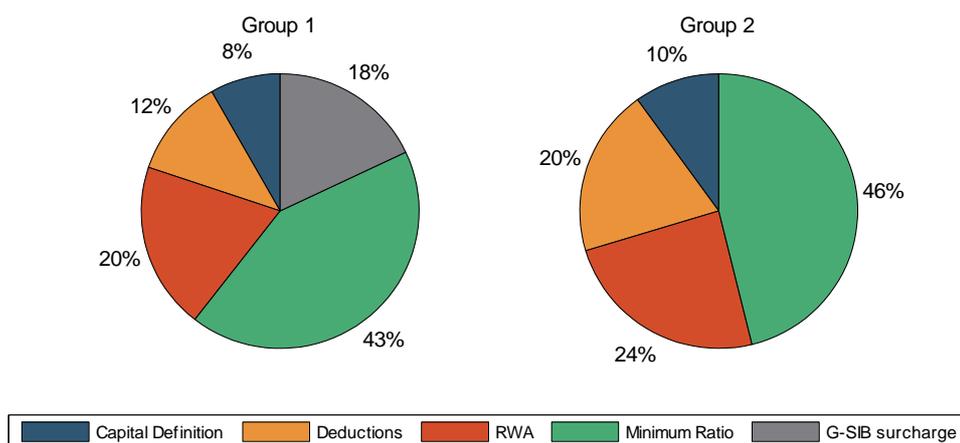
total impact is broken down into a number of components, including the changes in the definition of capital, deductions, RWA, G-SIB surcharges and the minimum ratio. This allows an additive breakdown of the changes caused by each of the capital ratio components, while subsequent sections only analyse each of these components in turn.

Results are given for the capital ratio based on the CET1 capital definition. The capital buffer shrinks by 2.5 percentage points as a result of the difference between the CRR/CRD IV minimum ratio of 4.5% and the implicit minimum ratio for CET1 of 2% under current rules<sup>26</sup>.

Including this reduction of 2.5 percentage points, the capital buffer under the new regulatory framework is 5.9 percentage points (Group 1) or 5.4 percentage points (Group 2) lower than the capital buffer under the current regime. Figure 8 shows that the relative impact of minimum ratio requirements was greatest for both Group 1 and Group 2 banks. Of the total impact of the Basel III framework on the capital buffer, minimum ratio requirements had a share of 43% and 46% for Group 1 and Group 2 banks respectively.

Changes in RWA were the second strongest component that affected banks’ capital buffers, followed by G-SIB surcharges for Group 1 banks and capital deductions for Group 2 banks. At the reporting date of December 2013, the new definition of capital explains 10% (for Group 2 banks) or less (for Group 1 banks) of the total reduction in the banks’ capital buffer. In the current analysis, the relative impact of capital deductions on capital buffer is smaller than that under the previous analysis of June 2013. This is true for both Groups in relative and absolute terms.

**Figure 8: Components of the total impact measure (TIM) by Group, in per cent**



<sup>26</sup> The analysis is based on CET1 capital. Basel II did not provide a definition for CET1 so the analysis team for the monitoring exercise used a definition of CET1 which is very similar to that under the Basel III framework.

### 3. Impact of the new capital rules

#### 3.1 Definition of capital

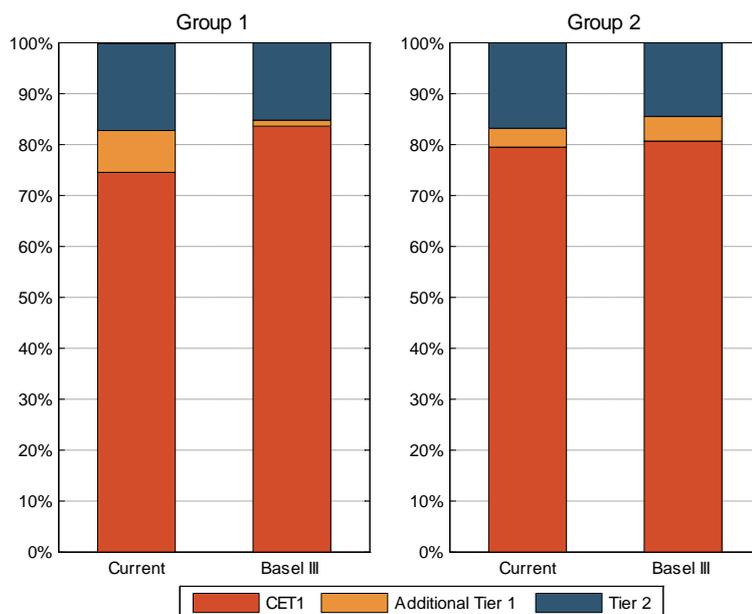
Figure 9 shows the composition of total capital for Group 1 and Group 2 banks under the current national regime and after full implementation of the CRR/CRD IV package.

For Group 1 banks, the share of the new definition of CET1 to total capital is 83%. Additional Tier 1 and Tier 2 capital amount to about 1% and 16% of the total capital of Group 1 banks respectively. A total of 15 Group 1 banks (i.e. 38% of all Group 1 banks) hold approximately 72% of total Group 1 CET1 capital, indicating a relatively high concentration.

In the Group 2 sample, banks hold a slightly lower share of CET1 capital to total capital of about 81% under the new capital rules. There are correspondingly higher shares of additional Tier 1 capital (5%) and Tier 2 capital (14%).

