19 March 2013

Basel III monitoring exercise

Results based on data as of 30 June 2012

Results of the Basel III monitoring exercise based on data as of 30 June 2012

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Abbreviations

CCPs	Central counterparties
CCR	Counterparty credit risk
CET1	Common equity tier 1
CRD	Capital requirements directive
CRR	Capital requirements regulation
CVA	Credit value adjustment
DTA	Deferred tax assets
EBA	European Banking Authority
GHOS	Group of Governors and Heads of Supervision
G-SIB	Global systemically important banks
ISG	Impact Study Group
LCR	Liquidity coverage ratio
LR	Leverage ratio
MSR	Mortgage servicing rights
NSFR	Net stable funding ratio
OBS	Off-balance sheet
PSE	Public sector entities
RWA	Risk-weighted assets

Executive summary

After the finalisation of the new regulatory framework (referred to as "Basel III") in December 2010[1], its impact is monitored semi-annually by both 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 third publication of results of the Basel III monitoring exercise[2] and summarises the aggregate results using data as of 30 June 2012. A total of 157 banks submitted data for this exercise, consisting of 44 Group 1 banks and 113 Group 2 banks.[3] Member countries' coverage of their banking system was very high for Group 1 banks, reaching 100% coverage for many jurisdictions (aggregate coverage in terms of Basel II risk-weighted assets: 94%), while for Group 2 banks it was lower with a larger variation across jurisdictions (aggregate coverage: 27%). Furthermore, Group 2 bank results are driven by a relatively small number of large but non-internationally active banks, ie the results presented in this report may not be as representative as it is the case for Group 1 banks.[4]

The monitoring exercise is carried out assuming **full implementation of the Basel III framework**[5], ie transitional arrangements such as the phase-in of deductions and grandfathering arrangements are **not** taken into account.[6] Since the new EU directive and regulation have **not** been finalised at the reference date of 30 June 2012, no EU specific rules are analysed in this report. The results are compared with the respective current national implementation of the **CRD III** which has been in force since year-end 2011.

In addition, it is important to note that the monitoring exercise is based on a static balance sheet assumption, ie capital elements are only included if the eligibility criteria have been fulfilled at the reporting date. Planned management actions to increase capital or decrease risk-weighted assets are not taken into account. This allows for identifying effective changes in banks' capital base instead of identifying changes which are solely based on changes in underlying assumptions on banks' future profitability or behavioural responses. As a consequence, monitoring results are not comparable to industry estimates as the latter usually include assumptions on banks' future profitability, planned capital and/or further management actions that mitigate the impact of Basel III.

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1 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.

2 The first public report was published in April 2012, based on data as of 30 June 2011. The second public report was published in September 2012, based on data as of 31 December 2012. See European Banking Authority, *Results of the Basel III monitoring exercise based on data as of 31 December 2011,* September 2012 (http://www.eba.europa.eu/cebs/media/Publications/Other%20Publications/QIS/EBA-BS-2012-xxx--Public-ISG-Report-Basel-III-Monitoring-.pdf).

3 Group 1 banks are those with Tier 1 capital in excess of €3 bn and are internationally active. All other banks are categorised as Group 2 banks.

4 There are 19 Group 2 banks that have Tier 1 capital in excess of €3 bn. These banks account for 60% of total Group 2 RWA (current definition of RWA).

5 Except for the rules related to central counterparties. The impact of these rules will be included only in the next reports, given recent finalization of corresponding regulatory rules by the Basel Committee.

6 Except for securitisation positions in the trading book that do not belong to the correlation trading portfolio as stated in Annex I, para 16a of Directive 2006/49/EC.

The actual capital and liquidity shortfalls related to the new requirements by the time Basel III is fully implemented will differ from those shown in this report as the banking sector reacts to the changing economic and regulatory environment.

The monitoring exercise provides an impact assessment of the following aspects:

- Changes to banks' capital ratios under Basel III, and estimates of any capital shortfalls. In addition, estimates of capital surcharges for global systemically important banks (G-SIBs) are included, where applicable;
- Changes to the definition of capital that result from the new capital standard, referred to as common equity Tier 1 (CET1), including modified rules on capital deductions, and changes to the eligibility criteria for Tier 1 and total capital;
- Changes in the calculation of risk-weighted assets (RWA) resulting from changes to the definition of capital and counterparty credit risk requirements;
- The capital conservation buffer;
- The leverage ratio; and
- One of the Basel III liquidity standards – the net stable funding ratio (NSFR).

Key Results

In the following, the main results of the monitoring exercise are summarized. Please note that whenever reference to the previous period is made, it is based on a consistent sample of banks.[7]

Impact on regulatory capital ratios and estimated capital shortfall

Assuming full implementation of the Basel III framework as of 30 June 2012 (ie without taking into account transitional arrangements), the CET1 capital ratios of Group 1 banks would have declined from an average CET1 ratio of 11.1% under current rules to an average CET1 ratio of 7.8%. 93% of Group 1 banks would be at or above the 4.5% minimum while 63% of Group 1 would be at or above the 7.0% target level (ie including the capital conservation buffer). The CET1 capital shortfall for Group 1 banks would be €3.7 bn at a minimum requirement of 4.5% and €112.4 bn at a target level of 7.0%. The latter shortfall also includes the additional regulatory surcharge for global systemically important banks (G-SIB), where applicable. As a point of reference, the sum of profits after tax prior to distributions across the Group 1 sample in the second half of 2011 and first half of 2012 was €65.7 bn.

Compared to the previous exercise (reporting date as of Dec 2011), monitoring results show an increase in Group 1 banks' average CET1 ratio of 0.9 percentage points; the corresponding shortfall with respect to the 7% target level (also considering capital surcharge for G-SIBs) decreased by €86.2 bn or 43.4%. For Group 1 banks, this change partly reflects additional efforts to fulfil the requirements of the EU recapitalisation exercise.

[7] A consistent sample of banks only includes those banks that reported necessary data for all reporting dates (December 2010 to June 2012), to allow for period-to-period comparisons.

Group 1 banks' average Tier 1 and total capital ratio decline from 12.6% under current rules to 7.9% under Basel III and from 14.7% to 8.8%, respectively. Capital shortfalls corresponding to the minimum ratios (excl. the capital conservation buffer) amount to €13.4 bn (Tier 1 capital) and €50 bn (total capital). Taking into account the capital conservation buffer and the surcharge for global systemically important banks, the Group 1 banks' capital shortfall rises to €224 bn (Tier 1 capital) and €348 bn (total capital).

For Group 2 banks, the average CET1 ratio declines from 11.5% to 8% under Basel III, where 95% of the banks would be at or above the 4.5% minimum and 83% would be at or above the 7.0% target level. The respective CET1 shortfall is approx. €5.3 bn at a minimum requirement of 4.5% and €17.9 bn at a target level of 7.0%. The average Tier 1 and total capital ratios of Group 2 banks decline from 12.2% to 8.7% and from 15% to 10.3%, respectively. Compared to the previous exercise, monitoring results show an increase in Group 2 banks' average CET1 ratio of 0.7 percentage points.

