Basel Committee
on Banking Supervision

Regulatory Consistency Assessment Programme (RCAP)

Assessment of Basel III LCR regulations – Korea

September 2016

BANK FOR INTERNATIONAL SETTLEMENTS

Note that this report refers to the RCAP grades prior to October 2025. The grade 'materially non-compliant (MNC)', ie one notch above the lowest grade, has since been renamed to 'partially non-compliant (PNC)' for greater clarity

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Contents

Glossary

ALA	Alternative Liquidity Approaches
BCBS	Basel Committee on Banking Supervision
D-SIBs	Domestic systemically important banks
EXIM	Export and Import Bank of Korea
FAQs	Frequently asked questions
FSAP	Financial Sector Assessment Programme
FSC	Financial Services Commission
FSS	Financial Supervisory Service
FX	Foreign exchange
HQLA	High-quality liquid assets
ICAAP	Internal Liquidity Adequacy Assessment Programme
LCR	Liquidity Coverage Ratio
RCAP	Regulatory Consistency Assessment Programme
KRW	Korean won
SMEs	Small and medium-sized enterprises
SREP	Supervisory Review and Evaluation Process

Preface

The Basel Committee on Banking Supervision sets a high priority on the implementation of regulatory standards underpinning the Basel III framework. The prudential benefits from adopting Basel standards can only fully accrue if these are implemented appropriately and consistently by all member jurisdictions. The Committee established the Regulatory Consistency Assessment Programme (RCAP) to monitor, assess and evaluate its members' implementation of the Basel framework.

This report presents the findings of the RCAP Assessment Team (the Assessment Team) on the domestic adoption of the Basel Liquidity Coverage Ratio (LCR) standards in Korea.[1] The assessment focuses on the regulatory adoption of Basel LCR standards applied to Korean banks that are internationally or regionally active and of significance to its domestic financial stability.

The RCAP LCR assessment was based primarily on the LCR rules that were issued by the Korean authorities[2] in December 2014. In the course of the assessment, the authorities made a number of revisions to the rules based on issues identified by the Assessment Team. This report has been updated where relevant, to reflect the progress made by Korean authorities to align the regulations with Basel LCR standards.

The RCAP Assessment Team was led by Mr Michael Schoch, Head of Banks Division and Member of the Executive Board of the Swiss Financial Market Supervisory Authority (FINMA). The Assessment Team comprised seven technical experts drawn from Belgium, China, India, Hong Kong SAR, Germany, Singapore and South Africa (Annex 1). The main counterparty for the assessment was the Financial Supervisory Service of Korea (FSS).

The assessment relied upon the data, information and materiality computations provided by the FSS. The assessment findings are based primarily on an understanding of the Korean regulations and current processes in the FSS as explained by the counterparty staff and the expert view of the Assessment Team on the documents and data reviewed. The overall work was coordinated by the Basel Committee Secretariat.

The assessment began in November 2015 and comprised: (i) completion of an RCAP questionnaire (a self-assessment) by the Korean authorities; (ii) an off- and on-site assessment phase (November 2015 to June 2016); and (iii) a post-assessment review phase (July to September 2016). The off- and on-site phases included an on-site visit for discussions with the Korean authorities and representatives of Korean banks (which were used as the RCAP sample banks for the purpose of impact assessment) and external audit firms. These exchanges provided the Assessment Team with a deeper understanding of the implementation of the Basel LCR standards in Korea. The third phase consisted of a two-stage technical review of the assessment findings: first, by a separate RCAP Review Team and via feedback from the Basel Committee's Supervision and Implementation Group; and second, by the RCAP Peer Review Board and the Basel Committee. This two-step review process is a key instrument of the RCAP process to provide quality control and ensure integrity of the assessment findings. The focus of the assessment was on the consistency and completeness of the domestic regulations in Korea with the Basel minimum requirements. Issues relating to prudential outcomes, adequacy of liquidity ratios at individual banks or the effectiveness of the Korean authorities' liquidity risk management supervision were not in the scope of this RCAP assessment exercise.

Where domestic regulations and provisions were identified to be not in conformity with the Basel framework, those deviations were evaluated for their current and potential impact (or non-impact) on the

1 The report complements the RCAP assessment report of Korea's adoption of the Basel risk-based capital standards.

2 Korean authorities refer to the Financial Services Commission (FSC), Financial Supervisory Service (FSS) and the Bank of Korea.

reported liquidity ratios for a sample of internationally and regionally active Korean banks. Some findings were evaluated on a qualitative basis. The overall assessment outcome was based on the materiality of findings and the use of expert judgment.

The report has two sections and a set of annexes: (i) an executive summary with a statement from the FSS on the material findings; (ii) the context, scope and methodology and the main set of assessment findings; and (iii) details of the deviations and their materiality along with other assessment-related observations.

The RCAP Assessment Team acknowledges the professional cooperation received from the FSS throughout the assessment process. In particular, the Assessment Team sincerely thanks the staff of the FSS for playing an instrumental role in coordinating the assessment exercise. The series of comprehensive briefings and clarifications provided by the FSS enabled the RCAP assessors to arrive at their expert assessment. The Assessment Team is hopeful that the RCAP assessment exercise will contribute towards strengthening prudential effectiveness and full implementation of the recent reform measures in Korea.

Executive summary

The Korean framework for LCR requirements was issued on 26 December 2014 through the publication of both the Regulation on Supervision of Banking Business (RSBB) and the Detailed Regulation of Banking Business (DRSBB), which then came into effect on 1 January 2015. The LCR applies to all national and commercial banking institutions in Korea except the Export and Import Bank of Korea (EXIM Bank[3]).

In November 2015, the FSS completed an extensive self-assessment of the domestic LCR rules as part of their preparation for the RCAP exercise. The RCAP Assessment Team (Assessment Team) identified a number of additional deviations from the Basel framework. The FSS used the discipline of the RCAP exercise to further refine their LCR rules – to the extent feasible and consistent with Korean national interests. In all, Korea's LCR framework benefited during the course of the RCAP assessment work from two rectifications.

Overall, as of the cut-off date for the RCAP assessment, the Assessment Team finds Korea's LCR rules to be compliant with the standards prescribed under the Basel LCR standards. All graded components of the LCR framework, including the high-quality liquid assets, the liquidity inflows and outflows and disclosure requirements, are assessed as compliant.

The Assessment Team compliments the FSS for their implementation of and alignment with the Basel LCR framework. The FSS has also developed and implemented the necessary reporting templates and systems for the LCR. However, the achievement of the intended prudential outcomes and effective implementation, monitoring and supervision of these requirements was not in the scope of the assessment.

In addition to the formal assessment of the LCR standards and disclosure requirements, this report also summarises the FSS's implementation of the Basel Principles for sound liquidity risk management and the LCR monitoring tools (Annexes 9 and 10). Further, a summary is provided of the key national discretions and approaches that the FSS has adopted in their implementation of the LCR standards (Annex 14). These annexes help to clarify how national authorities implement certain aspects of the Basel standards that are not in the scope of the formal RCAP-LCR assessment at this point of time. Over time, the information detailed in these annexes will provide a basis for designing best practices and additional supervisory guidance that will benefit the regulatory community and the banking industry to raise the consistency of the LCR's implementation and to improve its effectiveness in practice.

The Assessment Team recognises the efforts made by the FSS to further strengthen and align its LCR rules with the Basel LCR framework throughout the course of the assessment process.

[3] The EXIM Bank is the government-backed export credit agency. It deals mainly with trade finance products and does not hold deposits. For these reasons, the EXIM bank is not subject to the LCR standards.

Response from the Financial Supervisory Service of Korea

Korea's supervisory authorities have been communicating and collaborating with the Basel Committee over the years in order to ensure effective implementation of and compliance with the Basel standards. In respect of the LCR, proactive measures by Korea's supervisory authorities led to successful implementation of the new liquidity regime at the beginning of 2015.

Throughout the RCAP process in February 2016, Korea's bank supervisors were able to exchange constructive ideas and views with the RCAP Assessment Team. In particular, the engagement with the Assessment Team has given Korea's bank supervisors opportunities for an in-depth comparative review of the standards put forth by the Basel Committee and the standards adopted by Korea. Korea's bank supervisors have very much appreciated the high level of expertise and competence the Assessment Team has demonstrated throughout the assessment process and would like to assure the Assessment Team that its findings and views will contribute to more effective banking supervision in Korea.