During the transition from the current CET1 status to full implementation of CRR/CRD IV, the increase in level of CET1 capital for Group 1 banks will be broadly similar to the fall in the level of additional Tier 1 capital, as indicated in Figure 9. The level of Tier 2 capital will fall slightly. For the Group 2 banks, the relevant figures will remain approximately the same, apart from a slight increase in additional Tier 1 capital and fall of equal magnitude in Tier 2 capital.

**Figure 9: Structure of regulatory capital under current national regime and CRR/CRD IV by Group, in per cent**



Under the new framework, banks are required to comply with the new definition of capital and meet tougher conditions in relation to capital instruments. It is therefore reasonable to expect an overall fall in the level of Tier 1 and total capital for both Group 1 and Group 2 banks.

The aggregate CET1 capital of Group 1 banks shows a fall of 10.4%, while for Tier 1 and total capital, the falls are of 18.1% and 20.1% respectively. The figures indicate that the effect of assigning all deductions to CET1 capital is less restrictive than the new requirements for additional Tier 1 and Tier 2 capital.

For Group 2 banks, the falls are 13.5% for CET1 capital and 12.4% for Tier 1 capital. The figures show that overall the new requirements for CET1 capital are more restrictive for Group 2 banks than for Group 1 banks, while the fall in Tier 1 and total capital is lower for the former.

The fall in CET1 capital is driven by the large Group 2 banks; the fall in CET1 capital is greater for these banks than at overall Group 2 level, and for small Group 2 banks it is only 3%. There is a similar but less significant effect on Tier 1 and total capital.

**Table 4: Relative percentage change in CET1, Tier 1 and total capital by Group, in per cent**

	<b>Number of banks</b>	<b>CET1</b>	<b>Tier 1</b>	<b>Total Capital</b>
<b>Group 1</b>	<b>39</b>	<b>-10.4</b>	<b>-18.1</b>	<b>-20.1</b>
<b>Group 2</b>	<b>100</b>	<b>-13.5</b>	<b>-12.4</b>	<b>-14.8</b>
Large Group 2	41	-15.3	-13.1	-15.2
Small Group 2	59	-3.0	-8.6	-12.5

### 3.2 Impact of capital deductions on common equity tier 1

Capital deductions are one of the elements under the new framework and the application thereof leads to a partial reduction in the level of banks' CET1 capital. Capital deductions cover a set of items shown in Table 5. The table shows the impact of these items relative to gross CET1 capital (i.e. CET1 before applying deductions) for Group 1 and Group 2 banks.

**Table 5: CET1 deductions as a per cent of gross CET1 by Group, in per cent**

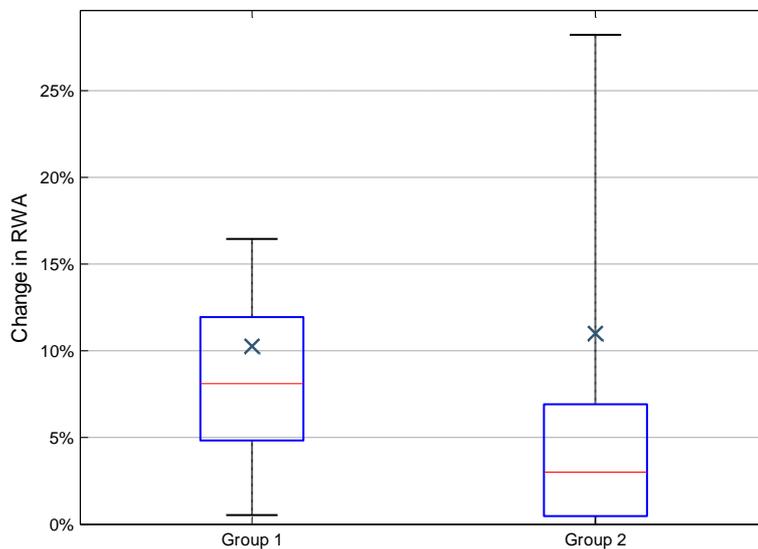
	Number of banks	Goodwill	Intangibles	DTA	Financials	MSR	DTA above threshold	Excess above 15%	Other	Total
<b>Group 1</b>	<b>39</b>	<b>-12.0</b>	<b>-3.2</b>	<b>-3.1</b>	<b>-1.2</b>	<b>0.0</b>	<b>-0.6</b>	<b>-0.5</b>	<b>-2.5</b>	<b>-23.1</b>
<b>Group 2</b>	<b>100</b>	<b>-7.7</b>	<b>-2.8</b>	<b>-2.4</b>	<b>-5.3</b>	<b>0.0</b>	<b>-0.5</b>	<b>-1.0</b>	<b>-4.0</b>	<b>-23.6</b>
Large Group 2	41	-8.4	-2.9	-2.6	-5.6	0.0	-0.5	-1.1	-4.4	-25.5
Small Group 2	59	-3.3	-2.1	-0.8	-3.2	0.0	-0.7	-0.6	-1.6	-12.3

In aggregate, deductions reduce gross CET1 of Group 1 banks by 23.1%, with goodwill having the greatest impact (12.0%), followed by the change in the treatment of intangibles (3.2%) and of DTA (3.1%). For Group 2 banks, the findings show that the overall CET1 fall of 23.6% is mainly due to goodwill (7.7%), followed by holdings of capital of other financial companies (5.3%). These results are, however, driven by the large Group 2 banks. Without taking account of these banks in Group 2, the overall fall in gross CET1 as a result of deductions would be merely 12.3%.

## 4. Changes in risk-weighted assets

After analysing the different forms of capital in section 3 (which comprise the numerator of the capital ratios) the following section deals with RWA which represent the denominator of the capital ratios. Figure 10 shows the change in RWA for Group 1 and Group 2 banks compared to RWA under Basel II.5. The percentage changes in RWA for Group 1 banks fall within a smaller range than for Group 2 banks, while the median change is smaller for the Group 2 banks.

