

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

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Executive summary

To assess the impact of the new capital and liquidity requirements set out in the consultative documents of June and December 2009, both the Basel Committee on Banking Supervision and the Committee of European Banking Supervisors (CEBS) conducted a so-called comprehensive quantitative impact study (C-QIS) for their member jurisdictions based on data as of 31 December 2009. The main results of both impact studies have been published in December 2010.¹

After finalisation of the regulatory framework (referred to as "Basel III") in December 2010², the impact of this new framework is monitored semi-annually by both the Basel Committee at a global level and the European Banking Authority (EBA, formerly CEBS) at the European level, using data provided by participating banks on a voluntary and confidential basis.

This report summarises the results of the latest monitoring exercise using consolidated data of European banks as of 30 June 2011. A total of 158 banks submitted data for this exercise, consisting of 48 Group 1 banks and 110 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: 98.5%), while for Group 2 banks it was lower with a larger variation across jurisdictions (aggregate coverage: 35.8%). 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

Since the new EU directive and regulation are not finalised yet, no EU specific rules are analysed in this report. Accordingly, this monitoring exercise is carried out assuming **full implementation of the Basel III framework**⁵, ie transitional arrangements such as phase-in of deductions and grandfathering arrangements are **not** taken into account.⁶ The results are compared with the respective current national implementation of the Basel II framework.

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 management actions to increase capital or decrease risk-weighted assets are not taken into account ("static balance sheet assumption"). This allows for identifying **effective** changes in banks' capital base instead of identifying changes which are solely based on changes in underlying modelling assumptions. As a consequence,

¹ For the results of the Basel quantitative impact study, see http://www.bis.org/publ/bcbs186.pdf. For the results of the European quantitative impact study, see http://www.eba.europa.eu/cebs/media/Publications/ Other%20Publications/ QIS/EU-QIS-report-2.pdf.

² Basel Committee on Banking Supervision, Basel III: A global framework for more resilient banks and the banking system, December 2010 and revised June 2011; Basel Committee on Banking Supervision, Basel III: International framework for liquidity risk measurement, standards and monitoring, December 2010.

³ Group 1 banks are those with Tier 1 capital in excess of €3 bn and 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 billion. These banks account for 64.3% of total Group 2 RWA.

⁵ Except for the rules related to central counterparties and stressed effective expected positive exposure (EEPE). The impact of these rules will be included as soon as the corresponding regulatory rules have been finalised.

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

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. In addition, monitoring results are not comparable to C-QIS results, which assessed the impact of policy proposals published in 2009 that differed significantly from the final Basel III framework.

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, securitisation, trading book and counterparty credit risk requirements;
- The capital conservation buffer;
- The leverage ratio; and
- Two liquidity standards the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR).

Key results

Impact on regulatory capital ratios and estimated capital shortfall

Assuming full implementation of the Basel III framework as of 30 June 2011 (i.e. without taking into account transitional arrangements), the CET1 capital ratios of Group 1 banks would have declined from an average CET1 ratio of 10.2% (with all country averages above the 7.0% target level⁷) to an average CET1 ratio of 6.5%. 80% of Group 1 banks would be at or above the 4.5% minimum while 44% would be at or above 7.0% target level. The CET1 capital shortfall for Group 1 banks is €18 bn at a minimum requirement of 4.5% and €242 bn at a target level of 7.0% (including the G-SIB surcharge). As a point of reference, the sum of profits after tax prior to distributions across the Group 1 sample in the second half of 2010 and the first half of 2011 was €102 bn.

With respect to the average Tier 1 and total capital ratio, monitoring results show a decline from 11.9% to 6.7% and from 14.4% to 7.8%, respectively. Capital shortfalls comparing to the minimum ratios (excl. the capital conservation buffer) amount for \in 51 bn (Tier 1 capital) and \in 128 bn (total capital). Taking into account the capital conservation buffer and the surcharge for systemically important banks, the Group 1 banks' capital shortfall rises to \in 361 bn (Tier 1 capital) and \in 485 bn (total capital).

⁷ Corresponding to the minimum CET1 level (4.5%) plus the capital conservation buffer (2.5%).