As the assessment results demonstrate, Korea's LCR standards are consistent with the Basel standards. With respect to discrepancies pertaining to operational deposits that the Assessment Team observed, revisions to the applicable rules have been made in accordance with the Basel standards. For issues pertaining to LCR calculation methods, there was no material difference between the one-month LCR and the 30-day LCR. The one-month period was adopted in view of the business practices of the commercial banks. In the light of the recommendations put forth by the Assessment Team, however, Korea's bank supervisors have incorporated the 30-day period for the LCR calculation. In addition, Korea's bank supervisors now use the foreign currency LCR to monitor the bank's foreign currency liquidity.

Korea's supervisory authorities will continue to embrace proposals and measures put forth by the Basel Committee to improve the consistency of banking standards across countries and work closely with it to further ensure strong banking standards.

1 Assessment context and main findings

1.1 Context

Status of implementation

The Financial Services Commission (FSC) is responsible for the regulation and supervision of the banking sector. The FSC is empowered by Article 17 of the Act on the Establishment of Financial Services Commission to issue banking regulations, rules and guidance to licensed banks in Korea. The FSS implements the regulations issued by the FSC and its key functions include supervision and examination of financial firms, along with other enforcement and oversight activities. The Basel LCR standards have been in effect from 1 January 2015, implemented via the issuance of regulations and circulars (see Annex 2 for a complete timeline). Regulations are published in the Korean language. For the purpose of the RCAP assessment, the regulations were translated into English.

The LCR regulations were published on 26 December 2014 and came into effect on 1 January 2015 and the LCR disclosure regulation was published and came into effect on 30 January 2015.

Along with the LCR regulations, the FSS has also implemented the LCR monitoring tools (1 January 2015) and the Basel *Principles for sound liquidity risk management and supervision* (30 September 2009). A factual description of how each of these frameworks has been implemented is provided in Annexes 9 and 10, respectively.

Regulatory system and model of supervision

In Korea, all national and commercial banking institutions (excluding the EXIM Bank) are subject to the Basel III LCR standards. The FSC is responsible for issuing and enforcing the LCR regulation in Korea.

In the case of breaches of the LCR regulation, the FSS has powers to impose corrective measures, as detailed in the LCR regulation. In periods of systemic stress, the FSS may also determine whether to relax or lower the LCR requirements (on a case-by-case basis).

Further, the FSS has issued a data collection template with the information required to calculate the LCR for each bank. The submitted LCR and accompanying data are reviewed monthly. Given the amount of information needed, and the need for homogeneous and consistent reporting, banks are also provided with technical guidance on completing the data template and computing the LCR. This technical guidance is explicitly referenced in the Korean's LCR regulation.

1.2 Structure, enforceability and binding nature of prudential regulations

The liquidity regulation is subject to the same well defined regulatory process as for capital regulation. The following table provides an overview of the legal hierarchy of prudential regulations in Korea (details on the structure and binding nature of prudential regulations in Korea are outlined in the RCAP assessment report on Korea risk-based capital requirements for banks).[4] The LCR requirements, as issued in final form in December 2014, meet the RCAP criterion of being enforceable and binding in nature.

[4] Available at www.bis.org/bcbs/implementation/l2.htm.

Hierarchy of banking regulations in Korea	Table 1
Laws and regulations	Banking Act (issued by the National Assembly)
	Enforcement Decree of Banking Act (issued by the President and the State Council)
Internal regulation derived from the above laws and regulations	Regulation on Supervision of Banking Business (issued by the Financial Services Commission)
	Detailed Regulation on Supervision of Banking Business (the Financial Supervisory Service)
	Instruction for Unified Disclosure for Financial Services (the Korean Federation of Banks)

1.3 Scope of the assessment

The assessment was made of the LCR requirements as applicable to the 16 banks in Korea. In evaluating the materiality of the findings, the quantification was limited to the agreed eight banks subject to the RCAP review (see Annex 8). These banks hold more than 69% of the Korean banking system's assets.

Assessment grading and methodology

As per the RCAP methodology approved by the Basel Committee, the outcome of the assessment was summarised using a four-grade scale, both at the level of each of the four key components of the Basel framework for the LCR and the overall assessment of compliance: compliant, largely compliant, materially non-compliant and non-compliant.[5]

The materiality of the deviations was assessed in terms of their current or, where applicable, potential future impact (or non-impact) on the LCRs of the banks. Wherever relevant and feasible, the Assessment Team, together with the FSS, attempted to quantify the impact based on data collected from Korean banks in the agreed sample of banks. The non-quantifiable aspects of identified deviations were discussed and reviewed with the FSS, in the context of the prevailing regulatory practices and processes with the FSS.

Ultimately, the assignment of the assessment grades was guided by the collective expert judgment of the Assessment Team. In doing so, the Assessment Team relied on the general principle that the burden of proof rests with the assessed jurisdiction to show that a finding is not material or not potentially material. A summary of the materiality analysis is given in Section 2 and Annex 8.

In a few cases, Korean liquidity requirements go beyond the minimum Basel standards. Although these elements provide for a more rigorous implementation of the Basel framework in some aspects, they have not been taken into account for the assessment of compliance under the RCAP methodology as per the agreed assessment methodology (see Annex 13 for a listing of areas of super-equivalence).

1.4 Main findings

A summary of the main findings is given below. Overall, the Assessment Team considers the LCR regulation issued in December 2015 (further revised on 28 June 2016) as compliant with the Basel

[5] This four-grade scale is consistent with the approach used for assessing countries' compliance with the Basel Committee's *Core principles for effective banking supervision*. The actual definition of the four grades has been adjusted to take into account the different nature of the two exercises. In addition, components of the Basel framework that are not relevant to an individual jurisdiction may be assessed as not applicable (N/A). See www.bis.org/publ/bcbs264.htm for further details.

standards. All components assessed by the RCAP Assessment Team are also assessed as compliant with the minimum Basel standards. More detail is provided in the main findings section below.

Summary assessment grading

Table 2

Key components of the Basel LCR framework	Grade
Overall grade	C
High-quality liquid assets (numerator)	C
Outflows (denominator)	C
Inflows (denominator)	C
LCR disclosure requirements	C

Definition of the grades): **compliant (C)**: all minimum Basel provisions have been satisfied and no material deviations have been found that would give rise to prudential concerns or provide a competitive advantage to internationally active banks; **largely compliant (LC)**: only minor provisions have not been satisfied and differences that have a limited impact on financial stability or the international level playing field have been identified; **materially non-compliant (MNC)**: key provisions of the framework have not been satisfied or differences that could materially impact the LCR: **non-compliant (NC)**: the regulation has not been adopted or differences that could severely impact the LCR and financial stability or international level playing field have been identified.

Colour code:

Compliant	C
Largely compliant	LC
Materially non-compliant	MNC
Non-compliant	NC

Main findings by component

General comments – scope of application and transitional arrangements

The LCR applies to all national and commercial banking institutions (except for the EXIM Bank) in Korea, including foreign bank branches. The scope is assessed to be super-equivalent to the minimum recommendation under the Basel standard that states that the LCR should be applied to all internationally active banks on a consolidated basis.

The Assessment Team also finds the Korean transitional arrangement to be compliant with the Basel standard. For commercial banks, the requirement starts from 80% on 1 January 2015, and rises annually by 5% to reach 100% on 1 January 2019. This is more stringent than the transitional arrangements stipulated in the Basel standard, whereby the minimum requirement for the LCR will be increased in equal annual steps of 10% starting from 60% on 1 January 2015 and reaching 100% on 1 January 2019.

Foreign bank branches are required to meet a 20% LCR requirement from 1 January 2015, increasing by 10% annually and reaching 60% on 1 January 2019. As the implementation of the LCR requirement by foreign bank branches goes beyond the minimum recommendation under the Basel standard, the Assessment Team does not deem the less stringent transitional requirement for foreign bank branches to be a potential issue.

High-quality liquid assets (numerator)

The definition of different classes of HQLA in the LCR is a key element of the Basel standard. The Korean implementation follows the Basel standard.