Main drivers of changes in banks' capital ratios

For Group 1 banks, the overall impact of Basel III on the CET1 ratio can be attributed in almost equal parts to changes in the definition of capital and to changes related to the calculation of risk-weighted assets: while CET1 declines by 18.6% compared to current rules, RWA increase by 16.1%, on average. For Group 2 banks, while the change in the definition of capital results in a decline in CET1 of 22.9%, the new rules on RWA affect Group 2 banks far less (+10.5%). Deductions in Group 1 and Group 2 banks' CET1 are mainly driven by goodwill (-14.4% and -9.4%, respectively), followed by deductions for holdings of capital for intangible assets for Group 1 banks (-3.5%) and by deductions for other financial companies for Group 2 banks (-6.8%).

As to the denominator of regulatory capital ratios, the main driver is the introduction of CVA capital charges which result in an average RWA increase of 7.8% for Group 1 and of 3.8% for Group 2 banks. In addition to CVA capital charges, the transition from Basel II 50/50 deductions to a 1250% risk weight treatment is the main contributor to the increase in Group 1 banks' RWA (4.3%). As Group 2 banks are in general less affected by the revised counterparty credit risk rules due to their different business models, these banks show a much lower increase in overall RWA (+10.5%). However, even within this group, the RWA increase is driven by CVA capital charges, followed closely by changes related to the transition from Basel II 50/50 capital deductions to a 1250% risk weight treatment, and to a lesser extent by changes related to the items that fall below the 10/15% thresholds.

For both banking groups, the increase in the average CET1 ratio as compared to the previous period is predominantly driven by increases in CET1 capital rather than by reductions in risk-weighted assets. The increase in CET1 was mainly driven by the EBA recapitalisation exercise which assisted in strengthening the overall resilience of the European banking system.

Leverage ratio

Assuming full implementation of Basel III, Group 1 banks show an average Basel III Tier 1 leverage ratio (LR) of 3.0%, while Group 2 banks' leverage ratio is 3.6%. 56% of participating Group 1 and 76% Group 2 banks would meet the 3% target level as of June 2012. If a hypothetical current leverage ratio

(ie based on the current Tier 1 capital definition) was already in place, Group 1 and Group 2 banks' LR would be 4.2% and 4.5%, respectively.

Compared to the previous period, monitoring results show slight changes in the average leverage ratios (+0.1 percentage points for Group 1 and +0.3 percentage points for Group 2 banks). The reason for this relatively low increase as compared to the strong increase in average capital ratios is that while the increase in RWA due to the introduction of Basel III has declined, total exposure values have increased since December 2011 (+3.3% for Group 1 and +2.4% for Group 2).

Liquidity standards

The LCR has recently been revised by the Basel Committee8 and will be introduced as planned on 1 January 2015. The minimum requirement will be set at 60% and rise in equal annual steps to reach 100% in 2019. Given these revisions, precise LCR results could not be calculated based on the data collected as of June 2012. However, LCR results will be presented in the report on December 2012 data.

The NSFR is 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 2018. Group 1 banks reported an average NSFR of 94% (Group 2 banks: 99%). To fulfil the minimum standard of 100% on a total basis, they need additional stable funding of €1.2 trillion. Compared to the previous period, monitoring results show improved liquidity ratios for both Group 1 and Group 2 banks with a substantial dispersion across banks and countries.

[8] Basel Committee on Banking Supervision, Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools, January2013 (www.bis.org/publ/bcbs238.pdf).

1. General remarks

In September 2010, the Group of Governors and Heads of Supervision (GHOS), the Basel Committee on Banking Supervision's oversight body, announced a substantial strengthening of existing capital requirements and fully endorsed the agreements reached on 26 July 2010.[9] Since the beginning of 2011, the impact of the new requirements related to these capital reforms and the new liquidity standards is monitored and evaluated by the Basel Committee on Banking Supervision on a semi-annual basis for its member jurisdictions. At European level, this analysis is conducted by the European Banking Authority (EBA), also based on the Basel III reform package as the CRR and CRD IV, together the European equivalent of the Basel III framework, have not yet been finalised.

This report is the third publication of the Basel III monitoring exercise[10] and presents the results of the latest monitoring exercise based on consolidated data of European banks as of 30 June 2012. It provides an impact assessment of the following aspects:

- Changes to banks' capital ratios under Basel III, and estimates of any capital shortfalls. In addition, estimates of capital surcharges for global systemically important banks (G-SIBs) are included, where applicable;
- Changes to the definition of capital that result from the new capital standard, referred to as common equity Tier 1 (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 risk-weighted assets due to changes to the definition of capital and counterparty credit risk requirements,
- The capital conservation buffer of 2.5%;
- The introduction of a leverage ratio; and
- The introduction of the Net Stable Funding Ratio (NSFR).

The related policy documents are:

- *Basel III: A global framework for more resilient banks and the banking system* as well as the Committee's 13 January press release on loss absorbency at the point of non-viability;[11]
- *International framework for liquidity risk measurement, standards and monitoring;*[12] *and*

[9] See 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).

[10] The first public report was published in April 2012, based on data as of 30 June 2011. See European Banking Authority, *Results of the Basel III monitoring exercise as of 30 June 2011*, April 2012 (http://www.eba.europa.eu/Publications/Quantitative-Impact-Study/Basel-III-monitoring-exercise.aspx).

[11] Basel Committee on Banking Supervision, *Basel III: A global framework for more resilient banks and the banking system*, December 2010 and revised June 2011, and the Committee's 13 January 2011 press release on loss absorbency at the point of non-viability.

[12] Basel Committee on Banking Supervision, *Basel III: International framework for liquidity risk measurement, standards and monitoring*, December 2010.

- *Global systemically important banks: Assessment methodology and the additional loss absorbency requirement*.[13]

1.1 Sample of participating banks

The report includes an analysis of data submitted by 44 Group 1 banks from 14 countries and 113 Group 2 banks from 17 countries. Figure 1 shows the distribution of participation by jurisdiction. Group 1 banks are those that have Tier 1 capital in excess of €3 bn and are internationally active. All other banks are defined as Group 2 banks.

Figure 1: Number of banks submitting data for the monitoring exercise

	Group 1	Group 2
Austria (AT)	3	6
Belgium (BE)	1	2
Denmark (DK)	1	2
Finland (FI)	-	14
France (FR)	5	5
Germany (DE)	8	25
Hungary (HU)	1	2
Ireland (IE)	3	1
Italy (IT)	2	11
Luxembourg (LU)	-	1
Malta (MT)	-	4
Netherlands (NL)	3	16
Norway (NO)	1	7
Poland (PL)	-	5
Portugal (PT)	3	3
Spain (ES)	2	3
Sweden (SE)	4	-
United Kingdom (GB)	7	6
Total	**44**	**113**

Coverage of the banking sector is high, reaching 100% of Group 1 banks in some countries (aggregate coverage in terms of Basel II risk-weighted assets: 94%). Coverage of Group 2 banks is lower and varies across countries (aggregate coverage: 27%). Group 2 results are driven by a relatively small number of banks sufficiently large to be classified as Group 1 banks, but that have been classified as Group 2 banks by their supervisor because they are not internationally active.