For Group 2 banks, the average CET1 ratio declines from 9.8% to 6.8% under Basel III, where 87% of the banks would be at or above the 4.5% minimum and 72% would be at or above the 7.0% target level. The respective CET1 shortfall is approx. \leq 11 bn at a minimum requirement of 4.5% and \leq 35 bn at a target level of 7.0%. The sum of profits after tax prior to distributions across the Group 2 sample in the second half of 2010 and the first half of 2011 was \leq 17 bn.

Main drivers of changes in banks' capital ratios

For Group 1 banks, the overall 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: while CET1 declines by 22.7%, RWA increase by 21.2%, on average. For Group 2 banks, while the change in the definition of capital results in a decline in CET1 of 25.9%, the new rules on RWA affect Group 2 banks far less (+6.9%), which may be explained by the fact that these banks' business models are less reliant on exposures to counterparty and market risks (which are the main drivers of the RWA increase under the new framework). Reductions in Group 1 and Group 2 banks' CET1 are mainly driven by goodwill (-17.3% and -14.8%, respectively), followed by deductions for holdings of capital of other financial companies (-4.4% and -7.0%, respectively).

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 8.0% and of 2.9% for Group 1 and Group 2 banks, respectively. In addition to CVA capital charges, trading book exposures and the transition from Basel II 50/50 deductions to a 1250% risk weight treatment are the main contributors to the increase in Group 1 banks' RWA. As Group 2 banks are in general less affected by the revised counterparty credit risk rules, these banks show a much lower increase in overall RWA (+6.9%). However, even within this group, the RWA increase is driven by CVA capital charges, followed by changes related to the transition from Basel II 50/50 capital deductions to a 1250% risk weight treatment, and to the items that fall below the 10/15% thresholds.

Leverage ratio

Monitoring results indicate a positive correlation between bank size and the level of leverage, since the average LR is significantly lower for Group 1 banks. Assuming full implementation of Basel III, Group 1 banks show an average Basel III Tier 1 leverage ratio (LR) of 2.7%, while Group 2 banks' leverage ratio is 3.4%. 41% of participating Group 1 and 72% Group 2 banks would meet the 3% target level as of June 2011. If a hypothetical current leverage ratio was already in place, Group 1 and Group 2 banks' LR would be 4.0% and 4.7%, respectively.

Liquidity standards

A total of 156 Group 1 and Group 2 banks participated in the liquidity monitoring exercise for the end-June 2011 reporting period. Group 1 banks have reported an average LCR of 71% while the average LCR for Group 2 banks is 70%. The aggregate Group 1 and Group 2 shortfall of liquid assets is at approx. \in 1.2 trillion which represents 3.7% of the approx. \in 31 trillion total assets of the aggregate sample.

Group 1 banks reported an average NSFR of 89% (Group 2 banks: 90%). To fullfil the minimum standard of 100% on a total basis, banks need stable funding of approx. €1.9 trillion.

Both liquidity standards are currently subject to an observation period which includes a review clause to address any unintended consequences prior to their respective implementation dates.

Abbreviations

C-QIS	comprehensive quantitative impact study
CCPs	central counterparties
CCR	counterparty credit risk
CET1	common equity tier 1
CRD	capital requirements directive
CRM	comprehensive risk model
СТР	correlation trading portfolio
CVA	credit value adjustment
DTA	deffered tax assets
EBA	European Banking Authority
EEPE	effective expected positive exposure
GHOS	Group of Governors and Heads of Supervision
G-SIB	global systemically important banks
ISG	Impact Study Group
IRC	incremental risk charge
LCR	liquidity coverage ratio
LR	leverage ratio
MSR	mortgage servicing rights
NSFR	net stable funding ratio
OBS	off-balance sheet
PFE	potential future exposure
PSE	public sector entities
RWA	risk-weighted assets
SMM	standardised measurement-method
VaR	value at risk

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 2010.⁸ Since the beginning of 2011, the impact of the new requirements related to these capital reforms and the introduction of two international 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 CRD IV, the European equivalent to the Basel III framework, has not yet been finalised.

This report presents the results of the latest monitoring exercise based on consolidated data of European banks as of 30 June 2011. 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 in a 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, trading book, securitisation and counterparty credit risk requirements,
- The capital conservation buffer of 2.5%,
- The introduction of a leverage ratio and
- The introduction of two international liquidity standards the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR)

The related policy documents are:

- Revisions to the Basel II market risk framework⁹ and Guidelines for computing capital for incremental risk in the trading book;¹⁰
- *Enhancements to the Basel II framework*¹¹ which include the revised risk weights for re-securitisations held in the banking book;
- 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;¹²

⁸ 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).