**Figure 10: Change of RWA relative to Basel II.5, by Group, in per cent**



The effect of this percentage change in RWA is presented in Table 6 and broken down into the following three categories:

- **Definition of capital:** the current analysis identifies three effects
  - The column heading '50/50' measures the increase in RWA applied to positions which are currently deducted under the Basel II framework that are risk-weighted at 1250% under CRR/CRD IV (e.g., securitisation exposures, equity exposures under the PD/LGD approach, significant investments in commercial entities).
  - The column 'other' includes the effect of lower RWA for exposures that are currently included in RWA but receive a deduction treatment under the new rules. The negative sign indicates that this effect reduces RWA. This relief in RWA is mainly technical since it is balanced out by deductions from capital.

- The column heading ‘threshold’ measures the increase in RWA for exposures that fall below the 10% and 15% limits for CET1 deduction.
- **CVA:** the column measures the new capital charge for credit valuation adjustments. The effects of capital charges for exposures to central counterparties (CCPs) are not included.
- **Other:** this column measures the higher capital charge that results from increasing the asset correlation parameter for exposures to large financial institutions under the IRBA to credit risk. It accounts for the higher haircuts for credits collateralised by securitisations.

## 4.1 Overall results

Table 6 shows an increase in RWA for Group 1 banks by 10.3% as a result of compliance with the CRD IV package. Risk-weighted assets for exposures that fall below the 10% and 15% thresholds increase total RWA by 3.6%. This is followed by capital charges for CVA, which account for a 2.6% increase in total RWA, and the change for positions which are risk-weighted by 1250% under Basel III (1.8%). Other positions increase RWA by 2.3%.

For Group 2 banks, the aggregate RWA increase is 11.0%. The slightly higher total increase for Group 2 banks (compared to Group 1 banks) is driven by seven large Group 2 banks where there was an increase of more than 20%. If those banks are excluded from the sample, the average increase in RWA is 5%. As expected, CVA capital charges increase RWA only by 1.6% as Group 2 tends to be less exposed to counterparty credit risk. The change in the Basel II 50/50 deductions to a 1250% risk weight treatment causes the most significant increase in RWA (3.6%) while the increase that is attributed to items falling below the 10%/15% thresholds is 2.8%.

**Table 6: Changes in RWA by Group, in per cent**

	Number of banks	RWA Share	Total	Definition of capital			CVA	Other***
				50/50	threshold	other		
<b>Group 1</b>	<b>39</b>	<b>100.0</b>	<b>10.3</b>	<b>1.8</b>	<b>3.6</b>	<b>-0.1</b>	<b>2.6</b>	<b>2.3</b>
<b>Group 2</b>	<b>100</b>	<b>100.0</b>	<b>11.0</b>	<b>3.6</b>	<b>2.8</b>	<b>0.3</b>	<b>1.6</b>	<b>2.7</b>
Large Group 2	41	83.8	12.1	4.3	2.9	0.3	1.7	2.9
Small Group 2	59	16.2	5.3	0.1	1.8	0.4	1.1	2.0

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

Table 7 shows that CVA risk capital charges lead to a 2.7% increase in total RWA for the sample of Group 1 banks (a fall of 1.5 percentage points from the previous report), of which 1.6% is attributed to the application of the standardised method and 1.1% to the application of advanced methods. The impact on Group 2 banks is a 1.7% increase in RWA over a subsample of 74 banks (0.9 percentage point fall from the previous report), that is fully attributable to the standardised method.

**Table 7: Changes in RWA for CVA by Group, in per cent**

	Number of banks	CVA vs credit RWA	Of which:		CVA vs total RWA	Of which:	
			Stand. method	Adv. method		Stand. method	Adv. method
<b>Group 1</b>	<b>38</b>	<b>3.2</b>	<b>1.9</b>	<b>1.3</b>	<b>2.7</b>	<b>1.6</b>	<b>1.1</b>
<b>Group 2</b>	<b>74</b>	<b>2.0</b>	<b>2.0</b>	<b>0.0</b>	<b>1.7</b>	<b>1.7</b>	<b>0.0</b>
Large Group 2	39	2.0	2.0	0.0	1.8	1.8	0.0
Small Group 2	35	1.8	1.8	0.0	1.6	1.6	0.0

## 5. Leverage ratio

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The leverage ratio as a simple, non-risk-based requirement has been introduced in the Basel III framework in order to restrict the build-up of excessive leverage in the banking sector. The leverage ratio should also act as a supplementary measure to the risk-based capital requirements. This ratio thus provides an extra layer of protection against model risk and measurement error.

For the interpretation of the results of the leverage ratio section it is important to understand the terminology used to describe a bank's leverage. In general, when a bank is referred to as 'having more leverage', or 'being more leveraged', this refers to a multiple of exposures to capital (i.e. 50 times) as opposed to a ratio (i.e. 2.0%). Therefore, a bank with a high level of leverage will have a low leverage ratio (as defined by the fraction of Tier 1 capital and the exposure measure).

For the current monitoring exercise, 39 Group 1 and 99 Group 2 banks provided sufficient data to calculate the leverage ratio according to the Basel III framework. The assumption of the full implementation of Basel III underestimates the amount of Tier 1 capital and total capital held by banks under current rules, as it does not allow for any recognition of non-qualifying instruments which in fact will not be phased out until 2021.

