Draft reports on the impact of the LCR and on uniform definitions of liquidity under Article 509 CRR

London, 23 October 2013

Disclaimer

This presentation intends to inform the state of play of the report on uniform definitions of liquidity which the EBA is mandated to produce by 31 December 2013 for the Commission as per Article 509 (3) of the CRR. It must be strictly considered that the findings and conclusions included here are preliminary and can substantially change when the full analysis is finalised.

Structure

1. Background and rationale for liquidity regulation
2. Part I: HQLA report
3. Part II: Impact assessment report
4. Conclusions and next steps

Background

The banking crisis and the need for further liquidity regulation:

1. The liquidity position of banks has been seriously hit during the recent crisis.
2. Inappropriate funding structures and scarce liquidity buffers prevailed.
3. Liquidity stress situations have led, on occasions, to public interventions.
4. Liquidity stress situations have proved lasting over time.
5. There was a clear evidence of need to intervene through regulations in the banking liquidity management.

Background

International regulatory steps on liquidity:

1. December 2010: The Basel Committee on Banking Supervision (BCBS) announced the introduction of a Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR), to be put in place in 2015 and 2018 respectively.
   a) The LCR promotes short-term resilience of a bank's liquidity risk profile by ensuring that it has sufficient high-quality liquid assets (HQLA) to survive a significant stress scenario lasting for one month. It basically sets the minimum liquidity buffer to bridge liquidity mismatches for one month in a crisis scenario.
   b) The NSFR has a time horizon of one year and is being developed to provide a sustainable maturity structure of assets and liabilities.

2. January 2013: LCR was updated particularly on the definition of HQLA and on the implementation timetable (2015 – 2019). The NSFR is still under development.

Background

European regulatory steps on liquidity (I):

1. June 2013: *Regulation (EU) No 575/2013* and *Directive 2013/36/E*U (CRR/CRD IV) seek to apply the Basel III framework in the EU. They incorporate the cited liquidity coverage requirements, adapting them to European specificities, and empower the EU Commission to adopt a delegated act to specify them in detail.

2. The CRR contains specific mandates for the EBA to develop draft Regulatory or Implementing Technical Standards as well as Guidelines and Reports related to Liquidity in order to enhance regulatory harmonisation in Europe through the single rulebook.

3. Particularly the CRR tasks the EBA with advising on appropriate uniform definitions of liquid assets for such a liquidity buffer, and for this purpose defines two categories of transferable assets: assets of ‘extremely high’ and of ‘high’ liquidity and credit quality.

Background

European regulatory steps on liquidity (II):

4. The CRR also specifically tasks the EBA with advising on the impact of the liquidity coverage requirement, on the business and risk profile of institutions established in the Union, on the stability of financial markets, on the economy and on the stability of the supply of bank lending.

5. The outcome of these two works will then be submitted in the form of Reports to the Commission by 31 December 2013. The Commission can take them into account when drafting the delegated act - which must be adopted by 30 June 2014 - to specify in detail the liquidity coverage requirement. This delegated act will come into force by 31 December 2014 but will not be applicable before 1 January 2015.

Background

Next EBA regulatory work on liquidity:

	Deadline
Report on Impact on LCR	31/12/2013
Report on definition of HQLA	31/12/2013
ITS on additional liquidity monitoring metrics	01/01/2014
GL on retail deposits subject to different outflows	01/01/2014
ITS on currencies with narrow central bank eligibility	31/03/2014
ITS on currencies with insuffiency of liquid assets	31/03/2014
RTS specifying derogations and conditions of their application	31/03/2014
RTS on additional collateral outflows on derivatives contracts	31/03/2014
RTS on criteria for intragroup outflows	01/01/2015
Report on NSFR	31/12/2015

PART I: HQLA Report

Mandate

The EBA shall report to the Commission for the purpose of reporting on :

1. Uniform definitions of extremely high liquidity and credit quality of transferable assets,
2. Uniform definitions of high liquidity and credit quality of transferable assets,
3. Haircuts on transferable assets that are of high liquidity and credit quality.

The EBA shall furthermore report on:

1. Operational requirements for the holdings of liquid assets in line with international regulatory developments.

The report is to be consulted with

1. ESMA
2. ECB

Feedback from the DP on defining liquid assets (Feb 2013)

1. *Broad support of the methodological approach.*

2. *The absence of coverage of repo markets was felt as critical by respondents.* The volume of private repo markets has been included as a supplementary liquidity metric.

3. *Respondents considered a qualitative judgment as a necessary tool to complement the quantitative analysis.* In some cases a qualitative judgment is being employed due to lack of empirical evidence. However, our mandate requires a quantitative approach where possible.

4. *Some respondents asked for an ISIN-list of liquid assets.* The report will propose a set of asset classes, with specific characteristics, which will be deemed eligible. The EBA will not attempt to identify a list of individual ISINs, which will remain the responsibility of banks when applying the precise methodology adopted for the EU.

Feedback from the DP on defining liquid assets (Feb 2013)

5. *A periodic review/update of the definition of liquid assets was recommended.* At this point in time, the EBA has been mandated to provide a one-off report on a uniform definition of liquid assets. However, we can recommend a periodic review in our report.

