Preliminary Results of Analysis of Data Collected from Banks for Part of QIS Relating to New Regulatory Requirements in Liquidity Segment

Sarajevo, March 2017

CONTENTS:

1. LIST OF ABBREVIATIONS

Agency	Federation of Bosnia and Herzegovina Banking Agency
Action Plan of the Agency	Action Plan of the Federation of Bosnia and Herzegovina Banking Agency for the implementation of FSAP mission recommendations
DIA	Deposit Insurance Agency of Bosnia and Herzegovina
Basel III	International Agreement on Capital Measurement and Standards
BCBS	Basel Committee for Bank Supervision
BiH	Bosnia and Herzegovina
BRRD	Directive 2014/59/EU of the European Parliament and Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council Directive 82/891/EEC, and Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC, 2011/35/EU, 2012/30/EU and 2013/36/EU, and Regulations (EU) No 1093/2010 and (EU) No 648/2012, of the European Parliament and of the Council
CBBiH	Central Bank of Bosnia and Herzegovina
COREP	Single framework for regulatory reporting at the level of the EU
CRD IV	Directive 2013/36/EU 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
CRR	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
Delegated Regulation	Delegated Commission Regulation (EU) 2015/61 of 10 October 2014 on supplementing Regulation (EU) No. 575/2013 of the European Parliament and Council on liquidity coverage requirement for credit institutions
EBA	European Banking Authority
EU	European Union
FBiH	Federation of Bosnia and Herzegovina
FSAP	Financial Sector Assessment Programme
FSAP Mission	Joint team of the International Monetary Fund and the World Bank
KM	Convertible mark
LCR	Liquidity Coverage Coefficient
Draft of the Subject Decision	Draft Decision on Liquidity Risk Management of Banks
NSFR	Net Stable Financing Coefficient
Implementing Regulation	Commission Implementing Regulation (EU) 2016/322 of 10 February 2016 amending Implementing Regulation (EU) No 680/2014 laying down implementing technical standards with regard to supervisory reporting of institutions of the liquidity coverage requirement
QIS	Quantitative Impact Study
RS	Republika Srpska
Strategy of the Agency	Strategy of the Federation of Bosnia and Herzegovina Banking Agency for Basel III Introduction
UBBiH	Association of Banks of Bosnia and Herzegovina
LoB	Law on Banks

2. INTRODUCTION

Within the framework of activities on the implementation of the Strategy of the Agency, and in the process of harmonization with the regulatory framework of the EU, the draft of the subject Decision has been prepared. The primary reference sources for the development of the draft of the subject Decision were the provisions of the CRR, and the Delegated Regulation that had been adopted on the basis of Article 460 of CRR in the context of introduction of liquidity coverage requirements as a general prudential requirement, and the detailed prescription of the manner for calculating the LCR, i.e. its constituting components, as well as the Implementing Regulation that prescribed supervisory reporting on liquidity coverage and the reporting templates that are being used for the calculation of the LCR. The objective of introduction of this general prudential requirement for the LCR is the first more detailed determination of the standardized quantitative requirement in the liquidity segment at the level of the EU, wherein the specificities and characteristics of the EU market, compared to international banking standards, as well as the potential effect on the real sector, have been taken into account. In compliance with that, gradual implementation of this prudential requirement was also stipulated, in order to achieve full compliance starting from 2018.

The basic characteristic of the structure of the Delegated Regulation, similarly to the requirements from the CRR, is reflected in accurate definition of liquid assets that are acceptable for the liquidity buffer, which is a concept that has been taken over in the draft of the subject Decision, and the determination of detailed rates of outflow and inflow in the course of calculation of the LCR, which is not, conceptually, covered in the draft of the subject Decision, but will instead by the subject of a separate implementation enactment – instructions, whose drafts had been developed for the purpose of implementation of this part of the QIS, with the objective of adequate and efficient implementation of the draft of the subject Decision, as well as prescription of reporting templates for the calculation of LCR.

Qualitative requirements and additional mechanisms for liquidity risk management in banks are contained in the draft of the subject Decision, starting from the requirements from CRD IV – Technical criteria relating to organization and treatment of risk, CRR, Delegated and Implementing Regulation, as well as the reference documents of the BCBS relating to the international framework for liquidity risk measurement and standards, i.e. the EBA’s implementing technical standards and subject guidelines of reference for liquidity.

In order to analyze the potential effect of the introduction of new regulatory requirements in the liquidity segment, envisaged under the draft of the subject Decision on Implementation of the Strategy of the Agency, under which the procedure of public discussion with the banking sector is to follow, as well as the recommendations from the Action Plan of the Agency, the comprehensive QIS also covers the part that relates to the calculation of the LCR and the relevant aspects of qualitative requirements in liquidity risk management in banks.

3. INITIAL GROUNDS FOR IMPLEMENTATION OF QIS IN THE LIQUIDITY SEGMENT

Within the framework of preparatory activities of the Agency for the implementation of this part of the QIS, collection of data from the banks on classification of deposits and other liabilities was initiated, in accordance with defined criteria, which was in the function of creating the initial basis for analyzing the structure of deposits of banks for the requirement of defining the rates of outflows towards individual categories of deposits, i.e. the preparation of instructions for changing the provisions from the draft of the subject Decision and filling in the COREP templates (Agency enactment No. 10-3751/16 dated September 26, 2016). On the basis of data collected, the Information on Classification of Deposits for the Requirements of Calculation of LCR was developed, resulting in the conclusions that the banks lacked adequate and/or full analytical support for the categorization of deposits in accordance with defined criteria, and that the data submitted did not, in a reliable manner, reflect the structure of deposits and the determination of the corresponding corrective factors. In connection with the aforementioned, the banks were, through the UBBiH, sent a letter in which the necessity was pointed out of ensuring reliable analytical support as the preconditions for unimpeded and adequate implementation of this portion of the QIS; as well as the planned introduction of new regulatory requirements in the liquidity segment (Agency enactment No.10-3751-2/16 dated October 16, 2016).

With the objective of analyzing the effects of introduction of new regulatory requirements in the liquidity segment, as well as to ensure the best possible preparedness of the banks for meeting those requirements and application of the new single framework for supervisory reporting on LCR, within the framework of activities in the implementation of the QIS, the following material was prepared and submitted to the banks to act accordingly, along which the accompanying enactment of the Agency No. 10-3834/16 dated September 30, 2016:

1. The Draft of the subject Decision with the corresponding attachments (Attachment 1. – Formula for determination of the liquidity buffer, and Attachment 2. – Formula for calculation of net liquidity outflows), which represented Attachment I;
2. Operating instructions for the requirements of implementation of the QIS in regards to the application of the draft of the subject Decision (Attachment II);
3. Examples accompanying the Operating Instructions for the application of provisions from the draft of the subject Decision for the requirements of implementation of the QIS (Attachment III);
4. Instructions for filling out reporting templates for liquidity coverage for the requirements of QIS (Attachment IV) with the corresponding COREP templates;
5. Questionnaire accompanying the part of the QIS that relates to new regulatory requirements in the liquidity segment (Attachment V).

The banks were required to submit data on the calculation of the LCR as of the financial date of September 30, 2016, expressed in thousands of BAM. Although the draft of the subject Decision stipulated that the liquidity coverage requirements applied on individual and consolidated basis, in compliance with the laws and bylaws that regulate supervision on consolidated basis, for the purpose of implementation of QIS the calculations of LCR were performed on the individual basis exclusively (for individual banks), taking into account that the provisions on consolidated supervision have not been prescribed yet.

As is stated in the Agency enactment No. 10-3834/16 dated October 31, 2016, an option was left to the banks to submit any questions they may have to the Agency through the UBBiH, by December 5, 2016, at the latest. After holding a meeting with the representatives of the banking Sector, the Agency submitted responses to the questions that were asked, with the objective of eliminating any potential unclarities, in the Enactment No. 10-179/17 dated January 10, 2017.

The banks were under obligation to submit the calculations of LCRs on the aggregate basis, which includes all the currencies disclosed in the reporting currency (BAM), as well as on the level of individually significant currencies (in compliance with Article 2, Item 7 of the draft subject Decision, individually significant currencies are those in which a bank has more than 5% of total liabilities). In addition, exclusively for the purpose of implementation of this part of the QIS, the banks were asked to performed the calculation of the LCR also for the items contracted with the foreign currency clause, if they met the aforementioned criterion for a significant currency. In addition, the banks were also under obligation to submit responses to the questions from the Questionnaire (Attachment V), which represents an integral part of this part of the QIS.

The banks were under obligation to submit the filled out quantitative part (calculation of the LCR - Attachment IV and the qualitative part (the Questionnaire) - Attachment V to the Agency by January 31, 2017 at the latest.

In the phase of data collection, individual banks were late with submitting the requested data, wherein one bank, from the category of other banks, failed to deliver the requested data, and as of September

30, 2016 it had a banking license and submitted regular prescribed reporting data to the Agency, while as of October 1, 2016, its banking license was revoked on the basis of its status related change, i.e. merger with another bank, wherein neither the resulting bank submitted the data for that bank. Because of the aforementioned, data at the level of the banking system in FBiH as of the financial date of September 30, 2016, are incomplete.
Although the share of balance sheet positions of that bank in the banking system of FBiH is relatively low (in total assets and deposits, below 1%, and in cash assets 2%), it is not possible to analyze the effect on the calculation of the LCR of the resulting bank, especially from the aspect of classification of deposits to stable and less stable, and the application of the corresponding rates of outflows in the course of determination of net liquidity bearing outflows. In addition, because of the lacking data for this bank, the calculation of the LCR in the category of other banks is not complete, either, and it was not possible to provide the assessment of the qualitative part for the resulting bank.

In addition to that, amongst the banks that had submitted the required data for the needs of the QIS within the set deadline, it was noticed that in individual segments the data submitted were incomplete, and in specific cases they were submitted successively and additionally corrected in line with the requirements and explanations that had resulted from the noticed issues with completeness, logical orders, or accuracy, so that the entry of the submitted data into the system for the purpose of their processing and consolidation ended on February 15, 2017 (at the level of the aggregated report), i.e. on February 17, 2017 (for EUR and BAM), when the necessary preconditions were created for summing up the data and developing summary reports, and the initial basis for the implementation of the analysis, pending the aforementioned exception of one bank that failed to deliver the data from both the quantitative and the qualitative part.