### 5.1 Leverage ratio and capital shortfall

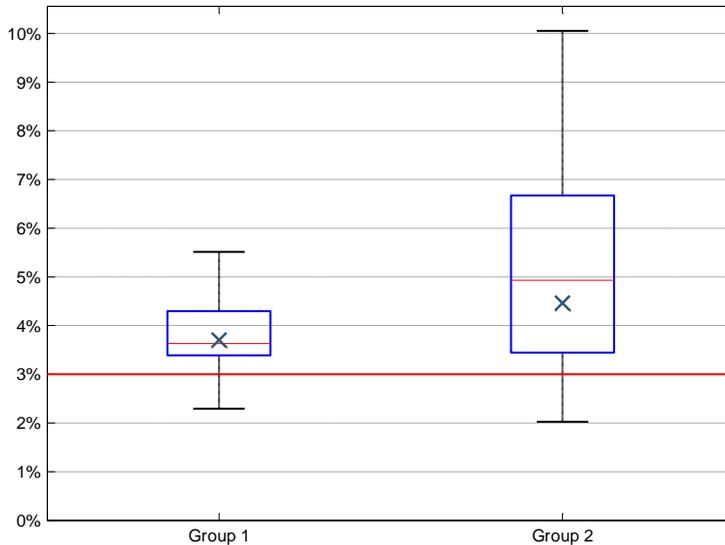
Figure 11 displays the distribution of leverage ratios across participating banks by bank group. The solid red line at 3.0% marks the preliminary target value of the leverage ratio. The red lines in the blue boxes represent the 50th percentile<sup>27</sup> (median). The weighted average is shown as an 'x'.

The leverage ratios among Group 2 banks are more widely distributed than they are for Group 1 banks. This is even more pronounced in comparison to the previous report and may be because the Group 2 sample is more heterogeneous, consisting as it does of a large number of banks covering a broad range of business models.

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<sup>27</sup> A percentile is the value of a variable below which a certain per cent of observations fall. For example, the 25th percentile is the value below which 25 per cent of the observations may be found.

**Figure 11: Distribution of leverage ratio by Group, in per cent**



Assuming full implementation of Basel III, the average leverage ratio would be 3.7% for Group 1 banks and 4.5% for Group 2 banks (Table 8). A total of 84.6% of Group 1 banks and 83.8% of Group 2 banks would fulfil a Basel III minimum leverage ratio of 3.0%. The corresponding shortfall of Tier 1 capital on the basis of this leverage ratio would amount to EUR 21.6 billion for Group 1 and EUR 7.6 billion for Group 2. By way of comparison, under the current definition of capital, the average leverage ratio would be 4.5% for Group 1 banks and 5.1% for Group 2 banks. The shortfall of Tier 1 capital on the basis of the Basel III minimum leverage ratio of 3% would amount to EUR 5.1 billion for Group 2 banks and none for Group 1.

**Table 8: Leverage ratio and capital shortfall according to current rules and Basel III by Group, in per cent**

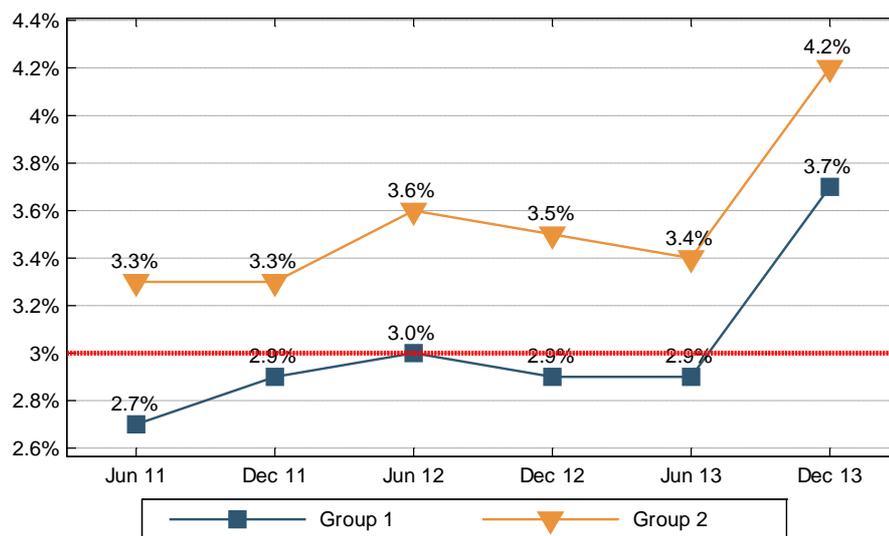
	Number of banks	Current rules		Basel III	
		Average leverage ratio (in per cent)	Shortfall in EUR bn for 3% LR	Average leverage ratio (in per cent)	Shortfall in EUR bn for 3% LR
<b>Group 1</b>	<b>39</b>	<b>4.5</b>	<b>0.0</b>	<b>3.7</b>	<b>21.6</b>
<b>Group 2</b>	<b>99</b>	<b>5.1</b>	<b>5.1</b>	<b>4.5</b>	<b>7.6</b>
Large Group 2	41	5.3	2.0	4.6	3.6
Small Group 2	58	4.2	3.2	3.8	4.0

## 5.2 Change in the leverage ratio over time

Compared with the previous report and using a consistent sample of banks, there is a significant increase in banks’ leverage ratios which can be partly attributed to the recalibration of the leverage ratio exposure in January 2014 (Figure 12). The recapitalisation measures adopted by

some European banks also contributed to the increase of leverage ratio. Since June 2011, the capital shortfall on the basis of the minimum 3% leverage ratio has fallen by 83% for Group 1 and by 65% for Group 2 banks.