Notwithstanding, the Assessment Team has raised an observation on the treatment of central bank reserves (see Section 2.4). The Basel standard states that central bank reserves (including required reserves) can only be included as HQLA to the extent that the central bank policies allow them to be drawn down in times of stress. While the actual use of central bank required reserves require the Bank of Korea's explicit approval, the Korean domestic rules explicitly permit the inclusion of all central bank reserves as HQLA. The Bank of Korea has confirmed that all central bank reserves will be made available for banks during the period of stress. However, the Assessment Team is of the view that this may become an issue if the Bank of Korea were to publish a new ruling that would prevent the use of all central bank reserves in times of stress.

Outflows (denominator)

The Assessment Team finds the FSS's regulatory implementation for net outflows to be compliant with the Basel LCR requirements. In general, the outflow rates applicable to various items are in line with Basel standards. Notwithstanding, the Assessment Team noted one finding, which is unlikely to have a material impact on the LCR. Specifically, the Korean LCR regulations allow banks to apply "stable" outflow rates for all foreign exchange retail deposits without conducting any analysis to determine whether the volatility of foreign exchange retail deposits is higher than that of domestic retail deposits, as required by paragraph 81 of the Basel LCR standards.

As of 31 December 2015, foreign exchange retail deposits only make up about 3.3% of total retail deposits. The Assessment Team noted, based on the discussion with the FSS, that they do not expect extraordinary growth in this segment. In general, such deposits are largely from Korean residents and they are covered by the deposit insurance scheme (up to a limit of KRW 50 million).

Additionally, the FSS has amended its rule to clarify its requirements in a number of areas that were identified as deviations during the initial assessment, and following discussions with the Assessment Team. These include (i) qualifying conditions for operational deposits and (ii) a "one-month" LCR horizon instead of 30 days, as per Basel LCR standards. These amendments are summarised in Annex 5.

Inflows (denominator)

The regulatory implementation of the liquidity inflows in the Korean rules is assessed as compliant with the Basel standards.

Disclosure requirements

The regulatory implementation of the LCR disclosure requirements in the Korean rules is assessed as compliant with the Basel standards. At present, Korean banks disclose the LCR based on averages of monthly calculations. In line with the Basel LCR disclosure standards, daily calculation of the LCR will be mandatory for all banks (except the EXIM Bank) with effect from 1 January 2017, allowing the calculation of averages of daily observations.

2 Detailed assessment findings

The component-by-component details of the assessment of compliance with the LCR standards of the Basel framework are detailed below. The focus of Sections 2.1 to 2.3 is on findings that were assessed to be deviating from the Basel minimum standards and their materiality. Section 2.4 lists some observations specific to the implementation practices in Korea.

2.1 Scope of application and transitional arrangements

Summary	Overall, the Assessment Team finds the scope of application and transitional arrangements to be in line with the Basel standards. The Assessment Team did not identify any deviation. The FSS imposes LCR requirements on all banks (except the EXIM Bank), including foreign bank branches, which is super-equivalent to the minimum recommendation under the Basel requirements that the LCR should be applied to all internationally active banks on a consolidated basis. For commercial banks, the requirement starts from 80% on 1 January 2015, increasing by 5% every year to reach 100% from 1 January 2019. This is more stringent than the transitional arrangements as stipulated in the Basel standard, whereby the minimum requirement for the LCR will be increased in equal steps starting from 60% in 2015 to 100% from 1 January 2019.

2.2 LCR

2.2.1 High-quality liquid assets (numerator)

Section grade	Compliant
Summary	The Assessment Team finds the FSS's regulatory implementation to be compliant with the Basel LCR requirements for high-quality liquid assets (HQLA). Following the amendments made by the FSS, the team did not identify any remaining deviations.

2.2.2 Outflows (denominator)

Section grade	Compliant
Summary	The Assessment Team finds that the FSS's implementation of the requirements related to outflows is compliant with the Basel LCR standard. Following the amendments made by the FSS, only one non-material finding on foreign exchange retail deposits remains.
Basel paragraph no	Basel III LCR paragraph 81
Reference in domestic regulation	DRSBB [Appendix 3-6] 28C
Findings	The Basel LCR standard requires that supervisors determine the appropriate run-off factor for foreign currency (FX) retail deposits. Such deposits, if found to be more volatile than domestic retail deposits, should receive an appropriate run-off rate of at least 10% as "less stable deposits". The Basel standard lists a number of factors that affect the volatility of FX retail deposits, namely the type and sophistication of the depositor and the nature of such deposits (eg whether the deposits are linked to business needs in the same currency or whether the deposits are placed in a search for yield). The Korean regulation classifies FX retail deposits according to the same criteria (eg whether they are covered by a deposit insurance scheme or not) as domestic retail deposits, without conducting any analysis to determine whether the volatility of FX retail deposits was higher than domestic retail deposits.
Materiality	Not material

	As of 31 December 2015, FX retail deposits only make up about 3.3% of total retail deposits. We also noted from the FSS that they do not expect extraordinary growth in this segment. Depositors largely comprise Korean residents and these types of deposit are covered by the deposit insurance scheme (up to a limit of KRW 50 million). Data on FX deposits outflows during a stress period are not available. Recognising the data constraint, the Assessment Team simulated the LCR impact to determine whether or not the FX retail deposit outflows are understated by Korean banks. Based on an outflow factor of 10% (instead of 5%) for FX retail deposits considered stable, and an outflow factor of 20% (instead of 10%) for FX retail deposits considered less stable, the weighted average impact on the LCR of Korean banks in the RCAP sample is 0.75%, which the Assessment Team considered not material.

2.2.3 Inflows (denominator)

Section grade	Compliant
Summary	The Assessment Team finds that the FSS's implementation of the requirements related to inflows are compliant with the Basel LCR standard.

2.3 LCR disclosure requirements

Section grade	Compliant
Summary	The Assessment Team finds that the FSS's implementation of the LCR disclosure standard is compliant with the Basel LCR standard. At present, Korean banks disclose their LCR based on averages of monthly calculations. In line with the Basel LCR disclosure standards, daily calculation of the LCR will be mandatory for all banks (except the EXIM Bank) with effect from 1 January 2017, allowing the calculation of averages of daily observations.

2.4 Observations and other findings specific to the implementation practices in Korea

Basel paragraph no	Basel III LCR paragraph 11
Reference in domestic regulation	RSBB 26(1)(2)(3) DRSBB [Appendix 3-6] 6
Observation	The Basel LCR standard states that it would be entirely appropriate for banks to use their stock of HQLA, thereby falling below the minimum, during periods of stress. Supervisors will subsequently assess this situation and will give guidance on usability according to circumstances. Therefore, the intention would be to allow banks to utilise the HQLA in a period of stress and only assess the situation ex post. Under the Korean domestic rules, the Assessment Team noted that an approval regime is used for a market-wide stress situation affecting most, if not all, banks. Under the approval regime, the FSC will declare a stress situation and determine a reduced LCR requirement for all banks, allowing them to utilise their HQLA to raise funds. For an idiosyncratic stress situation affecting a limited number of banks, a notification regime is used instead. Banks could utilise their HQLA and go below the minimum regulatory LCR requirement. The FSS will then require the bank(s) to draft and sign an MoU to address the situation accordingly. Based on the discussions with the FSC and FSS, the Assessment Team is satisfied that the approval regime will not affect the timeliness of the banks' reaction in a liquidity crisis situation.
Basel paragraph no	Basel III LCR paragraph 50(b)

Reference in domestic regulation	DRSBB [Appendix 3-6] 22 B
Observation	The Basel LCR states that central bank reserves (including required reserves) can only be included as HQLA to the extent that the central bank policies allow them to be drawn down in times of stress. However, the Korean domestic rules allow all central bank reserves to be included as HQLA, without explicitly stating the condition that only the amount that is allowed to be drawn down in times of stress should be included. The Bank of Korea has confirmed that all central bank reserves will be made available to banks during the period of stress. However, the Assessment Team is of the view that this would only become an issue if the Bank of Korea were to issue a new ruling that would prevent the use of all central bank reserves in times of stress.
Basel paragraph no	Basel III LCR paragraph 136
Reference in domestic regulation	DRSBB [Appendix 3-6] 51 B
Observation	The Basel standards stipulated that some contingent funding obligations are explicitly contingent upon a credit or other event that is not always related to the liquidity events simulated in the stress scenario, but may nevertheless have the potential to cause significant liquidity drains in times of stress. Accordingly, each supervisor and bank should consider which of these "other contingent funding obligations" may materialise under the assumed stress events. The FSS does not impose any nationally determined behavioural assumption but instead mandates banks to consider other contingent funding obligations which may generate significant fund outflows. The banks are also required to take historical behaviour into consideration when determining the amount of appropriate fund outflows.