In view of the time that was at the disposal for: acquainting the banks with the drafts of new regulatory requirements and compiled instructions on the manner of application of regulatory requirements and reporting templates for the purposes of implementation of the QIS, responding to the banks and answering the questions they posed, was relatively short, and that the deadline for the processing, analyzing, and systematizing the results was extremely short, there are reservations in regards to the accuracy of the calculation and compliance with the provisions of enactments that had been submitted to the banks for the purpose of implementation of the QIS.

For the requirement of this analysis, in the corresponding parts that also relate to the current regulatory requirements applied (Chapter 4) and the impact of regulatory requirements (Chapters 5 and 6), the classification of banks in FBiH was used, in compliance with criteria from the established methodology for the determination of the list of systemically important banks[1], to:

- systemically important banks (7 banks), and
- other banks (8 banks).

4. CURRENT REGULATORY REQUIREMENTS IN THE LIQUIDITY SEGMENT

In the liquidity segment, the current regulatory requirements imply the application of minimum standards for liquidity risk management prescribed under the Decision on Minimum Standards for Liquidity Risk Management in Banks.[2] They represent the framework for liquidity risk management and contain qualitative and quantitative requirements that the banks are under obligation to meet. Within the quantitative requirements, limits have been prescribed in regards to retaining:

[1] On the grounds of the Memorandum on Establishing Methodology for Determination of the List of Systemically Important Banks in BiH, which was signed by the CBBiH and the entity banking agencies
[2] "Official Gazette of FBiH", issues No. 48/12, 110/12, and 46/14

- the average, on the basis of the period of ten days, and on the daily basis, minimum od cash assets compared to non-short-term sources (reporting template 4, table A);
- maturity matching of financial assets and financial liabilities based on the remaining maturity of up to 180 days (reporting template 4, table B), including the option for applying the corrective amount that reflects the determined degree of stability of household a vista savings and a vista deposits of the households, by applying a corrective factor of up to 15% at the maximum of the amount of the average stock in the preceding month, in the manner that is stipulated in Articles 6a and 6b of the aforementioned Decision.

All the banks in FBiH are continuously meeting the prescribed requirements in regards to the average minimum for ten days and on the daily basis for cash assets, compared to short-term sources, and they are significantly above the prescribed average for ten days, i.e. daily minimum (10%, i.e. 5% of the amount of short-term sources of assets). The meeting of prescribed requirements as of the financial date of September 30, 2016, which is also the reference date for the implementation of the QIS, at the level of the banking system in FBiH, of systemically important and other banks,[3] is provided in the following review:

Table 1.

Meeting the prescribed daily and ten-days long minimum in BAM 000s (excerpt from template 4 Table A as of September 30, 2016)		Banking system	Systemically important banks	Other banks
No.	**Position**	**Amount**	**Amount**	**Amount**
1.	Average daily stock of cash assets	4,666,653	3,846,272	820,381
2.	The lowest total daily stock of cash assets	4,473,666	3,688,385	785,281
3.	Short-term sources of financing	8,090,076	6,805,941	1,284,135
4.	Amount of liability:			
4.1.	Average for ten days 10% of the amount in row 3.	809,008	680,594	128,414
4.2.	Daily minimum 5% of the amount in row 3.	404,504	340,297	64,207
5.	***Meeting the obligation – average for ten days:***			
	Surplus (+) = row 1. – row 4.1.	**3,857,645**	**3,165,678**	**691,967**
6.	***Meeting the obligation - daily minimum***			
	Surplus (+) = row 2. – row 4.2.	**4,069,162**	**3,348,088**	**721,074**

The banks in FBiH are meeting the prescribed requirements in regards to maturity matching of the financial assets and financial liabilities of up to 180 days, i.e. disclose better maturity matching of financial assets and financial liability in the period of up to 180 days compared to the prescribed limits, which may be noticed in the following review, compiled on the basis of reporting data from Template 4 Table B, which includes the application of the corrective factor for the total of five banks, of which four are systemically important banks:

[3] Because of the consistent approach, the review of meeting the existing regulatory requirements does not include data for one bank from the group of other banks, as it failed to submit data for the purpose of implementation of the QIS.

Table 2.

	Maturity matching of financial assets and financial liabilities up to 180 days in BAM 000s (excerpt from template 4 Table B as of September 30, 2016)	**Banking system**	**Systemically importan**	**Other banks**
	I. 1-30 dana			
1.	Amount of financial assets	7,003,928	5,778,594	1,225,334
2.	Amount of financial liabilities	7,383,639	6,139,921	1,243,718
3.	Balance (+or -) = 1-2	(379,711)	(361,327)	(18,384)
	Calculation of meeting the prescribed obligation in %			
a)	Realized %=row No.1/red.br2	95%	94%	99%
b)	Prescribed minimum %	85%	85%	85%
	Higher (+) or lower (-) = a-b	**10%**	**9%**	**14%**
	II. 1-90 dana			
1.	Amount of financial assets	7,924,490	6,519,431	1,405,059
2.	Amount of financial liabilities	7,946,366	6,590,134	1,356,232
3.	Balance (+or -) = 1-2	(21,876)	(70,703)	48,827
	Calculation of meeting the prescribed obligation in %			
a)	Realized %=row No.1/row No.2	100%	99%	104%
b)	Prescribed minimum %	80%	80%	80%
	Higher (+) or lower (-) = a-b	**20%**	**19%**	**24%**
	III. 1-180 dana			
1.	Amount of financial assets	8,896,935	7,311,170	1,585,765
2.	Amount of financial liabilities	8,667,189	7,160,491	1,506,698
3.	Balance (+or -) = 1-2	229,746	150,679	79,067
	Calculation of meeting the prescribed obligation in %			
a)	Realized %=row No.1/red.br2	103%	102%	105%
b)	Prescribed minimum %	75%	75%	75%
	Higher (+) or lower (-) = a-b	**28%**	**27%**	**30%**

From the presented data, it is evident that the banks from the category of "other banks" are disclosing better maturity matching of financial assets and financial liabilities compared to systemically important banks, and especially in the periods of maturity of up to 30, i.e. 90 days, wherein four of the total of seven systemically important banks are applying the corrective factor, which "relaxes" the prescribed limit. In addition to the aforementioned limits, all the banks are meeting the obligation in regards to maintaining the prescribed obligatory reserve with the CBBiH, as the only instrument of monetary policy which is being applied in BiH, taking into account the functioning of the Currency Board in BiH and the existing degree of development of the financial market.
Reports on the level and structure of cash assets of the banking sector in FBiH point to the fact that the cash assets the banks are keeping in accounts with the CBBiH represent 67% of total cash assets, with the structure that is provided in the following review:

Table 3.

Daily liquidity in BAM 000s (excerpt from DL template as of September 30, 2016)	**Banking system**		**Systemically important banks**		**Other banks**	
Description	**Amount**	**Share**	**Amount**	**Share**	**Amount**	**Share**
Reserve account with CBBiH - stock of	*3,166,251*	*67%*	*2,555,141*	*65%*	*611,110*	*72%*
obligatory reserves	1,423,569	30%	1,154,567	30%	269,002	32%
-stock of special reserves (Article 42	472,675	10%	367,163	9%	105,512	12%
of the LoB) -remaining cash assets	1,270,007	27%	1,033,411	26%	236,596	28%
Cash (Registers and vault)	*697,236*	*14%*	*617,884*	*16%*	*79,352*	*9%*
Assets in accounts in banks	*883,631*	*19%*	*727,191*	*19%*	*156,440*	*19%*
Total cash assets	**4,747,118**	**100%**	**3,900,216**	**100%**	**846,902**	**100%**

The banks have significantly higher assets in accounts with the CBBiH than the prescribed obligatory reserve, which is an indicator of high liquidity in the banking sector in BiH. Continuous monitoring of the maintenance of prescribed quantitative requirements in regards to liquidity of the banking sector points to the conclusion that, along with the still present impact and activity of the global crisis on the real and the financial sector, the liquidity of the banking sector in FBiH is on a satisfactory level. The application of the current regulatory requirements and prescribed limits in the management of liquidity risk, which are based on the conservative approach of the supervisor, had an impact on the maintenance of significant liquid assets, adequate positions of liquidity in the banking system of FBiH, and the liquidity risk management, which represents the basic precondition to sustainability, stability, and security of the financial system.

In compliance with the recommendations that followed after the execution of the Financial Sector Assessment in BiH in 2014, by the FSAP mission, the Action Plan of the Agency planned, inter alia, acting upon the recommendations that related to the liquidity segment, i.e. the management of systemic liquidity and mechanisms for protection of the financial sector, and whose implementation is conditioned with the adoption, i.e. entry into effect of the new LoB and the bylaws, execution of activities on the implementation of the Strategy of the Agency, including the harmonization between entity banking agencies.

Starting from the new regulatory framework at the level of EU, i.e. the reference sources for the harmonization of the current standards in liquidity risk management that are listed in the introductory part of this analysis (Chapter 2) and in the part that concerns initial bases (Chapter 3), as well as the recommendations of the FSAP mission that concerned the revision of existing regulatory requirements, i.e. the quantitative standards prescribed in liquidity risk management, and the introduction of requirements for LCR adjusted to the specificities and characteristics of the banking sector and the financial market in BiH, activities were initiated in the preparation of the new bylaw that would prescribe quantitative and qualitative requirements in liquidity risk management.

Their adoption and application, along with a new legislated regulation, also implies the analysis of the entirety of the recommendations given by the FSAP mission that also relate to the management of systemic liquidity, which assumes the involvement of other competent authorities whose scope of competence covers the maintenance of financial stability, systemic liquidity, and liquidity support to banks in case of potential systemic crisis, and in compliance with the recommendations provided by the FSAP mission. The implementation of the part of the QIS that concerns the calculation of the LCR and the qualitative part of the requirements in liquidity risk management represents a part of those activities for the purpose of seeking the optimum way of acting in compliance with recommendations of the FSAP mission and harmonization with the regulatory requirements at the level of EU, in compliance with operating plans for actions under the aforementioned Strategy of the Agency. Those activities, in addition to the introduction of the LCR as the obligatory requirement, would also imply harmonization with the requirement in regards to the introduction of the NSFR, in compliance with the subject EU regulations. In that context, the necessary activities shall continue in compliance with the operating plans for the implementation of the Strategy of the Agency.