⁹ Basel Committee on Banking Supervision, *Revisions to the Basel II market risk framework*, July 2009.

¹⁰ Basel Committee on Banking Supervision, *Guidelines for computing capital for incremental risk in the trading book*, July 2009.

¹¹ Basel Committee on Banking Supervision, *Enhancements to the Basel II framework*, July 2009.

¹² 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.

- International framework for liquidity risk measurement, standards and monitoring;¹³ and
- Global systemically important banks: Assessment methodology and the additional loss absorbency requirement.¹⁴

1.1 Sample of participating banks

The report includes an analysis of data submitted by 48 Group 1 banks from 16 countries and 110 Group 2 banks from 18 countries. Table 1 shows the distribution of participation by jurisdiction.

Table 1									
Number of banks submitting data for the monitoring exercise									
	Group 1	Group 2							
Austria (AT)	2	1							
Belgium (BE)	1	2							
Cyprus (CY)	0	2							
Denmark (DK)	1	2							
Finland (FI)	0	13							
France (FR)	5	5							
Germany (DE)	9	25							
Greece (GR)	3	0							
Hungary (HU)	1	2							
Ireland (IE)	3	1							
Italy (IT)	2	11							
Luxembourg (LU)	0	1							
Malta (MT)	0	1							
Netherlands (NL)	3	17							
Norway (NO)	1	7							
Poland (PL)	0	5							
Portugal (PT)	3	4							
Spain (ES)	2	6							
Sweden (SE)	4	0							
United Kingdom (GB)	8	5							
Total	48	110							

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: 98.5%). Coverage of Group 2 banks is lower and varies across countries (aggregate coverage: 35.8%). Group 2

¹³ Basel Committee on Banking Supervision, *Basel III: International framework for liquidity risk measurement, standards and monitoring*, December 2010.

¹⁴ Basel Committee on Banking Supervision, *Globally systemically important banks: Assessment methodology and the additional loss absorbency requirement,* November 2011.

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.

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.

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 regulatory minimum requirement
- 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. With the exception of transitional arrangements for noncorrelation trading securitisation positions in the trading book,¹⁵ results are calculated assuming **full implementation of Basel III**¹⁶, ie without considering transitional arrangements related to the phase-in of deductions and grandfathering arrangements. This implies 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.

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

¹⁶ Except for the rules related to central counterparties and stressed effective expected positive exposure (EEPE). The impact of these rules will be included as soon as the corresponding regulatory rules have been finalised.

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. In addition, monitoring results are not comparable to prior C-QIS results, which assessed the impact of policy proposals published in 2009 that differed significantly from the final Basel III framework. As one example, the C-QIS did not consider the impact of capital surcharges for G-SIBs based on the initial list of G-SIBs announced by the Financial Stability Board in November 2011.¹⁷

To enable comparisons between the current regulatory regime 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 nonpublic 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.

¹⁷ See Basel Committee on Banking Supervision, Global systemically important banks: assessment methodology and the additional loss absorbency requirement, November 2011; Financial Stability Board, Policy measures to address systemically important financial institutions, 4 November 2011. The list of G-SIBs will be updated annually.

2 Overall impact on regulatory capital ratios and estimated capital shortfall

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 arrangements¹⁸), 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 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 under current rules held by banks as they do not give any recognition for non-qualifying instruments which are actually phased out over a 10 year horizon.

Table 2 shows the overall change in common equity Tier 1 (CET1), Tier 1 and total capital if Basel III were fully implemented, as of 30 June 2011.

Table 2Average capital ratios by banking group, in percent										
	Numbor	CE	T1	Tie	er 1	Total capital				
	of banks	Current	Basel III	Curr	Basel III	Curr	Basel III			
Group 1	45	10.2	6.5	11.9	6.7	14.4	7.8			
Group 2	109	9.8	6.8	10.9	7.4	13.6	9.4			

For Group 1 banks, the impact on the average CET1 ratio is a reduction from 10.2% to 6.5% (a decline of 3.7 percentage points) while the average Tier 1 and total capital ratio would decline from 11.9% to 6.7% and from 14.4% to 7.8% respectively. Contrary to the current framework, for Group 2 banks average capital ratios are higher than for Group 1.