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

[13] Basel Committee on Banking Supervision, *Globally systemically important banks: Assessment methodology and the additional loss absorbency requirement,* November 2011.

data. In all sections, comparisons with previous periods are based on a consistent sample of banks, ie including only those banks that reported necessary data for all reporting dates (December 2010 to June 2012), to allow for period-to-period comparisons.

1.2 Methodology

"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 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. 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 ensure data confidentiality, most charts show box plots which give an indication of the distribution of the results among participating banks. The box plots are defined as follows:

Thick red line:	Respective minimum capital requirement
Dashed lines:	Respective minima plus the capital conservation buffer (capital) or respective regulatory target level (leverage, liquidity)
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 percent of observations fall. For example, the 25th percentile is the value below which 25 percent 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 was carried out by comparing banks' capital positions under Basel III to the current regulatory framework CRD III (including revised rules on market risk exposures) which has been consistently implemented in European countries since end-December 2011. With the exception of transitional arrangements for non-correlation trading securitisation positions in the trading book,[14] results are calculated assuming **full implementation of Basel III**[15], ie without considering transitional arrangements related to the phase-in of deductions and grandfathering arrangements. This implies

[14] 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.

[15] Except for the rules related to central counterparties. The impact of these rules will be included in the next reports, given recent finalization of corresponding regulatory rules by the Basel Committee.

that 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 total capital held by a bank as they do not give any recognition for non-qualifying instruments that are actually phased out over a 10 year horizon.

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 particular, in 2013, the capital amounts based on the capital requirements in place on the Basel III implementation 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 (for more detail see section 5).

In addition, it is important to note that the monitoring exercise is based on **static balance sheet assumptions**, ie capital elements are only included if the eligibility criteria have been fulfilled at the reporting date. Planned bank measures to increase capital or decrease risk-weighted assets are not taken into account. This allows for identifying **effective** changes in bank capital instead of identifying changes which are simply based on changes in underlying modelling assumptions. As a consequence, monitoring results are not comparable to industry estimates as the latter usually include assumptions on banks' future profitability, planned capital and/or management actions that mitigate the impact of Basel III.

To enable comparisons between the current regulatory regime (CRD III) and Basel III, common equity Tier 1 elements according to the current regulatory framework are defined as those elements of current Tier 1 capital which are not subject to a limit under the respective national implementation of Basel II.

1.4 Data quality

For this monitoring exercise, participating banks submitted comprehensive and detailed non-public data on a voluntary and best-efforts basis. 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 data of sufficient quality 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. 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.

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

2.1 Capital ratios

One of the core intentions of the Basel III framework is to increase the resilience of the banking sector by strengthening both the quantity and quality of regulatory capital. Therefore, higher minimum requirements have to be met and stricter rules for the definition of capital and the calculation of risk weighted assets apply. As the Basel III monitoring exercise assumes full implementation of Basel III (without taking into account any transitional arrangements[16]), it compares capital ratios under current rules with capital ratios that banks would show if Basel III were already fully in force at the reporting date.

In this context, it is important to elaborate on the implications that the assumption of full implementation of Basel III has on the monitoring results. The Basel III capital amounts reported in this exercise assume that all common equity deductions are fully phased in and all non-qualifying capital instruments are fully phased out. Thus, these amounts may underestimate the amount of Tier 1 capital and total capital held by banks as they do not give any recognition for non-qualifying instruments which are actually phased out over a 10 year horizon.

Figure 2 shows the overall change in common equity Tier 1 (CET1), Tier 1 and total capital ratios if Basel III were fully implemented, as of 30 June 2012.

For Group 1 banks, the impact on the average CET1 ratio is a reduction from 11.1% under current rules to 7.8% under Basel III (a decline of 3.3 percentage points) while the average Tier 1 and total capital ratio would decline from 12.6% to 7.9% and from 14.7% to 8.8% respectively. In general, Group 2 banks' average capital ratios are higher than for Group 1.

Figure 2: Average capital ratios by banking group
(in percent, unless otherwise stated)

	Number of banks	CET1		Tier 1		Total capital	
		Current	Basel III	Current	Basel III	Current	Basel III
Group 1	41	11.1	7.8	12.6	7.9	14.7	8.8
Group 2	110	11.5	8.0	12.2	8.7	15.0	10.3

The reduction in CET1 ratios is driven both by a new definition of capital deductions (numerator) and by increases in risk-weighted assets (denominator). Banks engaged heavily 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.

For Group 1 banks, the aggregate impact on the CET1 ratio can be attributed in almost equal parts to changes in the definition of capital and to changes related to the calculation of risk-weighted assets:

[16] For details on the transitional arrangements, see paragraph 94 and 95 of the Basel III framework

while CET1 declines by 18.6%, RWA increase by 16.1%, on average. For Group 2 banks, while the change in the definition of capital results in a decline in CET1 of 22.9%, the new rules on RWA affect Group 2 banks far less (+10.5%), which may be explained by the fact that these banks´ business models are less reliant on exposures subject to counterparty credit risk (which is the main driver of the RWA increase under the Basel III framework).

Figure 3 gives an indication of the distribution of results among participating banks. It includes the respective regulatory minimum requirement (thick red line), the weighted average (depicted as "x") and the median (thin red line), ie the value separating the higher half of a sample from the lower half (that means that 50% of all observations are below this value, 50% are above). Dashed lines indicate the minima plus the capital conservation buffer. For further information on the methodology see section 1.2.

Figure 3: Basel III CET1, Tier 1 and Total capital ratios

(in percent)

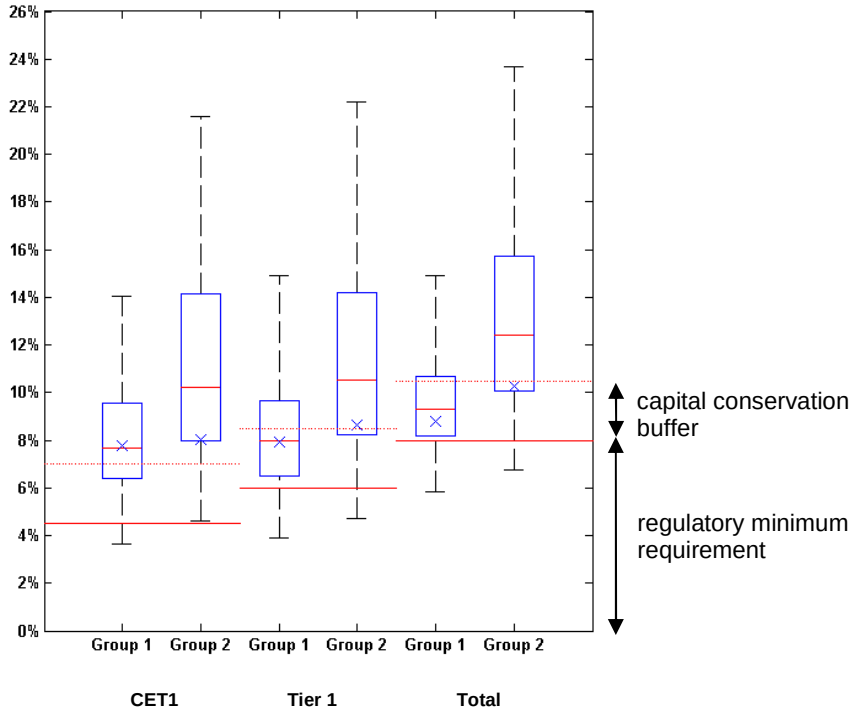
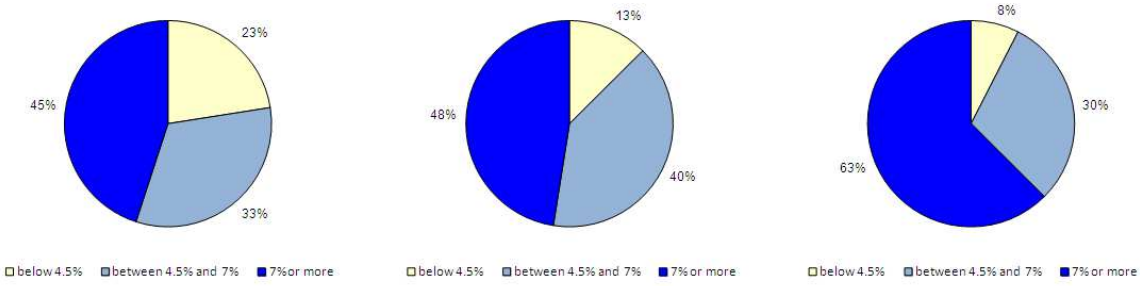