Annexes

Annex 1: RCAP Assessment Team and Review Team[6]

Assessment Team Leader

Mr Michael Schoch	Swiss Financial Market Supervisory Authority FINMA

Assessment Team members

Ms Joleen Wingyou	South African Reserve Bank
Ms Melanie Troschke	Deutsche Bundesbank
Mr Ajay Kumar Choudhary	Reserve Bank of India
Mr Wang Jun	China Banking Regulatory Commission
Mr Gordon Wong	Hong Kong Monetary Authority
Mr Ronald Sin Kin Tat	Monetary Authority of Singapore
Mr Joachim Keller	National Bank of Belgium

Supporting members

Mr Uwe Steinhauser	Swiss Financial Market Supervisory Authority FINMA
Mr Nik Faris Sallahuddin	Basel Committee Secretariat
Mr Olivier Prato	Basel Committee Secretariat

Review Team

Mr Karl Cordewener	Basel Committee Secretariat
Mr Nicolas Peligry	French Prudential Supervisory Authority (ACPR)
Mr Mitsutoshi Adachi	Bank of Japan
Mr Sebastijan Hrovatin	European Commission

[6] The RCAP Assessment has benefited from the feedback of the RCAP Review team and the Peer Review Board. The Review Team is separate from the Assessment Team, and provides an additional level of quality assurance for the report's findings and conclusions.

Annex 2: List of LCR standards under the Basel framework used for the assessment

Basel documents in scope of the assessment

(i) *The Liquidity Coverage Ratio (January 2013), including the frequently asked questions on Basel III's January 2013 Liquidity Coverage Ratio*, April 2014

(ii) *Liquidity Coverage Ratio disclosure standards*, January 2014

Basel documents reviewed for information purposes

(iii) *Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools* (part of liquidity risk monitoring tools), January 2013

(iv) *Monitoring tools for intraday liquidity management*, April 2013

(iv) *Principles for sound liquidity risk management and supervision*, September 2008

Annex 3: Local regulations issued by Korean authorities for implementing Basel LCR standards

Overview of issuance dates of important Korean LCR rules — Table 3

Domestic regulations	Document name, version and date
Basel LCR standard and LCR disclosure requirements	Regulation on Supervision of Banking Business (LCR) Issued: 26 December 2014
	Detailed Regulation on Supervision of Banking Business (LCR) [Appendix 3-6] Issued: 26 December 2014 Revised: 28 June 2016

Hierarchy of Korean laws and regulatory instruments — Table 4

Level of rules (in legal terms)	Type
Banking Act – issued by the National Assembly	Law
Enforcement Decree of Banking Act – approved by the President (State Council)	Law
Regulation on Supervision of Banking Business (RSBB) – issued by the FSC	Regulation
Detailed Regulation on Supervision of Banking Business (DRSBB) – issued by the FSS	Regulation
Instruction for Unified Disclosure for Financial Services (IUDFS) – issued by the KFB	Regulation

Annex 4: Details of the RCAP assessment process

A. Off-site evaluation

(i) Completion of a self-assessment questionnaire by the Korean authorities.

(ii) Evaluation of the self-assessment by the RCAP Assessment Team.

(iii) Independent comparison and evaluation of the domestic regulations issued by the Korean authorities with corresponding Basel III standards issued by the BCBS.

(iv) Identification of observations.

(v) Refinement of the list of observations based on clarifications provided by the Korean authorities.

(vi) Assessment of materiality of deviations for all quantifiable deviations based on data and non-quantifiable deviations based on expert judgment.

(vii) Forwarding of the list of observations to the Korean authorities.

B. On-site assessment

(viii) Discussion of individual observations with the Korean authorities.

(ix) Meeting with selected Korean banks, accounting firms and a credit ratings agency.

(x) Discussion with the Korean authorities and revision of findings to reflect additional information received.

(xi) Assignment of component grades and overall grade.

(xii) Submission of the detailed findings to the Korean authorities with grades.

(xiii) Receipt of comments on the detailed findings from the Korean authorities.

C. Review and finalisation of the RCAP report

(xiv) Review of comments by the RCAP Assessment Team, finalisation of the draft report and forwarding to the Korean authorities for comments.

(xv) Review of the Korean authorities' comments by the RCAP Assessment Team.

(xvi) Review of the draft report by the RCAP Review Team.

(xvii) Review of the draft report by the Peer Review Board.

(xviii) Reporting of findings to SIG by the team leader.

Annex 5: List of rectifications by the Korean authorities

Basel paragraph	Reference to Korean document and paragraph	Brief description of the forthcoming correction
Paragraphs 16, 69	RSBB 26-A-2 DRSBB [Appendix3-6]	Daily LCR calculation based on a 30-day horizon will be initiated from 1 January 2017. To implement this requirement, the rectifications of relevant paragraphs in both the RSBB and DRSBB will be completed in 2016.
Paragraphs 94, 95, 96	DRSBB [Appendix3-6], paragraph 32-B-(3), 32-C-(2),	To fully comply with the qualifying conditions on the categorisation of operational deposits required by the Basel LCR standard, the Korean domestic regulation has been amended to incorporate a new paragraph, as follows; "Termination of the agreement as specified in Subparagraph (2) above shall occur after a minimum notice period of 30 days or more, or if operational deposits are transferred to another bank before the 30 days notice period, the relevant customers shall be expected to bear a considerable cost (such as expenses for information technology related to the relevant transactions, fees for closing accounts, legal costs, etc.)"
	DRSBB [Appendix3-6], 32-C- (2)	The paragraph regarding interest on the operational deposits has been amended as follows; "The deposits shall be held in specifically designated accounts and shall induce customers to keep only a required level of funds in the relevant deposits by providing no economic incentive to the customer (not limited to paying market interest rates). Where market interest rates are close to 0%, no interest on the deposits shall be expected to be paid. In addition, the banks shall be aware that the excess balances referred to in 33. may be significant if such low interest rate conditions persist for a long period."
	DRSBB [Appendix3-6], 33-B	The new rules to identify excess deposits on the operational accounts are being revised as follows; "B. Each bank shall have in place a methodology capable of calculating the amount of excess balances, and this methodology shall be operated minutely so as to appropriately assess the risk of a bank run in the case of a crisis at the level of individual banks. For example, in order to recognize the possibility of a wholesale customer holding money in excess of the amount required for a certain settlement, the methodology shall consider appropriate indicators (including the ratio of the amount of payment settlement to balances of deposits received and the ratio of protected deposits received to balances of deposits received)." In addition, 33-B (1) and (2) have been removed and banks will no longer be allowed to use the standards for calculation of core deposit beyond the balance of operational deposit previously described in these paragraphs.

Annex 6: Assessment of bindingness of regulatory documents

The following table summarises the assessment of the seven criteria used by the Assessment Team to determine the eligibility of Korean regulatory documents. Based on this, the Assessment Team concluded that the regulatory instruments issued and used by Korean authorities as set out in Annex 3 are eligible for the RCAP assessment.