6. *Guidance on the definition of HQLA denominated in non-EU currencies was requested.* For practical reasons and due to data restrictions, the quantitative assessment conducted by EBA will focus on European currencies only. Nevertheless, the EBA is considering different alternatives to deal with this issue.

Methodology (Gathering and cleaning of data)

1. All the necessary data has already been gathered.

   a) The choice of assets to be included in this analysis is based on article 509 (3) in the CRR (Government bonds, Government guaranteed bonds, Bonds issued by local government, Bonds issued by multinationals, Corporate bonds, Covered bonds, Bonds issued by promotional banks, Bank guaranteed bonds, ABS, Equities, Gold).

   b) The analysis is based on data for the period 1 January 2008 through 30 June 2012.

   c) Source of data: MIFID data (bonds), survey-based data (repo data), Bloomberg and Datastream (equities), Bloomberg and World Gold Council (Gold).

Methodology (Gathering and cleaning of data)

2. The cleaning of the data has been conducted.

   a) Aimed at filtering out erroneous observations as well as at obtaining the most uniform data set across the contributing countries.

   b) Filters used: price filters, trade size filters, time and instrument code filters, repo filters, redundancy filters, etc.

   c) After the cleaning, the valid data amounts to circa 9 million trades and 13,000 distinct bonds and 1 million observations and 844 distinct equities.

Methodology (underlying principles)

1. A set of market-based liquidity metrics is computed for each asset and supplemented with explanatory variables and qualitative criteria.

2. The set of liquidity metrics and explanatory variables is comprised of both those stemming from the mandate set out in Article 509 (4) of the CRR and of those widely used in academic studies.

3. The definitions of liquidity will be formulated at the asset class level, and will not rank individual assets or ISINs.

4. Assets belonging to the same asset class could be assigned to distinct liquidity categories using these definitions.

Methodology (underlying principles)

5. The definition of liquidity will need to recognise that some asset classes or subgroups are more liquid than others. The EBA will provide a tool to distinguish highly - and extremely highly - liquid assets in EU regulation.

6. A quantitative analysis will not be performed for some asset classes due to insufficient empirical data. A principle-based approach is being adopted for these asset classes.

7. Appropriate haircuts will be proposed for assets found to be of high liquidity and credit quality based on evidence of historical price movements. These will take the haircuts in the Basel text as a minimum.

Methodology (underlying principles)

Liquidity metrics used

1. Price impact
   1. Amihud illiquidity ratio
   2. An un-scaled price impact measure
2. Bid ask spread
   1. Roll measure
3. Trading volume and turnover
4. Zero Trading days
5. Price Volatility

Explanatory variables used

1. Repoability
2. Credit quality
3. Time to maturity
4. Issue size

Methodology (calculation and analysis of metrics)

1. The methodology encompasses a set of steps:

   a) Liquidity metrics on trading volume, price impact, volatility and repoability have been calculated across asset classes. A preliminary set of conclusions are displayed after this step at the level of asset classes.

   b) A within asset class analysis has been conducted for a more refined definition of liquid assets within each asset class. Liquidity metrics are derived for diverse sub asset classes which have been identified within each asset class. Next other variables (such as credit quality, time to maturity…) are assessed their capability to explain the liquidity of assets according to the liquidity metrics findings. On the basis of the detected explanatory characteristics, liquidity subgroups will be created. This could finally lead to different definitions of liquid assets within each asset class or sub asset class. The quantitative analysis is supplemented by a qualitative assessment, particularly in those assets for which empirical data was not available.

Methodology (calculation and analysis of metrics)

c) The liquidity subgroups created will be evaluated in a cross asset class form by comparing the relevant liquidity metrics. On this basis and together with relevant qualitative judgments an ordinal ranking of the different asset groups is compiled. Definitions of high and of extremely high liquidity and credit quality of transferable assets are provided on the basis of the criteria to be met by individual assets, thus constructing an ordinal ranking of asset classes for liquidity purposes.

d) Determination of haircuts on transferable assets of high liquidity and credit quality will be set on the basis of the historical volatility of prices of the relevant asset groups.

Preliminary outcome across asset classes

1. First very preliminary draft ranking on liquidity levels across asset classes (1 best position):

	Amihud ratio	Price impact	Roll measure	Trading volume	Turnover ratio	Zero-trading days	Return volatility	30-day price change	Average ranking
Government bonds	1	2	3	1	1	2	3	3	2.00
Covered bonds	2	1	1	3	3	4	1	1	2.00
Non financial Corporate bonds	3	3	2	5	4	3	2	2	3.00
ABS (incl. RMBS)	4	4	4	4	5	5	5	4	4.38
Equities	5	5	5	2	2	1	4	5	3.63

Preliminary outcome across asset classes

2. First very preliminary draft ranking on liquidity levels across asset classes where only debt instruments with credit quality ECAI1 are included (1 best position):

