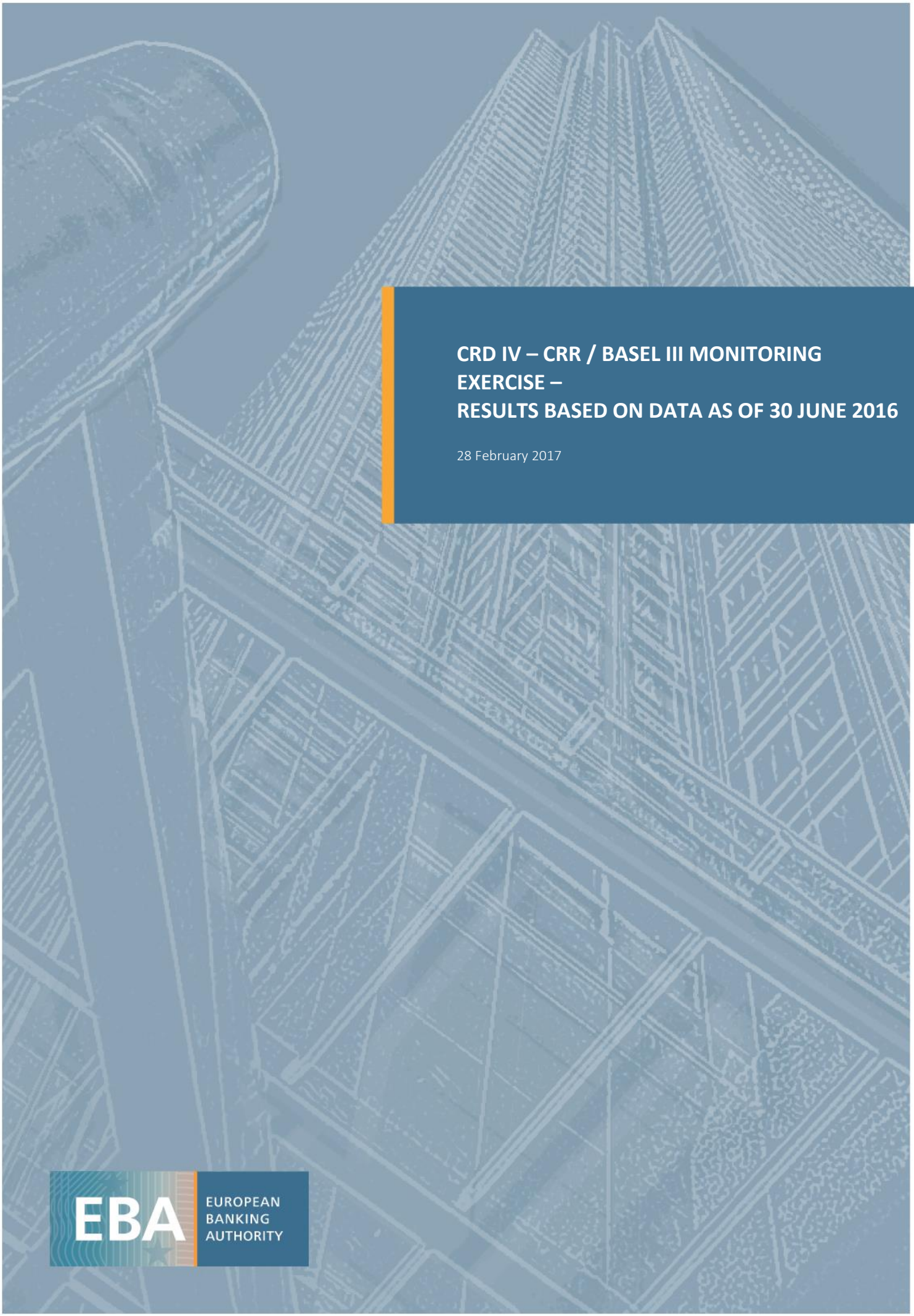

CRD IV – CRR / BASEL III MONITORING EXERCISE – RESULTS BASED ON DATA AS OF 30 JUNE 2016

28 February 2017

EBA EUROPEAN BANKING AUTHORITY

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Abbreviations

ASF	Available stable funding
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
bps	basis points
CEM	Current exposure method
CET1	Common Equity Tier 1
CCB	Capital conservation buffer
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
CVA	Credit value adjustment
EBA	European Banking Authority
EEA	European Economic Area
FSB	Financial Stability Board
G-SIIs	Global systemically important institutions
HQLA	High-quality liquid assets
LCR	Liquidity coverage ratio
LR	Leverage ratio
NSFR	Net stable funding ratio
O-SIIs	Other systemically important institutions
RSF	Required stable funding
RWA	Risk-weighted assets

Executive summary

Since its finalisation in December 2010,[1] the impact of the new global banking regulatory framework ('Basel III') has been monitored semi-annually by the Basel Committee on Banking Supervision (BCBS) at the global level and by the European Banking Authority (EBA) at the European level, using data provided by banks on a voluntary and confidential basis. The relevant set of regulatory requirements in the EU comprises the Capital Requirements Directive IV (CRD IV) and the Capital Requirements Regulation (CRR) (CRD IV–CRR), which apply as of 1 January 2014.[2] It is noteworthy that the current implementation of the CRD IV–CRR differs from the full implementation of the CRD IV–CRR due to a set of transitional arrangements.

The three parts of this report (on risk-based and non-risk-based capital ratios and the liquidity coverage ratio (LCR)) assess compliance with the current EU definitions,[3] while one part (on net stable funding ratio (NSFR)), in the absence of a finalised EU definition, monitors compliance with the current Basel III standards.

The report does not reflect any BCBS standards agreed since the beginning of 2016, such as the revisions to the market risk framework and the finalisation of the Basel III framework, which includes further revisions to the credit and operational risk framework. Results on the impact of these new standards will be separately provided on end-2015 data once the new standards have been finalised.

This report is the 11th publication of the monitoring exercise and summarises the results at the EU level using data as of 30 June 2016.[4] Included in this exercise are a sample of 164 banks, comprising 44 Group 1 banks and 120 Group 2 banks.[5] Among EU Member States, coverage of the

[1] BCBS, Basel III: A global framework for more resilient banks and banking systems, December 2010 and revised June 2011; BCBS, Basel III: International framework for liquidity risk measurement, standards and monitoring, December 2010.

[2] Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012; Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC.

[3] The EU definition of leverage ratio (LR; non-risk-based capital ratio) has not yet become an EU binding requirement. On 3 August 2016, the EBA published a report on the impact assessment and calibration of the LR recommending the introduction of a LR minimum requirement in the EU to mitigate the risk of excessive leverage (see https://www.eba.europa.eu/-/eba-recommends-introducing-the-leverage-ratio-in-the-eu for further details). The report informs the work of the European Commission on legislative proposals on LR (for the first proposal, see http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2016:0850:FIN).

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

[5] Group 1 banks are banks with Tier 1 capital in excess of EUR 3 billion and which are internationally active. All other banks are categorised as Group 2 banks. This report has classified Group 2 banks into sub-groups: large Group 2 banks

banking system was notably high for Group 1 banks, reaching 100% in many jurisdictions (aggregate coverage in terms of CRD IV–CRR risk-weighted assets (RWA) 94.1%), while for Group 2 banks it was lower, with more variation across jurisdictions (aggregate coverage 29.3%).

Further, for the second time, the analysis focuses on the joint sample of global systemically important institutions (G-SIIs) and other systemically important institutions (O-SIIs). The sample of O-SIIs contains banks from both Group 1 and Group 2 samples that have been characterised as O-SIIs by the national competent authorities (see footnote 13).

Table 1: Overall results assuming full implementation of CRD IV–CRR/Basel III as of 30 June 2016 (%)

	Capital ratios				Liquidity ratios	
	CET 1	**Tier 1**	**Total capital**	**LR**	**LCR**	**NSFR**
Group 1	12.7	13.4	16.3	4.6	127.7	106.3
Group 2	13.2	13.5	15.2	5.2	165.5	113.9
Large	12.5	12.8	14.6	5.2	166.9	111.7
Medium	14.9	15.1	16.6	5.7	176.5	117.2
Small	14.6	14.8	16.4	4.6	148.4	118.1
Total	**12.8**	**13.5**	**16.1**	**4.7**	**133.7**	**107.8**
G-SIIs/O-SIIs	12.6	13.4	16.1	4.6	130.4	107.0

Source: EBA QIS data (June 2016)

Capital requirements and shortfalls

Overall, assuming full implementation of the CRD IV–CRR (i.e. without taking into account transitional arrangements), the risk-based capital ratios for Group 1 and Group 2 banks are as follows: common equity Tier 1 (CET1) ratio, 12.7% and 13.2%, respectively; Tier 1 ratio, 13.4% and 13.5%, respectively; and total capital ratio, 16.3% and 15.2%, respectively (Table 1). The average LRs for the same sample of banks are 4.6% (Group 1) and 5.2% (Group 2). On average, European banks largely fulfil the future regulatory capital requirements, with only a very small number of banks exhibiting potential capital shortfalls. The shortfall amounts constitute only a very minor fraction of the amounts observed at the beginning of the monitoring period (mid-2011), and the difference between the current and full implementation capital ratios has been shrinking continuously, albeit recently this trend has been slowing down. The present monitoring exercise report takes into account the definition of LR as set out in the relevant EU Regulation (EU Delegated Act[6]) for the purpose of the capital analysis. Conceptually, the LR (non-risk-based ratio) has been developed to serve as a backstop against unduly low risk-adjusted capital levels and to prevent the excessive build-up of leverage, both over the financial cycle and across credit

have Tier 1 capital in excess of EUR 3 billion; medium-sized Group 2 banks have Tier 1 capital below or equal to EUR 3 billion but above EUR 1.5 billion; and small Group 2 banks have Tier 1 capital below or equal to EUR 1.5 billion.

[6] Commission Delegated Regulation (EU) 2015/62 of 10 October 2014 amending Regulation (EU) No 575/2013 of the European Parliament and of the Council with regard to the leverage ratio (http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2015.011.01.0037.01.ENG).

institutions. The analysis contained in this report indicates that the LR is indeed constraining for a significant proportion of institutions in the sample.

Liquidity requirements and shortfalls

The monitoring exercise presents, for the third time, the results of the LCR analysis in accordance with the European Commission Delegated Regulation (EU) No 2015/61 (the LCR Delegated Act – LCR DA), which specifies the general requirement set out in Article 412(1) of the CRR.[7] As defined in Article 38 of the LCR DA, and in accordance with Article 460(2) of the CRR, the minimum requirement was set at 60% from 1 October 2015 and will be gradually increased, reaching 100% in January 2018 (i.e. EU regulation requires a minimum of 100% one year before the Basel standard comes into force). It is anticipated that the NSFR will be introduced on 1 January 2018, with a minimum requirement of 100%. Since the NSFR has not yet been finalised at the EU level, the calculations in this report are based on the revised Basel III NSFR framework, published in October 2014.[8]

With regard to the LCR, the average ratio for data as of the end of June 2016 is 127.7% and 165.5% for Group 1 and Group 2 banks, respectively. In the total sample, 95.4% of the banks show an LCR above 100%, while 98.5% of the banks have an LCR above the 70% minimum requirement of January 2016. The overall shortfall in relation to the 100% threshold is EUR 2.5 billion. There has been an increase in banks' LCR over time, which can be attributed to structural adjustments (both an increase in high-quality liquid assets (HQLA) and a decrease in net outflows), as well as to the recalibration of the LCR framework as published in January 2013. The change in the previous periods is also driven by the first application of the LCR DA, whereas the Basel III LCR framework has been used for reference dates prior to that — that is, until December 2014. With respect to the NSFR, Group 1 and Group 2 banks show an average ratio of 106.3% and 113.9% respectively, with an overall shortfall in stable funding of EUR 158.7 billion. The majority (80.6%) of participating banks already meet the minimum NSFR requirement of 100%.[9] Since June 2011, the NSRF has been constantly increasing, being above the 100% minimum requirement since June 2012. This rise has been less pronounced in recent periods.

[7] http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L:2015:011:TOC.

[8] http://www.bis.org/bcbs/publ/d295.pdf.

[9] Please note that, throughout the report, the NSFR analysis refers to the Basel III standard.