5. CALCULATION OF LIQUIDITY REQUIREMENTS AT THE LEVEL OF THE BANKING SYSTEM IN FBiH

In compliance with new regulatory requirements for liquidity coverage, the draft of the subject Decision stipulates the obligation of banks to retain LCR at the prescribed level (100%) for all the currencies, expressed in the reporting currency, and report on that in the single reporting template that includes all the currencies, as well as to calculate and monitor the LCR in the reporting currency and each significant currency.

The continuation of this analysis present the preliminary results of processed and systematized data from the banks on the calculation of the LCR on the basis of the corresponding COREP reporting templates (summary templates for all the banks: C72 Liquidity coverage – Liquid assets, C73 Liquidity coverage - Outflows, C74 Liquidity coverage - Inflows, C75 Liquidity coverage – Collateral exchange, and C75 Liquidity coverage - Calculations).

Based on the systemic processing of submitted data at the level of the banking system in FBiH it was determined that he summary calculation of the LCR (for all the currencies) at the level of the banking system in FBiH amounts to 238%, which is significantly above the prescribed level.

In the course of the entry and processing of data submitted by the banks, and in view of the character and the contents of reporting data, it was not possible to check them in full against the regular prescribed reporting templates that the banks are under obligation to submit to the Agency. In compliance with the aforementioned, the checking was performed for the reporting data that concern the positions that enter into the liquidity buffer, as it was possible to harmonize them with the balance sheet positions of the banks from the reporting templates BS, BS-NS, the report on daily liquidity, etc.
However, the data that concern the classification of deposits for the requirements of determination of net liquidity outflows, as well as other categories of liquidity outflows and inflows for the purposes of calculation of the net liquidity outflows could not be subject to checking, as they are based on the combination of several different sources, i.e. analytical reviews that the banks had been ensuring in different ways, by combining the grounds for reporting data that are being submitted to the Agency, bookkeeping, operating, and other records, by drawing the data from the corresponding databases (modules that support deposit and credit business), systemic and manual work, and adjustments.
In addition, the limitation in the implementation of control also stems from the fact that the deposits of one single client may be found in various categories. Keeping the aforementioned in mind, in the phase of entry and processing of data, it was requested from the banks to submit brief information on the level, the contents, and the manner of control of reporting data that had been implemented in the bank before the calculation of the LCR, i.e. submitting the subject reporting data, as well as on the organizational parts of the bank that had performed control and calculation of the LCR.
Analysis of information submitted by the banks has led to the following conclusions:

- systemically significant banks that are members of international banking groups, as they have been submitting, for a longer period of time already, data for the calculation of the LCR to their parent banks, for the requirements of compilation of consolidated reports on LCR at the group level, used those reporting data for the purpose of the QIS, as well, wherein there is evident difference in the level of software support, i.e. applicative tools used, and manual adjustments because of the specificities of local regulations and/or the development of the financial market in BiH;

- a certain number of systemically significant banks stated explicitly that they were submitting the necessary data to the parent bank, and that they receive the actual calculation of the LCR through reporting templates from the parent bank, which distributes them to all the members of the group, and that locally no additional controls have been established;
- some of the banks stated that in the course of preparation of data for the requirements of the QIS they performed adjustments to harmonize with the main ledger the positions for which that was possible, and that for other positions they performed logical checks of the positions, and sample based controls, and some of the banks have, in the part that relates to the categorization of deposits in the course of determination of net liquidity outflows, used the application that supports reporting for the requirements of the DIA;
- individual banks have stated that, due to the high levels of LCR, they did not it deem necessary to implement additional controls;
- the largest number of banks stated that the preparation and control of data for the calculation of the LCR was performed by the organizational parts in charge of risks and assets, while in a smaller number of banks, which had not performed the calculation of the LCR before, working groups were formed, comprising representatives of several organizational parts / functions.

Because of all of the above, as well as the fact that the banks are in the phase of getting acquainted with new regulatory requirements in regards to maintenance of the LCR and reporting on it (only one third of the banks stated that they were sufficiently acquainted with the new regulatory requirements), and well as that the public debate has not been performed on the draft of the subject Decision, one cannot confirm that the data the banks submitted for the calculation of the LCR are fully accurate and reliable, i.e. that they are harmonized with the requirements from the draft of the subject Decision and the supporting instructions compiled for the purpose of implementation of this part of the QIS, which may be checked by direct control in the banks.

The table below presents an excerpt from the corresponding template C76 which represents the summary report for all the currencies expressed in the reporting currency (BAM):

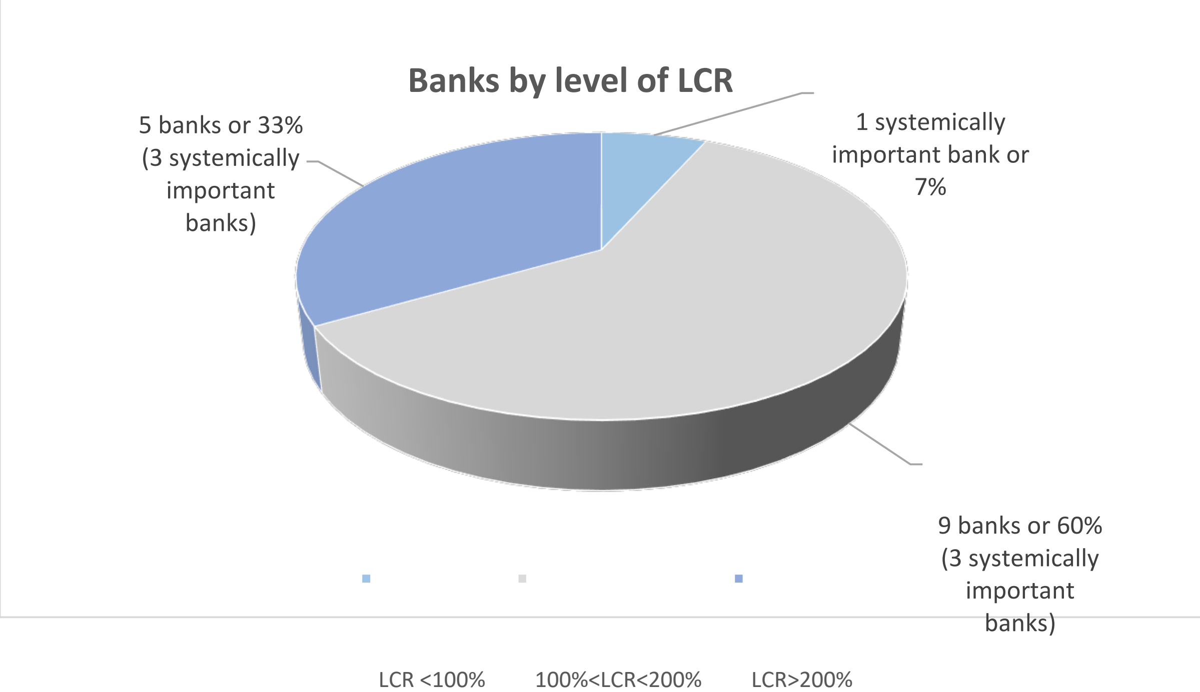
Table 4.

Excerpt from Template C 76.00 Liquidity coverage – Calculations, summary for all the currencies		Value in BAM 000s/Percentage		
No.	**Item**	**Banking system**	**Systemically importan**	**Other banks**
1.	**Liquidity buffer**	**3,031,345**	**2,542,911**	**488,434**
2.	**Net liquidity outflows**	**1,274,607**	**984,887**	**289,720**
3.	**Liquidity Coverage Ratio (%)**	**238%**	**258%**	**169%**

It is evident that systemically important banks are disclosing LCRs that are above average for the banking system, while other banks are below that average.

The analysis of calculation of LCR at the level of individual banks has led to the conclusion that there is only one bank (systemically important bank) that is not meeting the LCR in the amount of 100%, as the calculated LCR amounts to 65%. In connection with the aforementioned, that bank has submitted an explanation on undertaking measures in regards to reaching the prescribed level of LCR, which relate to principles application of elements from the internal enactment of the bank for improving the liquidity position and adjusting to new regulations, and, in that context, a review was submitted of already undertaken activities of the bank, which, inter alia, also include the possibility of using an approved, but unused, credit line for liquidity within group support, whose realization and efficiency requires further continuous checking and reporting to the Agency. In the regular supervision of this bank, in the liquidity segment, weaknesses were noticed that reflected in the low share of cash assets in total assets, which was significantly below the average for the banking system in FBiH, and the concentrations present in the sources, because of which measures were imposed upon the bank, according to which it has acted.

Based on a more detailed analysis of the LCR calculated for individual banks, it is possible to perform the categorization of the banks into groups based on the level of disclosed LCRs (banks with LCRs below 100%, between 100 and 200%, and above 200%), which may be seen in the following review:



Taking over the provisions from the Delegated Regulation, which stipulates the limitations in regards to the structure of the liquidity buffer, Article 21 of the draft of the subject Decision stipulates that he liquidity buffer comprises level 1 liquid assets, wherein it has to amount to 60% at the minimum, and the level 2 liquid assets, which may amount to 40% at the maximum, and comprise the level 2a and 2b liquid assets, where the highest possible level of level 2b liquid assets may be 15%.

The above mentioned limitations are fulfilled, according to collected and summarized data on the calculation of the LCR for all the currencies at the level of the banking sector, as the analysis of the structure of the liquidity buffer shows evidently that 88% of is comprises level 1 liquid assets, and only 12% is comprised of level 2 liquid assets, within which the largest item relates to liquid assets of level 2a, wherein the dominant share is held by the portfolio of public debt instruments, issued by the entity governments (FBiH and RS).

On the basis of the summary report C72 (summary report for all the currencies, expressed in the reporting currency - BAM), a review is provided of the structure of liquid assets as of the financial date of September 30, 2016, with the nominal amount in thousands of BAM and percentage share of individual items in total liquid assets:

Table 5.