The following chart 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). For further information on the methodology see section 1.2.

¹⁸ For details on the transitional arrangements, see paragraph 94 and 95 of the Basel III framework



80% of Group 1 banks would be at or above the 4.5% minimum requirement while 44% would be at or above the 7.0% target level, ie it is expected that in the next years banks will put in place several measures to increase high quality capital. With respect to Group 2 banks, 87% reported CET1 ratios at or above 4.5% while 72% would be at or above the 7.0% target level.

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 trading or 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: while CET1 declines by 22.7%, RWA increase by 21.2%, on average. For Group 2 banks, while the change in the definition of capital results in a decline in CET1 of 25.9%, the new rules on RWA affect Group 2 banks far less (+6.9%), which may be explained by the fact that these banks' business models are less reliant on exposures subject to counterparty credit risk and market risk (which are the main drivers of the RWA increase under the new framework).

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

- For CET1, the highest form of loss absorbing capital, the minimum requirement will be raised to 4.5% and will be phased in by 1 January 2015. Deductions from CET1 will be fully phased in by 1 January 2018;
- For Tier 1 capital, the minimum requirement will be raised to 6.0% and will be phased in by 1 January 2015;

- An additional 2.5% capital conservation buffer above the regulatory minimum capital ratios, which must be met with common equity, after the application of deductions, will be phased in by 1 January 2019; and
- The additional loss absorbency requirement for G-SIBs, which ranges from 1.0% to 2.5% and must be met with common equity, after the application of deductions and as an extension of the capital conservation buffer, will be phased in by 1 January 2019.

Table 3 and Chart 2 provide estimates of the additional amount of capital that Group 1 and Group 2 banks would need between 30 June 2011 and 1 January 2022 to meet the target CET1, Tier 1 and total capital ratios under Basel III assuming fully phased-in target requirements and deductions as of 30 June 2011. For Group 1 banks, the CET1 capital shortfall is €18 bn at a minimum requirement of 4.5% and €242 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 amount for €51 bn and €128 bn respectively. For Group 2 banks, the CET1 capital shortfall is €11 bn at a minimum requirement of 4.5% and €35 bn at a target level of 7.0%. The Tier 1 and total capital shortfall calculated relative to the 4.5% minimum amount for €18 and €22 bn, respectively. The surcharges for G-SIBs are a binding constraint for 12 of the 13 G-SIBs included in this monitoring exercise. It should be mentioned, 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.

Table 3 Estimated overall capital shortfall, participating Group 1 and Group 2 banks, in € billion								
Group 1 banks Group 2 banks								
Number of banks	45	109						
Minimum								
CET1 shortfall – 4.5%	17.6	10.6						
Tier 1 shortfall – 6.0%	51.2	17.8						
Total capital shortfall – 8.0%	128.0	22.2						
Minimum plus capital conservation buffer (2019)*								
CET1 shortfall – 7.0%	242.1	34.5						
Tier 1 shortfall – 8.5%	360.6	49.6						
Total capital shortfall – 10.5%	485.4	58.9						
* Including the capital surcharge for global systemically imp	oortant banks (G-SIBs).							

Given these results, a significant effort by banks to fulfil the risk-based capital requirements is expected.

Chart 2 Estimated overall capital shortfall, Group 1 and Group 2 banks, in € billion



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. Table 4 shows the impact of various deduction categories on the gross CET1 capital (i.e. CET1 before applying deductions) of Group 1 and Group 2 banks.