1. General remarks

1.1 Sample of participating banks

Table 2: Number of banks included in this monitoring exercise[10]

	Group 1	Group 2	Of which:			Total	G-SIIs/ O-SIIs
			Large	Medium	Small		
Austria	2	7	1	2	4	9	5
Belgium	2	9	–	2	7	11	6
Denmark	1	2	1	–	1	3	3
France	5	2	1	–	1	7	6
Germany	7	32	5	5	22	39	9
Greece	4	–	–	–	–	4	4
Hungary	1	1	–	–	1	2	2
Ireland	3	5	–	3	2	8	2
Italy	2	21	6	8	7	23	3
Luxembourg	–	3	–	1	2	3	2
Malta	–	3	–	–	3	3	2
Netherlands	3	9	2	2	5	12	5
Norway	1	1	–	1	–	2	1
Poland	–	5	1	–	4	5	–
Portugal	2	3	–	1	2	5	4
Spain	2	9	7	2	–	11	6
Sweden	4	3	–	2	1	7	4
United Kingdom	5	5	1	3	1	10	6
Total	**44**	**120**	**25**	**32**	**63**	**164**	**70**

Source: EBA QIS data (June 2016)

Table 2 shows the participation by jurisdiction and bank group. This report includes an analysis of data submitted by 164 banks in 17 EU Member States and in one country (Norway) from the European Economic Area (EEA). This sample consists of 44 Group 1 banks from 15 countries and 120 Group 2 banks from 17 countries.[11] Group 1 banks in this report are defined as banks with Tier 1 capital in excess of EUR 3 billion that are internationally active. All other banks are classified as Group 2. Coverage of the banking sector is high, reaching 100% of Group 1 banks in many countries (aggregate coverage in terms of CRD IV– CRR RWA 94.1%). Coverage of Group 2 banks is lower and varies across countries (aggregate coverage 29.3%).

For the purposes of a more differentiated analysis, the joint sample of G-SIIs[12] and O-SIIs has been analysed separately from the total sample. To analyse the driving forces behind aggregate

[10] The number of banks which participate in each report section may differ.

[11] In one Member State (Greece) all participating banks are classified as Group 1 based on their size and activity.

[12] See also BCBS, Global systemically important banks — updated assessment methodology and the higher loss absorbency requirement (2013); EBA, Final draft RTS on the methodology for the identification of global systemically

Group 2 results in more detail, in this report Group 2 banks are classified into three sub-groups: large Group 2 banks have Tier 1 capital in excess of EUR 3 billion; medium-sized Group 2 banks have Tier 1 capital below or equal to EUR 3 billion but above EUR 1.5 billion; and small Group 2 banks have Tier 1 capital below or equal to EUR 1.5 billion. In total, 25 large, 32 medium-sized and 63 small Group 2 banks are included in the current analysis. Pursuant to Article 131(3) of the CRD IV, the identification of O-SIIs started in 2015. Authorities can set higher loss absorbency requirements for those institutions, in addition to the obligatory CET1 capital buffer of up to 2%. The additional measures for O-SIIs aim to reduce market distortions triggered by their possible negative externalities. For the analysis as of June 2016,[13] 70 banks are jointly recognised to be monitored as O-SIIs and G-SIIs.[14]

Not all banks provided data for all parts of the reporting template of this monitoring exercise. Accordingly, a certain number of banks are excluded from some sections of this monitoring analysis because the data they provided were incomplete. In each section, comparisons with previous periods are based on a consistent sample of banks, that is, the analyses include only those banks that have consistently reported the required data for all reference dates. This allows comparisons between one reference date and another and time series analyses within each section. Similarly, the analyses relating to the interactions between, and combined effects of, various regulatory ratios have been based on consistent samples of banks.

1.2 Methodology

'Composite bank' weighting scheme

Average amounts in this analysis have been calculated by creating a composite bank at the relevant sample level—i.e. the relevant sample averages are implicitly weighted. For example, the average CET1 capital ratio is the sum of the CET1 capital of all banks included in the relevant sample divided by the sum of the RWA of all banks included in the relevant sample. Similarly, the average Tier 1 LR is the sum of the Tier 1 capital of all banks included in the relevant sample divided by the sum of the LR exposure measure of all banks included in the relevant sample. By using this weighting scheme, the results of this analysis can implicitly be considered more representative of the European banking sector as a whole than unweighted averages.

important institutions (2014); and FSB, 2015 update of list of G-SIBs (November 2015); the term 'G-SIB' in Bank for International Settlements (BIS) and Financial Stability Board (FSB) documentation corresponds to 'G-SII' in EBA documentation.

[13] The O-SII buffer refers to the first list of O-SIIs references as of April 2016 (http://www.eba.europa.eu/-/eba-discloses-first-list-of-o-siis-in-the--1).

[14] The sub-category of O-SIIs also includes banks that have been nominated as G-SIIs.

Box plots illustrating the distribution of results

To present more detailed results while at the same time ensuring data confidentiality, some charts show box plots that give an indication of the distribution of the results among the participating banks. The features of the box plots are defined as follows:

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

1.3 Interpretation of results

This quantitative impact study aims to monitor the convergence of the EU banks with the regulatory requirements under the assumption of full implementation of CRD IV–CRR/Basel III.

The full implementation of the CRD IV–CRR package does not consider the transitional arrangements relating to the phase-in of deductions and to the grandfathering of capital instruments.[15] This implies that the CRD IV–CRR 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 a result, these amounts underestimate the amount of regulatory capital held by banks as they do not recognise the gradual phase-in of common equity deductions and the non-qualifying instruments that are actually phased out over multiple-year time horizons.

For the calculation of results referred to as 'current rules', the report uses figures based on the current CRD IV–CRR framework, that is, on the current state of implementation, being mindful of the fact that this framework is changing over time. This means that, for the current reference date (June 2016), the figures under the current rules refer to the state of implementation of the CRD IV–CRR framework as of June 2016. Therefore, the difference between the fully phased-in results and the results under the current rules in the risk-sensitive capital ratio and RWA analysis is solely due to the remaining transitional arrangements from June 2016 until the full implementation date.

[15] For details on the transitional arrangements, see in particular Part Ten of the CRR and, in addition, paragraphs 94 and 95 of the Basel III framework (*Basel III — A global regulatory framework for more resilient banks and banking systems*).

The treatment of deductions and non-qualifying capital instruments under the assumption of full implementation of the CRD IV–CRR similarly affects the figures reported in the LR analysis. The potential underestimation of Tier 1 capital is becoming less of an issue as the implementation date for the LR approaches. In other words, in 2016, the capital amounts, based on the CRD IV–CRR capital requirements in place on the reference date, include the amount of non-qualifying capital instruments at that point in time.

It is important to note that this monitoring exercise is based on the assumption of a static balance sheet. Planned, but not implemented, bank measures to increase capital or decrease RWA are not taken into account. This allows the identification of effective changes in banks' capital rather than relying on anticipated changes based on underlying behavioural and modelling assumptions. As a consequence, these monitoring results are different from industry estimates, as the latter usually include assumptions on banks' future profitability, planned capital and/or management actions to mitigate the impact of the CRD IV–CRR framework.

1.4 Data quality

The banks included in this monitoring exercise submitted comprehensive and detailed non-public, confidential data on a best-effort voluntary basis. Supervisors have been working closely with banks to ensure that the data are high quality, complete and consistent with the reporting instructions. For each of the analyses below, banks are included in the sample only if they provided data of sufficient quality to conduct the analysis in question.

For the risk-based capital ratio and RWA analyses, data from supervisory reporting systems have been used wherever possible to reduce recourse to banks. Data quality has improved significantly since the beginning of the monitoring exercise.

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

2.1 Capital ratios

One of the main objectives of the CRD IV–CRR/Basel III framework is to increase the resilience of the banking sector by strengthening both the quantity and quality of regulatory capital. For this purpose, the framework sets higher quantitative minimum requirements and stricter rules for the definition of capital and for the calculation of RWA. The regulatory capital requirements consist of risk-based (capital ratios in relation to RWA) and non-risk-based (LR) measures.

The risk-based ratios refer to the capital definitions of CET1, Tier 1 and total capital, decreasing in their degree of loss absorbency in relation to RWA. At the date of full implementation, the CRD IV–CRR/Basel III standard requires a regulatory CET1 ratio of 7% (minimum plus 2.5% conservation buffer), a Tier 1 ratio of 8.5% (including the CET1 conservation buffer) and a total capital ratio of 10.5% (including the CET1 conservation buffer). Figures related to capital shortfalls also reflect the bank-specific CET1 G-SII/O-SII buffer. For time series analysis, the evolution of the capital shortfall is calculated by using the most recent G-SII/O-SII surcharges throughout the whole time series. For G-SIIs, the maximum between the G-SII buffer and the O-SII buffer is taken into account. Additional capital requirements depending on macroprudential considerations (systemic risk and countercyclical buffers), or based on supervisory judgement (Pillar II add-ons), are not included in the analysis below.

The non-risk-based capital requirement — the LR — is defined in terms of Tier 1 capital in relation to a comprehensive (on- and off-balance-sheet) exposure measure. The CRD IV–CRR/Basel III standard is preliminarily set at the 3% minimum requirement. This monitoring exercise considers the LR as defined in EU legislation for the purpose of capital analysis.

As this exercise envisages full implementation of CRD IV–CRR (without accounting for any transitional arrangements), in most parts it compares banks' actual capital ratios with the capital ratios that banks would have exhibited had the set of rules of the CRD IV package been fully implemented at the reference date. The results under 'current rules' are based on the state of regulatory implementation at the reference date. In this context, it is important to elaborate on the implications of full implementation of the CRD IV package for the monitoring results. These amounts may underestimate the amount of capital actually held by banks, as they do not take into account any non-qualifying instruments that will be phased out or any deductions to common equity that will be phased in during the transitional period.

Table 3 shows the difference between banks' risk-based capital ratios and LRs, calculated according to the current rules, as of 30 June 2016, and the levels that would result if the CRD IV–CRR requirements were already fully implemented.

For Group 1 banks, full implementation would result in a reduction in the CET1 ratio from 13.3% under the current rules (i.e. taking into account the transitional arrangements applying in 2016) to 12.7%, while the average Tier 1 and total capital ratios would decline under the full implementation regime from 14.5% to 13.4% and from 17.3% to 16.3%, respectively. Regarding the LR, assuming that the implementation is as defined in EU legislation at reference date, the average LR of Group 1 banks stands at 4.9%. Under full implementation of the CRD IV–CRR, the LR would decrease to 4.6%. Overall, the difference between the capital ratios of Group 1 banks under the current state and under full implementation lies between 60 basis points (bps) and 100 bps for the risk-sensitive measures, and is around 30 bps according to the LR.

Under full implementation of the risk-sensitive capital requirements for banks, the CET1 ratio of Group 2 banks would, on average, drop from 13.7% to 13.2%, while the Tier 1 ratio would fall from 14.0% to 13.5% and the total capital ratio from 15.8% to 15.2%. The LR of Group 2 banks would drop from the current 5.4% to 5.2% under full implementation. The greatest difference in risk-based and LR capital requirements between the current state and full implementation is exhibited by large Group 2 banks.

Comparing Group 1 and Group 2 banks, the distance from current to full implementation regulatory capital requirements and LR appears smaller for Group 2 banks, which show higher capitalisation in terms of CET1 and LR.

The joint G-SIIs/O-SIIs[16] sample shows very similar results for capital requirements (in relation to RWA and LR) to the Group 1 banks sample, with slightly lower capitalisation under the risk-based requirements.

Figure 1 presents basic descriptive statistics[17] on risk-based capital ratios and the LR (non-risk-based) for Group 1 and Group 2 banks. It shows that the large majority (approximated by the 95th percentile) of banks — in both Group 1 and Group 2 — have capital ratios above the current regulatory minimum requirements with respect to risk-based measures. This result holds true even when the CCB is included. The median and average values of current CET1 and Tier 1 ratios, as well as the LR, are generally, albeit slightly, higher for Group 2 than for Group 1 banks. The results indicate a wider dispersion of extreme capital ratios (approximated by the 5th and 95th percentiles) for Group 2 banks compared to Group 1 banks' capital ratios. An implication of the wider dispersion is that capital ratios in Group 2 banks are less concentrated around the mean and median values of the distribution (less concentration in the interquartile range).

[16] Note that, in this context, G-SIIs/O-SIIs are subject to additional capital requirements based on their systemic importance.