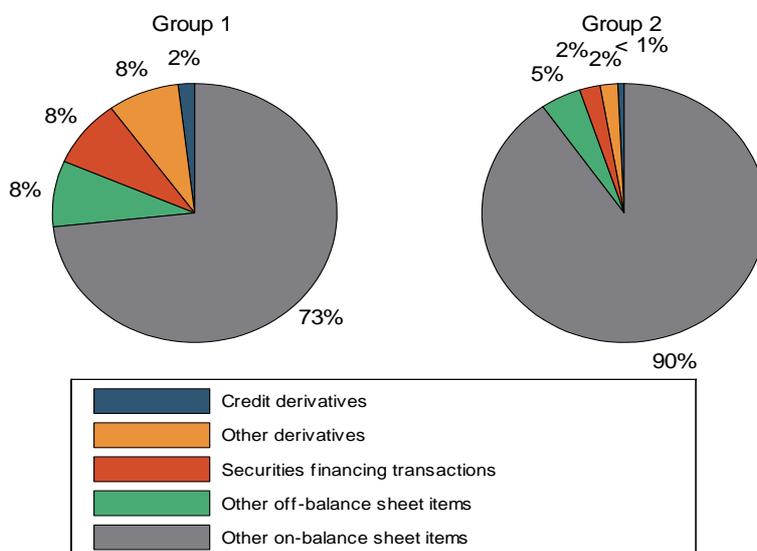
**Figure 12: Change in leverage ratio by Group, in per cent**



### 5.3 Composition of leverage ratio exposure

Figure 13 illustrates the composition of leverage ratio exposure for Group 1 and Group 2 banks. Most is represented by on-balance-sheet assets (73% for Group 1 and 90% for Group 2 banks). While off-balance-sheet items, security financing transactions (SFT) and derivatives make up 8% each of leverage ratio exposure for Group 1 (5%, 2% and 2% for Group 2 respectively), the share of credit derivatives is fairly small (2% for Group 1 and less than 1% for Group 2 banks).

**Figure 13: Composition of leverage ratio exposure by Group, in per cent**



## 5.4 Interaction of the leverage ratio with risk-based minimum requirements

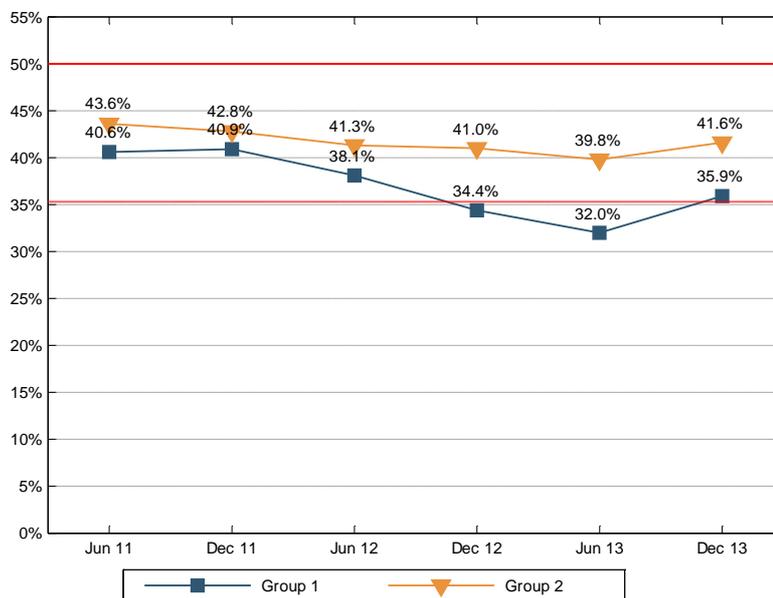
Table 9 shows the average Basel III leverage ratio assuming that banks already fulfilled the risk-based capital requirements for the Tier 1 ratio of 6.0% and 8.5% respectively. Table 9 also displays the additional shortfall of Tier 1 capital which banks would still need solely to meet the preliminary target level of 3.0% for the leverage ratio. Under the assumption that banks with a risk-based Tier 1 ratio below 8.5% would have raised capital to meet the minimum requirements, 5.1% of Group 1 and 12.1% of Group 2 banks would have a leverage ratio below 3.0%. The additional shortfall would amount to EUR 12.0 billion for Group 1 banks and EUR 6.3 billion for Group 2 banks. For the 6% Tier 1 ratio, Group 1 would need EUR 19.3 billion and Group 2 banks EUR 7.1 billion to meet a 3.0% leverage ratio.

**Table 9: Additional shortfall of Tier 1 capital as a result of the leverage ratio requirement by Group, in per cent**

	Number of banks	6% Tier 1		8.5% Tier 1	
		Average leverage ratio (in per cent)	Shortfall in EUR bn	Average leverage ratio (in per cent)	Shortfall in EUR bn
<b>Group 1</b>	<b>39</b>	<b>3.7</b>	<b>19.3</b>	<b>3.9</b>	<b>12.0</b>
<b>Group 2</b>	<b>99</b>	<b>4.5</b>	<b>7.1</b>	<b>4.8</b>	<b>6.3</b>
Large Group 2	41	4.7	3.2	4.9	2.9
Small Group 2	58	3.9	3.9	4.1	3.4

The implementation of a leverage ratio is not intended to reduce any incentives to use the risk-based approach. The interaction of the leverage ratio with risk-based factors will thus be monitored over time. Figure 14 shows the change in the ratio of RWA to leverage ratio exposure by bank group. If the ratio is below the dotted red line (35.3%), this implies that the leverage ratio is the binding constraint rather than the risk-based Tier 1 capital ratio. Although the ratio of RWA to leverage ratio exposure has fallen continuously from June 2011 (caused by a fall in RWA and an increase in leverage ratio exposures, see also Figures 5 and 6), it rose by 390 basis points (3.9%) for Group 1 and 180 basis points (1.8%) for Group 2 in the latest reporting period. This was caused by a decline in leverage ratio exposures, partly driven by the recalibration of the exposure definition mentioned above.