Table 4										
CET1 deductions as a percentage of new CET1 capital gross of deductions										
Z Z Goodwill Goodwill Intangibles DTA* DTA* DTA* DTA above threshold threshold threshold DTA above threshold DTA above threshold Other*** Other***							Total			
Group 1 banks	46	-17.3	-3.9	-3.4	-4.4	0.0	-1.7	-2.3	-4.1	-37.2
Group 2 banks	109	-14.8	-3.0	-0.8	-7.0	0.0	-4.9	-2.6	-4.3	-37.4
* 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 37.2% with goodwill being the most important driver, followed by holdings of capital of other financial companies. 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 37.4% due in particular to goodwill, and again followed by holdings of capital of other financial companies as the second most important driver. However, it should be noted that these results are driven by large Group 2 banks, the overall decline of gross CET1 due to deductions would be 22.6%. 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 Table 5 for the following four 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 negative sign in column "other" 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;
- **Counterparty credit risk (CCR):** This column measures the increased capital charge for counterparty credit risk and the higher capital charge that results from applying a higher asset correlation parameter against exposures to financial institutions under the IRB approaches to credit risk. The effects of capital charges for exposures to central counterparties (CCPs) or any impact of incorporating stressed parameters for effective expected positive exposure (EEPE) are not included;
- Securitisation in the banking book: This column measures the increase in the capital charges for certain types of securitisations (e.g. resecuritisations) in the banking book; and
- **Trading book:** This column measures the increased capital charges for exposures held in the trading book to include capital requirements against stressed value-at-risk, incremental risk capital charge, and securitisation exposures in the trading book (see section 4.2 for more details).

4.1 Overall results

Risk-weighted assets for Group 1 banks increase overall by 21.2% which can be mainly attributed to higher risk-weighted assets for counterparty credit risk exposures (+8.0%), followed by changes due to the new RWA treatment of current Basel II 50/50 capital deductions (+5.9%) and the new trading book rules (+4.2%). The main driver behind the capital charges for counterparty credit risk is the charge for credit valulation adjustments (CVA) while the higher asset correlation parameter results in an increase in overall risk-weighted assets of only 1.2%.

For Group 2 banks, aggregate RWA increase overall by 6.9%. The smaller increase relative to Group 1 banks is as expected since Group 2 banks tend to have less exposure to market risk and counterparty exposures. However, even for Group 2 banks, CCR capital charges (2.9%) are the main contributor to the change in RWA for Group 2 banks. Moving Basel II 50/50 deductions to a 1250% risk weight treatment and increases in RWA attributable to items that fall below the 10/15% thresholds affect RWA by 2.2% each.

Table 5 Changes in RWA by banking group, in percent										
	N	Total	Definition of capital			CCR	Securiti-	Trading		
			other	50/50	thres hold		banking book	book		
Group 1 banks	45	21.2	-1.0	5.9	2.9	8.0	1.0	4.2		
Group 2 banks	109	6.9	-1.0	2.2	2.2	2.9	0.2	0.4		

Chart 3 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.



Chart 3

4.2 Market risk-related capital charges

Table 6 presents details on the impact of the revised trading book capital charges on overall risk-weighted assets for Group 1 banks. Group 2 banks are not presented separately because the market risk requirements have a very minor influence on overall Group 2 bank risk-weighted assets. Some of these banks do not have any trading books at all and are therefore not subject to any related capital charges.

Stressed VaR (2.1%), the incremental risk capital charge or "IRC" (1.2%), and the capital charge for non-correlation trading securitisation exposures under the standardised measurement method or "SMM non-CTP" (0.7%) are the three most relevant drivers behind the increase. Increases in risk-weighted assets are partially offset by effects related to previous capital charges (resulting from the event risk surcharge and previous standardised or VaR-based charges for the specific risk capital requirements of securitisations), and the changes to positions treated with standardised measurement methods (column "SMM").

Table 6 Increase in market risk capital charges relative to overall capital requirements, Group 1 banks, in percent											
	N	IRC and securitisation					tion				
		otal	ed VaR	*WV	_		стр	Correlation trading		rge	her
		Ţ	stress	S	Overall	IRC	SMM non-	CRM	SMM	Prev. Cha	ō
Average	45	4.2	2.1	-0.1	2.3	1.2	0.7	0.5	0.2	-0.4	0.0
* Including changes to specific	and gen	eral mar	ket risk a	s well as	commod	dities and	foreign e	exchange	e risk.		

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

Credit valuation adjustment (CVA) risk capital charges lead to a 7.8% increase in total RWA for the subsample of 36 banks which provided the relevant data (6.8% for the full Group 1 sample). A larger fraction of the total effect is attributable to the application of the standardised method than to the advanced method. The impacts on Group 2 banks are smaller but still significant, adding up to an overall 3.5% increase in RWA over a subsample of 57 banks (2.3% for the full Group 2 sample), totally attributable to the standardised method. Further details are provided in Table 7.