	Amihud ratio	Price impact	Roll measure	Trading volume	Turnover ratio	Zero-trading days	Return volatility	30-day price change	Average ranking
Government bonds	1	1	3	1	1	1	1	3	1.50
Covered bonds	2	1	1	2	2	3	1	1	1.63
Non financial Corporate bonds	3	3	2	4	4	4	3	2	3.13
ABS (incl. RMBS)	4	4	4	5	4	5	4	4	4.25
Equities	5	5	5	3	3	1	5	5	4.00

Preliminary outcome across asset classes

3. Summary of preliminary empirical findings on by asset class:

Asset class	Trading volume metrics	Price impact metrics	Price volatility metrics	Repo Market metrics
Government bonds	Strong volume/turnover	Low price impact relative to trading volume size	Medium price and return volatility	Significant private repo market
Covered bonds	Lower volume and turnover metrics than government bonds, but stronger than other bond asset classes	Low price impact	Low price and return volatility	Presence of private repo market
Non-financial corporate bonds	Very low average volumes and turnover	Medium price impact	Medium price and return volatility	Presence of private repo market, but largely diminished over past five years

Preliminary outcome across asset classes

Asset class	Trading volume metrics	Price impact metrics	Price volatility metrics	Repo Market metrics
ABS	Very low average volumes and turnover. Trading on less than 1 pct. of trading days	Highest price impact among bond asset classes, but lower than equities	High price and return volatility	Private repo market has shrunk to very low levels over past five years
Equities	Strong volume/turnover	High price impact	High price and return volatility	Significant private repo market
Gold		Medium price impact	Medium return volatility, but high aggregate price changes over 30-day time periods	

Preliminary outcome within asset classes

1. Credit quality has a significant impact on liquidity for all asset classes (apart from equity of course), but the sensitivity varies from one asset class to the other. For example, both RMBS and covered bonds see a major difference between ECAI 1 and the other credit steps, while liquidity is more robust at lower credit quality steps for corporate bonds.

2. The impact of issue size and time to maturity for each asset class has also been examined.

3. In general terms, sovereign bonds show a better performance in terms of liquidity than other public sector debt.

4. In covered bonds, variables capturing the existence of regulatory characteristics which reduce credit risk and enhance transparency are significant predictors of liquidity.

5. For ABS, RMBS are the most liquid sub class.

Preliminary outcome within asset classes

6. It has not been found any metrics that reliably segments the equity class into more and less liquid categories. However, the reason for this could be that by requiring an examination of assets within the main index, this filtering has already been performed.

7. The analysis has shown that the precise choice of liquidity metrics is not crucial. When metrics on both trading volume and price volatility are incorporated, then the results remain consistent whichever metrics within those groups is used.

Asset classes without empirical data

1. The lack of empirical data on trading in credit claims suggests this asset class should not be defined as a liquidity asset.

2. Equities and corporate bonds issued by financials are not analysed, as they are not eligible for the LCR liquidity buffer according to article 416.2(a) CRR, except if they meet 416.2(a)(iii) (e.g. if they are explicitly guaranteed by a central or regional government).

3. We can not examine the liquidity of CIU’s comprising eligible assets, until the definition of liquid assets is finalised! However we will consider operational requirements for these assets.

4. The report will recommend employing local definitions of liquidity for non EU assets when they are determined for the implementation of the LCR in local jurisdictions.

Questions

1. Do you see major differences between the preliminary empirical findings and the preliminary draft ranking on liquidity levels across asset classes?

2. What are your views on the definitional approach to rule out credit claims from the quantitative analysis and from the definition of liquidity?

3. Do you have particular views on the preliminary findings within the asset class analysis?

4. Do you consider that any essential consideration is missing for the appropriate definition of liquidity?

PART II: IMPACT ASSESSMENT REPORT

Basis for the analysis

1. Voluntary exercise started in 2012 and now includes sample of around 350 banks
2. Sample represents more than 2/3 of total EU banking assets
3. Data cut off point Q4 2012, which enables us to include January 2013 GHOS agreement

Mandate

The EBA shall report to the Commission on whether a specification of the LCR is *likely to have a material detrimental impact* on

1. The business and risk profiles of institutions,
2. The stability and orderly functioning of financial markets,
3. the economy,
4. the stability of the supply of bank lending (i.e. SME, TF).