Figure 4 shows that out of the banks in the Group 1 sample, 93% show a CET1 ratio under Basel III that is at least equal to the 4.5% minimum capital requirement and 63% show a CET1 ratio above the 7.0% target ratio (ie, the minimum capital requirement plus the capital conservation buffer) as of end-June 2012. It also indicates that since the last monitoring exercise (reporting date as of December 2011) there has been a further shift towards high-quality capital: the number of banks above the 4.5% minimum ratio increased by 5 percentage points since December 2011 and by 15 percentage points since June 2011.

Figure 4: Distribution of Basel III CET1 ratios, Group 1 banks

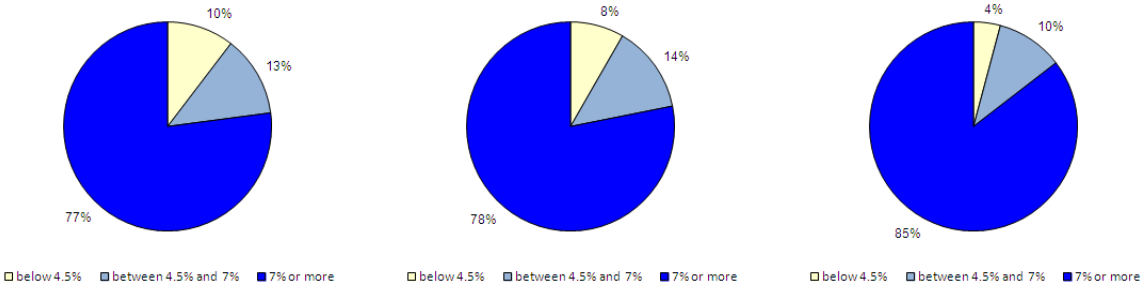
[H1 2011 (left), H2 2011 (middle) and H1 2012 (right)]



For Group 2 banks the change in the percentage of banks above the 4.5% minimum ratio compared to December 2011 is less pronounced (+3 percentage points, see Figure 5). Of the banks in the Group 2 sample, 96% report a CET1 ratio equal to or higher than 4.5%; while 85% also achieve the target of 7.0%. The cumulative increase of the percentage of Group 2 banks above the 4.5% ratio over the last year (June 2011 – June 2012) is 5 percentage points.

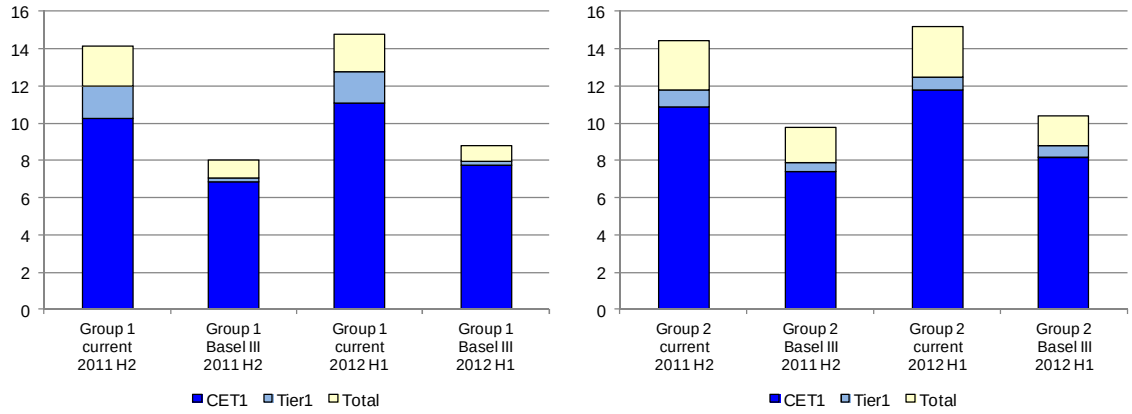
Figure 5: Distribution of Basel III CET1 ratios, Group 2 banks

[H1 2011 (left), H2 2011 (middle) and H1 2012 (right)]



Compared to the previous exercise (reporting date as of December 2011) and based on a consistent sample of banks, results show an increase in the average Group 1 banks' CET1 ratio of 0.9 percentage points while for Group 2 banks, the ratio increased by 0.7 percentage points (see Figure 6).

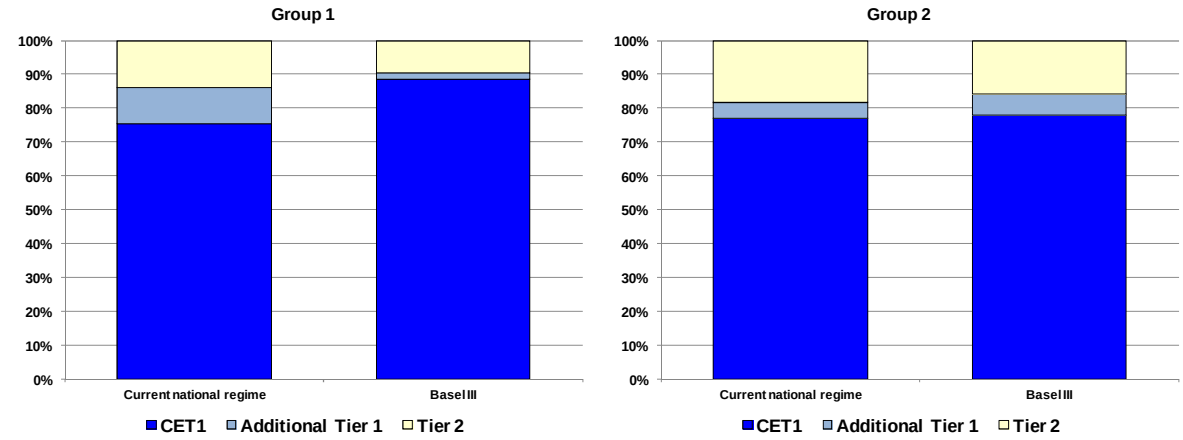
Figure 6: Comparison of average CET1, Tier 1 and total capital ratios with the previous period[17]
(Group 1 and Group 2 banks)



2.2 Composition of capital

Figure 7 shows the composition of total capital for Group 1 and Group 2 banks under the current national regime and after full implementation of Basel III.