Criterion	Assessment
(1) The instruments used are part of a well defined, clear and transparent hierarchy of legal and regulatory framework.	Banking regulations in Korea comprise: (1) the Banking Act; (2) the Enforcement Decree of the Banking Act; (3) the Regulation on Supervision of Banking Business (RSBB); (4) the Detailed Regulation on Supervision of Banking Business (DRSBB); and (5) the Instructions for Unified Disclosure for Financial Services (IUDFS). The authority for each of the five regulations varies and follows a vertical hierarchy from the highest (1) to the lowest (5). The Banking Act provides a comprehensive framework for banking regulation and supervision by the Financial Services Commission (FSC), including prudential standards relating to, for example, capital, assets and liquidity. Furthermore, the Banking Act provides the Financial Supervisory Service (FSS) with the authority to supervise banks and ensure they abide by the rules and regulations set by the FSC. In addition, the Banking Act authorises the FSC to take enforcement measures against banks for violating rules and regulations. The RSBB and the DRSBB are based on the Banking Act and the Enforcement Decree of the Banking Act. The IUDFS is written by the Korea Federation of Banks (KFB) according to the RSBB and the FSS has power to reprimand banks that did not comply with the IUDFS issued by the KFB.
(2) They are public and easily accessible.	Regulatory LCR instruments are part of the prudential standards set by the FSC. The definition of HQLA, the scope of application, and other related matters are made public and easily accessible on the government legislation website (www.law.go.kr), the FSC website (www.fsc.go.kr), and the FSS website (www.fss.or.kr).
(3) They are properly communicated and viewed as binding by banks as well as by the supervisors.	The FSC/FSS announces proposals for regulatory amendments for at least 40 days of public comment. When they take effect, the FSC/FSS notifies the banks of the new rule changes, which are legally binding for banks as well as for the supervisors. The FSS holds open meetings with the banks on the new rules and any technical guidelines issued in order to ensure the banks' familiarity and compliance with them.
(4) They would generally be expected to be legally upheld if challenged and are supported by precedent.	The Banking Act and its subordinate regulations would be upheld in court. Under the Banking Act, banks that are deemed not compliant with the regulations will be subject to corrective measures and sanctions. Furthermore, the FSC/FSS has broad powers to take supervisory actions as well as remedial and enforcement actions to compel compliance.
(5) Consequences of failure to comply are properly understood and carry the same practical effect as for the primary law or regulation.	Since the regulations above are based on the Banking Act, a violation of the regulations would also constitute a violation of the Banking Act and would therefore be subject to corrective measures and sanctions by the FSC.

(6) The regulatory provisions are expressed in clear language that complies with the Basel provisions in both substance and spirit.	The RSBB, the DRSBB and the IDUFS were drafted in clear and concise language found in the Basel standard as guidance in order to be compliant with the Basel provisions.
(7) The substance of the instrument is expected to remain in force for the foreseeable future.	Based on the Banking Act, its subordinated regulations remain in effect until it is newly amended. The regulation is amended through the same procedures that apply when it was first established.

Annex 7: Key liquidity indicators of the Korean banking system

Data on a standalone basis as of 31 December 2015		Table 5
Size of banking sector (KRW billion).		
1. Total assets of all banks operating in the jurisdiction	2,878,310	
2. Total assets of all major locally incorporated banks	2,671,728	
3. Total assets of locally incorporated banks to which liquidity standards under the Basel framework are applied	2,878,310	
Number of banks		
4. Number of banks operating in the jurisdiction (excl. local representative offices)	17	
5. Number of Global Systemically Important Banks (G-SIBs)	0	
6. Number of Domestic Systemically Important Banks (D-SIBs)	6	
7. Number of banks which are internationally active banks	10	
8. Number of banks required to implement Basel III liquidity standards	16	
9. Number of banks required to implement domestic liquidity standards	1	
Breakdown of LCR for five RCAP sample banks	Unweighted	Weighted
10. Total HQLA	228,009	223,199
11. Level 1 HQLA	210,026	210,026
12. Level 2A HQLA	11,941	10,152
13. Level 2B HQLA	6,042	3,021
14. ALA HQLA	0	0
15. Total cash outflows	1,500,064	325,457
16. Retail and small business stable deposits	140,548	7,028
17. Retail and small business less stable deposits	416,058	41,607
18. Wholesale unsecured operational deposits	115,578	27,116
19. Wholesale unsecured non-operational funding	219,599	133,738
20. Secured funding	15,036	454
21. Debt issued instruments (incl. credit and liquidity facilities)	410,513	69,434
22. Other contractual outflows	44,440	40,350
23. Contingent funding obligations	138,292	5,730
22. Total cash inflows	171,117	107,906
23. Secured lending	22,413	256
24. Fully performing unsecured loans	125,461	84,407
25. Other cash inflows	23,243	23,243
26. Liquidity Coverage Ratio		102.6

Annex 8: Materiality assessment

As a general principle, and mirroring the established RCAP assessment methodology for risk-based capital standards, the RCAP-LCR materiality assessment is based on both quantitative and qualitative information with an overlay of expert judgment. Where possible, teams also take into account the dynamic nature of liquidity risks and seek to assess the materiality of deviation at different points in time.

In line with underlying RCAP principles, the quantitative materiality assessment for the LCR is based on a determination of the cumulative impact of all identified deviations (both quantifiable and non-quantifiable deviations). Where deviations are quantifiable, the Assessment Team will generally base the assessment on the highest impact that has been reported across three data points. The collection of data across different dates is agreed upon between the team leader and the assessed jurisdiction.

In the case of the Korean LCR assessment, two deviations were assessed on both a quantifiable and qualitative basis, taking into account the amendments made by the Korean authorities during the course of the RCAP. The following table summarises the number of deviations according to their materiality.

Number of gaps/differences by component — Table 6

Component	Non-material	Material	Potentially material
Definition of HQLA (numerator)	1	0	0
Outflows (denominator)	1	0	0
Inflows (denominator)	0	0	0
LCR disclosure requirements	0	0	0

Note: materiality is defined based on quantitative benchmark thresholds (for the quantifiable gaps) and expert judgment (for the non-quantifiable gaps). See Section 2 with the detailed assessment findings for further information.

RCAP sample of banks

The following Korean banks were selected for materiality testing of the quantifiable deviations. Together, these banks hold about 76% of the total assets of the Korean banking system. The sample covers internationally active banks, and is a fair representation of the various types of bank operating in Korea. The basis of materiality assessment is the impact on the reported liquidity ratio of the banks constituting the sample agreed between the Assessment Team and the assessed jurisdiction.

Banking group	Share of the banking groups' assets in total Korean banking sector assets as of 31 December 2015
1. Hana Bank	13.6%
2. Kookmin Bank	12.8%
3. Woori Bank	12.8%
4. Shinhan Bank	12.3%
5. Nonghyup Bank	10.7%
6. Industrial Bank of Korea	10.1%
7. Citibank Korea	2.3%
8. Kyongnam Bank	1.5%

Annex 9: Korea's implementation of the liquidity monitoring tools

Basel liquidity monitoring tools

The FSS employs monitoring metrics proposed by the Basel III LCR Document. According to the DRSBB [Appendix 3-6] Article 65, monitoring metrics that can be utilised as consistent monitoring tools are used to capture specific information related to a bank's cash flows, balance sheet structure, size of available unencumbered collateral assets and some market indicators. Monitoring metrics, together with the standards for the LCR, provide the basic information required by the Governor of the FSS in assessing a bank's liquidity risk.

The types of monitoring metric are as follows:

1. Contractual maturity mismatch

A bank shall report cash and security flows in the relevant time bands based on their residual contractual maturity. The Governor sets the time buckets for grasping the bank's cash flow position at one, seven and 14 days; one , two, three, six and nine months; and one, two, three and five years, and beyond five years.

2. Concentration of funding

Significant counterparties

The total funds (liabilities) sourced from a significant counterparty shall be calculated by aggregating the amount sourced from a single counterparty or a group of connected counterparties, including affiliated companies, and the amount of other secured or unsecured direct borrowings (such as overnight commercial paper and certificate of deposit funding) that the bank has sourced from the same counterparty.

The term "significant counterparty" refers to a single counterparty or a group of connected counterparties, including affiliated companies, the total of related liabilities of which exceeds 1% of the bank's total liabilities (this may differ from the definition that reflects the bank's own funding characteristics). A group of connected counterparties is defined in the same way as in the "large exposure" regulation of the host country in the case of reporting on a consolidated basis for solvency purposes. Particular attention should be paid to the deposits secured from intra-group deposits and deposits from affiliated companies regardless of whether the metric is being calculated for a single corporation or on a consolidated basis, as the potential limitations may affect intra-group transactions (transactions between subsidiaries) under stressed conditions.

Significant products

The total of funds (liabilities) secured through significant financial products shall be calculated on the basis of individual financial products as well as groups of similar types of product.

The term "significant product" means a single financial product or a group of similar products that, in aggregate, exceeds 1% of the bank's total liabilities.

Significant currencies

In order to capture the structural currency mismatch in a bank's assets and liabilities, a bank shall report a list of the amount of assets and liabilities in each significant currency.

A currency is considered "significant" if the aggregate liabilities denominated in that currency amount to 5% or more of the bank's total liabilities.

Time buckets

The above metrics shall be reported separately for the time horizons of less than one month, one to three months, three to six months, six to 12 months, longer than 12 months etc.