Table 7 Changes in RWA for credit valuation adjustment (CVA), in percent										
	N CV	CVA vs	CVA vs Of which		CVA vs	Of which				
		credit RWA	Stand. method	l. Adv. total d method RWA		Stand. method	Adv. method			
Group 1 banks	36	9.1	5.0	4.2	7.8	4.2	3.6			
Group 2 banks	57	3.9	3.9	0.0	3.5	3.5	0.0			

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 (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.

155 Group 1 and Group 2 banks provided sufficient data to calculate the leverage ratio according to the Basel III framework. In total, aggregate Tier 1 capital according to Basel III (numerator of the leverage ratio) is €0.76 trillion for Group 1 banks while the total aggregate exposure according to the definition of the denominator of the leverage ratio is €27.69 trillion. For Group 2 banks, the corresponding figures are €0.16 trillion (Tier 1 capital) and €4.59 trillion (total exposure).

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.

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. The reason is as follows. 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 the total sample of banks, the average Basel III Tier 1 leverage ratio is 2.8%. Group 1 banks' average Basel III LR is 2.7% while for Group 2 banks the leverage ratio is significantly higher at 3.4%. Assuming full implementation of Basel III at 30 June 2011, 41.3% of Group 1 banks would meet the calibration target of 3% for the leverage ratio while 80% would be at or above the 4.5% minimum requirement for the risk-based CET1 ratio. Regarding Group 2 banks, 71.6% show a leverage ratio at or above the target level while 87% reported CET1 ratios at or above the CET1 minimum requirement of 4.5%.

Using Tier 1 capital according to current rules in the numerator, the leverage ratio is 4.1% for the total sample. For Group 1 banks it is 4.0% (Group 2: 4.7%).

Comparing the average results for Group 1 and Group 2 banks, monitoring results indicate a positive correlation between bank size and the level of leverage, since the average LR is significantly lower for Group 1 banks.

Chart 4 gives an indication of the distribution of the results across participating banks. The thick red lines show the calibration target of 3% while the thin red lines represent the 50^{th} percentile¹⁹ (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.



Table 8 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 (i.e. after the risk-based minimum requirements have been met).

		Table	e 8			
Addi	tional shortfall	of Tier 1 capita	l as a result of	the leverage ra	atio	
	Number of	Tier 1 solven	cy ratio of 6%	Tier 1 solvency ratio of 8.5%		
	banks	Leverage Ratio Shortfall in € bn		Leverage Ratio	Shortfall in € bn	
Group 1 banks	45	2.9	95.2	3.6	16.5	
Group 2 banks	109	3.8	11.8	4.5	9.5	

¹⁹ 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.

Assuming that banks with a risk-based Tier 1 ratio below 6% would have raised capital to fulfill the minimum requirement of 6%, 52% of Group 1 banks and 21% 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 \in 95 bn (Group 1) and \in 12 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%, 17% of both Group 1 and Group 2 banks would show a leverage ratio below the 3% target level. The additional shortfall would be \in 17 bn and \in 10 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.

157 Group 1 and Group 2 banks provided sufficient data in the mid-2011 Basel III implementation monitoring exercise to calculate the LCR according to the Basel III liquidity framework. The average LCR is 71% for Group 1 banks and 70% for Group 2 banks. These aggregate numbers do not speak of the range of results across the banks. Chart 5 below gives an indication of the distribution of bank results; the thick red line indicates the 100% minimum requirement, the thin red horizontal lines indicate the median for the respective bank group while the mean value is shown as "x". 34% of the banks in the sample already meet or exceed the minimum LCR requirement and 39% have LCRs that are at or above 85%.



For the banks in the sample, monitoring results show a shortfall of liquid assets of $\in 1.15$ trillion (which represents 3.7% of the $\in 31$ trillion total assets of the aggregate sample) as of 30 June 2011, if banks were to make no changes whatsoever to their liquidity risk profile. This number is only reflective of the aggregate shortfall for banks that are below the 100% requirement and does not reflect surplus liquid assets at banks above the 100% requirement. Banks that are below the 100% required minimum have until 2015 to meet the minimum standard by scaling back business activities which are most vulnerable to a significant short-term liquidity shock or by lengthening the term of their funding beyond 30 days. Banks may also increase their holdings of liquid assets.