Figure 7: Structure of regulatory capital under current national regime and Basel III
(Group 1 and Group 2 banks)



For Group 1 banks, the share of Basel III CET1 to total capital is 88.6%. Additional Tier 1 and Tier 2 capital amount to 1.9% and 9.5% of the total capital of Group 1 banks, respectively. Within the Group 1 sample, 56% of banks hold Basel III CET1 capital representing 90% or more of Basel III total capital. In the Group 2 sample, banks hold a somewhat lower share of CET1 at 78.0% with correspondingly higher shares of additional Tier 1 capital (6.1%) and Tier 2 capital (15.9%). Under the current national regime, the share of CET1 to total capital is lower at 75.4% for Group 1 banks and at 76.9% for Group 2 banks, with correspondingly higher shares of additional Tier 1 and Tier 2 capital.

[17] Solid lines are minima, dashed lines minima plus the capital conservation buffer. The height of each bar shows the aggregated capital shortfall considering requirements for each tier (ie, CET1, Tier 1, and total) of capital.

2.3 Capital shortfalls

Figure 8 provides estimates of the additional amount of capital that Group 1 and Group 2 banks would need based on data as of 30 June 2012 in addition to capital already held at the reporting date, in order to meet the target CET1, Tier 1 and total capital ratios under Basel III assuming fully phased-in target requirements and deductions as of 30 June 2012. It is notable that the shortfall figures are not comparable to those of the EBA recapitalisation exercise since the capital definitions and the calculation of the risk-weighted assets differ. Nevertheless, the reduction of the capital shortfall was mainly driven by the EBA recapitalisation exercise. In this context, European banks have made significant progress in boosting their capital positions and in strengthening the overall resilience of the European banking system. With this recapitalisation exercise and a number of other EU-driven remedial actions, more than €200 bn have been injected into the European banking system. A large part of this capital injection is reflected in the reduction of the capital shortfall addressed in this section.

For Group 1 banks, the CET1 capital shortfall is €3.7 bn at a minimum requirement of 4.5% and €112.4 bn at a target level of 7.0%. With respect to the Tier 1 and total capital ratios, the capital shortfall comparing to the minimum ratios amounts to €13.4 bn and €50 bn respectively. The capital surcharges for global systemically important banks (G-SIBs) are a binding constraint on 8 of the 14 G-SIBs included in this Basel III monitoring exercise.[18]

For Group 2 banks, the CET1 capital shortfall is €5.3 bn at a minimum requirement of 4.5% and €17.9 bn at a target level of 7.0%. The Tier 1 and total capital shortfall calculated relative to the 4.5% minimum amount for €7.5 and €12.4 bn, respectively.

Figure 8: Estimated overall capital shortfall

[Group 1 and Group 2 banks (in € bn)]

	Group 1 banks	Group 2 banks
Number of banks	41	110
Minimum		
CET1 shortfall – 4.5%	3.7	5.3
Tier 1 shortfall – 6.0%	13.4	7.5
Total capital shortfall – 8.0%	50.0	12.4
Minimum plus capital conservation buffer*		
CET1 shortfall – 7.0%	112.4	17.9
Tier 1 shortfall – 8.5%	223.8	24.8
Total capital shortfall – 10.5%	348.5	35.3

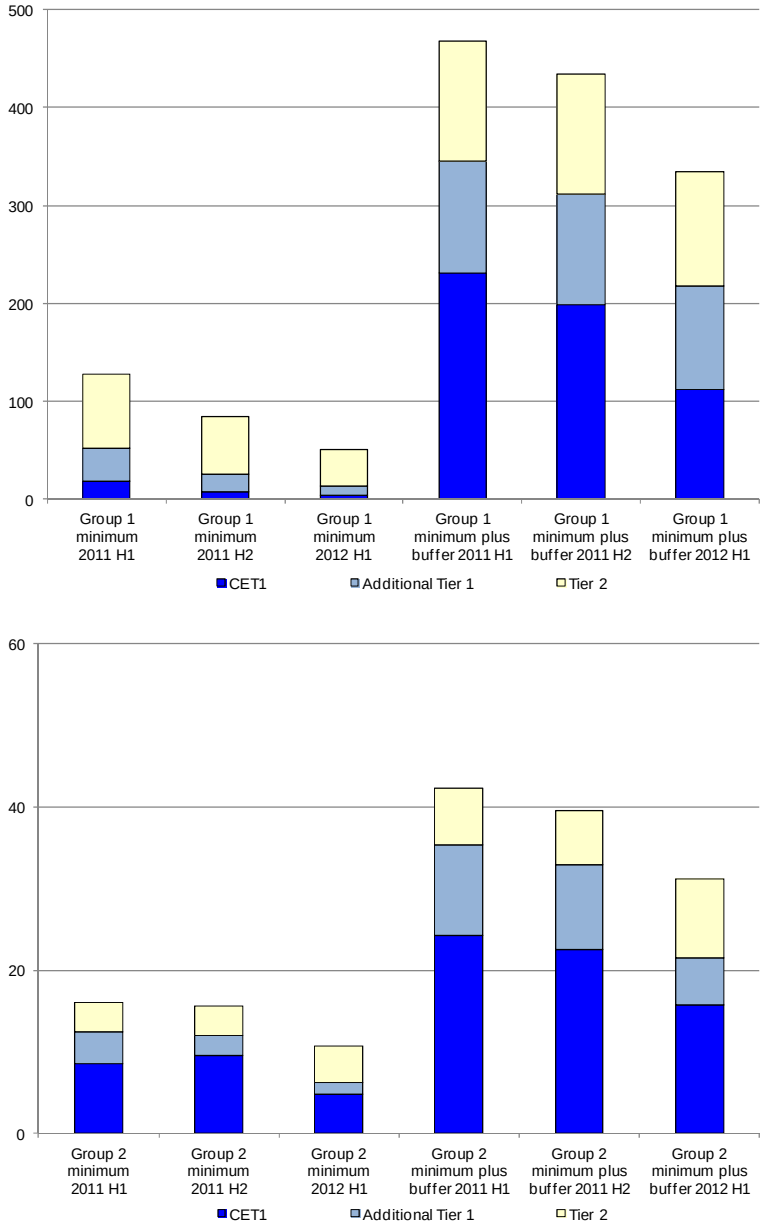
* Including the capital surcharge for global systemically important banks (G-SIBs).

[18] The capital surcharge for global systemically important banks (G-SIBs) is "binding" if a bank's shortfall is solely caused by the additional G-SIB surcharge (ie the bank is compliant with the CET1 target ratio of 7%, but it does not fulfil the target ratio of 7% including the G-SIB surcharge). Please note that in previous reports a different criterion was applied in this regard.