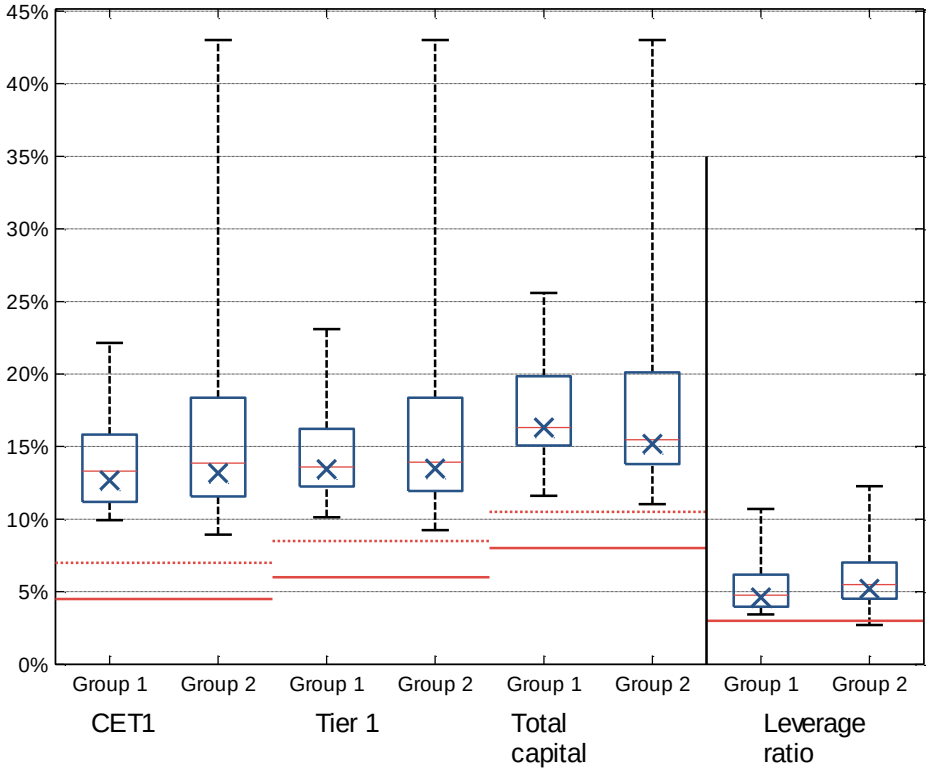
[17] For the methodology underlying the development of these box plots, refer to section 1.2 of this report.

Table 3: Comparison of risk-based capital ratios and LR under alternative states of implementation (%)

	Number of banks	CET1 ratio		Tier 1 ratio		LR		Total capital ratio	
		Current	Full	Current	Full	Current	Full	Current	Full
Group 1	38	13.3	12.7	14.5	13.4	4.9	4.6	17.3	16.3
Group 2	90	13.7	13.2	14.0	13.5	5.4	5.2	15.8	15.2
Large	22	13.2	12.5	13.4	12.8	5.4	5.2	15.2	14.6
Medium	23	15.0	14.9	15.5	15.1	5.8	5.7	17.3	16.6
Small	45	14.9	14.6	15.1	14.8	4.7	4.6	17.0	16.4
Total	**128**	**13.4**	**12.8**	**14.4**	**13.5**	**5.0**	**4.7**	**17.0**	**16.1**
G-SIIs/ O-SIIs	56	13.3	12.6	14.4	13.4	4.9	4.6	17.1	16.1

Source: EBA QIS data (June 2016)

Figure 1: Distribution of CET1 ratio, Tier 1 ratio and total capital ratio by bank group, full implementation



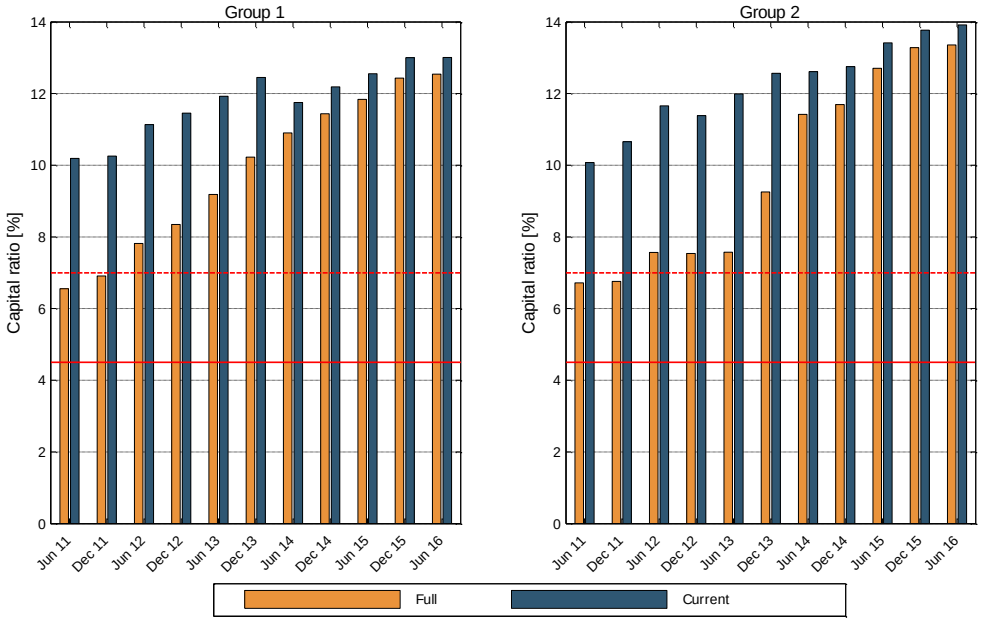
Source: EBA QIS data (June 2016)

Figure 2 shows the trend in the current and full implementation CET1 ratio for the period from June 2011 to June 2016 for the consistent sample, in other words the banks that have consistently submitted data for all reference dates. The CET1 ratio, according to the then applicable level of implementation for Group 1 banks, increased from just over 10% to 12.5% during the period from mid-2011 to end-2013. After a temporary decrease to 11.7% in June 2014, in June 2016 it exceeded its previous level and reached 13.0%. The reduction observed in June 2014 can be explained by the introduction of the CRD IV–CRR in January 2014, which is reflected for the first

time in the monitoring exercise for reporting date June 2014. Nevertheless, the CET1 ratio for Group 1 banks under full implementation of the CRD IV–CRR package increased constantly over the observation period, with an overall CET1 increase since June 2011 of around 600 bps and a slower growth rate in recent periods.

Similarly, for Group 2 banks, the average CET1 capital ratios, in accordance with fully implemented European regulatory requirements, have increased steadily since June 2011 (by around 660 bps). In June 2016, the full implementation CET1 capital ratio of Group 2 banks was at 13.4%, while the corresponding ratio under current rules was 13.9%. As expected, the difference between the CET1 ratio under the current rules and that under full implementation decreased markedly over the observation period for both groups of banks.

Figure 2: Evolution of CET1 ratios over time



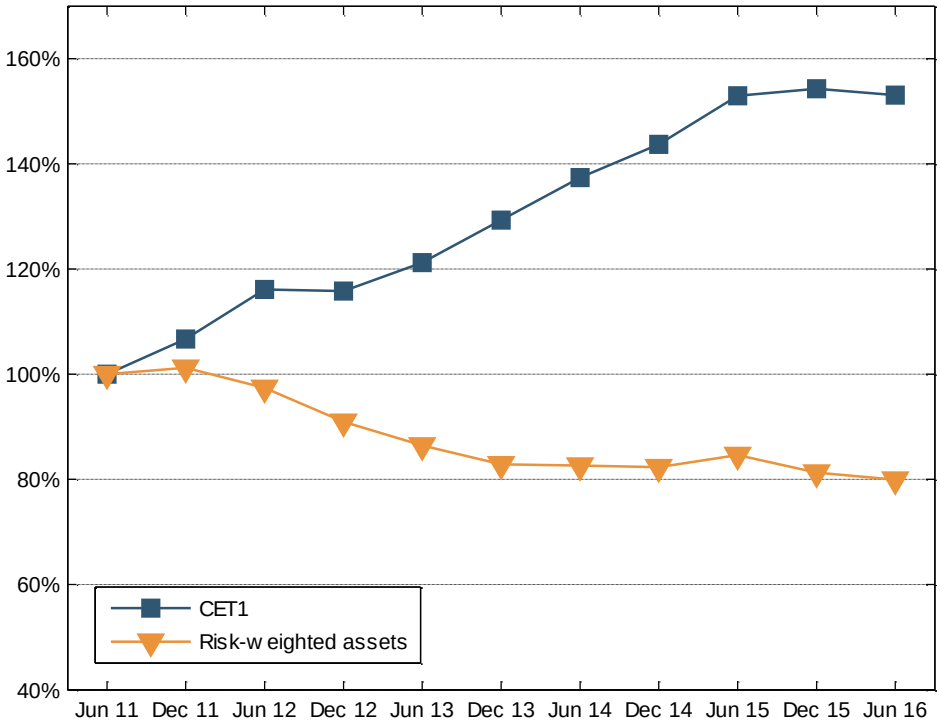
Source: EBA QIS data (June 2016)

The historical upward trend in the CET1 ratio under full implementation of the CRD IV–CRR for Group 1 banks is mainly explained by the increase in CET1 capital (by around 55%) and to a lesser extent by the decrease in RWA (by around 20%, as shown in Figure 3). This trend has been observed relatively continuously since June 2011; however, both CET1 and RWA show signs of stabilisation at the last two reference dates.

The increase in full implementation CET1 capital over the observation period indicates that banks are already trying to meet market expectations well in advance of the legislative date for the full implementation of the CRD IV–CRR/Basel III framework.[18]

[18] The trend of improving capital positions of European banks is consistent with the findings of the EBA's reports on transparency and risks and vulnerabilities of the European banking sector (EBA, *2015 EU-wide transparency exercise* (November 2015) and EBA, *Risk Assessment of the European banking system* (December 2015)).

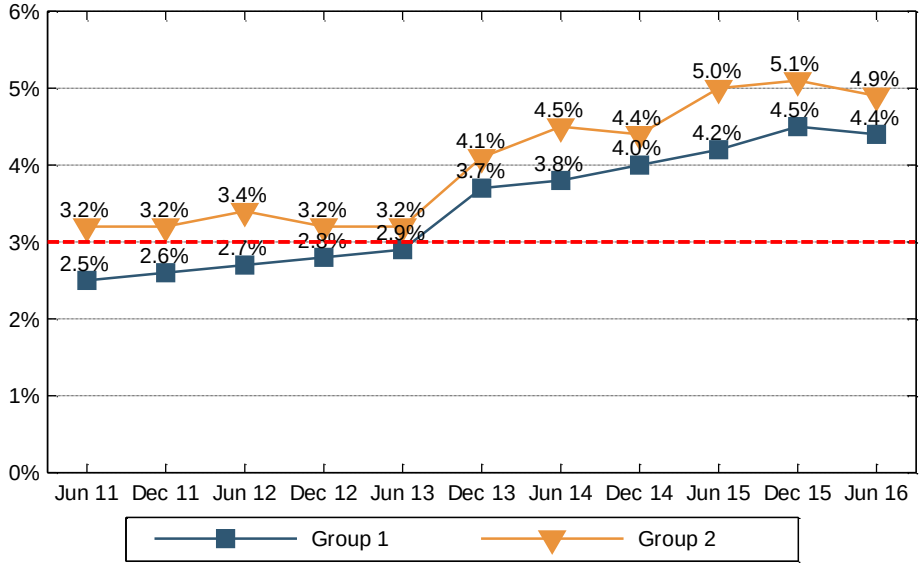
Figure 3: Evolution of CET1 capital versus RWA over time (for Group 1 banks)



Source: EBA QIS data (June 2016)

The increase in the level of capital is also generally reflected in the LR. Taking a consistent sample of banks, between June 2013 and December 2013 there was a significant increase in banks' LRs (see Figure 4), which can be partly attributed to the recalibration of the LR exposure in January 2014, with the first application being as of reporting date December 2013. However, it should be noted that the data reflect the calculation methodology at each reference date. The increase also continued for the period from December 2013 to December 2015 for both groups of banks. Overall, until mid-2013, Group 1 and Group 2 banks, on average, showed LRs very close to the target ratio (3%), and since then have increased their capital beyond the minimum requirement. In contrast to the previous trends, the last reporting period between December 2015 and June 2016 shows a slight decline in the LR for both groups. Over the observation period, Group 2 banks have exhibited consistently higher average LRs than Group 1 banks.