Description	Banking system		Systemically important banks		Other banks	
	Amount	**Share**	**Amount**	**Share**	**Amount**	**Share**
Level 1	**2,681,040**	**88.44%**	**2,195,331**	**86.33%**	**485,709**	**99.44%**
Coins and banknotes	702,403	23.17%	623,072	24.50%	79,331	16.24%
Reserves in the Central Bank that can be withdrawn	1,619,741	53.43%	1,268,471	49.88%	351,270	71.91%
Assets of the central government	293,668	9.69%	253,924	9.99%	39,744	8.14%
Other	65,228	2.15%	49,864	1.96%	15,364	3.15%
Level 2	**350,305**	**11.56%**	**347,580**	**13.67%**	**2,725**	**0.56%**
Level 2a	349,854	11.54%	347,580	13.67%	2,274	0.47%
Portfolio of public debt instruments in BiH	331,274	10.93%	331,274	13.03%	-	-
Other	18,580	0.61%	16,306	0.64%	2,274	0.47%
Level 2b	451	0.02%	-	-	451	0.09%
Total:	**3,031,345**	**100%**	**2,542,911**	**100%**	**488,434**	**100%**

Within the level 1 assets at the level of the banking system, the largest item concerns reserves with the central bank that may be withdrawn, which represents the amount above the obligatory reserve which the banks are holding in accounts with the CBBiH. The share of aforementioned item in level 1 assets is significantly higher in the category of other banks.

In the items of other level 1 liquid assets at the level of the banking system, the banks have expressed the following positions:

- assets of units of district (regional) / local self-governance units, representing 80% of the disclosed balance,
- assets in the form of covered bonds with extremely high quality, representing 20% of the disclosed balance.

Analysis of the structure of aforementioned positions pointed to certain illogical issues, i.e. irregularities in the positioning of the items, as two banks (of which one is a systemically important bank) disclosed in this position public debt instruments that were issued by entity governments (FBiH and RS), which do not belong into this position (the aforementioned represents 94% of the disclosed balance).

Within level 2 assets at the level of the banking system in FBiH, the largest share is the share of liquid assets of level 2a, which represents 99.8% of level 2 assets, i.e. 11.5% of total liquid assets. Structure of level 2a assets is dominated by the item of public debt instruments, which were issued by entity governments (FBiH and RS), and which was disclosed in this position by only one systemically important bank, which represents 94.6% of level 2 assets, i.e. 10.9% of total liquid assets.
There are only two banks, from the category of other banks, that disclosed liquid assets of level 2b, whose share is not materially significant, and that relates to corporate shares, which are recognized if they meet the eligibility criteria in compliance with Article 27 of the draft of the subject Decision.

Within the framework of activities in the preparation for the implementation of the QIS in the liquidity segment, special attention was paid to the issue of treatment of public debt instruments that were issued by entity governments (FBiH and RS), in view of meeting the prescribed requirements for their recognition into the liquidity buffer for the purposes of calculation of the LCR. In connection with the aforementioned, the conservative basic approach remains, for those assets, just like the other categories of liquid assets, should not be recognized automatically into the liquidity buffer, but that the prescribed conditions need to be met for its inclusion, which relate to general requirements, operating requirements, and eligibility criteria for classification as level 1 or level 2 assets, in the manner that is stipulated in the provisions of Articles 7 and 8, i.e. Chapter 2 of the Delegated Regulation, and which were also taken over in the draft of the subject Decision. In that context, the banks were told, in the response to the questions asked in connection with the implementation of the QIS in the liquidity segment, which represented an attachment to the enactment of the Agency No. 10-179/17 dated January 20, 2017, that if they can adequately document and provide argumentation of fulfillment of prescribed requirements, they can, in compliance with that, treat that portfolio as assets of level 1 or level 2. which shall be subject to supervisor’s assessment. At the same time, the Agency instructed the banks to apply cautious and principles approach in the assessment of fulfillment of prescribed requirements, and if they are not able to document in full the fulfillment of prescribed requirements, they should apply a more conservative approach with the objective of maintaining a more sable level and structure of the liquidity buffer. In addition, a detailed explanation was provided for the approach that is, in this regard, the determining one, and which also includes the best practices of other regulators, wherein it is key whether, on that basis, the bank can, in a period of stress of 30 days, acquire liquid assets without any obstacles in view of timely realization of such assets in the place of trading, which ensures the minimum of criteria for an active and significant market etc.

Because of the material significance of the aforementioned assets / portfolio and the importance of meeting the prescribed requirements for its recognition, the Agency has, which the framework of the qualitative part of the QIS - Questionnaire (Attachment V) requested from the banks to clarify an document the criteria they had established in the assessment of meeting the conditions for inclusion into liquid assets, wherein it was requested that procedures of their valuation are described especially, as well as potential use of those securities as collateral in repo or reverse repo transactions, to list the average purchase and sale spreads in cases of sale of those securities, as well as the average period of time necessary for the sale of those securities, and to assess the main obstacles in the course of performance of direct sale or buyout of those securities, and which measures may contribute to increased liquidity of those securities. Although the banks have neither stated, nor documented that they established the required criteria, i.e. that they have not adequately responded to other relevant aspects of the response to the required questions, a significant number of they included the aforementioned portfolio in level 1 liquid assets, while other banks treated the same as level 2a liquid assets, or failed to include them at all in the liquidity buffer, which they disclosed in the notes accompanying template C72 as items that, because of failing to meet the operating requirements, represent excluded items, or are not shown, not even in the notes.

Analysis has led to noticing discrepancies in the data that the banks have submitted in the qualitative part of the QIS - Questionnaire (Attachment V), question No. 13, within which the banks were supposed to submit a detailed analytical review of the portfolio of financial instruments comprising liquid assets as of the financial date of September 30, 2016, compared to the reporting data that the banks are submitting to the Agency on the quarterly basis, under the special requirement dating from December of 2011 (review of securities), because of which the data that he banks submitted to the Agency on the basis of the aforementioned Review was accepted. By using the aforementioned source, it was concluded that the total portfolio of securities at the level of the banking system in FBiH, at the financial date of September 30, 2016, amounts to BAM 1,128,032 thousand, of which the total of BAM 725,812 thousand related to public debt instruments.

The manner in which the banks treated this part of liquid assets in the calculation of LCR for the requirements of QIS may be seen in the following review:

Table 6.

Category of liquid assets	Number of banks	Amount in BAM 000s
Level 1 liquid assets	5	246,378[4]
Level 2a liquid assets	2	337,110
Level 2b liquid assets	-	-
Not included in liquid assets	3	142,324
Total:	**10[5]**	**725,812**

The aforementioned treatment is conditionally accepted exclusively for the requirements of this analysis, as the banks have not documented the criteria established from which it would be possible to determine whether they had, in an appropriate way, taken into account all the prescribed conditions, i.e. requirements for recognition from the Delegated Regulations that are taken over in the relevant provisions of the draft of the subject Decision, i.e. does that portfolio of assets meet all the prescribed conditions for being included in the liquidity buffer.

In view of the statement on not establishing the criteria for assessing the fulfillment of prescribed conditions for recognition, if the liquid assets of the banks were reduced by the portfolio of public debt instruments, then along with the one bank that failed to meet the prescribed level of the LCR, one additional bank (from the category of other banks) would not meet the LCR in the prescribed level of 100% (it would amount to 78%). With other banks in the system, if the portfolio in question were not recognized, there would be no change in the categories according to the level of LCR, as was stated before in the part of Chapter 5 of this Analysis.

The obligation of meeting the LCR is prescribed at the level of all individual currencies, and reporting is also at the level of individually significant currencies, wherein there is a possibility of the Agency, which the requirements from Pillar II at the level of an individual bank, limits the currency mismatch (i.e. determines the level of LCR) at the level of individually significant currencies, if it saw it as appropriate.
At the level of the banking system in FBiH, the banks presented as significant currencies EUR[6] and BAM, and the review of the calculation of the LCR for those currencies is provided in the next table:

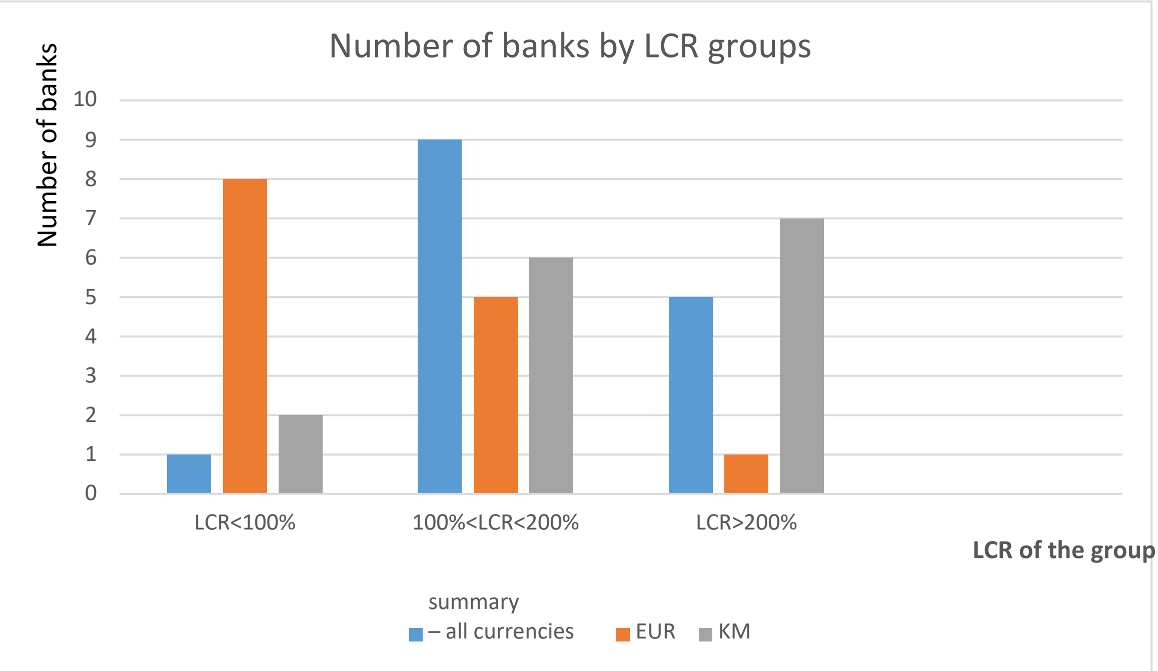
Table 7.