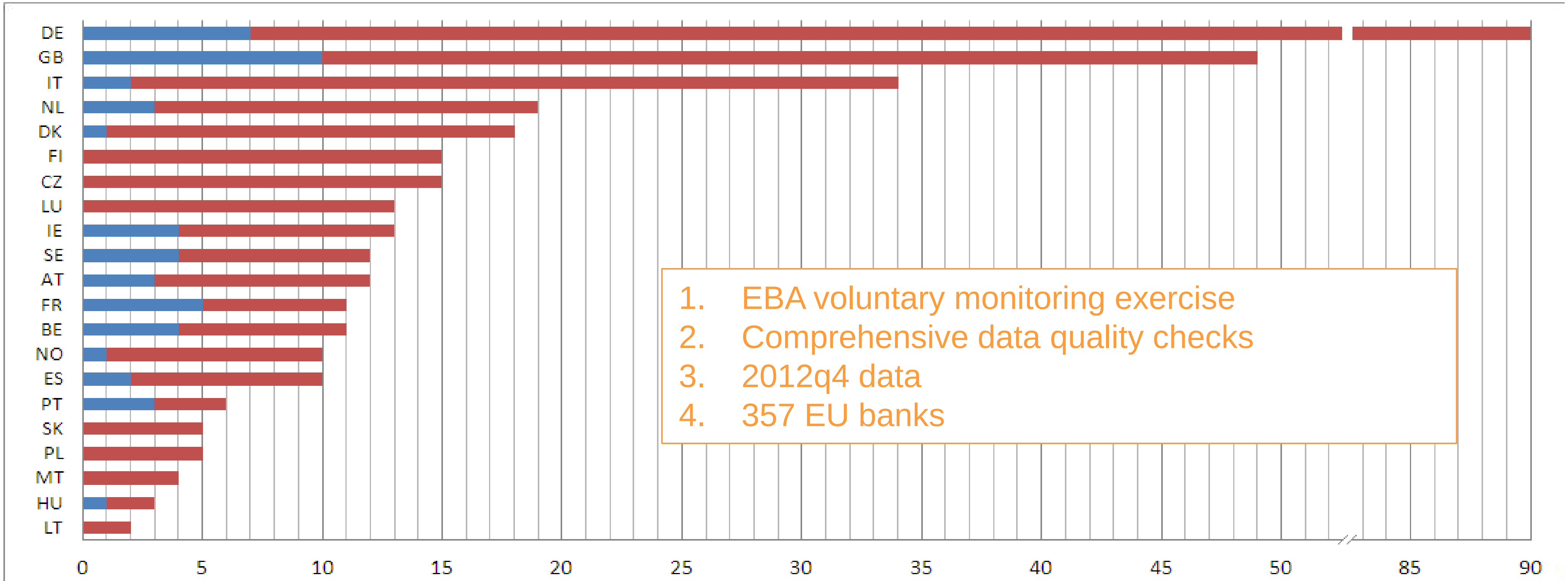
And, take due account of

1. markets and international regulatory *developments,*
2. the *interactions* of the LCR with other prudential requirements.

The report is to be consulted with

1. ESRB
2. non-financial end-users
3. the banking industry
4. competent authorities
5. ESCB central banks.

Sample



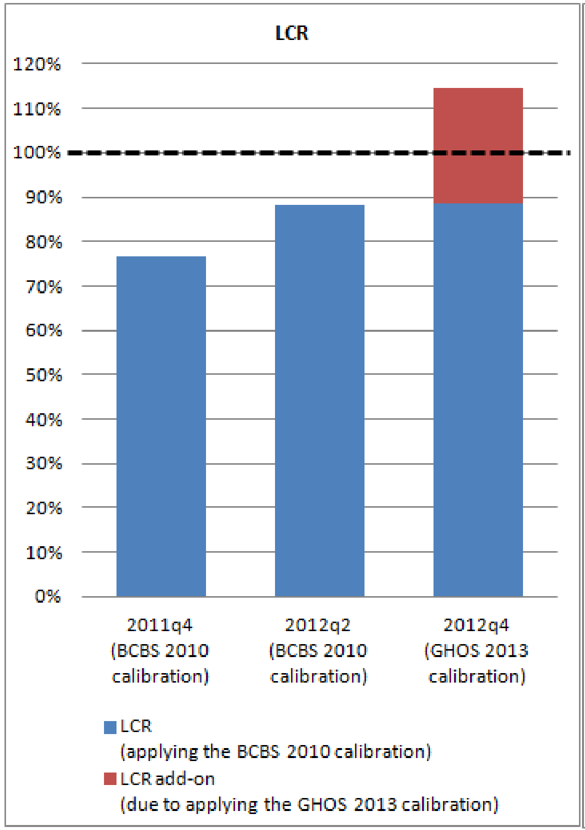
1. EBA voluntary monitoring exercise
2. Comprehensive data quality checks
3. 2012q4 data
4. 357 EU banks

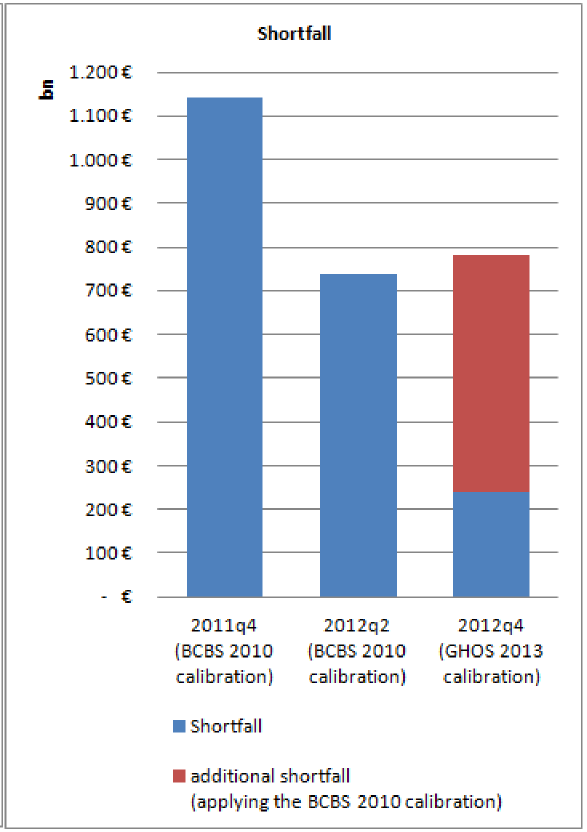
	LT	HU	MT	PL	SK	PT	ES	NO	BE	FR	AT	SE	IE	LU	CZ	FI	DK	NL	IT	GB	DE
G1	0	1	0	0	0	3	2	1	4	5	3	4	4	0	0	0	1	3	2	10	7
G2	2	2	4	5	5	3	8	9	7	6	9	8	9	13	15	15	17	16	32	39	83