Figure 4: Evolution of LR by bank group over time (%)



Source: EBA QIS data (June 2016)

2.2 Capital shortfall

Table 4 provides estimates of the additional amount of capital that Group 1 and Group 2 banks would need in order to meet the target risk-sensitive capital ratios (including G-SII/O-SII buffer) and the LR under the CRD IV package. These estimates assume fully phased-in target requirements and deductions. In this analysis, the capital shortfall is calculated as the difference between capital requirements and eligible capital held at the bank level, and represents the capital needs assuming that capital requirements had to be met to achieve successively higher-quality capital layers.[19]

For Group 1 banks, the CET1 capital shortfall is zero when compared with the minimum requirement of 4.5% (not shown in the table) and with the target level of 7%,[20] that is, the minimum requirement plus the CCB. The total shortfall of Tier 1 capital to meet both the risk-based capital ratio and the LR is EUR 0.2 billion for Group 1 banks. The total capital shortfall necessary to fulfil the risk-based requirements (7% CET1, 8.5% Tier 1 and 10.5% total capital) and the LR requirement (3% Tier 1 capital) is EUR 1.5 billion. For Group 1 banks, shortfalls arise solely from the risk-based capital requirements rather than from the requirements based on the LR.

Group 2 banks have no CET1 shortfall at the 7% level. They would need an additional EUR 3.2 billion to meet the target Tier 1 capital requirements (risk-based and based on LR), and an additional EUR 3.6 billion to comply with total capital requirements under full implementation.

[19] Note that the total Tier 1 capital shortfall for a bank represents the maximum of the Tier 1 capital shortfall for risk-based Tier 1 capital ratio and the Tier 1 shortfall for the LR.

[20] The calculation method applied in this report may overstate the actual shortfall for those banks affected by the 10% and 15% threshold deductions because the decline in deductions due to higher thresholds is not taken into account.

The capital shortfall in the Group 2 sample can be mainly attributed to LR capital requirements of small and medium-sized banks. The joint G-SIIs/O-SIIs sample exhibits zero capital shortfalls at the 7% CET1 level — as do Group 1 banks. G-SIIs/O-SIIs require EUR 0.6 billion to meet the Tier 1 (risk-based and LR) requirements and EUR 2.2 billion to comply with total capital requirements under full implementation.

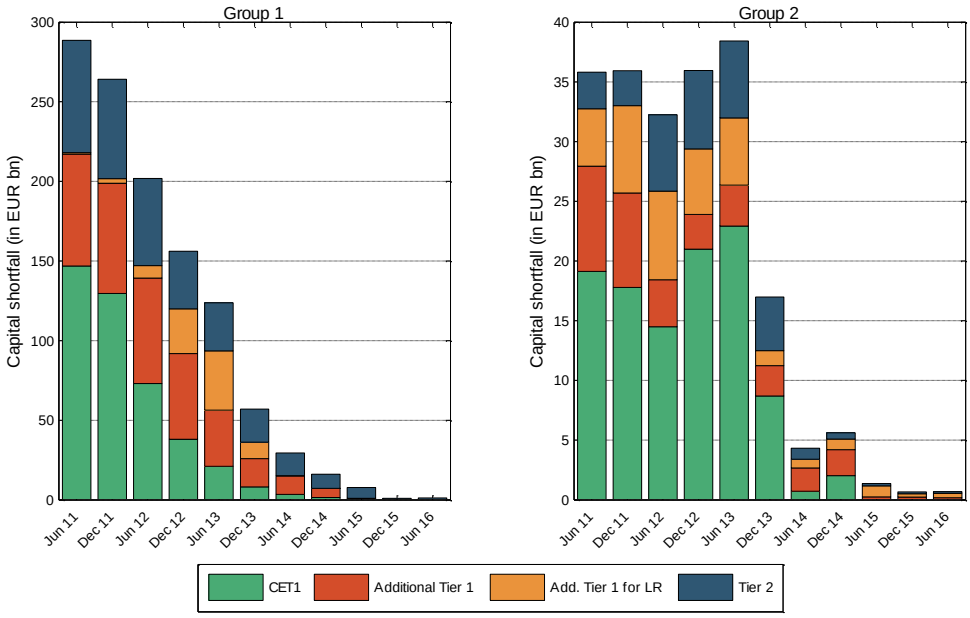
Table 4: Capital shortfall by bank group, full implementation, including capital conservations buffer and G-SII/O-SII buffer where applicable (EUR billion)

	Number of banks	CET1	Tier 1			Total capital	
			Risk-based ratio	LR	To meet both	To meet all risk-based ratios	To meet all risk-based ratios and LR
Group 1	**38**	**0.0**	**0.2**	**0.0**	**0.2**	**1.5**	**1.5**
Group 2	**90**	**0.0**	**0.2**	**3.0**	**3.2**	**0.6**	**3.6**
Large	22	0.0	0.0	0.4	0.4	0.0	0.4
Medium	23	0.0	0.2	0.9	1.1	0.4	1.3
Small	45	0.0	0.1	1.7	1.7	0.2	1.9
Total	**128**	**0.0**	**0.4**	**3.0**	**3.4**	**2.1**	**5.1**
G-SIIs/O-SIIs	56	0.0	0.3	0.4	0.6	1.8	2.2

Source: EBA QIS data (June 2016)

The significant reduction in capital shortfalls over time (due to full implementation) can be analysed in more detail, as shown in Figure 5. At the beginning of the observation period (June 2011), banks (Group 1 and Group 2) lacked more than EUR 300 billion of total capital (half of which was CET1); by June 2016 the total shortfall was only a very minor fraction of this amount (EUR 1.6 billion).

Figure 5: Evolution of capital shortfall by type of capital under full implementation over time



Source: EBA QIS data (June 2016)

Table 5 presents a particular aspect of the interaction between the LR and the risk-based Tier 1 capital ratio requirements.[21] More concretely, it analyses which of the capital ratios — risk-based or LR (non-risk-based) — represents the stricter (constraint) requirement for banks. Regardless if a bank is non-compliant or bound by the capital requirements, the LR, rather than the risk-based Tier 1 capital ratio, is said to be a constraint if the bank needs more Tier 1 capital to meet the LR requirement than to meet the risk-based Tier 1 capital requirement. Mathematically, LR is deemed to be a constraint when the minimum required LR Tier 1 capital, that is, 3% of the LR exposure measure, exceeds the minimum required Tier 1 capital, that is 6% or 8.5% (when CCB is included) of the bank's RWA.

In June 2016, all Group 1 banks were compliant with the 3% minimum Tier 1 LR requirement, and only six Group 2 banks were non-compliant — four of which are small institutions. The LR capital shortfall is limited to EUR 3.0 billion, which consists solely of Group 2 banks' contribution.
The constraining power of the risk-based Tier 1 capital requirements increases if CCB and G-SII/O-SII buffers (8.5% plus G-SII/O-SII buffer) are included in the calculation. Thus, capital shortfall due to the unchanged LR requirement decreases. However, even under the more conservative scenario of the risk-based Tier 1 requirements, 28.9% of Group 1 banks and 40.0% of Group 2 banks are constrained by the LR.

Table 5: Degree of constraining power of risk-based versus LR Tier 1 capital requirements on banks

	Tier 1 risk-based minimum requirement				Tier 1 risk-based minimum requirement plus CCB and G-SII/O-SII buffer where applicable		
	Number of LR non-compliant banks	Proportion of banks constrained by LR (%)	Proportion of LR non-compliant banks meeting risk-based ratio (%)	LR capital shortfall (EUR billion)	Proportion of banks constrained by LR (%)	Proportion of LR non-compliant banks meeting risk-based ratio (%)	LR capital shortfall (EUR billion)
Group 1	**0**	**76.3**	**0.0**	**0.0**	**28.9**	**0.0**	**0.0**
Group 2	**6**	**65.6**	**6.7**	**3.0**	**40.0**	**6.7**	**2.9**
Large	1	72.7	4.5	0.4	40.9	4.5	0.4
Medium	1	56.5	4.3	0.9	39.1	4.3	0.9
Small	4	66.7	8.9	1.7	40.0	8.9	1.7
Total	**6**	**68.8**	**4.7**	**3.0**	**36.7**	**4.7**	**2.9**
G-SIIs/ O-SIIs	1	76.8	1.8	0.4	35.7	1.8	0.4

Source: EBA QIS data (June 2016)

Note: LR capital shortfall assuming that banks had already raised enough capital to fulfil the risk-based ratios.

2.3 Impact of phase-in arrangements

At the current implementation stage of CRD IV–CRR, banks are still subject to transitional arrangements (phase-in of deductions and capital buffers and phase-out of capital elements). It is

[21] Please note that a common sample of banks that participated in the risk-based and LR parts of this exercise has been used to carry out the interaction analysis shown in Table 5.

therefore reasonable to expect a decrease in the level of capital for both Group 1 and Group 2 banks under full implementation, mainly due to the reduction of eligible capital elements.

The aggregate CET1 capital of Group 1 banks shows a decrease of 3.7%, while Tier 1 and total capital decrease by 7.3% and 7.6% respectively (Table 6). For Group 2 banks, the relative percentage change in CET1, Tier 1 and total capital is 3.3%, 3.3% and 3.9% respectively. These figures suggest that Group 1 banks are more constrained regarding capital than Group 2 banks, which exhibit a considerably lower decrease in CET1, Tier 1 and total capital.

Table 6: Relative percentage change in capital by type and RWA (%)

	Number of banks	CET1	Tier 1	Total capital	RWA
Group 1	**44**	**–3.7**	**–7.3**	**–7.6**	**–0.0**
Group 2	**112**	**–3.3**	**–3.3**	**–3.9**	**0.2**
Large	25	–4.1	–3.6	–3.8	0.4
Medium	31	–1.3	–2.9	–4.1	0.0
Small	56	–2.3	–2.5	–3.7	–0.0
Total	**156**	**–3.6**	**–6.6**	**–7.0**	**0.0**
G-SIIs/O-SIIs	66	–3.7	–6.9	–7.2	0.0

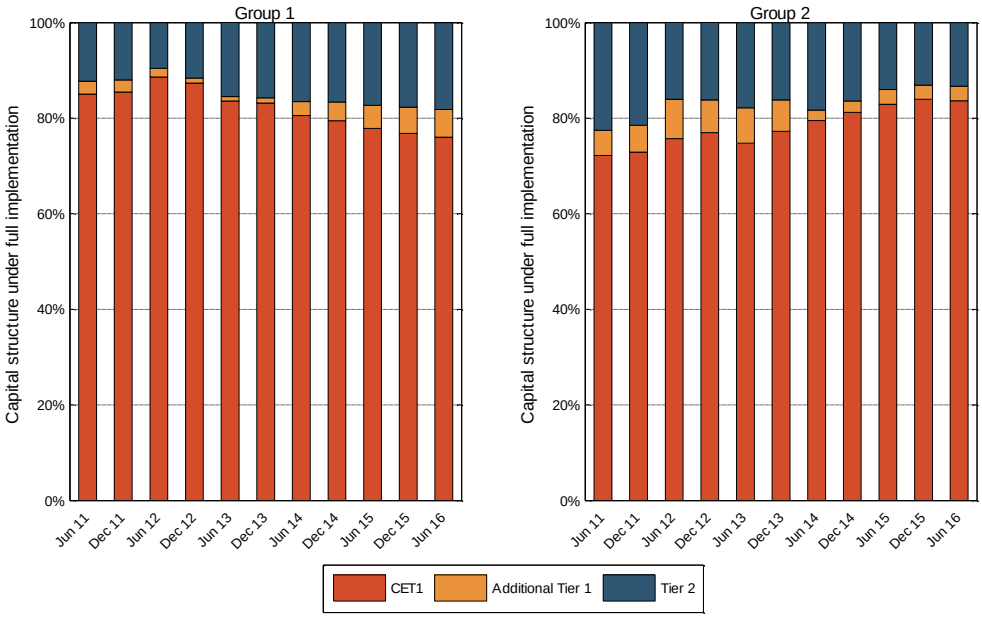
Source: EBA QIS data (June 2016)

Note: Several banks submitted data on capital and RWA, but did not report data on the EU LR exposure measure. As Table 6 refers only to data on capital and RWA, the number of banks included is higher than in other tables in this chapter.