Given these results, an additional effort by banks to fulfil the risk-based capital requirements is expected, although part of the shortfall has already been covered since the last reporting date. The predominant reasoning behind the reduction of the shortfall is that many banks included in the monitoring sample raised significant amounts of CET1 capital in the first half of 2012, in the course of the EU bank recapitalisation exercise. It needs to be stressed that these shortfalls refer to target levels that would be in effect from 2019 and therefore banks have six and a half years to cover them.

Compared to the previous period (reporting date as of December 2011) and based on a consistent sample of banks, the aggregate CET1 shortfall of Group 1 with respect to the 7% target level improved by €86.2 bn or 43.4% (see Figure 9).

Figure 9: Estimated overall capital shortfall without and with the capital conservation buffer
[Group 1 and Group 2 banks (in € bn)]



For Group 2 banks, the CET1 shortfall without accounting for the capital conservation buffer dropped by 4.7 bn (50%) compared to December 2011, while the CET1 shortfall after accounting for the capital conservation buffer decreased by 6.7 bn or 30%; however, it is important to mention that the Group 2 bank sample is rather heterogeneous covering a broad range of business models and the respective changes in individual shortfalls are dispersed around the aggregate percentage figures shown above.

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

As noted above, reductions in capital ratios under the Basel III framework are attributed in part to capital deductions previously not applied at the common equity level of Tier 1 capital. Figure 10 shows the impact of various deduction categories on the gross CET1 capital (ie, CET1 before applying deductions) of Group 1 and Group 2 banks.

Figure 10: CET1 regulatory adjustments as a percentage of new CET1 capital prior to adjustments

	N	Goodwill	Intangibles	DTA*	Financials	MSRs	DTA above threshold	Excess above 15%**	Other***	Total
Group 1 banks	41	-14.4	-3.5	-3.3	-3.2	-	-1.1	-1.9	-5.3	-32.8
Group 2 banks	110	-9.4	-2.7	-0.9	-6.8	-	-2.0	-1.8	-4.2	-27.8

* DTA refers to the deferred tax assets that are deducted in full under Basel III (ie it excludes DTAs that are related to temporary timing 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 DTA due to temporary 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.

In the aggregate, deductions reduce gross CET1 of Group 1 banks by 32.8% with goodwill being the most important driver, followed by holdings of capital for intangible assets. Deductions for defined benefit pension obligations and provisioning shortfalls relative to expected losses tend to be the largest contributors to other deductions across most countries. For Group 2 banks, average results are similar: CET1 deductions reduce gross CET1 by 27.8% due in particular to goodwill, followed by holdings of capital of other financial companies. However, it should be noted that these results are driven by large Group 2 banks (defined as those with Tier 1 capital in excess of €3 bn). Without considering these banks in Group 2, the overall decline of gross CET1 due to deductions would be 16.6%. Mortgage servicing rights related deductions have no impact, for both groups.

4. Changes in risk-weighted assets

Reductions in capital ratios under Basel III are also attributed to increases in risk-weighted assets as shown in Figure 11 for the following three categories:

- **Definition of capital:** Here we distinguish three effects: 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 “other” includes the effect of lower risk-weighted assets for exposures that are currently included in risk-weighted assets but receive a deduction treatment under Basel III. The negative sign indicates that this effect reduces the RWA. This relief in RWA is mainly technical since it is compensated by deductions from capital. The column heading “threshold” measures the increase in risk-weighted assets for exposures that fall below the 10% and 15% limits for CET1 deduction;

- **Credit Value Adjustment (CVA):** This 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 new capital charge for the higher capital charge that results from applying a higher asset correlation parameter against exposures to large financial institutions under the IRB approaches to credit risk. In addition the higher haircuts for credits collateralised with securitisations are taken into account.

The changes regarding securitisation in the banking book and the trading book related changes analysed due to the fact that these changes have already been implemented since 31 December 2011.

4.1 Overall results

Due to the introduction of Basel III, risk-weighted assets for Group 1 banks increase overall by 16.1% which can be mainly attributed to the capital charges for credit valuation adjustments (CVA) (+7.8%), followed by changes due to the new RWA treatment of current Basel II 50/50 capital deductions (+4.3%).

For Group 2 banks, aggregate RWA increase overall by 10.5%. The smaller increase relative to Group 1 banks is as expected since Group 2 banks tend to have less counterparty exposures. Therefore, for Group 2 banks, CVA capital charges increase RWA only by 3.8%. The change of the Basel II 50/50 deductions to a 1250% risk weight treatment affects RWA by the same amount while increases RWA attributable to items that fall below the 10/15% thresholds account for 2.5% of the overall increase in RWA.

Figure 11: Changes in RWA by banking group

(in percent)

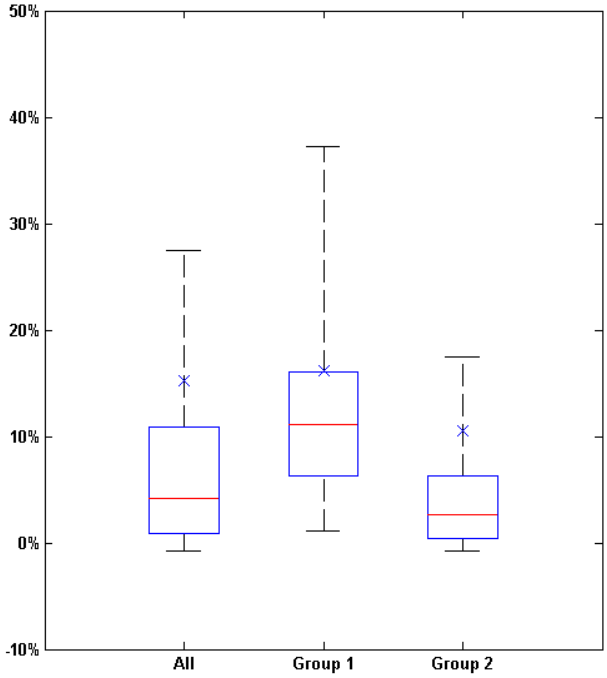
	N	Total	Definition of capital			CVA	Other*
			50/50	threshold	other		
Group 1 banks	41	16.1	4.3	3.4	-1.0	7.8	1.7
Group 2 banks	110	10.5	3.7	2.5	-0.2	3.8	0.7

* "Other" includes increases in RWA due to a higher asset correlation and higher haircuts for collateral.

Figure 12 gives an indication of the distribution of the results across participating banks and illustrates that the dispersion is much higher within the Group 1 bank sample as compared to Group 2 banks.

Figure 12: Change in total risk-weighted assets[19]

(in percent)



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

Credit valuation adjustment (CVA) risk capital charges lead to a 8.1% increase in total RWA for the subsample of 39 banks which provided the relevant data (7.8% for the full Group 1 sample). Almost equal fractions of the total effect are attributable to the application of the standardised and advanced methods. The impact on Group 2 banks is approximately half of the impact on Group 1 banks, resulting in an overall 4.1% increase in RWA over a subsample of 82 banks (3.8% for the full Group 2 sample), totally attributable to the standardised method. Further details are provided in Figure 13.