G1 – Equal or more than 3 bn CET 1
G2 – Below 3 bn CET 1

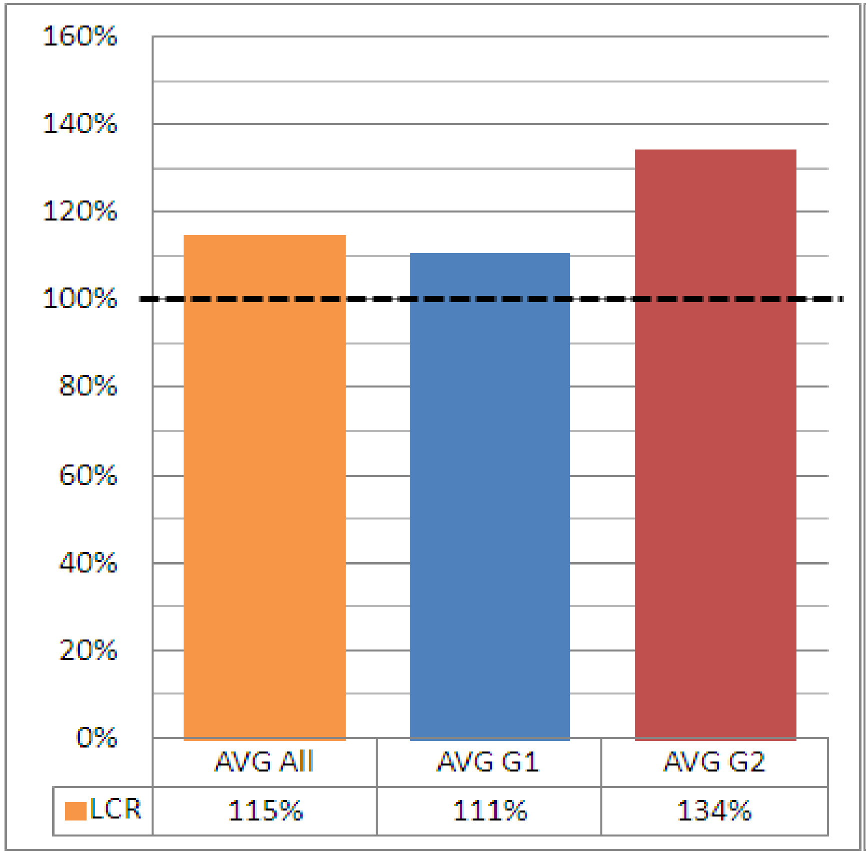
Data appendix

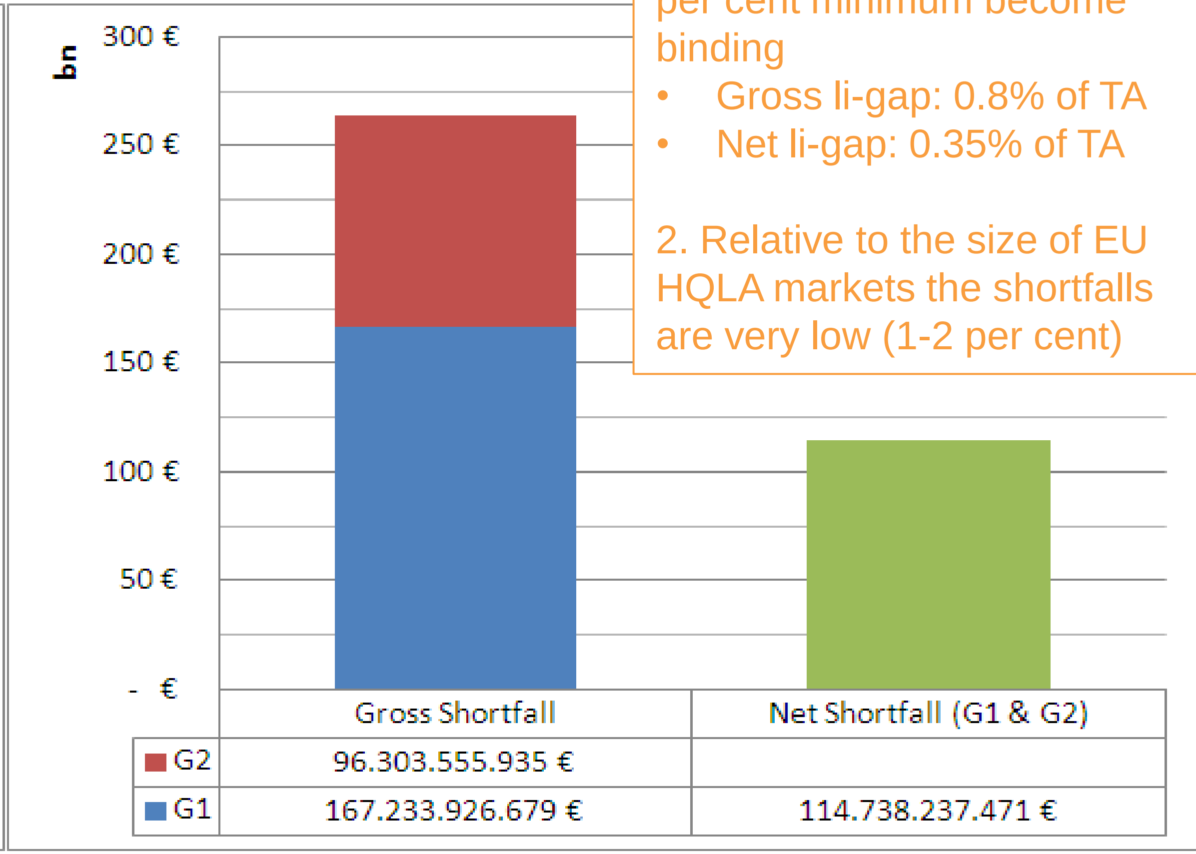
Change in LCR and shortfall (2011q4 - 2012q4)