2.4 Composition of capital

Figure 6 shows the composition of total capital for Group 1 and Group 2 banks under the assumption of full implementation. Time series analysis based on a consistent sample shows that among Group 1 banks CET1 capital as a proportion of all capital has been, on average, decreasing since June 2012. In contrast, among Group 2 banks, the proportion of total capital accounted for by CET1 capital has been increasing on average since June 2011. In the case of Group 1 banks, this is due to greater accumulation of additional Tier 1 capital (which has more than doubled since June 2011) and Tier 2 capital than of CET1 capital. As of June 2016, Group 1 banks' figures indicate that fully implemented CET1 capital accounts for 76.8% of total capital while additional Tier 1 and Tier 2 capital amounts to 5.5% and 17.7% of total capital, respectively. Among Group 2 banks, CET1 capital accounts for an even higher proportion of total capital than in Group 1 banks (under the assumption of full implementation of CRD IV–CRR), being 86.0% as of June 2016. Additional Tier 1 capital and Tier 2 capital account for correspondingly lower proportions (2.6% and 11.4%, respectively).

Figure 6: Evolution of capital structure over time



Source: EBA QIS data (June 2016)

2.5 Composition of RWA

Having analysed the different types of regulatory capital, that is, the numerator of capital ratios, this sub-section deals with the RWA — the denominator of risk-sensitive capital ratios.

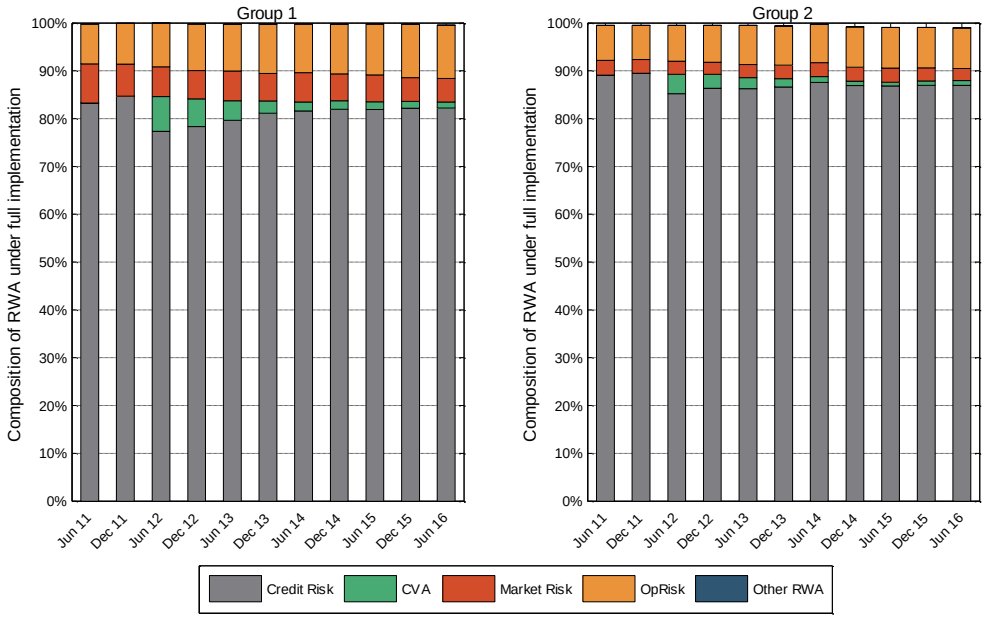
Figure 7 shows that under the fully phased-in CRD IV package credit risk is the major component of RWA for both Group 1 and Group 2 banks. Credit risk accounts for 82.6% of RWA for Group 1 banks and 87.0% for Group 2 banks. After a drop in June 2012, credit risk as a proportion of RWA increased again, almost reaching the previous levels for both groups of banks.

Operational risk accounts for the second highest proportion of RWA for both groups of banks (10.9% and 8.3% for Group 1 and Group 2 banks, respectively). The proportion of RWA attributable to the market risk category is roughly twice as high for Group 1 banks as for Group 2 banks. The decline over time in the proportion of RWA attributable to credit value adjustment (CVA) suggests that the new regulatory framework has had a direct impact on bank behaviour.

Figure 7 also indicates that the introduction of the CVA capital charge resulted in portfolio adjustments and the cutting down of CVA positions, which contributed to the reduction in total RWA.[22]

[22] The orders of magnitude of different risk categories observed in this monitoring exercise are very consistent with the results of previous transparency exercises and supervisory disclosures for the European banking sector. See also the EBA's aggregate statistics on the European banking sector (http://www.eba.europa.eu/supervisory-convergence/supervisory-disclosure/aggregate-statistical-data).

Figure 7: Evolution of the composition of RWA by risk category over time



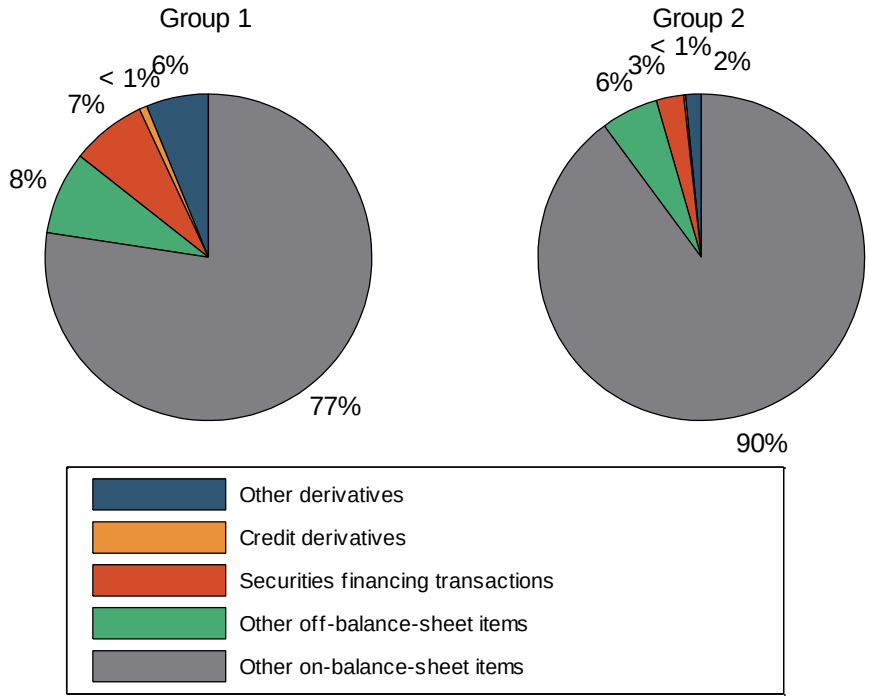
Source: EBA QIS data (June 2016)

2.6 Composition of the LR exposure measure

This sub-section looks at the definition of exposure measure that is used as the denominator of the LR. Figure 8 shows the composition of the LR exposure measure by asset category. For both groups of banks, 'other on-balance-sheet items' are the main component of exposures. For Group 2, whose exposures are characterised by a more traditional bank business model, the 'other on-balance-sheet items' represent 90% of the LR exposure measure, while for Group 1 banks exposures relating to derivatives, securities financing transactions and off-balance-sheet items account for around one quarter of the total exposure. Note that the calculation of derivatives exposure is currently under review by the BCBS. According to footnote 5 of the Basel III LR framework, alternative approaches to the current exposure method (CEM) are taken into account. The standardised approach for measuring counterparty credit risk, which in January 2017 replaced the CEM in the risk-based framework at international level, is under review for the purpose of the LR and is expected to have more impact on Group 1 than on Group 2 banks. In addition, the EBA assessed whether a minimum Tier 1 LR of 3% is appropriate for different types of business models over a full credit cycle.[23]

[23] On 3 August 2016, the EBA published a report on the impact assessment and calibration of the LR, recommending that a requirement for a minimum LR be introduced in the EU to mitigate the risk of excessive leverage (for further details, see https://www.eba.europa.eu/-/eba-recommends-introducing-the-leverage-ratio-in-the-eu).

Figure 8: Composition of the LR exposure measure by asset category (%)



Source: EBA QIS data (June 2016)

The development and implementation of a LR is not intended to reduce any of the positive prudential effects of the risk-based capital requirements.[24] Therefore, the interaction between the LR and risk-based capital ratios is being monitored.

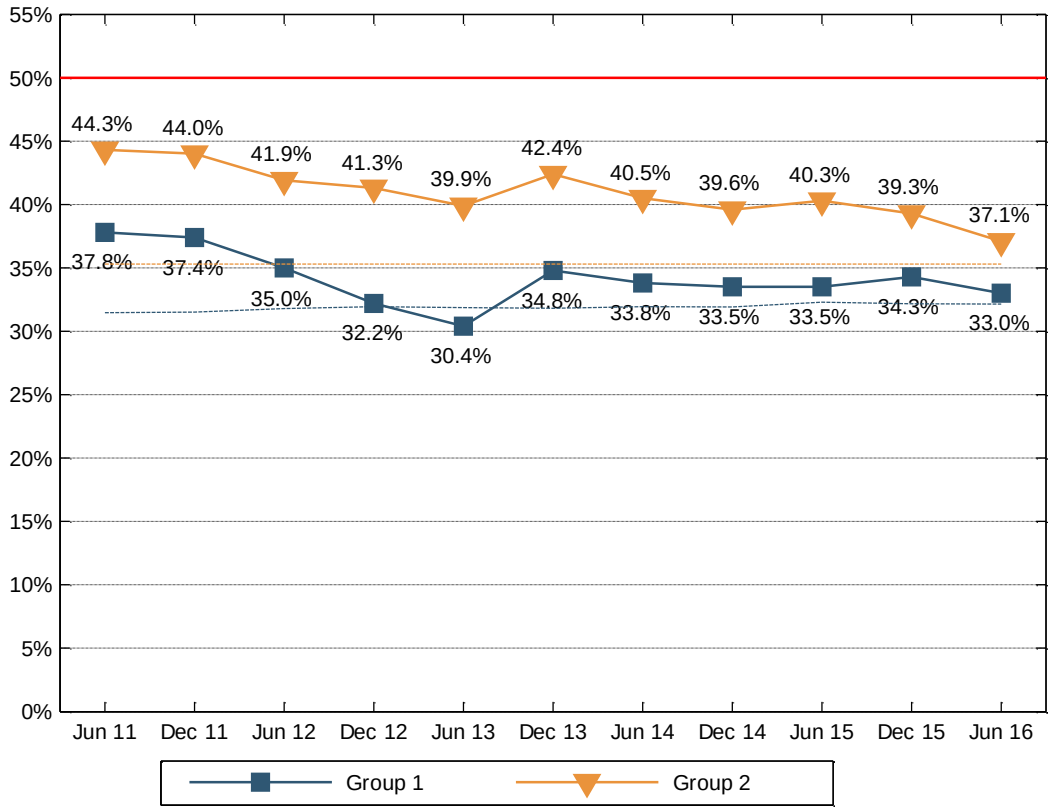
Figure 9 illustrates the development of the relationship between fully phased-in RWA and the LR exposure measure by bank group. A quotient below the dotted blue line (in the case of Group 1 banks), or the dotted yellow line (in the case of Group 2 banks)[25], implies that the main constraint is the LR rather than the risk-based Tier 1 capital ratio of 8.5% (minimum requirement plus CCB). A quotient above the dotted line implies that the risk-based Tier 1 capital ratio rather than the LR would be, on average, a constraint. The quotient was generally decreasing over the period from June 2011 to June 2013, which was caused by a decrease in RWA coupled with an increase in exposure (in the sense that, on average, banks preferred to follow a de-risking rather than a de-leveraging strategy). Between June 2013 and December 2013, the quotient increased by 440 bps for Group 1 banks and by 250 bps for Group 2 banks. This change was caused by a decrease in the LR exposure measure, partially driven by the recalibration of the exposure definition. Between the previous reference date and the current reference date (June 2016), the ratio of RWA to the

[24] For an argument about the benefits of the LR as a capital backstop over the financial cycle and across banks using internal models, see also BCBS, 'The regulatory framework: balancing risk sensitivity, simplicity and comparability' (Working Paper July 2013) and BIS, 'The leverage ratio over the cycle' (Working Paper No 471, November 2014).

[25] Calculated as the quotient between the LR requirement (3%) and the risk-based Tier 1 capital ratio requirement (8.5%, plus the G-SII/O-SII buffer where applicable).