Excerpt from Template C 76.00 Liquidity coverage – Calculations for EUR		Value in BAM 000s/Percentage		
No.	**Stavka**	**Banking system**	**Systemic ally importan**	**Other banks**
1.	**Liquidity buffer**	**224,586**	**184,359**	**40,227**
2.	**Net liquidity outflows**	**241,779**	**198,017**	**43,762**
3.	**Liquidity Coverage Ratio (%)**	**93%**	**93%**	**92%**
Excerpt from Template C 76.00 Liquidity coverage – Calculations for KM		**Value in BAM 000s/Percentage**		
No.	**Stavka**	**Banking system**	**Systemic ally importan**	**Other banks**
1.	**Liquidity buffer**	**2,543,318**	**2,112,375**	**430,943**
2.	**Net liquidity outflows**	**1,120,615**	**846,765**	**273,850**
3.	**Liquidity Coverage Ratio (%)**	**227%**	**249%**	**157%**

[4] one systemically important bank failed to include the entire amount of the portfolio, and instead reduced it by BAM 5,495 thousand, which it disclosed in the liquidity bearing inflows
[5] five banks do not have this portfolio in their balance sheets
[6] all but one bank, from the category of other banks

From the table above it is evident that the LCR for the individually significant currency of BAM at the level of the banking system in FBiH is above 100%, while for the individually significant currency of EUR it is below 100%.
In the analysis of the subject report at the level of individual banks in the system it was noticed that one systemically important bank is disclosing extremely high LCR for the currency of EUR (above 800%), which is a consequence of the high level of liquid assets in EUR (on the basis of bonds denominated in EUR) compared to net liquidity outflows in that currency. At the individual level, it was noticed that one bank failed to submit the calculation of LCR for EUR, i.e. that it failed to treat the EUR as a significant currency. A significant number of banks (eight banks) are disclosing the LCR in the currency of EUR significantly below 100%, of which four banks are systemically important. At the same time, those banks are disclosing a significantly higher LCR in the currency of BAM (higher than 100%). The stated LCR in BAM is in two banks (one systemically important, with which the LCR for all currencies is below 100%) significantly below 100%. In the other bank from the category of other banks, the calculation of the LCR for the currency of EUR is showing the level that is above 100%.

The following chart presents the review of calculation of the LCR – summary (for all currencies) and individual for significant currencies (EUR and BAM) at the level of the banking system in FBiH:



Exclusively for the requirements of the QIS, the banks were supposed to apply the approach that, if the items agreed with the currency clause exceeded 5% of total liabilities, they should submit a separate calculation of the LCR, as if it concerned any other significant currency. If the data submitted by the banks were accepted as basis for analysis, regardless of issues with logic that were noticed, one could conclude that:

- six banks (of which two systemically important), failed to disclose those calculations, as the items contracted with a currency clause do not meet the criterion of significance;
- six banks disclosed the LCR for the currency clause pegged to EUR, which is 0% (those banks failed to disclose liquid assets contracted with the currency clause, and have disclosed amounts of net liquidity outflows, which are not materially significant);
- one bank (systemically significant) disclosed the LCR for items in the currency clause pegged to EUR, on the basis of its treatment as a significant currency, but the disclosed LCR is extremely

high (because of the reason that the bank in question has significant liquid assets contracted with a currency clause in the form of public debt instrument issued in BiH, wherein the level of net liquidity outflows is relatively low);

- one bank (from the category of other banks) submitted the individual calculation of LCR for the items in the currency clause pegged to EUR that meet the criterion of significance, but in that bank the LCR is significantly below 100% (because of the reason that it is disclosing a low level of liquid assets contracted with a currency clause, and a relatively significant amount of net liquid outflows with which the currency clause was contracted);
- one bank (a systemically important one) disclosed LCR for items in the currency clause pegged to CHF, wherein the calculated LCR is extremely low (because of the disclosed low level of liquid assets in CHF, and a relatively significant amount of net liquid outflows in the CHF currency).

In the course of determination of liquid outflows of banks in the template C73 Liquidity coverage – Outflows, on the basis of data disclosed in the subject template, as well as pronounced difficulties that the banks listed in the qualitative part of the QIS, relating to the appropriate classification of deposits to which the corresponding rates of outflows apply, as well as from the information of the banks on controls implemented over the reporting data for the requirements of the QIS, it is not possible to confirm the reliability and accuracy of the disclosed data. It is also questionable whether the bank had, in the course of the calculations, taken into account all the potential outflows.

Relating to the limitations that exist in regards to the recognition of liquidity inflows on 75% of total liquidity outflows, that are stipulated in Article 32 of the draft of the subject Decision, and on the basis of the summary data of the banks from the template C74 Liquidity coverage – Inflows and the calculation of the LCR in the template C76 Liquidity coverage – Calculations, one may conclude that those were satisfied.

None of the banks in the system disclosed data in the reporting template C75 Liquidity coverage – Collateral exchange, which points to the conclusion that on the level of the banking system there are no transactions in which non-cash assets would be replaced with other non-cash assets, and which would mature within the timeframe of 30 days, which corresponding to position 1.3. Outflows on the basis of exchange of collateral from the report C73 Liquidity coverage – Outflows, taking into account that no bank in the system disclosed data in that position.

Because of the totally different concept of existing and new regulatory quantitative requirements in regards to liquidity maintenance, which is also reflected in regards to the manner and components of calculation of the LCR compared to existing liquidity indicators, the timeline in which their calculation is performed, the reporting currency, the introduction of application of corrective factors for items of liquid assets etc., objectively, the grounds for their comparability are lacking.

6. QUALITATIVE REQUIREMENTS – ANALYSIS OF ANSWERS IN THE QUESTIONNAIRE (ATTACHMENT V)

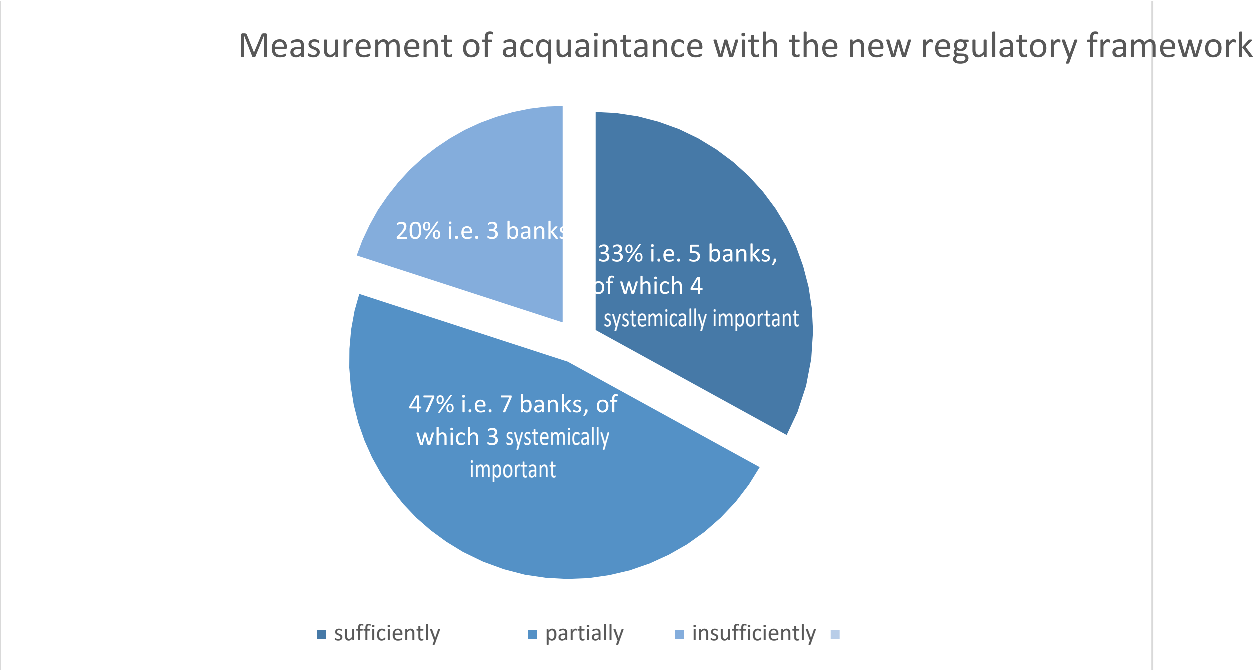
An integral part of the material that had been submitted to the banks for the purpose of implementation of the QIS was the Questionnaire (Attachment V), which related to the new regulatory requirements in the liquidity segment, with the total of 16 questions of qualitative nature, of which 5 questions, i.e. 31% were closed ended, and 11 questions, i.e. 69% were of the open-ended type.

The contents of those questions were founded on the key aspects of quantitative and qualitative requirements envisaged in the draft of the subject Decision, and answers to those questions represent an additional source for the analysis of the calculated quantitative indicators of the banks in the subject templates, i.e. the LCR.