LCR – EU aggregate

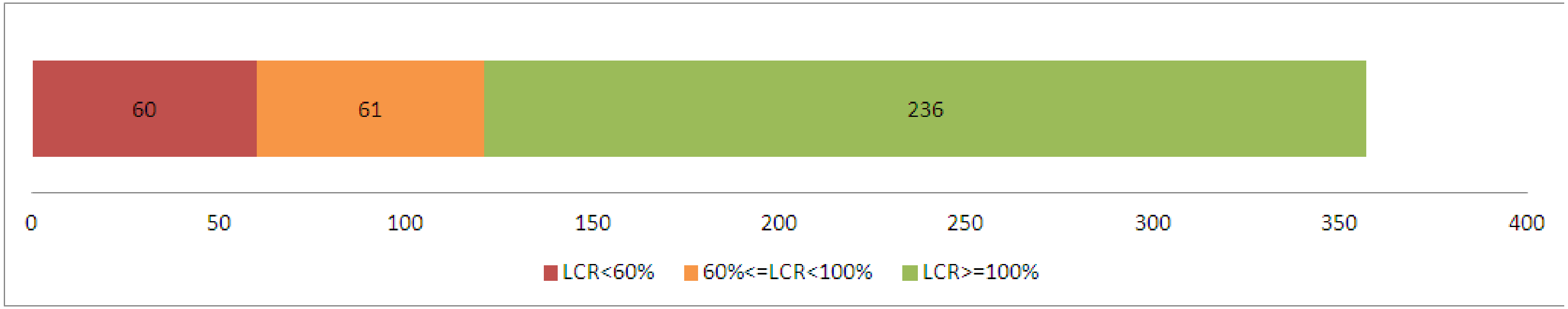




1. Aggregates of G1 & G2 banks fulfill LCR 7y before 100 per cent minimum become binding
   - Gross li-gap: 0.8% of TA
   - Net li-gap: 0.35% of TA

2. Relative to the size of EU HQLA markets the shortfalls are very low (1-2 per cent)

LCR – heterogeneity across banks



1. 66 per cent of banks with LCR 100+ per cent
2. 83 per cent of the banks in the sample would fulfill the regulation for 2015 by now
3. Aggregate gross liquidity shortfall = 0.8 per cent of sample TA

Business model categories

Group 1	Well diversified large cross-border banks with substantial capital market activities
Group 2	Saving and loan associations
Group 3	Co-operative banks
Group 4	Pass-through financing banks
Group 5	Leasing and factoring banks
Group 6	Mortgage banks and building societies
Group 7	CCP, securities trading house, custodian institutions
Group 8	Auto banks, consumer credit banks
Group 9	Merchant banks (specialized in trade finance)
Group 10	Private banks
Group 11	Shari'ah compliant banks
Group 12	Other well diversified (predominantly nationally active) banks
Group 13	Other specialized credit institutions