**Figure 14: Ratio of RWA to leverage ratio exposure by Group, in per cent**



## 5.5 Combined Tier 1 shortfall of the leverage ratio and risk-based capital requirements

Table 10 presents the aggregate Tier 1 capital shortfall due to the risk-based capital requirements and the leverage ratio. The figures represent the total Tier 1 capital that banks of each Group would have to raise to meet the risk-based Tier 1 ratio of 6% (or 8.5% including the capital conservation buffer and G-SIB buffer) and the leverage ratio of 3%.

**Table 10: Total Tier1 shortfall due to the risk-based capital requirements and the leverage ratio by Group (in EUR bn)**

	Number of banks	6% minimum Tier1 & 3% leverage ratio	8.5% minimum Tier1 & 3% leverage ratio
<b>Group 1</b>	<b>39</b>	<b>22.1</b>	<b>52.9</b>
<b>Group 2</b>	<b>99</b>	<b>9.8</b>	<b>20.5</b>
Large Group 2	41	5.5	14.9
Small Group 2	58	4.3	5.6

## 6. Liquidity

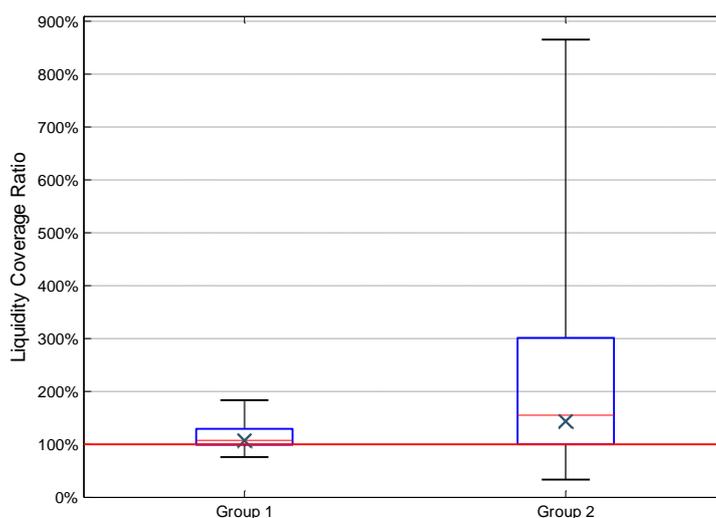
### 6.1 Liquidity coverage ratio

One of the new minimum standards of Basel III is a 30-day LCR intended to promote short-term resilience to potential liquidity disruptions. The LCR requires banks to have sufficient high quality liquid assets to withstand a 30-day stressed funding scenario. The LCR defines the minimum stock of unencumbered, high quality liquid assets that must be available to cover the net outflows expected in a severe stress scenario. Cash inflows are subject to a cap of 75% of total outflows. Consequently, a minimum of 25% of cash outflows have to be covered by liquid assets. According to the recent revisions to the LCR<sup>28</sup> the minimum LCR will be set at 60% from 1 January 2015 and rise gradually by 10 percentage points to reach 100% on 1 January 2019.

#### *LCR and shortfall in liquid assets*

Figure 15 provides an overview of the LCR by group. As of December 2013, Group 1 banks' LCR is 107% on average, while for Group 2 it is 144%. A total of 27 of 38 Group 1 banks (71.1%) already meet the 100% full implementation requirement, while only one bank is still below the 60% threshold set for 2015. There are more Group 2 banks concentrated both above 100% and below 60% thresholds. More specifically, 77 of 101 (76.2%) have an LCR of at least 100%, while 11 (10.9%) need to improve their liquidity positions in order to reach the minimum LCR of 60% set for 2015.

**Figure 15: Distribution of LCR by Group, in per cent**



<sup>28</sup> Basel Committee on Banking Supervision, *Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools*, January 2013 ([www.bis.org/publ/bcbs238.pdf](http://www.bis.org/publ/bcbs238.pdf)).

The total LCR shortfall on the basis of the fully-implemented LCR minimum ratio of 100% is EUR 154 billion (of which EUR 124.5 billion correspond to Group 1 banks and EUR 29.2 billion to Group 2), which represents 0.6% of total assets of all participating banks (EUR 24 trillion). In order to meet the minimum LCR of 60% in 2015, banks need an additional amount of EUR 30 billion of liquid assets. The shortfall considered here is the sum of the differences between the net outflows and the stock of HQLA for all the banks with an LCR that falls below the threshold of 100%, not reflecting the surplus of the banks that already meet the full 100% requirement. As a consequence, the reported shortfall represents a conservative proxy of banks' actual shortfall as it does not include any assumptions about the reallocation of liquidity between individual banks or within the system.