3. Available unencumbered assets

A bank shall report the amount (based on the prearranged amount or amount after applying current appropriate haircuts; excluding emergency fund support etc), types and locations of unencumbered assets eligible for secured financing with relevant central banks for standing facilities. Collateral that has already been provided to the central bank but remains unused shall also be included in the amount thereof. In addition, only the assets which have gone through the operational procedures for utilisation as collateral for funding shall be included in this metric.

A bank shall report separately the amount eligible for rehypothecation and the amount utilised for rehypothecation out of its customers' collateral assets at each reporting date.

A bank shall report the amount of unencumbered assets by classifying it into significant currencies. A currency is considered "significant" if the amount of unencumbered assets denominated in the relevant currency is not less than 5% of the total amount of unencumbered assets (assets which are qualifying collateral for secondary markets or the central bank).

A bank shall report the estimated haircut to be applied by the secondary market or the central bank to each asset. In the case of the haircut to be applied by the central bank, the haircut to be applied by the central bank under normal business conditions shall be used as a reference.

After reporting the relevant haircuts, a bank shall report the expected monetised value of the collateral (not face value) and the locations where the collateral assets are actually held, in consideration of the locations of the assets by state and the field of business where they are utilised.

4. Liquidity Coverage Ratio by foreign currencies (aggregated) and significant currency

High-quality liquid assets and net cash outflows denominated in foreign currency shall be subject to the application of the same standards as the LCR based on a single currency. Cash flows generated from assets, liabilities and off-balance sheet items shall be computed in the currency that the counterparties are obliged to deliver or receive at the time of entering into a contract with the counterparty and not in the currency indexed or hedged.

Foreign currencies shall be the aggregated amount of foreign currencies, and a currency shall be considered "significant" if the aggregate liabilities denominated in that currency are not less than 5% of the bank's total liabilities.

As the LCR by foreign currencies and significant currency is not a standard for regulation but a monitoring tool, there is no internationally defined minimum required threshold. Nonetheless, the Governor shall set a minimum required threshold on LCRs by foreign currencies and significant currency and prepare for the cases where such index falls short of the minimum required threshold. The minimum required threshold shall be set based on the stress assumption. It is necessary for the Governor to evaluate banks' ability to raise funds in foreign currency and the possibility to transfer a liquidity surplus between currencies, countries and corporations; and if he/she deems there is any restriction on their ability to raise funds in foreign currency and the possibility to transfer a liquidity surplus, he/she shall set a minimum required threshold higher than that for the relevant currency.

5. Market-related monitoring tools

The Governor shall monitor the following data among many types of market data, placing the focus on the potential liquidity stress conditions of banks:

Market-wide information

The Governor may monitor information on the absolute level of metrics or the direction of major markets and analyse their potential impact on the financial sector and individual banks. In particular, market-wide information can be utilised significantly when evaluating assumptions related to a bank's funding plan.

Important market information to monitor includes equity prices (overall price index of stocks or sub-index in the state in which a bank subject to monitoring is in operation), securities markets (money markets, medium-term securities, long-term securities, derivatives, government bond markets, credit default spread indices etc), foreign exchange markets, commodities markets, and indices related to products for securitisation (eg the ABX index).

Information on the financial sector

To ascertain whether the financial sector reflects overall market movements or is experiencing difficulties, information on equity and securities markets that can explain overall and specific financial sectors may be monitored.

Bank-specific information

To monitor whether the market is losing confidence in, or has identified risks at, a particular financial institution, information on equity prices, CDS spreads, trading prices in the short-term money market, situation of rollovers, prices for funding with various maturities, and the prices, earning rates and other relevant figures of bank debentures or subordinated bonds in the secondary market may be collected and utilised.

Basel guidance on monitoring tools for intraday liquidity management

The FSS is currently working on the implementation of the Basel guidance on monitoring tools for intraday liquidity management, which is scheduled to be implemented on 1 January 2017.

Annex 10: Korea's implementation of the *Principles for sound liquidity risk management and supervision*

This annex outlines the implementation of the Basel Committee's *Principles for sound liquidity risk management and supervision* (2008) (Sound Principles) in the Korean regulation. The principles are not part of the formal RCAP assessment and therefore no grade is assigned. This annex serves for information purposes only.

Korea's implementation of the Sound Principles is stipulated in the RSBB Article 41 and the DRSBB. The manner in which the FSS implements the BCBS Sound Principles is briefly described as below.

Fundamental principle for the management and supervision of liquidity risk – Principle 1

According to the DRSBB [Appendix 9-2], a bank should establish a robust liquidity risk management framework that ensures it maintains sufficient liquidity, including a cushion of unencumbered, high-quality liquid assets to meet payment and settlement obligations.

Governance of liquidity risk management – Principles 2–4

The DRSBB [Appendix 9-2] Article 11 sets out requirements relating to the governance of liquidity risk management, as follows:

The board of directors should review and approve the strategy, policies and practices related to the management of liquidity at least annually and ensure that senior management translates the strategy into clear guidance and operating standards in the form of policies, controls or procedures.

Measurement and management of liquidity risk – Principles 5–12

The DRSBB [Appendix 9-2] Articles 4 through 10 provide guidance on the liquidity risk management strategy, internal controls, HQLA, funding diversification, collateral management, liquidity risk measurement and liquidity risk tolerance and early warning indicators.

A bank should establish and operate a liquidity risk management strategy, including a liquidity risk management target, management policy and internal control.

When establishing internal controls related to liquidity risk, a bank should formulate clear lines of responsibility and roles among departments and ensure that the bank has adequate internal controls. By doing so, the bank should ensure the integrity of its liquidity risk management process and that operationally independent, appropriately trained and competent personnel are responsible for implementing internal controls.

A bank should ensure that all business units conducting activities that have an impact on liquidity should be fully aware of the liquidity strategy and operate under the approved policies, procedures, limits and controls.

A bank should maintain a cushion of unencumbered, high-quality liquid assets to be held as insurance against a range of liquidity stress scenarios, including those that involve the loss or impairment of unsecured and typically available secured funding sources. There should be no legal, regulatory or operational impediment to using these assets to obtain funding.

A bank should consider short-term and protracted, as well as institution-specific and market-wide, stress scenarios in its stress tests, including: a simultaneous drying up of market liquidity in several previously highly liquid markets; severe constraints in accessing secured and unsecured funding; restrictions on currency convertibility; and severe operational or settlement disruptions affecting one or more payment or settlement systems.

A bank should diversify available funding sources in the short, medium and long term. Diversification targets should be part of the medium- to long-term funding plans and be aligned with the budgeting and business planning process.

A bank should actively manage its collateral positions, differentiating between encumbered and unencumbered assets and monitor the eligibility of each major asset class for pledging as collateral with central banks and the acceptability of assets to major counterparties and funds providers in secured funding markets.

A bank should measure the volatility of liquidity risk as a result of future cash outflow for both short-term and long-term time frames. These pro-forma cash flow statements are a critical tool for adequately managing liquidity risk. These projections serve to produce a "cash flow mismatch" or "liquidity gap" analysis.

A bank should assess the "stickiness" of its funding sources, that is, their tendency not to run off quickly under stress. In particular, a bank should consider factors that influence the "stickiness" of retail deposits. For large wholesale deposits, a bank should assess the likelihood of running off under stress.

A bank should clearly articulate a liquidity risk tolerance that is appropriate for its business strategy and its financial status and funding ability and document assumption, methodology and liquidity risk tolerance and reporting procedure and response measures and review them regularly.

A bank should set a foreign currency mismatch limit for significant currencies. When a specific currency is excessively exposed to liquidity risk, the bank should seek improvements such as securing alternative funding sources.

DRSBB [Appendix 9-2] Article 14 provides the requirements for the CFP.

A bank should review and update the CFP at least once a year for the board's approval. A bank needs to identify alternative sources of funding that strengthen its capacity to withstand a variety of severe yet plausible institution-specific and market-wide liquidity shocks. A bank should regularly review and test its fund-raising options to evaluate their effectiveness at providing liquidity in the short, medium and long term. A bank should deliver timely, clear, consistent and frequent communication to internal as well as external parties, such as supervisors, central banks or system operators, in a time of stress, to support general confidence in the bank.