LR exposure measure decreased by 130 bps for Group 1 banks and, to an even greater extent, by 220 bps, for Group 2 banks. The figures indicate that, on average, banks are more constrained by the risk-based Tier 1 ratio than by the LR requirement, and this is particularly true for Group 2 banks. This result is in line with the findings in Table 5, which shows that the significant LR constrain falls as the calculation accounts for CCB and the G-SII/O-SII buffers.[26]

Figure 9: Relation of RWA to exposure



Source: EBA QIS data (June 2016)

[26] Note also that there are methodological differences between Table 5 and Figure 9. First, Table 5 is based on a cross-sectional sample, whereas Figure 9 is based on a time series consistent sample. Second, the former shows the proportions of banks constrained by capital requirements whereas the latter presents weighted averages that are subject to offsetting effects across banks.

3. Liquidity

3.1 LCR

Another minimum standard in the CRD IV package is the 30-day LCR provision, which is intended to promote short-term resilience to potential liquidity disruptions. The LCR requires banks to have a sufficient level of HQLA to withstand a stressful funding scenario for 30 days. The LCR defines the minimum stock of unencumbered HQLA that must be available to cover the net outflow expected to occur in a severe stress scenario.

At EU level, with the adoption of the Commission Delegated Regulation (EU) No 2015/61 on the LCR in October 2014, the EU LCR framework introduced several features that differ from the Basel III LCR framework. Broadly, with respect to the Basel III framework, the LCR DA:

HQLA

- modifies the requirements for instruments already captured as HQLA under Basel III, for example preferential treatment of assets representing claims on or guaranteed by the central government, the central bank, regional governments, local authorities or public sector entities of a Member State, and upgrades the liquidity quality of extremely high-quality covered bonds;

- increases the range of instruments that are not captured under Basel III, for example promotional banks' assets, covered bonds of certain credit quality, certain restricted-use committed liquidity facilities with the European Central Bank, certain asset-backed securities, shares and units in collective investment undertakings and sight deposits that the credit institution holds with the central institution within an institutional protection scheme;

- amends the composition of the liquidity buffer by adding a new cap on liquid assets: a minimum of 30% of the overall liquidity buffer has to be held in Level 1 assets, excluding extremely high-quality covered bonds;

Outflows

- amends, within the calculation of outflows, the run-off rates of the outstanding balances of various categories or types of liabilities and off-balance-sheet commitments, for example more granular categorisation of the less stable retail deposits and corresponding run-off rates of 10-20%; and

Inflows

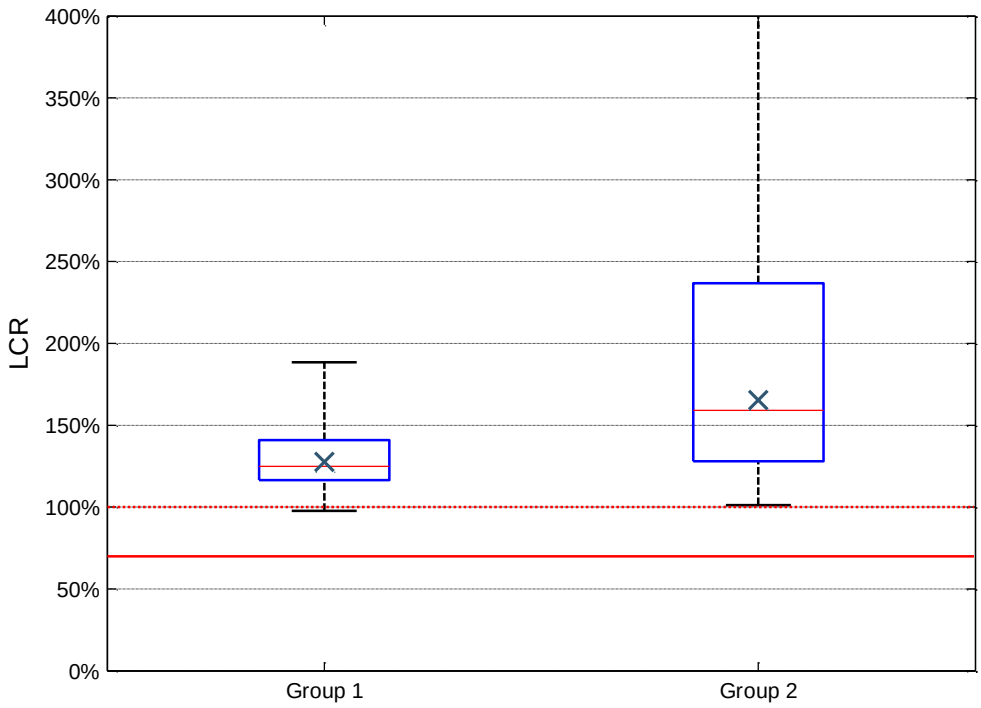
- provides, subject to prior supervisory approval, partial or full exemption for certain institutions in the application of a 75% cap on inflows in the calculation of net cash outflows.

Furthermore, as defined in Article 38 of the EU LCR DA and in accordance with Article 460(2) of the CRR, the minimum requirement was set at 60% from 1 October 2015 and will be gradually increased, reaching 100% by January 2018; in other words, EU regulation requires a minimum of 100% one year before the Basel standard.[27] This report presents EU-specific LCR analysis based on the framework of the EU LCR DA.

LCR and shortfall in liquid assets

Figure 10 provides an overview of the distribution of the LCR by bank group. As of June 2016, Group 1 banks exhibited a weighted average LCR of 127.7%, while Group 2 banks' LCR was 165.5%. All Group 1 banks already meet the 70% requirement of January 2016, and the majority of these banks (32 out of 34) already meet the 100% requirement. Of the Group 2 banks, one fails to meet the 70% minimum requirement, while the number of non-compliant banks at the 100% requirement is three, or 3.0% of the Group 2 sample.

Figure 10: Distribution of LCR by bank group



Source: EBA QIS data (June 2016)

Figure 10 also indicates that variation in the level of LCR is greater among Group 2 banks than among Group 1 banks. The value of LCR varies among Group 1 banks from 94.0% (minimum) to

[27] For a detailed analysis of the comparison between LCR frameworks under the EU LCR DA and Basel III, see the EBA's LCR impact assessment report (2016) published under Article 509(1) of the CRR (https://www.eba.europa.eu/-/eba-sees-considerable-improvement-in-the-average-lcr-across-eu-banks).

270.9% (maximum), while among Group 2 banks this range is from 51.0% (minimum) to 4 628.3% (maximum).

Table 7 illustrates the LCR and the LCR shortfall for different minimum ratios as defined in Article 38 of the LCR DA. The total LCR shortfall with regard to a minimum ratio of 100% is EUR 2.5 billion, of which EUR 2.2 billion can be attributed to Group 1 banks and EUR 0.4 billion to Group 2 banks. The total shortfall represents 4.8% of the total HQLA (EUR 53.4 billion) of all non-compliant banks and 0.8% of total assets (EUR 316.7 billion) of all non-compliant banks.

The shortfall considered here is the gross value, that is, the sum of the positive differences between the net outflows and the stock of HQLA for all banks with an LCR that falls below the minimum threshold of 70%, 80% or 100%. In other words, the calculation of shortfall does not account for the offsetting effect of the surplus arising from those banks that already meet and exceed the minimum requirement. Therefore, the reported shortfall amount represents a conservative proxy of institutions' actual shortfall, as it does not include any assumptions on the reallocation of liquidity amongst individual banks.

Table 7: LCR and LCR shortfall for different minimum ratios according to Article 460(2) of the CRR

	Number of banks	LCR	LCR shortfall (EUR billion) at a minimum of		
			70% (2016)	80% (2017)	100% (2018)
Group 1	34	127.7	–	–	2.2
Group 2	98	165.5	0.1	0.2	0.4
Large	23	166.9	–	–	–
Medium	26	176.5	–	–	–
Small	49	148.4	0.1	0.2	0.4
Total	**132**	**133.7**	**0.1**	**0.2**	**2.5**
G-SIIs/O-SIIs	561	130.4	0.1	0.2	1.6

Source: EBA QIS data (June 2016)

Evolution of the LCR over time

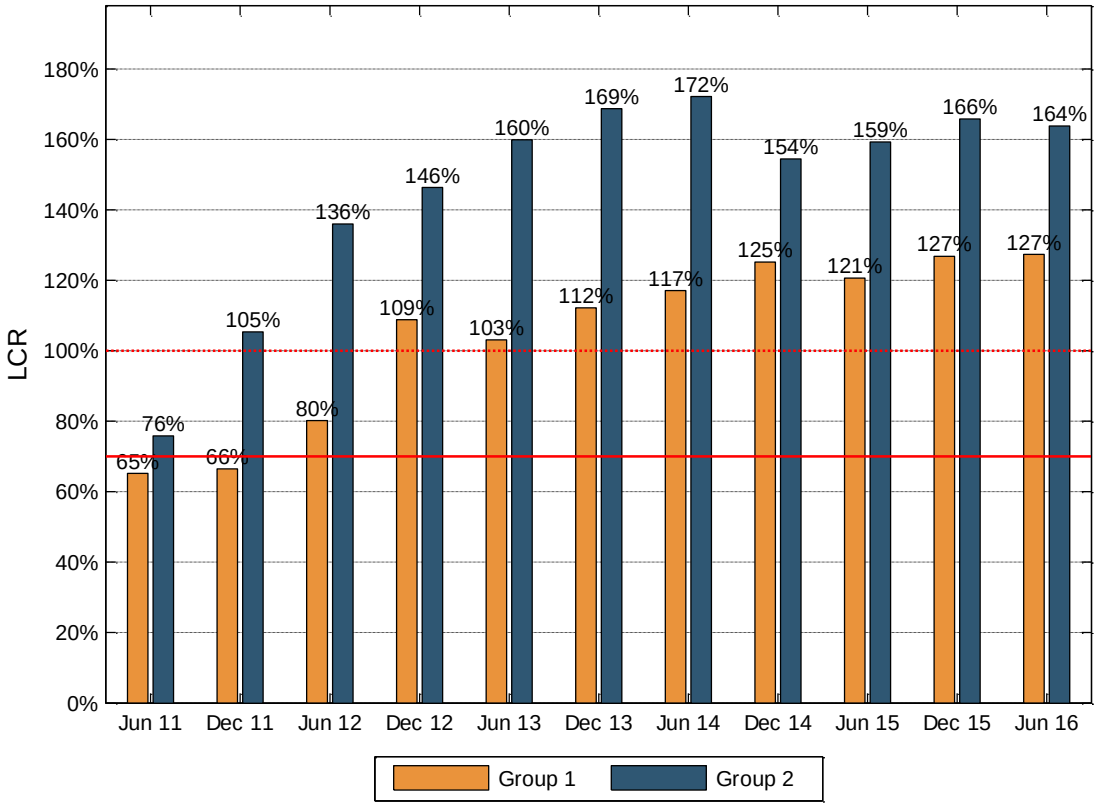
When analysing the evolution of the LCR over time, it should be noted that figures for periods before June 2015 are based on Basel III definitions, which is to say that, excluding structural changes, part of the change can also be attributed to differences between Basel III and the LCR DA.[28] Some changes in the LCR between June and December 2012 are also driven by the recalibration of the Basel III LCR framework, published in January 2013. Nevertheless, banks have, on average, put significant effort into increasing their LCRs both by increasing their liquidity buffer and by decreasing their net cash outflows. Since June 2011, Group 1 and Group 2 banks have, on

[28] For a detailed quantitative analysis on the differences between EU LCR DA and the Basel III framework, see the EBA's LCR IA report (2016), published under Article 509(1) of the CRR (https://www.eba.europa.eu/-/eba-sees-considerable-improvement-in-the-average-lcr-across-eu-banks).

average, increased their LCRs by approximately 62.2 (Group 1) and 87.9 (Group 2) percentage points (Figure 11).

For most Group 1 banks, the main driver for the increase in the level of LCR over time is the increase in HQLA. All Group 1 banks increased their liquid asset buffers and reduced their net cash outflows at the same time, or the increase in the level of net cash outflows in HQLA buffers exceeded the increase in the level of net cash outflows — hence, the overall LCR increased.