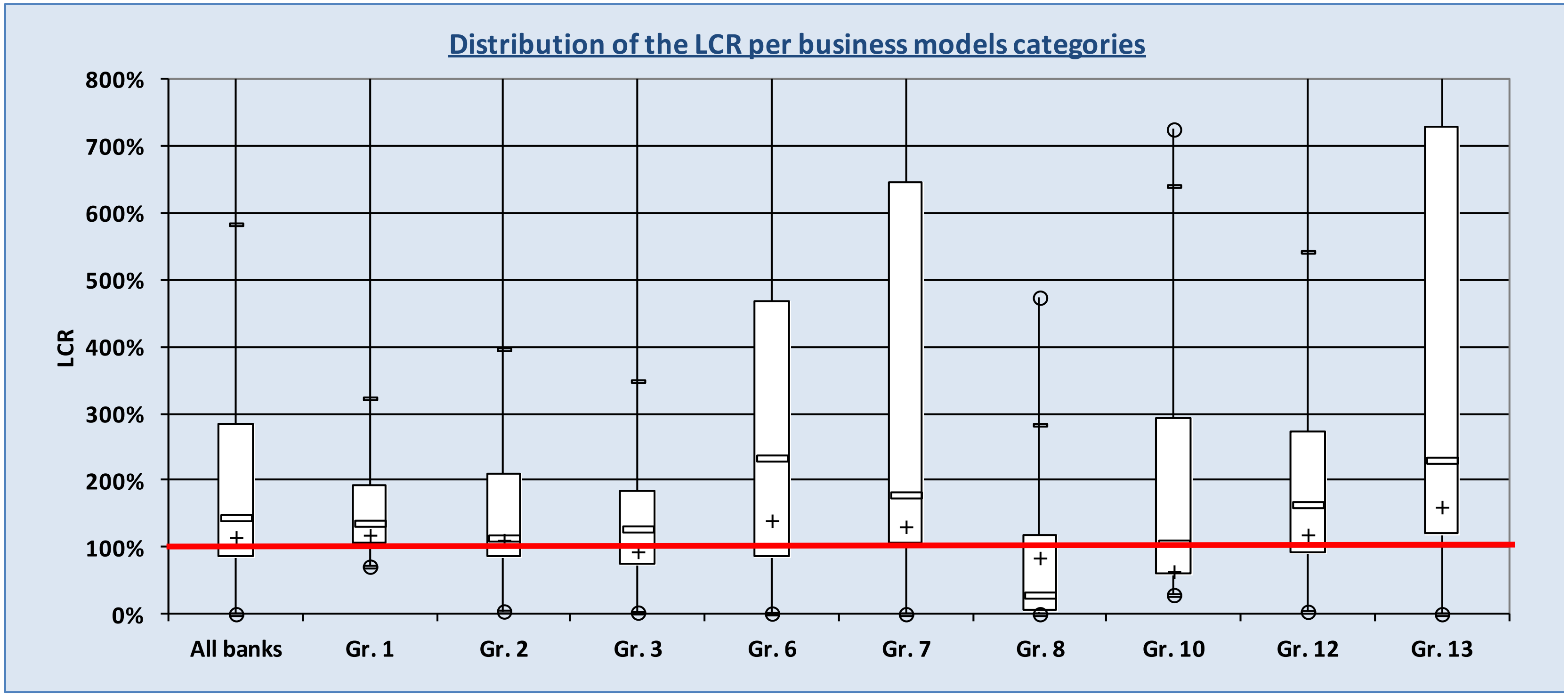
1. High concentration of banks in few business model categories.

2. Representativeness of some business models poor:
   - Leasing &factoring: 1
   - Shari´ah compliant: 3
   - Trade finance: 6
   - Pass-through financing: 7

Specific questions – business models

1. High heterogeneity within business models.

2. Diversified business models tend to be more adapted to the LCR than specialized banks.



Specific aspects of calibration

1. Interaction with CET1, LR, and NSFR

> No indication that CET1 or LR constitute constraints on banks' adjustment to the LCR

> Possible positive complementarities between the prudential requirements in the CRR

2. SME lending/Trade Finance

1. Methods: UK natural experiment, case studies (CH, SWE, NL, UK, DK, FR), multivariate analysis

> No correlation between SME/TF exposure and LCR level

> No indication of reduction of SME/TF due to increases in LCR

> UK natural experiment

> Case studies corroborate findings

Specific questions – interaction with capital requirements

Behavioural adjustment		Increase exposure to			
		Level 1	Level 2	Level 2B (BBB Corporate debt)	Level 2B (AA RMBS)
Reduce exposure to	Non-EU central government with ratings of A+ to A-	21			
	Non-EU central government with ratings of BB+ or lower	53			
	Non-EU central government with ratings of BBB+ to BBB-	105			
	Banks (unsecured) (AAA to AA-)	21	0	0	0
	Banks (unsecured) (A+ to A-)	53	32		32
	Banks (unsecured) (BBB+ or lower)	105	84		84
	Covered bonds (AAA to AA-)	21	0		0
	Covered bonds (A+ to A-)	53	32		32
	Covered bonds (BBB+ or lower)	105	84	0	84
	Non-financial corporates with a rating of BBB+ to BBB-	105	84	0	84
	Non-financial corporates with a rating of B+ or lower	158	137	53	137
	Retail loans (non-RRE)	79	58		58
	Residential real estate (RRE)	37	16		16
	Mortgage Backed Securities (MBS) (AAA to AA-)	21	0		0
	Mortgage Backed Securities (MBS) (A+ to A-)	53	32		32
	Mortgage Backed Securities (MBS) (BBB+ to BBB-)	105	84		84
	Mortgage Backed Securities (MBS) (BB+ to BB-)	368	347	268	347
	Mortgage Backed Securities (MBS) (B+ or lower)	1313	1292	1208	1292