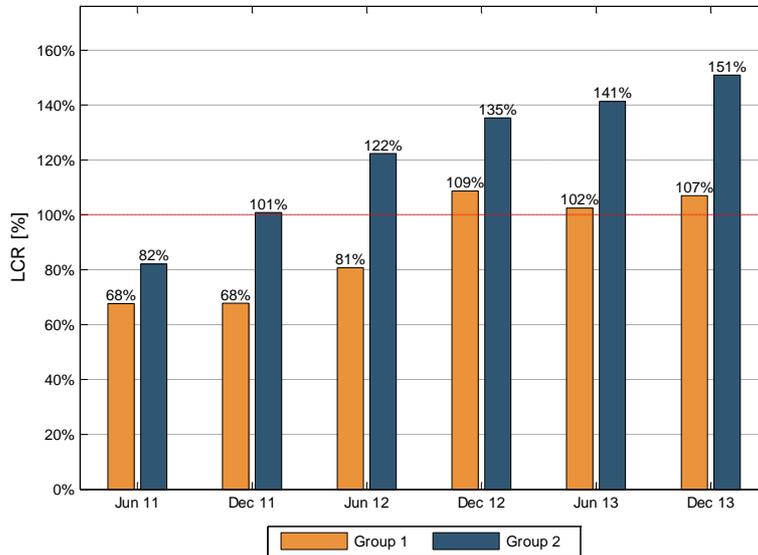
**Table 11: LCR and shortfall for different minimum ratios in accordance with Article 460(2) of the CRR, by Group**

	Number of banks	LCR (in per cent)	LCR shortfall (in EUR bn) at a minimum of			
			60% (2015)	70% (2016)	80% (2017)	100% (2019)
<b>Group 1</b>	<b>38</b>	<b>107.3</b>	<b>18.4</b>	<b>23.5</b>	<b>30.6</b>	<b>124.5</b>
<b>Group 2</b>	<b>101</b>	<b>143.7</b>	<b>11.7</b>	<b>14.3</b>	<b>17.0</b>	<b>29.2</b>
Large Group 2	40	138.6	7.9	10.0	12.0	22.7
Small Group 2	61	162.3	3.7	4.4	5.0	6.5

#### *Change in the LCR over time*

Compared to the previous period and using a consistent sample of banks, the LCR increased by 5 percentage points to 107% for Group 1 banks and by 10 percentage points to 151% for Group 2 banks (Figure 16). Overall, the reasons for the increases vary across banks and cannot be explained by any one single factor. They include structural adjustments, such as an increased stock of liquid assets or reduced net cash outflows, as well as reporting date effects. The increase in banks' LCR in December 2012 can also be partly attributed to the recalibration of the LCR framework as published in January 2013.

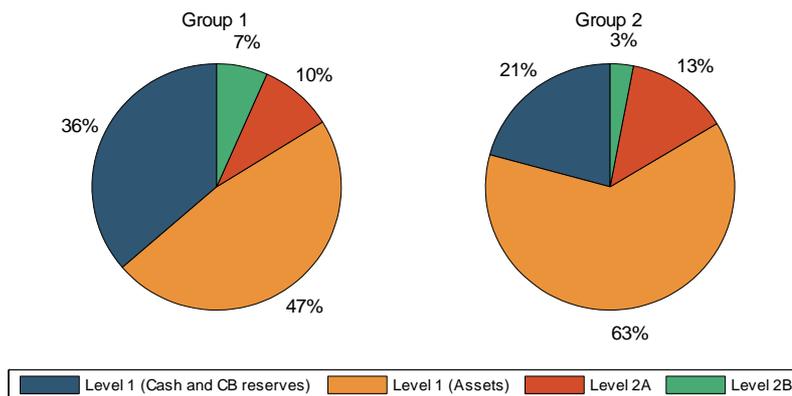
**Figure 16: Change in LCR by Group, in per cent**



*Composition of liquid assets*

The split between Level 1 and Level 2 assets remained broadly the same as in the previous monitoring exercise, with 83% and 84% of the HQLA stock being represented by Level 1 assets for Group 1 and Group 2 banks respectively (Figure 17). However, the main finding of the present analysis was a shift from cash and Central Bank reserves towards other Level 1 assets, i.e. bonds issued by (a) sovereigns, (b) Central Banks, and (c) public sector entities.

**Figure 17: Composition of liquid assets by Group, in per cent**



*Impact of the cap of HQLA*

One bank in Group 1 and 26 banks in Group 2 (17% of all banks) are affected by the caps on Level 2A or 2B assets, totalling EUR 65 billion of capped assets (Table 12). Although only a few

banks in the sample are affected by the caps on the composition of the liquid asset buffer, European banks generally need to make more effort to address issues related to the caps so they can meet the LCR requirements.

**Table 12: Impact of the cap on liquid assets by Group**

	Cap on Level 2A assets		Cap on Level 2B assets		Shortfall of banks where Level 2A or Level 2B cap applies, EUR bn
	No of banks where Level 2A cap applies	Reduction of Level 2A assets due to cap EUR bn	No of banks where Level 2B cap applies	Reduction of Level 2B assets due to cap EUR bn	
<b>Group 1</b>	<b>1</b>	<b>33.9</b>	<b>0</b>	<b>0.0</b>	<b>38.7</b>
<b>Group 2</b>	<b>19</b>	<b>30.2</b>	<b>7</b>	<b>0.8</b>	<b>18.8</b>
Large Group 2	7	21.8	3	0.6	13.7
Small Group 2	12	8.4	4	0.2	5.1

#### *Composition of cash outflows and inflows*

The structure of the outflows and inflows (presented in Table 13) is broadly in line with that observed in June 2013. Group 1 banks have a notably larger percentage of total outflows, when compared to total balance sheet liabilities, than Group 2 banks. This can be explained by the relatively larger share of interbank funding and commitments within the Group 1 sample, while Group 2 banks tend to be more reliant on retail deposits, which receive lower run-off factors. A total of EUR 11.4 billion of inflows have been capped for 18 banks (one Group 1 bank and 17 Group 2 banks).