Public disclosure – Principle 13

According to the RSBB Article 41, a bank shall publicly announce the LCR and LCR-related matters within three months from the fiscal year-end.

The role of supervisors – Principles 14–17

The DRSBB [Appendix 3-6] stipulates supervisory measures where the LCR falls below management guidance ratio under stressed conditions

A. The Governor of the FSS may take necessary measures, such as requesting that a CFP take into account the present and future domestic and overseas macroeconomic and financial situations. In such cases, it shall be noted that such measures can be procyclical if applied in circumstances of market-wide stress.

B. Where the management guidance ratio of a bank falls below its LCR, the Governor of the FSS may take necessary measures, flexibly taking into account the causes, amount, period and frequency of the shortage of high-quality liquid assets.

In taking the relevant measures, the Governor shall take the following matters into account:

(1) To include not only the reasons why the LCR has fallen below the management guidance ratio, use of high-quality liquid assets, inability to extend the maturity of funding, large-scale unexpected withdrawal of funds from contingent liabilities, but also market-wide circumstances, such as liquidity in credit, assets and funding markets.

(2) The extent to which LCR is declined due to a bank-specific or market-wide shock.

(3) The bank's behaviour of the bank, relations with other supervisory regulation, internal risk management system, and its current state of overall soundness and risk status, including controls and other management systems.

(4) The scale, duration and frequency of the decline of the high-quality liquid assets of the bank.

(5) The potential for contagion to the overall financial system and restriction of provision of credit, or reduction of market liquidity that may be caused by measures for maintaining the LCR at no less than the management guidance ratio.

(6) The possibility to use means for emergency funding, such as funding from the central bank or other measures of supervisory authorities.

C. Necessary measures referred to in A. shall include the following matters:

(1) A bank shall conduct stress tests on the current state of liquidity, including causes for the decline of the LCR, measures taken in connection therewith, future implementation plan and expected duration of current state and report the result thereof to the Governor. Where the LCR falls short of the management guidance ratio, the Governor may reinforce the duties to report depending upon the period of shortage.

(2) Where necessary, the Governor may request a bank to reduce the exposure to liquidity risk, strengthen its liquidity risk management, or prepare a CFP.

(3) In circumstances of market-wide stress, the effects of the relevant measures on the entire financial system shall be considered. Such measures shall be executed over a period of time considered appropriate to prevent potential stress conditions that may additionally affect the bank and the financial system.

Annex 11: Areas for further guidance from the Basel Committee

The Assessment Team listed the issue of use of HQLA in times of stress for further guidance from the Basel Committee.

Use of HQLA in times of stress

The Basel standard specifies that banks may use their stock of HQLA in periods of stress, which can be either idiosyncratic or systemic stress events. The Assessment Team notes that an approval regime is used for a market-wide stress situation (ie the FSC will declare a stress situation and determine a reduced LCR requirement for all banks, allowing them to utilise their HQLA to raise funds) affecting most, if not all, banks and a notification regime for an idiosyncratic stress situation affecting a limited number of banks. A concern arises in the case of market-wide stress as an approval may not be given in a timely manner, negatively affecting the banks' reaction in a liquidity crisis situation. However, based on the discussions with the FSC and FSS, the Assessment Team is satisfied that the approval regime will not affect the timeliness of the banks' reaction.

Nevertheless, the Assessment Team believes that there may be room for interpretation with regard to the definition of "period of stress" and the degree of discretion that jurisdictions can apply regarding the use of HQLA. While the Basel standard provides some high-level guidance for supervisors on this point, the team would recommend that the Basel Committee reviews the need for additional supervisory guidance.

Annex 12: List of issues for follow-up RCAP assessment

The Assessment Team did not identify any specific issues that would warrant a follow-up of Korea's LCR RCAP assessment.

Annex 13: Areas where Korean LCR rules are stricter than the Basel standards

In several places, the Korean authorities have adopted a stricter approach than the minimum standards prescribed by Basel or have simplified or generalised an approach in a way that does not necessarily result in stricter requirements under all circumstances but never results in less rigorous requirements than the Basel standards. The following list provides an overview of these areas. It should be noted that these areas have not been taken into account as mitigants for the overall assessment of compliance.

1. LCR Phase-in

The RSBB stipulates that banks shall maintain the LCR at more than 100% (more than 60% in cases of foreign bank branches). However, as transitional measures, commercial banks shall maintain the LCR at more than 80% in 2015, 85% in 2016, 90% in 2017 and 95% in 2018.

2. HQLA – Level 2B assets

The FSS does not accept sovereign and central bank debt securities rated BBB+ to BBB– that are not included in the definition of Level 1 assets according to paragraph 50(d) or (e) as Level 2B assets.

3. Other non-contractual contingent funding

Where a bank is a major liquidity source for joint ventures or minority investments in enterprises which are not included in the consolidation criteria, non-contractual contingent funding obligations to such entities shall be subject to the application of a 100% run-off rate.

Annex 14: Implementation of LCR elements subject to prudential judgment or discretion in Korea

The following tables provide information on elements of LCR implementation that are subject to prudential judgment and national discretion. The information provided helps the Basel Committee to identify implementation issues where clarifications and (additional) FAQs could improve the quality and consistency of implementation. It should also inform the preliminary design of any peer comparison of consistency across the membership that the Committee may decide to conduct, in similar fashion to the studies on risk-weighted asset variation for the capital standards.

Elements requiring judgment (non-comprehensive list) Table 7

Basel paragraph	Description	Implementation by the Korean authorities
24(f)	Treatment of the concept of "large, deep and active markets"	By large, deep and active markets, the FSS means those markets where assets recognised as HQLA can be traded, sold easily in the market and are repo-able with the central bank, banks and large corporations.
50	Treatment of the concept of "reliable source of liquidity"	By a reliable source of liquidity, the FSS means the relevant instrument, as a minimum, that has been eligible for repo either from the central bank or other key regulated entities even in stressful times such as the Global Financial Crisis from 2008 onwards.
52	Treatment of the concept of "relevant period of significant liquidity stress"	By relevant period of significant liquidity stress, the FSS means this concept to be of a similar character to the Global Financial Crisis from 2008 onwards.
74–84	Retail deposits are divided into "stable" and "less stable"	Stable deposits shall be subject to the application of a 5% run-off rate. In order to be categorised as stable deposits, they must be fully insured under the Depositor Protection Act. In this respect, "fully insured" means that 100% of the deposit amount, up to the deposit insurance limit, is covered by an effective deposit insurance scheme, and deposit balances up to the deposit insurance limit can be treated as fully insured even if the depositor has a balance in excess of the upper limit of the deposit insurance. Less stable deposits are deposits that do not fall under stable deposits among retail deposits, and subject to the application of a 10% run-off rate. If a bank is not able to categorise any retail deposit as a stable deposit (eg where it is difficult to determine whether a specific deposit is insured under an effective deposit insurance scheme or public deposit guarantee), the full amount of the relevant balance shall be categorised as a less stable deposit.
83, 86	Treatment of the possibility of early withdrawal of funding with maturity above 30 days (para 83 – retail deposits; para 86 – wholesale funding)	If a bank allows a depositor to withdraw his/her deposits without applying the corresponding penalty, or if it is not specified in the terms and conditions that the depositor has no legal right to withdraw the deposits, the relevant deposits as a whole shall be considered as demand deposits. The wholesale funding shall include raising of all funds that are callable before the maturity date within one month, funds the contractual maturity of which arrives

		within one month (eg maturing term deposits and unsecured debt securities) and funds with options exercisable by the investor within one month. (1) In connection with funding with options exercisable at its discretion, a bank shall take into account any harm to its reputation and such other restrictive matters that might be caused by a failure to exercise the options. (2) In particular, where the market expects specific liabilities to be redeemed before their legal maturity date, the bank shall include the relevant redeemable amount of liabilities in cash outflows reflecting such expectations.
90–91	Definition of exposure to small business customers is based on nominal euro amount (EUR 1 million)	Where any enterprise meets the standards for small and medium-sized enterprises specified in Chapters II and III of Appendix III (if the exposure under [Appendix 3] 129 is not KRW 1 billion, it shall be deemed KRW 1 billion) and is managed as retail loans, and if the aggregated funding raised from the relevant small or medium enterprise is less than KRW 1.5 billion (on a consolidated basis), it shall be considered as having liquidity risk characteristics similar to those of retail deposits. Where the aggregated funding provided by a small or medium enterprise which does not have any loan under Chapter II or III is less than KRW1.5 billion (on a consolidated basis) and the relevant deposit is managed as a retail deposit, the bank may include such deposits in this category. This means that the bank treats such deposits in its internal risk management systems consistently and in the same manner as other retail deposits, and that the deposits are not individually managed in the same way as large enterprise deposits.
94–103	Deposits subject to "operational" relationships"	The operational deposit means a deposit placed at a bank by a wholesale customer for a special business purpose, such as clearing, custody and cash management.
131(f)	Definition of other financial institutions and other legal entities	The term "regulated financial institution" means a financial institution subject to regulation on its capital ratios, among the institutions subject to inspection by the FSS under Article 38 of the Act on the Establishment etc of the FSC.