1. Assumptions
- RoE target 12%
- Alternative funding costs 6%
- Tax rate 25%
- CAR 10.5%

2. Sensitivities
- RoE target 15% → 30% increase of cost savings
- Alternative funding costs 8% → 20% decrease in cost savings
- CAR 12% → 14% increase in cost savings

Intended economic consequences of the LCR

1. **High credit growth at low interest rates is not an economic policy objective (ECB 2013d).**
   - Investment projects that only have positive net present value (NPV), if interest rates do not cover the costs of liquidity and credit risk, are economically inefficient and should not be undertaken.
2. **Anecdotal evidence suggests that credit spreads underestimate the costs of risk and are too low during boom phases.**
   - This leads to an economically inefficient allocation of capital and risk
3. **The implementation of the LCR merely makes the costs of liquidity risk explicit and helps allocate these costs in an economically efficient way.**
   - No new costs are imposed on society; they are only redistributed from the public to the banking sector. In the past these costs are shifted to tax payers via central bank emergency liquidity, government guarantees for bank liabilities, and to bank customers through a reduction of credit supply and an increase in loan spreads to recoup former underpricing of risk.

Preliminary assessment & policy recommendations

1. **No material detrimental impact established so far on**

(i) the stability and orderly functioning of financial markets

(ii) the economy and

(iii) the stability of the supply of bank lending (i.e. SME & TF).

But Heterogeneity across & within countries, banks, and business models.

2. **No indication that CET1/LR constitute constraints on banks' adjustment to the LCR**

Possible positive complementarities between LCR & other prudential requirements in the CRR

3. **No evidence so far for a detrimental impact of an inflow cap of 75% on aggregate, but on different business models.**
4. **No evidence supporting a reduction of run-off rates of outflows on other liabilities according to Art. 422(7) CRR compared to the GHOS 2013 calibration.**
5. **The reduction of roll-over rates for loans according to Art. 425(2) CRR from 50 to 0 per cent is not realistic, as it assumes that non-financial loans would be cut by 100 per cent in times of stress**

Preliminary assessment & policy recommendations

6. **Rationale of setting a cap on level 2A/B assets as envisaged by the Basel rules text seems justified.**

7. **Preferential treatment of intra-group exposures**

Potential impact of an asymmetric vs. symmetric treatment not yet fully assessed

8. **GHOS recalibration of draw-down rates of commitments to NFCs seems justified.**

100 per cent rate would lead to 3.8-fold increase of the liquidity shortfall to EUR 1 trillion

9. **Possible threshold for high-value retail deposits at EUR 1 million**

This could be a possibility, or, alternatively, a separate class for high value deposits under retail with a higher outflows rate could be established under Art. 421(3) CRR.

Preliminary assessment & policy recommendations

10. Specific outflow category for deposits insured by an effective DGS according to the BCBS approach seems justified.

Strong support for COM proposal for harmonized criteria for DGS, already proposed in 2010. Once this package is adopted, the preconditions for new retail deposit category with lower outflow rates may be fulfilled.

11. Shari‘ah compliant banks

Proposal to exempt Shari’ah compliant banks from certain operational requirements for Shari’ah compliant assets

Preliminary assessment & policy recommendations

11. Established operational relationships

(i) At least 24 months/data based evidence of client behaviour/excess funds (> 1 M average turn-over) excluded/operational balance can be expected to be relatively stable over time/insensitive to changes of the rate of interest /filter criteria

13. The outflow rates on corresponding banking and prime brokerage in the GHOS agreement seem justified

14. SAREB/NAMA bonds grand-fathered as L1 assets

Preliminary assessment & policy recommendations

15. Monetary policy implementation

1. The opinion of the international community are taken into account
2. Banks should not be enabled or even incentivised to arbitrage liquidity regulation via central bank operations
3. Treatment of CB repo exposure to be further assessed. Work continues in close cooperation with EU central banks.

Preliminary assessment & policy recommendations

Monetary policy implementation (cont'd)

(ii) Committed Liquidity Facilities (CLFs)

- A very broad range of eligible liquid assets in the LCR corresponds to the assumption of a committed liquidity line of the central bank. Without limiting these quasi-committed lines appropriately, either in terms of price or of the share of HQLA they can account for, regulation would be ineffective.
- Implementation involves a large number of complex choices
- Results of BCBS deliberations will be incorporated in this report

Preliminary assessment & policy recommendations

Monetary policy implementation (cont‘d)

(iii) EU money markets

> The European and, especially, the Euro unsecured money markets feature much lower volumes and significantly shorter maturities than before the crisis.

> It is unlikely that the LCR contributes much to the explanation of the current situation on European unsecured money markets.

> In the future, MM functioning might be largely determined by the behaviour of non-bank market participants (e.g. insurance companies, money market funds), which in turn will be a function of the confidence in the European banking sector.

(iv) Price stability

> BIII MG survey & case studies do not point to a negative impact

> We together with central banks will analyse granular bank/monetary policy data in order to generate firmer and more useful results to guide policy-making

Next steps

Next steps

1. The final draft reports will be presented to the EBA Governance Structures in November and to the Board of Supervisors in December.

2. The final reports will be submitted to the European Commission by end this year.

3. The final reports will be published on the EBA website.

THANK YOU