The key components of outflows and inflows are presented in Table 9. Group 1 banks show a notably larger percentage of total outflows, when compared to balance sheet liabilities, than Group 2 banks. This can be explained by the relatively greater contribution of wholesale funding activities and commitments within the Group 1 sample, whereas, for Group 2 banks, retail activities, which attract much lower stress factors, comprise a greater share of funding activities.

²⁰ In the chart banks' LCRs have been capped at 400%.

Table 9								
LCR outflows and inflows (post-factor) as a percentage of balance sheet liabilities*								
Category	Group 1 banks	Group 2 banks						
Outflows to								
Unsecured retail and small business customers	3.3%	3.1%						
Unsecured non-financial corporates	7.1%	3.3%						
Unsecured sovereign, central bank, public sector entities (PSEs) and other counterparties	2.2%	1.0%						
Unsecured financial institutions and other legal entities	9.9%	5.3%						
Other unsecured wholesale funding incl. unsecured debt issuance	4.1%	1.5%						
Secured funding and collateral swaps	4.6%	2.2%						
Collateral, securitisations and own debt	0.8%	0.4%						
Credit and liquidity facilities	4.4%	1.2%						
Other contractual and contingent cash outflows including derivative payables	2.3%	0.9%						
Total outflows**	38.6%	18.7%						
Inflows from								
Financial institutions	4.6%	3.4%						
Retail and small business customers, non-financial corporates and other entities	4.0%	2.3%						
Secured lending	3.5%	0.8%						
Other cash inflowes including derivative receivables	0.1%	0.1%						
Total inflows	12.3%	6.6%						
* As reported in the net stable funding ratio. ** May contain rounding differences.								

Cap on inflows

Two Group 1 and 21 Group 2 banks reported inflows that exceeded the cap. Of these, 7 fail to meet the LCR, so the cap is binding on them.

Composition of highly liquid assets

The composition of high quality liquid assets currently held at banks is depicted in Chart 6. The majority of Group 1 and Group 2 banks' holdings, in aggregate, are comprised of Level 1 assets; however the sample, on the whole, shows diversity in their holdings of eligible liquid assets. Within Level 1 assets, 0% risk-weighted securities issued or guaranteed by sovereigns, central banks and PSEs, and cash and central bank reserves comprise significant portions of the qualifying pool. Comparatively, within the Level 2 asset class, the majority of holdings is comprised of 20% risk-weighted securities issued or guaranteed by sovereigns, central banks or PSEs, and qualifying covered bonds.

Chart 6 Composition of holdings of all eligible liquid assets (all banks)



Cap on Level 2 assets

€53 billion of Level 2 liquid assets were excluded because reported Level 2 assets were in excess of the 40% cap. 40 banks currently reported assets excluded, of which 80.0% (20.4% of the total sample) had LCRs below 100%.

Chart 7 combines the above LCR components by comparing liquidity resources (buffer assets and inflows) to outflows. Note that the \in 900 billion difference between the amount of liquid assets and inflows and the amount of outflows and impact of the cap displayed in the chart is smaller than the \in 1.15 trillion gross shortfall noted above as it is assumed here that surpluses at one bank can offset shortfalls at other banks. In practice the aggregate shortfall in the industry is likely to lie somewhere between these two numbers depending on how efficiently banks redistribute liquidity around the system.

Chart 7



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

6.2 Net Stable Funding Ratio

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

156 Group 1 and Group 2 banks provided sufficient data in the mid-2011 Basel III implementation monitoring exercise to calculate the NSFR according to the Basel III liquidity framework. 37% of these banks already meet or exceed the minimum NSFR requirement, with 70% at an NSFR of 85% or higher.

The average NSFR for each of the Group 1 bank and Group 2 samples is 89% and 90%, respectively. Chart 8 shows the distribution of results for Group 1 and Group 2 banks; the thick red line indicates the 100% minimum requirement, the thin red horizontal lines indicate the median for the respective bank group.



The results show that banks in the sample had a shortfall of stable funding²¹ of \in 1.93 trillion at the end of June 2011, if banks were to make no changes whatsoever to their funding structure. This number is only reflective of the aggregate shortfall for banks that are below the 100% NSFR requirement and does not reflect any surplus stable funding at banks above the 100% requirement. Banks that are below the 100% required minimum have until 2018 to meet the standard and can take a number of measures to do so, including by lengthening the term of their funding or reducing maturity mismatch.

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

²¹ 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.