On the basis of individual answers of the banks, and additionally submitted information, a summary review has been compiled of the answers at the level of the banking system in FBiH, based on the analysis of which it is possible to systematize the following key conclusions by individual segments:

a) Level of acquaintance with the new concept and the contents of the regulatory framework in the EU in the liquidity segment and identification of possible difficulties and dilemmas in their application in the banking system in FBiH (questions 1, 2, 3, 4, 5, 11, 12, and 16)

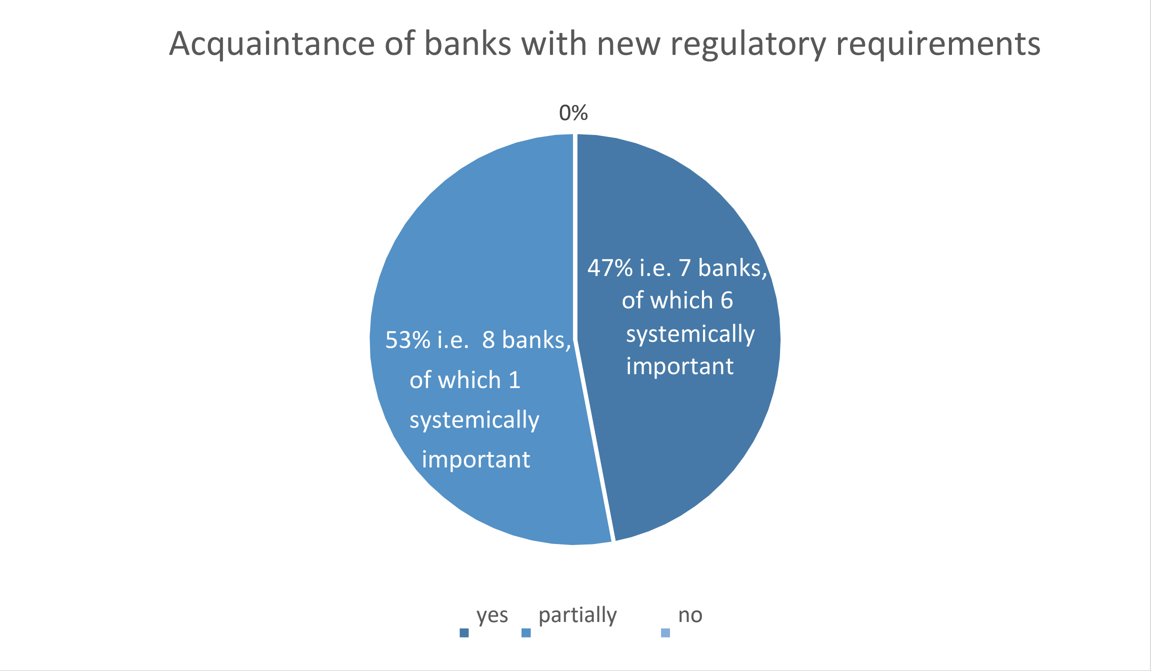
Assessment of the banks on the level of acquaintance with the new regulatory framework in the EU in the liquidity segment is provided in the chart below:



The banks most frequently listed the following, as the expected potential difficulties, areas with lack of clarity, or dilemmas in the application of the new regulatory framework in the liquidity segment:

- systemic support for the new reporting requirements for the calculation of LCR and the development of corresponding software applications;
- duplication of reporting according to the local regulatory requirements and group reporting;
- correct classification of inflows and outflows, i.e. definition and interpretation of individual categories of inflows and outflows;
- understanding of the determinants and standards of the new regulations and their applicability in the business environment in BiH;
- preparation of criteria for recognition of instruments of public debt by the regulators;
- development of the stress testing framework;
- sufficiently long period for adjustment for the application of new regulatory, i.e. reporting requirements because of the necessary investments of banks in information technology support and other resources etc.

The review of responses to the question concerning the acquaintance of the banks with the basic concepts in meeting the new quantitative requirements in liquidity risk management (LCR, NSFR, and additional supervisory mechanisms) is provided in the chart below:



The banks that are, for their own needs, performing the calculation of the LCR, do that, for the most part, for the purpose of reporting to the parent bank, for the requirements of consolidated calculations. That applies to the total of eight banks, i.e. 53%, of which seven are systemically important banks. Other banks (seven of them, i.e. 47%) had not performed calculations of the LCR for internal needs yet.

Of the eight banks that are performing the calculation of LCR according to group methodologies, for all of them, as of the financial date of September 30, 2016, the LCR was above 100%, of which in two banks significantly above 200%. In case of one bank (systemically important)[7], the LCR, according to the group methodology, was above 100%, while according to the submitted calculation of the LCR for the requirements of QIS it was significantly below 100%. The bank explained the aforementioned discrepancy with the fact that the parent bank had thus far accepted the calculation for that bank based on the lower degree of analytic scrutiny by individual categories / items of inflows and outflows, taking into account that requirements for LCR had not been prescribed under the local regulatory framework.
In addition to that, all the banks that are performing the calculation of the LCR for their internal needs are basing it on the established group methodologies, i.e. entry of data for the requirements of consolidated reports on LCR at the group level, with differing assessments of the banks on the level of information technology support, detail, and analytical scrutiny of applies rates of inflows and outflows by category. Therein one bank is the exception (a systemically important bank), as it is performing the calculation of LCR for the needs of reporting to the group and internal needs, as it explicitly stated that the methodology of classification of deposits in individual categories for the needs of calculation of liquidity inflows, i.e. application of corresponding rates of outflows, had not been established.

[7] this concerns a bank in which, even in the application of the existing regulatory requirements certain weaknesses have been noticed in the liquidity risk management, and which is also stated in the corresponding Chapter 3 of this Analysis

Answering the question on the establishment of their own methodology for the determination of internal transfer prices (ITP) and liquidity transfer prices (LTP), nine banks, i.e. 60% responded that they had not established it, while six banks, i.e. 40% (of which five are systemically important banks) stated that they had established it, wherein:

- in one bank, the implementation of the project is ongoing for the calculation of profitability by organizational parts of the bank, whose integral parts are both ITP and LTP;
- one bank stated that it was acting in compliance with the group methodology for the purpose of consolidation of transfer prices at the group level;
- one bank responded that the methodology is being created and discussed with a consultant in the bank and that it matches the requirements from the regulation, in regards to the development of the transfer pricing study;
- one bank stated that it applied the concept of liquidity costs, as one of the components of internal prices.

None of the banks stated that, in addition to BAM and EUR, it had other currencies that would meet the criterion for being treated as a significant currency, i.e. for compilation of independent reports on the calculation of the LCR in the significant currency, which corresponds to the submitted reporting templates of banks for the requirements of the QIS.

Relating to the application of analysis of the banks on potential outflows by term deposits with maturity longer than 30 days, the largest number of banks (eleven of them) stated that they were performing those analyses (on the monthly or quarterly basis), monitored the results, and, in compliance with them, undertook appropriate measures. The banks, for the most part, stated that they had satisfactory results from those analyses, and the measures that had been undertaken in case of necessity stemming from the results of the analyses, related to the following: collecting new deposits or renewing existing ones, adjusting the tariffs, i.e. discount offers for savings, etc. Four banks, of which one systemically important, stated that they did not perform those analyses.

In view of the fact that there still is no prescribed obligation of the banks to compile, for regulatory purposes, recovery plans, and, within them, liquidity recovery plans (the segment of harmonization of the regulations in BiH with the BRRD), the response to the question of had the bank already compiled recovery plans and, within them, liquidity recovery plans, was as expected, as only one (systemically important) bank stated that it had started with the preparation of recovery plans according to the instructions of the parent bank, and in compliance with the Guidelines for Recovery Planning, which were adopted by the Management of the bank. In the liquidity category, it also defined, as early warning indicators, a breach of the limits determined in regards to LCR and the credits / deposits ratio, as well as the activation of defined triggers for initiation of recovery plans. Other banks stated that they had not compiled any recovery plans for internal needs, and from the responses of a certain number of banks it was concluded that they were not acquainted with the regulation that concerns recovery planning, as in this part they listed the elements of contingency plans, which represent a regulatory requirement under the existing Decision on Minimum Standards for Liquidity Risk Management in Banks.

b) Current practices in banks in liquidity risk management as an integral part of integrated risk management, i.e. application of the principles of corporate governance (questions 6, 7, 8, 9, and 10)

Based on the analysis of responses of the banks, i.e. submitted reviews of internal enactments of the banks that regulate liquidity risk management, one may conclude the following:

- virtually all the banks referred to, as the umbrella document, the Programme and policies for liquidity risk management, as well as the possession of plans in case of a liquidity crisis, i.e. extraordinary / unexpected situations in case of threats upon liquidity;
- along with that, several banks referred to as the umbrella documents the risk management strategies;
- the majority of banks referred to the establishment of the board for asset and liability management (ALCO), as well as the possession, i.e. application of the rulebooks / rules of procedures on their operations;
- the number, the content, and the concept of internal enactments listed by the banks is varied, wherein in case of individual banks there is noticeably high number and level of detail in them, for example in case of one bank from the group of systemically important banks, 17 different internal enactments were listed as relevant for liquidity risk management, starting from strategic documents, programmes and policies, decisions on internal limits, implementation procedures and operating instructions for reporting etc.

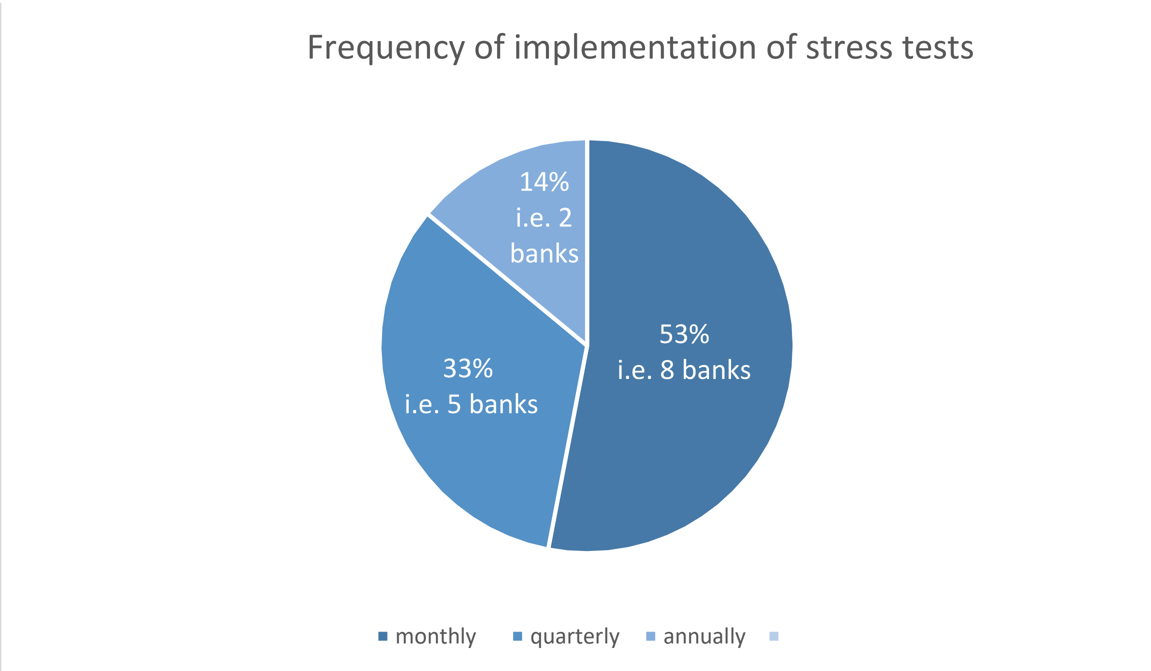
Based on the analysis of responses relating to the key determinants of strategy of the bank in liquidity management, it is noticeable that the method and the content of formulation of strategic determinants in liquidity management vary, wherein a certain number of banks stated, on the general and theoretical basis, general objectives in liquidity management, without going into specifics, and without any strategic commitments that the bank in question would apply in its operations. In the responses of certain banks, it is possible to recognize the specific and individualized commitments characteristic for the operations and the strategy of that bank, adjusted to the structure of its assets and liabilities.
Below is provided the review of the most frequent responses of the banks concerning priority strategic determinants in liquidity risk management, according to the sequence that corresponds to the frequency of the listed responses:

- monitoring and retaining the prescribed regulatory requirements and internal liquidity indicators, as well as group requirements and standards in case of banks that are members of foreign banking groups;
- optimization of exposures of the bank to liquidity risk;
- maintenance of the matching of assets and liabilities from the currency and the maturity aspect, as well as the allocation of assets with maximizing the profits and an acceptable level of risk;
- creating and maintaining adequate liquidity structure that supports sustainable development of business operations, protection, and preservation of capital of the bank, as well as an adequate organizational framework and the process of decision making on liquidity risk, as well as the application of early warning signs with the objective of maintenance of liquidity with the long-term time horizon;
- constant availability of adequate liquidity reserves;
- maintenance of a long-term stabile deposit base;
- management of liabilities of the bank, with the objective of acquisition of the most favorable sources of financing possible, and structuring the assets in a manner that ensures optimal liquidity;
- setting an adequate balance in the management of items of assets and liabilities;
- diversification of sources of financing etc.

The responses of the banks on the assessment of internal audit in liquidity risk management point to the conclusion that the internal audit had assessed the liquidity risk in banks as low or moderate, i.e. that the liquidity risk management had been assessed as satisfactory. The level of timeliness and updatedness of the findings of internal audit to which the banks refer in their responses to this question varies, and a large number of banks failed to state the period in which the latest updated assessment of internal audit had been performed. In the course of listing the findings, i.e. recommendations of internal audit, the majority of banks stated that the recommendations of internal audit had been taken on board within the defined deadline, i.e. that actions had been undertaken in compliance with them. In the analysis of the summarized responses of the banks at the level of the system, it was noticed that the most frequent recommendations of internal audit had referred to the following:

- renewing and / or improving the internal enactments that regulate liquidity risk management, i.e. improvements in their application, as well as of the internal limits set;
- improvements in the segment of diversification of sources, i.e. reduction of present concentrations in the sources;
- improvements in the operations of the ALCO committee;
- improvements in the segment of automatic support for external and internal reporting on liquidity, i.e. control of appropriateness of reporting data;
- testing of the plan for emergency situations and disturbances in liquidity, and improvements in the practice of stress testing;
- strengthened supervision over the liquidity risk because of the still present impact and activity of the financial crisis on the liquidity risk;
- additional monitoring of maturity of assets and future liquidity needs;
- clear definition of internal controls in the process of liquidity planning;
- monitoring of operating risk in the part of quality control of data for liquidity risk management, etc.

All the banks stated that they implemented stress testing in the liquidity risk management segment, with varying frequency and methodologies being applies, which can be reviewed in the chart below:



Of the banks that are implementing stress tests on the monthly basis, certain systemically important banks stated that they performed them even on the weekly, i.e. daily basis, for the requirements of their parent banks abroad, for the purpose of monitoring the results and impact on short-term liquidity.

Apart from one bank, all the other banks failed to list the measures, or stated that there had been no need to undertake measures, as the prescribed requirements, or internally determined liquidity indicators, had not been breached, while one bank stated that it had undertaken measures such as the withdrawal of term assets from accounts in foreign banks, borrowing assets on the money market (Money Market Transactions), withdrawing the assets on teh basis of a contracted „stand by“ arrangement with the parent bank or with other banks.

Relating to the question of whether the banks had been in a situation to act in compliance with the adopted plans for liquidity in contingencies, i.e. disruptions of liquidity, only two banks (both from the category of systemically important banks) stated that certain measures had been undertaken. In one of those banks, in 2014, there was an activation of measures of special caution, but there was no declaration of a liquidity crisis. In case of that bank, the data submitted on the calculation of LCR for the requirements of implementation of the QIS, as of the financial date of September 30, 2016, pointed to the LCR being below 100%.
The second of those banks stated that in 2008 activities had been initiated by the group (the parent bank) because of the potential impact of the financial crisis on the liquidity in the local market, and that the efficiency of initiated measures in short term had been satisfactory and the market had stabilized without any negative consequences upon the bank and the banking sector in that regard.
Other banks stated that there had been no need to activate measures from the liquidity contingency plan (liquidity disruptions).

c) Specificity of application of requirements for recognition of liquid assets into the liquidity buffer (questions 13 and 14)

It is a characteristic of the banking system in FBiH that, in addition to cash and monetary assets in accounts with the CBBiH and other banks, other categories of liquid assets have a relatively low share (more detail provided in Chapter 5, Table 5).

Three banks, i.e. 20% of banks, stated that, as of the financial date of September 30, 2016, they had no other types of liquid assets, apart from cash and monetary assets in accounts of the CBBiH and other banks, and of them one is a systemically important bank. The other twelve banks, i.e. 80% of banks, stated that in the framework of liquid assets they had portfolios of equity or debt securities, specifically: shares of privately owned enterprises, banks, and investment companies, public debt instruments issued by entity governments in BiH (bonds and treasury bills of issuers FBiH and RS), as well as municipalities, start bonds of issuers from abroad – the states of Slovenia, Croatia, Turkey, Austria, Belgium, France, the Netherlands, Poland, Italy, Romania, Spain etc., bonds whose issuers are banks abroad, as well as foreign corporate bonds.

The data collected from the banks on the level and the structure of that portfolio as of the financial date of September 30, 2016 diverge significantly from the reporting data that the banks are regularly (on the quarterly basis) submitting to the Agency and that correspond to the data from the balance sheets of the banks. Because of the insufficient reliability of the data collected from the banks from the Questionnaire (Attachment V), they were not used for any further analysis, and instead the data were used from the regular reporting data that the banks are submitting to the Agency on the portfolio of securities.

According to the aforementioned source, that portfolio, as of the financial date of September 30, 2016, at the level of the banking system in FBiH amounted to the total of BAM 1,128,032 thousand, representing 6% of total assets of the banking system in FBiH.
The review of the structure of the total portfolio of securities at the level of the banking system in FBiH as of the financial date of September 30, 2016 is provided below:

Table 8.

Structure of total portfolio of securities in BAM thousand		
By category of bank		
	Amount	**% share in the total portfolio**
Systemically important banks	977,827	87
Other banks	150,205	13
Total:	**1,128,032**	**100**
By type / issuer of the security and the country of origin of the issuer		
(1) Securities issued in BiH	**733,627**	**65**
Of which: bonds[8]	*562,417*	*50*
- Bonds of FBiH	476,726	42
- Bonds of RS	85,691	8
Of which: treasury bills	*163,395*	*14*
- Treasury bills of FBiH	109,991	10
- Treasury bills of RS	53,404	4
Other securities[9]	*7,815*	*1*
(2) Securities issued outside of BiH	**394,405**	**35**
Of which:		
State bonds	328,763	29
Corporate bonds	57,868	5
Treasury bills	7,416	0,7
Shares	358	0,3
Total (1)+(2):	**1,128,032**	**100**

It is evident from the review that of the stated total amount of the portfolio, 87% concerns systemically important banks, while 13% concerns other banks in the system.
Therein, 84% of the total portfolio of systemically important banks, i.e. 73% of the total portfolio of the banking system in FBiH, concerns three systemically important banks, wherein one systemically important bank participates with 40% of the total portfolio of systemically important banks, i.e. 35% of the total portfolio at the level of the system.

Based on the analysis of the structure of the portfolio by the type of security, the issuer, and the country of origin of the issuer, it is noticeable that the dominant share is the share of the portfolio of securities issued by entity government in BiH (FBiH and RS), representing 65% of the total portfolio.

Five banks, i.e. 33%, of which one is a systemically important bank, do not have in their assets the portfolio of public debt instruments issued by entity government in BiH (FBiH and RS). Ten banks, i.e. 67%, of which six are systemically important banks, have in their portfolio public debt instruments (bonds and treasury bills) issued by entity government in BiH (FBiH and RS).
Of them:

- three banks stated explicitly that they had not established criteria to be used in the assessment of fulfillment of criteria for their inclusion in to the liquidity buffer, i.e. highly liquid assets;

[8] amount of bonds based on old foreign currently savings and war related claims is excluded
[9] shares, bonds on the basis of old foreign currently savings and war related claims etc.

- one bank, from the group of systemically important banks, stated that it did not include those instruments in highly liquid assets, in the course of calculation of LCR;
- the other six banks, of which four are from the group of systemically important banks, did not state that they had criteria established according to which they assessed whether those assets met the conditions necessary for them to be included in liquid assets, but stated specific explanations, i.e. arguments because of which the public debt instruments issued by entity government would be included in liquid assets the course of calculation of LCR. The aforementioned argumentation of the banks could be systematized in the following groups, conditionally speaking:
  - the banks had not traded with public debt instruments, but they are of the opinion that they could be sold, at a certain "haircut", taking into account that the entities in the financial sector currently have excess liquidity and prefer investing in less risky assets, such as the bonds being issued by entity governments in BiH;
  - although there is no active trading with that portfolio, that is not because of the reason of its lack of liquidity, but because not a sufficient number of instruments for investing are being offered in the market for the surplus liquidity of the banks, so that the banks keep the purchased portfolio;
  - the fact that in any auction of those securities the offer was significantly above the amount of the issuance;
  - high level of liquidity in the banking sector in BiH has not required the development of the repo market;
  - acting in accordance with the instructions of the parent bank to classify that portfolio for local needs as level 1 assets with limitations and in compliance with changes in the market price on the monthly level etc.