**Table 13: LCR outflows and inflows (post-weighting-factors) as a percentage of balance sheet liabilities by Group**

	<b>Group 1</b>	<b>Group 2</b>
<b>Number of banks</b>	<b>38</b>	<b>101</b>
Unsecured retail and small business customers	1.6	1.8
Unsecured non-financial corporates	2.6	1.1
Unsecured sovereign, central bank, public sector entities and other counterparties	0.6	0.4
Unsecured financial institutions and other legal entities	4.3	2.7
Other unsecured wholesale funding incl. unsecured debt issuance	1.2	0.8
Secured funding and collateral swaps	1.7	0.4
Collateral, securitisations and own debt	0.3	0.4
Credit and liquidity facilities	1.4	0.6
Other contractual and contingent cash outflows including derivative payables	2.8	1.7
<b>Total outflows</b>	<b>16.5</b>	<b>9.7</b>

	Group 1	Group 2
Secured lending	1.4	0.4
Retail and small business customers, non-financial corporates and other entities	1.5	0.9
Financial institutions	1.4	1.5
Other cash inflows including derivative receivables	1.0	0.2
<b>Total inflows before applying the 75% cap</b>	<b>5.4</b>	<b>3.0</b>
<b>Total inflows after applying the 75% cap</b>	<b>5.4</b>	<b>2.8</b>

## 6.2 Net stable funding ratio

The second liquidity standard of Basel III is the NSFR, a longer-term structural ratio to address liquidity mismatches and provide incentives for banks to use stable sources of funding for their activities. The NSFR is defined as the amount of available stable funding (ASF) relative to the amount of required stable funding (RSF). This ratio should be equal to or higher than 100%. ASF is defined as the portion of capital and liabilities expected to be reliable over the time horizon considered by the NSFR, which extends to one year. The amount of RSF is a function of the liquidity characteristics and residual maturities of the various assets held by that institution and those of its off-balance-sheet exposures.

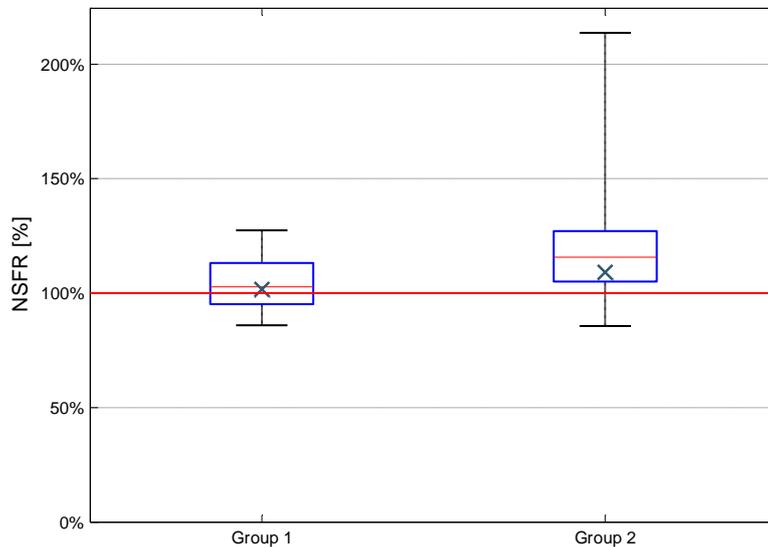
The results presented in this report are based on the December 2013 data and on the proposals made by the Basel Committee in a January 2014 consultative document<sup>29</sup>. The proposed revisions are to improve the alignment of the NSFR with the LCR and alter the calibration of the NSFR to focus greater attention on short-term, potentially volatile funding sources.

### *NSFR and shortfall in stable funding*

In Group 1 and Group 2, 130 banks provided sufficient data to calculate the NSFR in the current monitoring exercise. As of December 2013, the average NSFR for Group 1 and Group 2 is 102% and 109% respectively. About 78% of these banks already meet or exceed the minimum NSFR requirement and 95% show a NSFR higher than 85%. In total, banks in the sample require stable funding of EUR 473 billion at the end of 2013, accounting for 2% of total assets. The difference between RSF and ASF is only indicative of the aggregate need for those banks that are below the 100% NSFR requirement to restructure their funding sources so as to derive funding from more stable sources. The calculation does not take into account any surplus stable funding for banks above the 100% requirement. Banks that are below the 100% required minimum threshold can still take a number of measures until 2018 to meet the standards, including lengthening the term of their funding or reducing maturity mismatches.

<sup>29</sup> Basel Committee on Banking Supervision, *Consultative Document, Basel III: The Net Stable Funding Ratio*, January 2014 ([www.bis.org/publ/bcbs271.pdf](http://www.bis.org/publ/bcbs271.pdf)).

**Figure 18: Distribution of the NSFR by Group, in per cent**



*Change in the NSFR over time*

Figure 19 illustrates the change in the NSFR over time using a consistent sample of banks. There is a continuous increase of banks’ NSFR for both bank groups, which is predominantly caused by an increase in available stable funding (17% for Group 1 banks and 21% for Group 2 banks since June 2011). The positive trend is also reflected in the shortfall in stable funding, which has fallen by approximately 75% for both groups since June 2011. However, the significant increase of banks’ NSFR compared with the previous period may also be caused by the Basel Committee’s revisions to the NSFR which have been considered for the first time in this monitoring exercise.<sup>30</sup>

<sup>30</sup> By contrast, previous monitoring data was based on the old liquidity framework: Basel Committee on Banking Supervision, *Basel III: International framework for liquidity risk measurement, standards and monitoring*, December 2010 (<http://www.bis.org/publ/bcbs188.htm>).

Figure 19: Change in NSFR by Group, in per cent