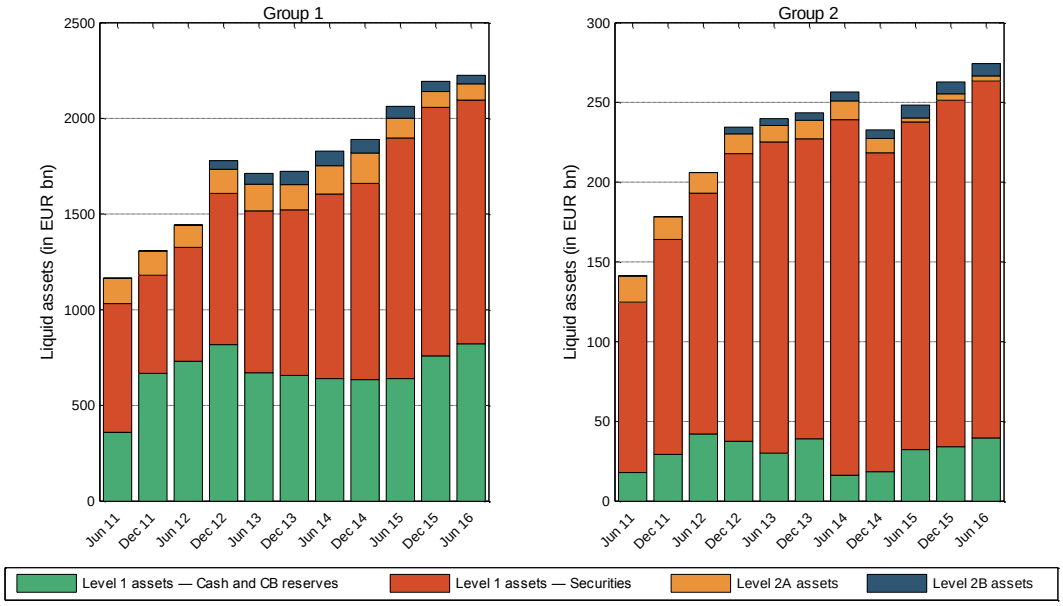
Figure 11: Evolution of LCR by bank group (%)



Source: EBA QIS data (June 2016)

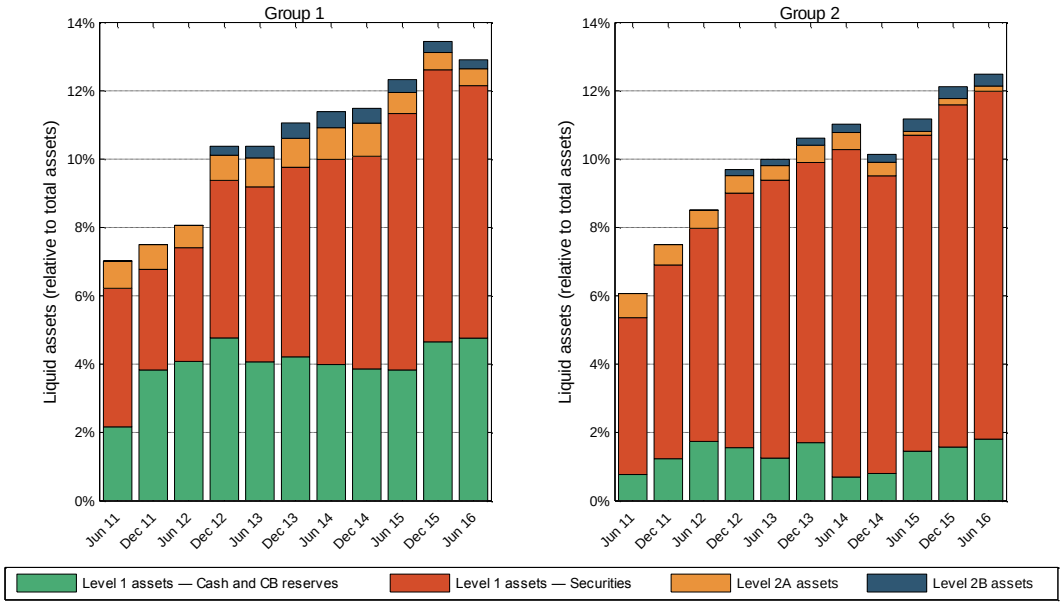
During the period June 2011 to December 2012, both Group 1 and Group 2 banks increased mostly cash and central bank reserves to comply with the LCR requirements, while from June 2013 to June 2015 securities were the major driver of compliance (Figure 12 and Figure 13) among Group 1 banks. The results at the last reporting date show a reversal in the trend for Group 1 banks, with a decrease in liquid assets relative to total assets.

Figure 12: Evolution of liquid assets over time



Source: EBA QIS data (June 2016)

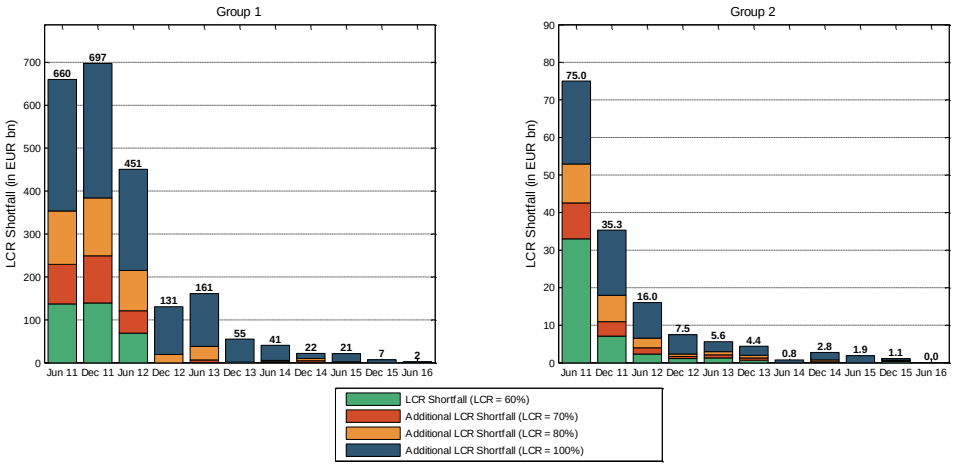
Figure 13: Evolution of liquid assets over time (relative to total assets)



Source: EBA QIS data (June 2016)

In line with the improvements in the LCR, the shortfall has declined significantly for both Group 1 and Group 2 banks. Figure 14 shows, for the consistent sample, the trend over time in LCR shortfall at different minimum requirements in the period from June 2011 to June 2016.

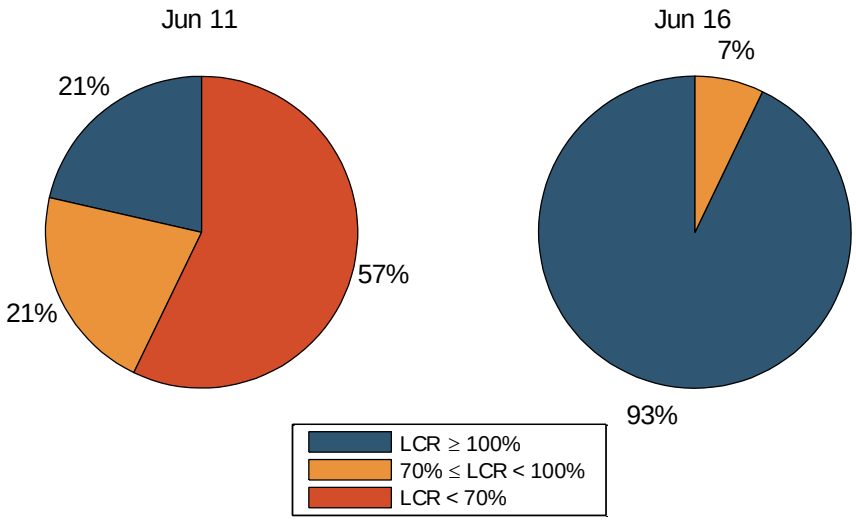
Figure 14: LCR shortfall over time



Source: EBA QIS data (June 2016)

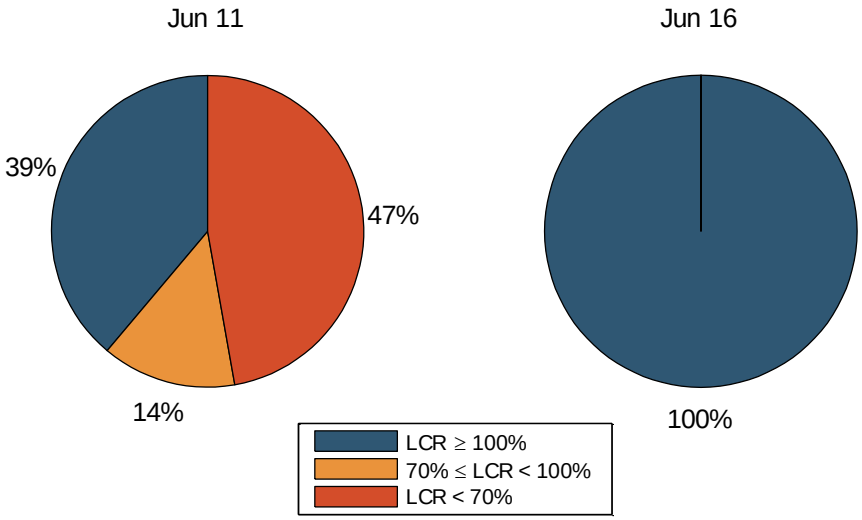
The positive trend in the evolution of the LCR is also reflected in the increase in the proportion of banks with an LCR above 100% compared with the first data point (Figure 15 and Figure 16). In June 2011, only 21% of Group 1 and 39% of Group 2 banks met the LCR minimum requirement of 100%. In contrast, 93% of Group 1 banks and all Group 2 banks reported an LCR above 100% in June 2016.

Figure 15: Distribution of LCRs, Group 1 banks



Source: EBA QIS data (June 2016)

Figure 16: Distribution of LCRs, Group 2 banks



Source: EBA QIS data (June 2016)

3.2 NSFR

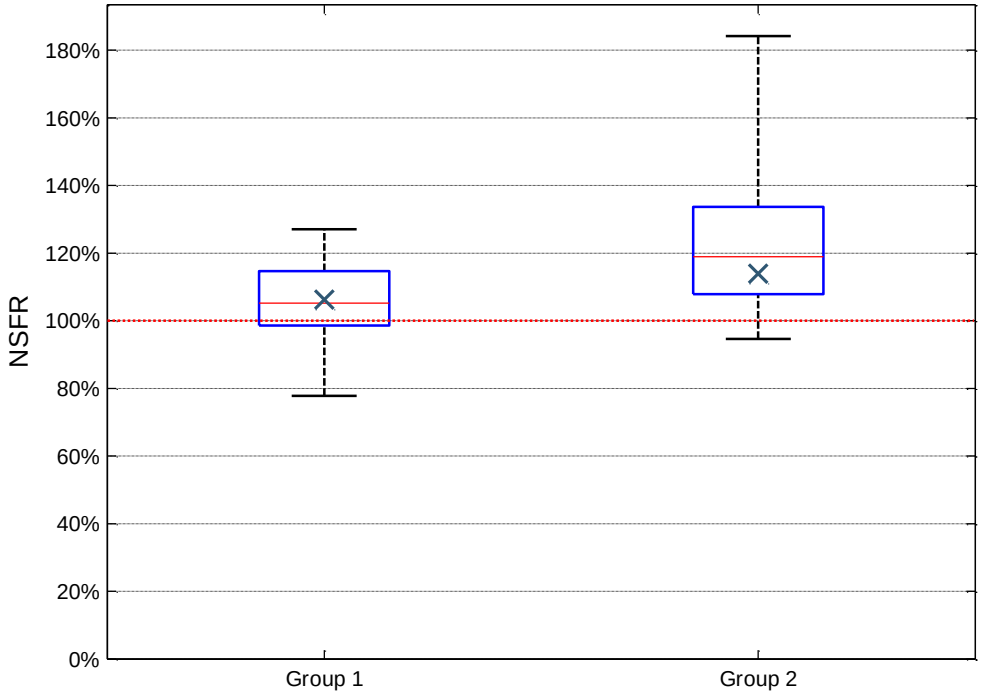
The second liquidity standard is the NSFR — a longer-term structural ratio that addresses liquidity mismatches and provides incentives for banks to use stable sources to fund their activities. The NSFR is defined as the amount of available stable funding (ASF) relative to the amount of required stable funding (RSF). From 1 January 2018 this ratio should be equal to or higher than 100%. The ASF is defined as the portion of capital and liabilities expected to be reliable over the time horizon considered by the NSFR, which extends to one year. The amount of RSF is a function of liquidity characteristics and residual maturities of the various assets held by a particular institution, as well as those of its off-balance-sheet exposures.