Only one bank (systemically important) stated that it had realized the most significant portion of its sales secondary transactions with securities of the FBiH Government issued in primary auctions in 2016, wherein it stated that the transactions had been realized in a single working day, upon the issuance of the sales order to the authorized intermediary. That bank, additionally, as argumentation for the recognition of the subject portfolio, expressed the statement that there is an "appearance" of the lack of demand for local issues, and that in the conditions of low yields, the costs of intermediation in sale (brokerage fees, stock market fees, and registry fees) in FBiH, secondary trading with bonds is rendered difficult, and transactions with treasury bills without losses are rendered impossible. Individual banks, also from the group of systemically important banks, stated as an argument the "confirmation / instruction of the parent bank" that they may classify those instruments, for local needs, in liquid assets, although under strict principles of the EU regulations that portfolio does not meet fully the conditions necessary for it to be included in highly liquid assets, but therein they fail to state the grounds or the arguments for such a "confirmation", and despite the fact that for group reporting the banks are not including that for the purposes of consolidated calculation of LCR of the parent bank. One of those banks also stated that it had no transactions of sale of its portfolio on the secondary market, but it did buy the portfolio on the secondary market, which it supports by the data on realized transactions of purchase of state bonds (FBiH Government) in 2016, therein the data on the prices of trading were not provided.

Only some of the banks responded to the part of the question that concern the main obstacles in the course of performing direct sale or buyout of those securities and which measures mat contribute to increased liquidity of those securities, and the analysis of the responses may result in the systematization of the following ones:

- lack of development of the market and high fees for the intermediaries (stock market, registry, brokers);
- lack of instruments for investing surplus liquidity in the BAM currency;
- if the public debt instrument were favorable for the performance of repo transactions with the CBBiH, that would be one of the measures that would improve their liquidity;
- lack of adequate infrastructure and the legislated framework for realization of repo transactions and the lack of harmonization of the fee for that type of transactions etc.

7. CONCLUSION

On the basis of the implemented analysis of data that were submitted by the banks within the framework of the quantitative and qualitative part of the QIS in the liquidity segment one may derive a conclusion that upon the introduction of the new regulatory requirement in regards to maintenance of the LCR, the banking system in FBiH would retain a satisfactory level of liquidity in the period of stress of 30 calendar days, if one takes into account the summary calculation of LCR at the level of the banking system as of the financial date of September 30, 2016, i.e. the level of liquid assets that was disclosed by the banks.
At the same time, for the part of the liquid assets that was disclosed by the banks on the basis of the portfolio of securities, it is not possible to determine, from the submitted data, whether the banks had taken into account, in the appropriate manner, all the prescribed conditions for their recognition into the liquidity buffer (more details provided in chapters 5 and 6 of this Analysis).

With the exception of one bank (a systemically important bank), all the other banks in the system disclosed LCRs above 100%, and some of them disclosed LCR that are significantly above that level. It can be expected that the bank in question, taking into account the aforementioned measures it is already implementing and measures it planned to undertake, could, by the period of application of the new regulatory requirement in regards to the LCR. meet the regulatory requirement, which should be subject to monitoring by the Agency.

Comprehensive analysis of potential effects in the segment of long-term, i.e. structural liquidity which is connected with the planned introduction of the new regulatory requirement in regards to meeting the NSFR in compliance with the implementation of the Strategy of the Agency, would provide a more compete review of the impact of introduction of the new regulatory requirements in the liquidity segment into the banking system in FBiH.

Although, according to the new regulatory requirements, it is not required to keep the LCR at the 100% currency matched amount in individually significant currencies, the Agency has the option to require limitations to currency mismatches of liquid assets of the bank with the currency distribution of its new liquidity inflows, in such a manner that it could determine limitations for the share of net liquidity outflows in a certain currency that may be covered with keeping liquid assets in another currency. On the basis of the submitted reporting data of the banks, only EUR and BAM are meeting the criterion for being treated as a significant currency, wherein the individual calculations of the LCR of banks submitted for the currency of BAM are above the prescribed level, while for the currency of EUR they are below. Regardless of the submitted calculation of the LCR on the summary level (all the currencies expressed in the reporting currency, BAM) being above the prescribed minimum, the Agency shall, which Pillar 2, assess the acceptability of the lack of sufficient coverage in liquid assets of the banks for net liquidity outflows in the individually significant currency (EUR), taking into account the fact of the fixed exchange rate of the EUR compared to the reporting currency (BAM), but that does not mean, automatically, that the deposits in EUR are more stable than the deposits in other currencies. In that context, the banks are expected to establish analyses founded on historical data of which deposits in which currency are less stable and to apply higher rates of outflows on such deposits.

In view of the significant share of the portfolio of securities, which represent public debt instruments issued by entity governments, in liquid assets, and for which, according to the information submitted by the banks, criteria have not been established for assessment of fulfillment of the prescribed general and operation requirements, i.e. criteria for recognition into liquid assets, in the course of the implementation of the public discussion on the draft of the subject Decision with the banking sector it would be appropriate and justified to implement additional activities, in coordination with institutions in charge of regulation of the money and capital market, as well as macroeconomic policy in regards to the realistic and acceptable analysis of prescribed requirements in the context of the specificities and the degree of development of the financial market in BiH, all with the objective of ensuring adequate “stocks” of liquid assets that the banks could, at any moment in the period of stress of 30 day, transform into money and, therefore, meet their liabilities.

Taking into account the degree of development of the public debt market in BiH, and in the context of information collected from the banks in the qualitative part of the QIS – the Questionnaire (Attachment V), including the aforementioned key obstacles for the meeting of the prescribed operating, general requirements, i.e. criteria for eligibility of this portfolio of securities, as well as the differing treatment that to which the banks subjected this portfolio in the course of calculation of the QIS, and the potential correction of value of the portfolio in the course of its recognition into the liquidity buffer, the aforementioned question needs to be analyzed by all the competent institutions in BiH, in the context of the recommendations of the FSAP mission in the segment of “Systemic Liquidity Management”, in regards to the treatment of the state securities, i.e. the implementation of the Action Plan of the Agency in that segment.

Speaking of the determination of net liquidity outflows, it cannot be confirmed whether the banks, in the course of calculation of the LCR, took into account all the potential liquidity outflows, especially if one takes into account the treatments of term deposits and other deposit products with which there is a contracted possibility of withdrawal at any moment in time, regardless of the contracted term maturity, as well as the disclosed reserves of banks in regards to correct classification into individual categories of deposits, which is underlined in the responses of the banks to the qualitative part – the Questionnaire (Attachment V).

Taking into account all the aforementioned, as well as the planned implementation of the public discussion of the prepared draft of the subject Decision, it shall be necessary, after its completion and the supplementation in regards to the mandatory maintenance of the NSFR, to perform an analysis of the impact of introduction of both the requirements – LCR and NSFR, with the objective of a more comprehensive analysis of potential effect before the full application of the new regulatory requirements, eliminating, at the same time, all the inconsistencies, issues with logic, issues with completeness, or inaccuracies of reporting data on the calculation of LCR noticed in the course of implementation of this QIS. The aforementioned activity is, based on its contents and pace of realization, also connected with and conditions by the entry into effect of the new LoB.

As these have been the first test based data on the calculation of LCR, developed on the basis of the draft of the subject Decision and the instructions prepared for the requirements of the QIS, and on the testing reporting templates, which had no gone through the process of public discussion, even, as well as in view of the statements on the difficulties notices in the course of collection of data, which put under a question mark the accuracy of data of the banks on which the analysis is based, and the fact that after the public discussion there will be changes in the prepared enactments that had served exclusively for the purposes of implementation of the QIS, it is certain that before the official legal entry into effect of the subject Decisions and other bylaws that regulate the single standardized framework for supervisory reporting in the liquidity segments, the banks shall be required to submit data with the updated financial date, which will correspond to the beginning of implementation of new regulations and the period of parallel reporting under the existing and the new regulatory requirements.

Taking into account that this concerns a totally different approach, a different concept and contents of requirements in regards to liquidity coverage that concerns the period of stress of 30 calendar days and reporting templates on the calculation of LCR, compared to the currently prescribed requirements in regards to maintenance of daily minimum, and minimum for the period of ten days, and maturity matching of financial assets and financial liabilities of up to 180 days, realistically speaking there is no possibility for any comparability of those indicators.

The results of the analysis performed in the qualitative part – the responses of the banks to questions from the Questionnaire (Attachment V) point to the conclusion that the banks:

- answered all the questions posed in full;
- were acquainted or partially acquainted with the key aspects of the new regulatory requirements, wherein, as expected, the banks from the category of systemically important banks that are members of international banking groups with headquarters in the EU were more acquainted with the basic concepts of new regulatory requirements and had, for a certain period of time already, been performing calculations of the LCR in compliance with the established group methodologies;
- identified certain difficulties, areas lacking clarity, or dilemmas in the implementation of new regulatory requirements, of both quantitative and qualitative nature;
- stated that they were regular in implementing stress testing, and that, with individual exceptions, the results of the stress tests implemented had not pointed to the necessity of undertaking any measures, i.e. activating the contingency plans;
- stated that the assessments of internal audit on liquidity risk management were satisfactory, that the level of risk was assessed as low or moderate, with specific recommendations for improvement, for which it was stated that they had been taken on board, i.e. that actions had been undertaken in compliance with them, etc.

One should keep in mind that the Agency will, starting from the results of the QIS and the public discussion that is planned on the draft of the subject Decision, and well as the analysis of the current amendments and addenda to the regulatory framework in the EU in the segment of net stable sources of financing, and other relevant areas, perform the necessary amendments / addenda in the draft of the subject Decision, taking into account the results of the monitoring in the course of the period of parallel reporting under the existing and the new reporting templates, which shall also require additional implementation of analysis of impacts on the banking system In FBiH, and the final contents of the subject Decision shall reflect all the aforementioned.