[19] The median value is represented by the thin red horizontal line, the weighted average by "x" and the 75th and 25th percentile values are defined by the blue box. The upper and lower end points of the black vertical lines show the 95th and 5th percentile, respectively.

Figure 13: Changes in RWA for credit valuation adjustment (CVA)

(in percent)

	N	CVA vs credit RWA	Of which:		CVA vs total RWA	Of which:	
			Standardised method	Advanced method		Standardised method	Advanced method
Group 1 banks	39	9.8	4.9	4.9	8.1	4.1	4.0
Group 2 banks	82	4.6	4.6	-	4.1	4.1	-

5. Leverage Ratio

A simple, transparent, non-risk based leverage ratio has been introduced in the Basel III framework in order to act as a credible supplementary measure to the risk based capital requirements. It is intended to constrain the build-up of leverage in the banking sector and to complement the risk based capital requirements with a non-risk based "backstop" measure.

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. Generally, when a bank is referred to as having more leverage, or being more leveraged, this refers to a multiple of exposures to capital (ie 50 times) as opposed to a ratio (ie 2.0%). Therefore, a bank with a high level of leverage will have a **low** leverage ratio.

41 Group 1 and 110 Group 2 banks provided sufficient data to calculate the leverage ratio according to the Basel III framework.

To illustrate the impact of the new capital framework, a hypothetical 'current leverage ratio' is shown assuming the leverage ratio was already in place. This hypothetical ratio is based on the current definition of Tier 1 capital.[20]

It is important to recognize that the monitoring results may underestimate the amount of capital that will actually be held by the bank over the next few years as the Basel III capital amounts reported in this monitoring exercise assume that all common equity deductions are fully phased in and all non-qualifying capital instruments are fully phased out. Thus, these amounts ceteris paribus underestimate the amount of Tier 1 capital and total capital under current rules held by banks as they do not give any recognition for non-qualifying instruments which are actually phased out over a nine year horizon. In this exercise, Common Equity Tier 1, Tier 1 capital and total capital could be very similar if all (or most) of the banks' Additional Tier 1 and Tier 2 instruments are considered non-qualifying under Basel III. As the implementation date of the leverage ratio approaches, this will become less of an issue.

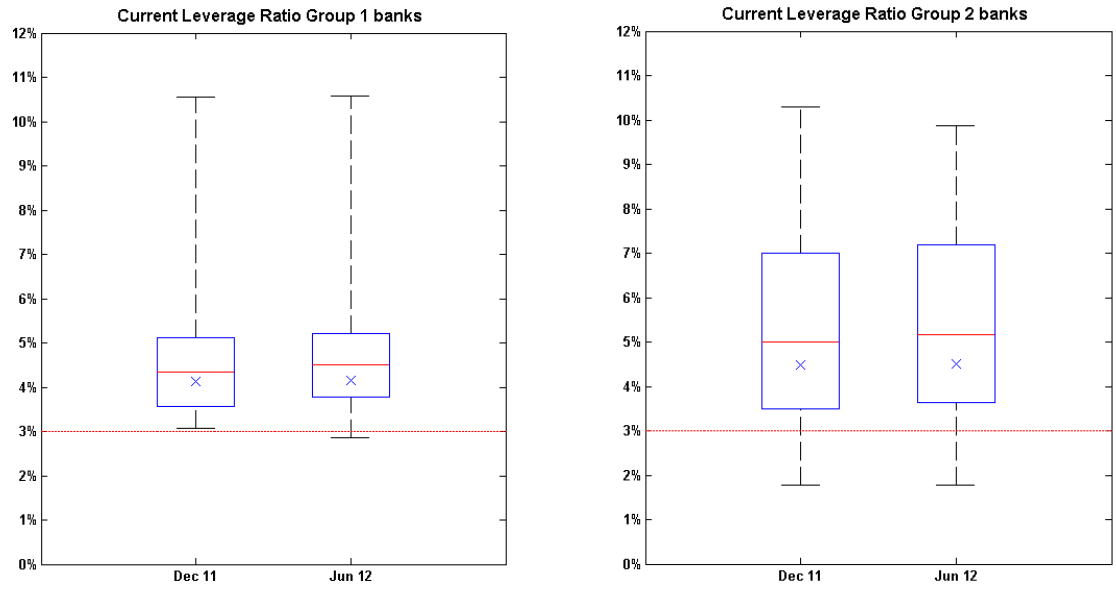
With respect to Group 1 banks, the average Basel III Tier 1 leverage ratio is 3.0% (compared to 2.9% in December 2011) while for Group 2 banks the leverage ratio is significantly higher at 3.6% (compared to 3.3% in December 2011). Assuming full implementation of Basel III at 30 June 2012, 56% of Group 1 banks would meet the calibration target of 3% for the leverage ratio while 96% of them (or 54% compared to the total Group 1 sample) would also be at or above the 6% minimum requirement for the risk-based Tier 1 ratio. Regarding Group 2 banks, 76% show a leverage ratio at or above the target level while 98% of them (or 75% of the total Group 2 sample) reported Tier 1 ratios at or above the risk-based Tier 1 minimum requirement of 6%.

Using Tier 1 capital according to current rules in the numerator, the leverage ratio is 4.2% for Group 1 banks and 4.5% for Group 2 banks.

[20] This implies that both the numerator and the denominator change as compared to the Basel III leverage ratio.

Figure 14 and 15 give an indication of the distribution of the results across participating banks. The dashed red lines show the calibration target of 3% while the thin red lines represent the 50th percentile[21] (the "median"), ie the value separating the higher half of a sample from the lower half (it means that 50% of all observations fall below this value, 50% are above this value). The weighted average is shown as "x". For further information on the methodology see section 1.2.

Figure 14: Current Leverage Ratio[22]
(in percent)



From Figure 14 and 15 it can be concluded that, in the case of the Basel III leverage ratio, the average leverage ratio as well as the 5th and 95th percentiles have improved slightly for Group 1 banks compared to the previous report.

For Group 2 banks, the pertinent leverage ratio statistics also show a slight increase compared to the previous report. Moreover, it should be noted that the dispersion of the leverage ratios is higher among Group 2 banks. This can be explained by the fact that the Group 2 sample is more heterogeneous since it consists of a larger number of banks covering a broad range of business models.

[21] A percentile is the value of a variable below which a certain percent of observations fall. For example, the 25th percentile is the value below which 25 percent of the observations may be found.

[22] The median value is represented by the thin red horizontal line, the weighted average by "x" and the 75th and 25th percentile values are defined by the blue box. The upper and lower end points of the black vertical lines show the 95th and 5th percentile, respectively. The dashed red line indicates the 3% target level.