NSFR and shortfall in stable funding

Figure 17 provides an overview of the distribution of the NSFR by bank group. In June 2016, the average NSFR for Group 1 and Group 2 banks was 106.3% and 113.9%, respectively, with 67.4% of Group 1 banks and 89.0% of Group 2 banks already fulfilling the minimum NSFR requirement of 100%. Non-compliant Group 2 banks had, on average, a higher NSFR than Group 1 banks.

The range of the NSFR across banks is narrower than that of the LCR in the overall sample. This reflects to some extent the differences in the nature and design of the two ratios, that is, the short-term nature of the LCR and the long-term nature of the NSFR and the parameters included in their calculations. Furthermore, as for the LCR, the range of the NSFR is wider among Group 2 banks than Group 1 banks.

Figure 17: Distribution of NSFR by bank group



Source: EBA QIS data (June 2016)

Overall, as of June 2016, banks in the sample needed additional stable funding of EUR 158.7 billion (Table 8), equivalent to 4.0% of total weighted ASF (EUR 4.0 trillion) and 1.7% of the total assets (EUR 9.1 trillion) of all non-compliant banks participating in the NSFR-related part of this exercise. The need for stable funding is estimated by aggregating only the positive differences between RSF and ASF (RSF minus ASF) — the deficit in the stable funding of banks whose NSFR is below the 100% requirement — and does not account for any surplus of stable funding observed in banks with an NFSR above the 100% requirement. Banks that do not yet meet the 100% minimum requirement are still able to take a number of measures between now and 2018 to meet the NSFR standard (e.g. lengthening their funding term or decreasing maturity mismatches in their balance sheet).

It should also be noted that the shortfalls in the LCR and the NSFR are not necessarily additive, as decreasing the shortfall on one standard may result in a similar decrease in the shortfall on the other, depending on the steps taken to decrease the shortfall.[29]

[29] For example, if a bank receives long-term (e.g. between six months and one year) stable funding (e.g. nine-month stable term deposits) and invests this in Level 1 HQLA, it increases (i) its LCR position, since the liquidity buffer increases with no impact on the outflows; and (ii) its NSFR position. The NSFR position increases because the increase in the numerator dominates the increase in the denominator. In the NSFR, the weight attributed to long-term stable funding and Level 1 liquid assets is 95% and 5% respectively.

Table 8: NSFR and NSFR shortfall in stable funding[30]

	Number of banks	NSFR	NSFR shortfall (EUR billion)
Group 1	43	106.3	131.6
Group 2	107	113.9	27.1
Large	22	111.7	19.1
Medium	31	117.2	3.1
Small	54	118.1	4.9
Total	**150**	**107.8**	**158.7**
G-SIIs/O-SIIs	63	107.0	149.9

Source: EBA QIS data (June 2016)

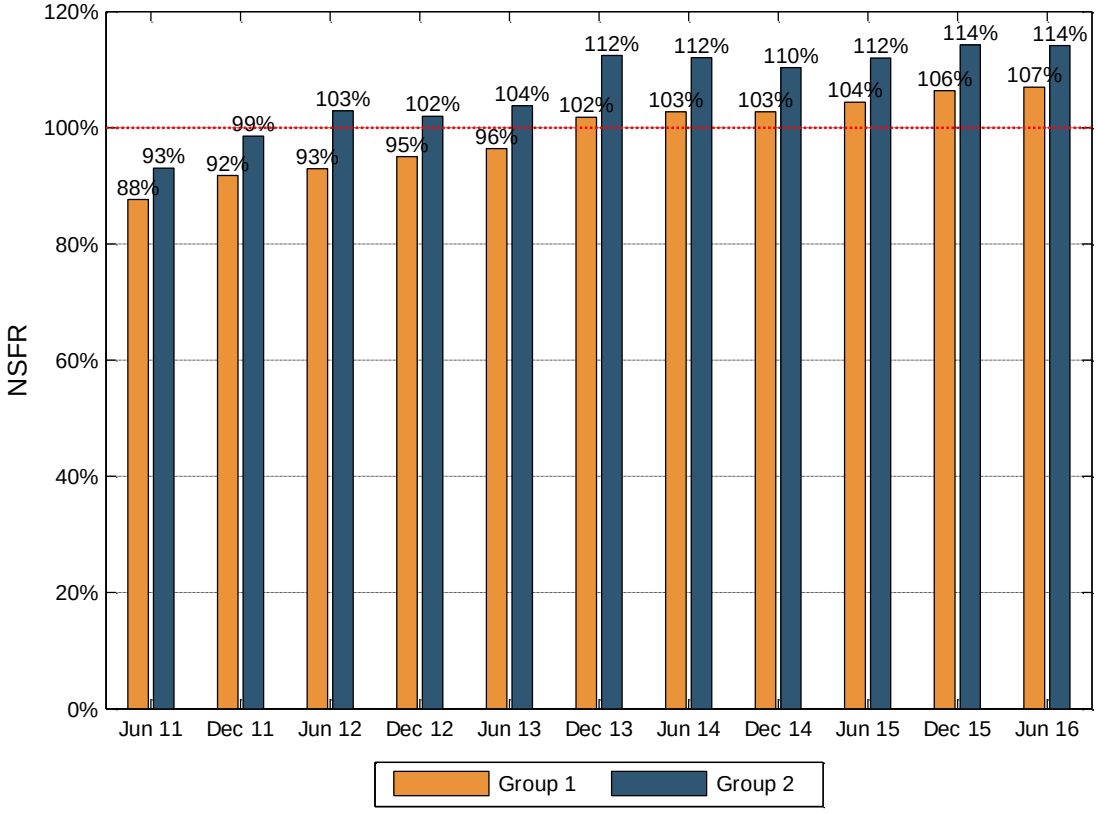
Evolution of the NSFR over time

Figure 18 illustrates the development of the NSFR over time using a consistent sample of banks. The findings show that the average NSFR for Group 1 and Group 2 banks increased by 19.4 percentage points and 21.1 percentage points, respectively. The significant increase in banks' NSFRs in December 2013 may also have been driven by the revisions made by the BCBS, which were considered for the first time in December 2013. The NSFR figures in June 2016 remained almost the same for both Group 1 and Group 2 banks.

Over the reporting period, RSF shows a rather constant trend for Group 1 banks and a slightly decreasing trend for Group 2 banks. ASF increased continuously over the reporting period for Group 1 banks, except in the most recent period. Such a pattern is less evident for Group 2 banks.

[30] The results shown in Table 8 differ from the results of Figure 18 and Figure 19 because different samples were used for the analysis. The comparison with previous periods (Figure 18/Figure 19) is based on a consistent sample of banks, that is, including only those banks that have consistently reported the relevant data for all sought reference dates.

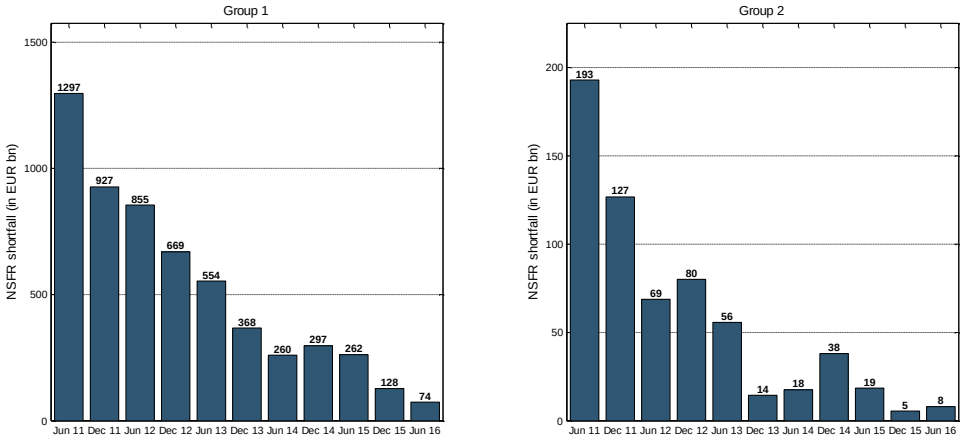
Figure 18: Evolution of NSFR by bank group (%)



Source: EBA QIS data (June 2016)

The overall positive trend is also reflected in the reduction in the shortfall of stable funding needed to meet the 100% ratio requirement, which (compared with June 2011) decreased by 94.3% for Group 1 banks and by 95.9% for Group 2 banks.

Figure 19: NSFR shortfall over time

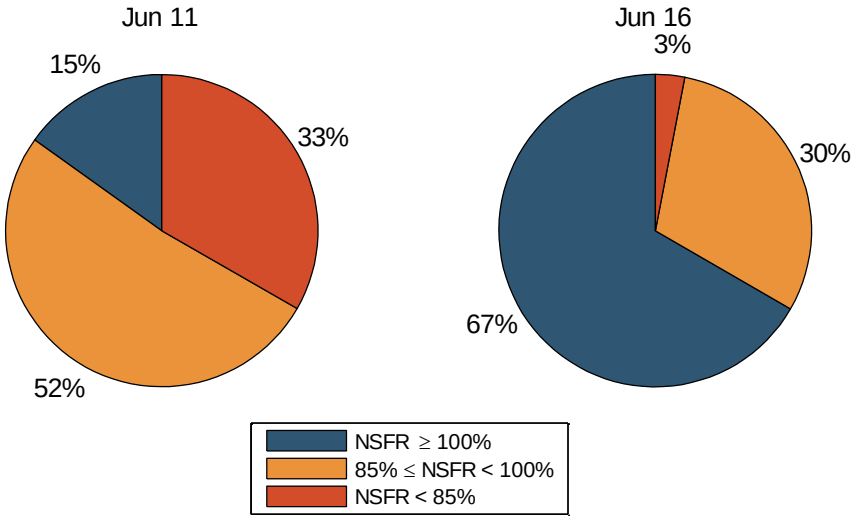


Source: EBA QIS data (June 2016)

The NSFR is less volatile than the LCR and cannot be adjusted easily in a short period of time. This is mainly due to the long-term nature of the parameters included in the calculation of the NSFR.

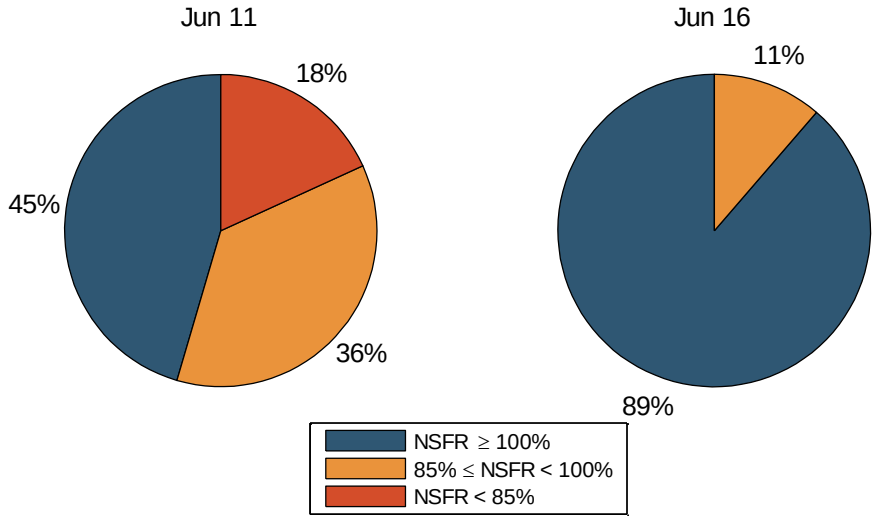
Therefore, there will be a special focus on those banks with a ratio below 85%.[31] As shown in Figure 20 and Figure 21, the proportion of banks whose NSFR is below this threshold has decreased significantly since the beginning of this exercise, with only 3% of Group 1 banks and none of the Group 2 banks reporting an NSFR below 85% as of June 2016.

Figure 20: Distribution of NSFRs, Group 1 banks



Source: EBA QIS data (June 2016)

Figure 21: Distribution of NSFRs, Group 2 banks



Source: EBA QIS data (June 2016)

[31] Note that the arbitrary threshold of 85% is based on the distribution of the NSFR in previous monitoring exercises and does not relate to any provision in the CRR.

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