Elements left to national discretion (non-comprehensive list)

Table 8

Basel paragraph	Description	Implementation by the Korean authorities
5	These two standards [the LCR and NSFR] comprised mainly specific parameters which are internationally "harmonised" with prescribed values. *Certain parameters, however, contain elements of national discretion to reflect jurisdiction-specific conditions. In these cases, the parameters should be transparent and clearly outlined in the regulations of each jurisdiction to provide*	

	clarity both within the jurisdiction and internationally.	
8	Use of phase-in options	The RSBB stipulates that banks shall maintain the LCR at more than 100% (more than 60% in cases of foreign bank branches). However, as a transitional measure, banks shall maintain the LCR as the following: 1. From 1 Jan 2015 to 31 Dec 2015: more than 80%; 2. From 1 Jan 2016 to 31 Dec 2016: more than 85%; 3. From 1 Jan 2017 to 31 Dec 2017: more than 90%; 4. From 1 Jan 2018 to 31 Dec 2018: more than 95%. (2) The foreign bank branches shall maintain the LCR as the following: 1. From 1 Jan 2015 to 31 Dec 2015: more than 20%; 2. From 1 Jan 2016 to 31 Dec 2016: more than 30%; 3. From 1 Jan 2017 to 31 Dec 2017: more than 40%; 4. From 1 Jan 2018 to 31 Dec 2018: more than 50%. (3) The Korea Development Bank, Industrial Bank of Korea, National Agricultural Cooperative Bank and National Federation of Fisheries Cooperatives shall maintain the LCR as the following: 1. From 1 Jan 2015 to 31 Dec 2015: more than 60%; 2. From 1 Jan 2016 to 31 Dec 2016: more than 70%; 3. From 1 Jan 2017 to 31 Dec 2017: more than 80%; 4. From 1 Jan 2018 to 31 Dec 2018: more than 90%.
11	The Committee also reaffirms its view that, during periods of stress, it would be entirely appropriate for banks to use their stock of HQLA, thereby falling below the minimum. Supervisors will subsequently assess this situation and will give guidance on usability according to circumstances. *Furthermore, individual countries that are receiving financial support for macroeconomic and structural reform purposes may choose a different implementation schedule for their national banking systems, consistent with the design of their broader economic restructuring programme.*	The FSC determines a stress situation, and the banks have to maintain the minimum level until approval is given by the FSC. The FSC applies a reduced LCR to all banks. Before the FSC declares a stress situation and determines the reduced LCR requirements, banks may utilise HQLA but still have to comply with the current minimum requirement level. For an idiosyncratic stress situation affecting a limited number of banks, a notification regime is instead used. Banks could utilise their HQLA and go below the minimum regulatory LCR requirement. The FSS will then require the bank(s) to draft and sign an MoU to address the situation accordingly.
50(b)	Eligibility of central bank reserves	All the reserves are available to be drawn down in times of stress.
50(c)	Marketable securities that are assigned a 0% risk-weight under the Basel II Standardised Approach for credit risk	Not applicable.
53–54	Eligible Level 2B assets	The FSS does not accept sovereign and central bank debt securities rated BBB+ to BBB– that are not included in the definition of Level 1 assets according to paragraph 50(d) or (e) as Level 2B assets.

54a	Provision relating to the use of restricted contractual committed liquidity facilities (RCLF)[7]	Not applicable.
55(f)	Treatment for jurisdictions with insufficient HQLA (subject to separate peer review process)	Not applicable.
68	Treatment of Shariah-compliant banks	Not applicable.
78	Treatment of deposit insurance	In order to be categorised as stable deposits, deposits must be fully insured under the Depositor Protection Act. In this respect, "fully insured" means that 100% of the deposit amount, up to the deposit insurance limit, is covered by an effective deposit insurance scheme, and deposit balances up to the deposit insurance limit can be treated as fully insured even if the depositor has a balance in excess of upper limit of the deposit insurance.
79(f)	Categories and run-off rates for less stable deposits	The DRSBB stipulates that less stable deposits are deposits that cannot be categorised as stable deposits in the retail deposit category, and are subject to the application of a 10% run-off rate. Deposits that are not fully insured under the Depositor Protection Act, high-value deposits, deposits for the purpose of pursuing specific interest or deposits of high net worth individuals, deposits that can be withdrawn easily (eg internet deposits) etc may be included in less stable deposits.
123	Market valuation changes on derivative transactions	A bank may be exposed to a significant liquidity risk due to the drawdown of deposit of collateral assets against exposures subject to the assessment of market value related to derivatives or other transactions and the change in the market value of such exposures. Any cash outflow generated by the change in market value of derivative transactions shall be calculated by identifying the largest value of the absolute value of the net collateral transaction amount realised during one month out of the recent 24 months. The absolute value of net collateral transaction amount shall be calculated on the basis of outflows and inflows actually generated.
134–140	Run-off rates for other contingent funding liabilities	Run-off rates applicable to other contingent funding obligations shall be as follows: (1) Unconditionally revocable non-binding credit and liquidity facilities: 0%; (2) Guarantees and letters of credit unrelated to trade finance: 5%; (3) Following non-contractual obligations: 10%: (a) Potential requests for debt repurchases of the bank's own debt or that of related conduits, securities investment vehicles, and other such financing facilities; (b) Structured products where customers anticipate ready marketability, such as adjustable rate notes and variable rate demand notes (VRDNs);

[7] See www.bis.org/publ/bcbs274.htm.

		(c) Managed funds created with the objective of maintaining a stable value such as collective investment funds etc. (4) In the case of issuers with an affiliated dealer or market-maker, the remaining balance of debt securities having maturities exceeding one month: 5%; (5) Non-contractual contingent obligations generated where any collateral assets deposited by a client are not Level 1 or Level 2 assets and such assets are used to cover the short positions of another client: 50%;
160	Weight assigned to other contractual inflows	Other contractual cash inflows shall be subject to the application of a 100% cash inflow rate. Cash inflows related to non-financial revenues shall not be reflected.
164–165	Determination of scope of application of LCR (whether to apply beyond "internationally active banks" etc) and scope of consolidation of entities within a banking group	Internationally active banks are subject to the LCR requirements. The LCR and liquidity monitoring tools shall be calculated on a consolidated basis. Where a bank is a major liquidity source of joint ventures or minority investments in enterprises that are not included in the consolidation criteria, non-contractual contingent funding obligations to such entities shall be subject to the application of a 100% run-off rate.
168–170	Differences in home/host liquidity requirements due to national discretions	When calculating the LCR on a consolidated basis, a multinational banking group shall apply the same liquidity parameters as those applied in its home country to all corporations subject to consolidation: provided that with respect to retail business deposits and small and medium-sized enterprise deposits, the standards established by the host country where each corporation (branch or subsidiary) is located shall be applied. The reason is that the main causes of run-off rates of deposits are more influenced by the specific causes of each country such as the type and effectiveness of deposit insurance, the behaviour of local depositors etc, and through such treatment methods, the liquidity needs of the overseas branches or subsidiaries operating in the host country can be reflected in the calculation of the LCR. In the following cases, a corporation operating in the host country shall be subject to the application of the method for treatment of retail business and small and medium-sized enterprises that are based on the home country standards: (a) Where there are no host standards for retail business deposits and small and medium-sized business deposits in the host country; (b) Where the corporation operates in a country where no regulation on LCR is implemented; (c) Where the home supervisory authority requests to apply the home standards that are stricter than the host standards.
Annex 2	Principles for assessing eligibility for Alternative Liquidity Approaches (ALA)	Not applicable.