Figure 15: Basel III Leverage Ratio

(in percent)

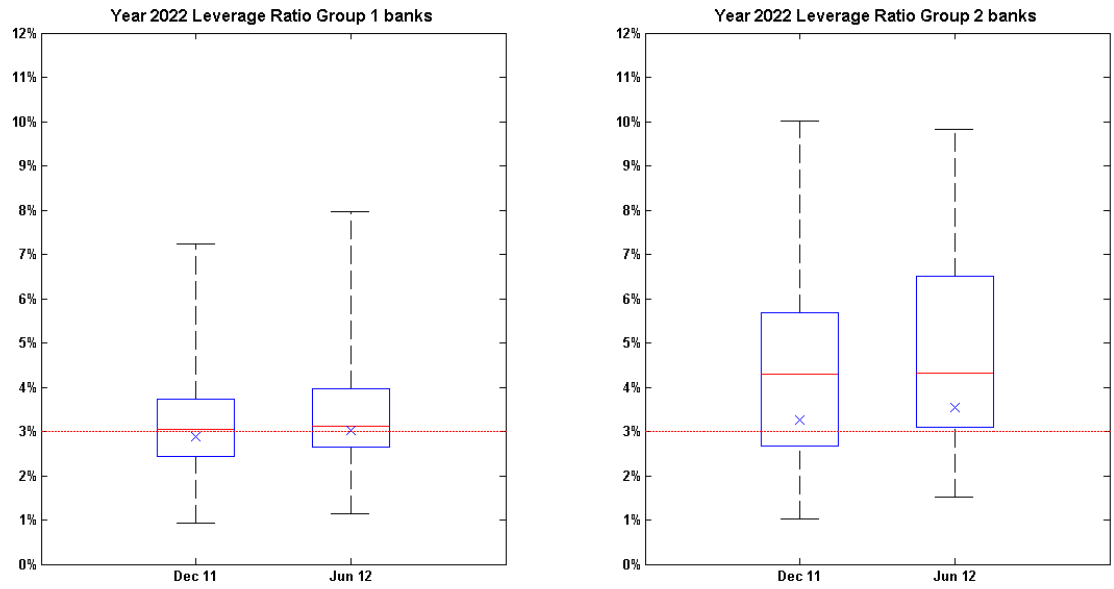


Figure 16 shows the average Basel III leverage ratios and the capital shortfall under the assumption that banks already fulfill the risk-based capital requirements for the Tier 1 ratio of 6% and 8.5%, respectively. The shortfall is the additional amount of Tier 1 capital that banks would need to raise in order to meet the target level of 3% for the leverage ratio (ie after the risk-based minimum requirements have been met).

Figure 16: Additional shortfall of Tier 1 capital as a result of the leverage ratio

	Number of banks	Tier 1 solvency ratio of 6%		Tier 1 solvency ratio of 8.5%	
		Leverage Ratio	Shortfall in € bn	Leverage Ratio	Shortfall in € bn
Group 1 banks	41	3.1	79.3	3.4	30.8
Group 2 banks	110	3.7	16.5	4.1	14.9

Assuming that banks with a risk-based Tier 1 ratio below 6% would have raised capital to fulfill the minimum requirement of 6%, 39% of Group 1 banks and 18% of Group 2 banks would not meet the calibration target of 3% for the leverage ratio. The additional shortfall related to the leverage ratio requirement would be €79.3 bn (Group 1) and €16.5 bn (Group 2), respectively.

Assuming that banks with a risk-based Tier 1 ratio below 8.5% would have raised capital to meet the minimum requirement of 8.5%, 27% of Group 1 and 17% Group 2 banks would show a leverage ratio below the 3% target level. The additional shortfall would be €30.8 bn and €14.9 bn for Group 1 and Group 2 banks, respectively.

6. Liquidity

6.1 Liquidity Coverage Ratio

One of the new minimum standards 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 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 total outflows) that are expected to occur in a severe stress scenario.

The LCR has recently been revised by the Basel Committee[23] and will be introduced as planned on 1 January 2015. The minimum requirement will be set at 60% and rise in equal annual steps to reach 100% in 2019. Given these revisions, precise LCR results could not be calculated based on the data collected as of June 2012. However, LCR results will be presented in the report on December 2012 data.

6.2 Net Stable Funding Ratio

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

154 Group 1 and Group 2 banks provided sufficient data in the mid-2012 Basel III implementation monitoring exercise to calculate the NSFR according to the Basel III liquidity framework. 45% of these banks already meet or exceed the minimum NSFR requirement, with 79% at an NSFR of 85% or higher.

The average NSFR for each of the Group 1 bank and Group 2 samples is 94% and 99%, respectively. Figure 17 shows the distribution of results for Group 1 and Group 2 banks.

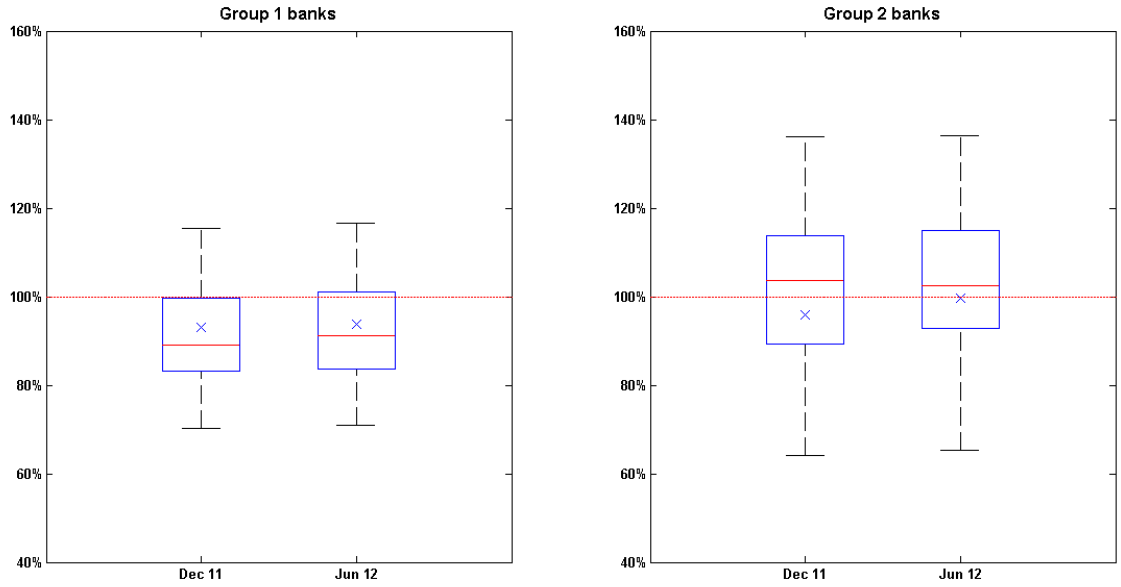
The results show that banks in the sample would have a shortfall of stable funding[24] of €1.23 trillion at the end of June 2012, if banks were to make no changes whatsoever to their funding structure. This number is only reflective of the aggregate shortfall for banks that are below the 100% NSFR requirement 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 mismatches.

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

[24] 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.

Figure 17: Net Stable Funding Ratio[25]

(in percent)



[25] The median value is represented by the thin red horizontal line, the weighted average by "x" and the 75th and 25th percentile values are defined by the blue box. The upper and lower end points of the black vertical lines show the 95th and 5th percentile, respectively. The dashed red line indicates the 100% minimum ratio.