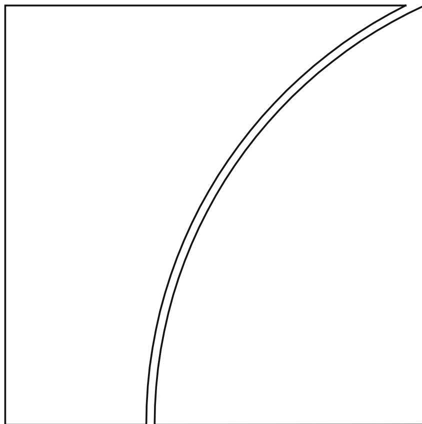
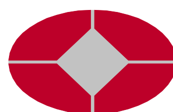
Basel Committee
on Banking Supervision



Regulatory Consistency Assessment Programme (RCAP)

Assessment of Basel III LCR regulations – Indonesia

December 2016



BANK FOR INTERNATIONAL SETTLEMENTS

This publication is available on the BIS website (www.bis.org).

© *Bank for International Settlements 2016. All rights reserved. Brief excerpts may be reproduced or translated provided the source is stated.*

ISBN 978-92-9259-013-0

(online)

Contents

Preface 2

Executive summary 4

Response from the Indonesian authorities 5

1 Assessment context and main findings 6

1.1 Context 6

1.2 Structure, enforceability and binding nature of prudential regulations 6

1.3 Scope of the assessment 7

1.4 Main findings 8

2 Detailed assessment findings 11

2.1 LCR 11

2.2 LCR disclosure requirements 13

2.3 Observations and other findings specific to the implementation practices in Indonesia 13

Annexes 16

Annex 1: RCAP Assessment Team and Review Team 16

Annex 2: Local regulations issued by Indonesian authorities for implementing Basel LCR standards 17

Annex 3: List of LCR standards under the Basel framework used for the assessment 18

Annex 4: Details of the RCAP assessment process 19

Annex 5: List of rectifications by the Indonesian authorities 20

Annex 6: Assessment of the bindingness of regulatory documents 21

Annex 7: Key liquidity indicators of the Indonesian banking system 22

Annex 8: Materiality assessment 23

Annex 9: Indonesia's implementation of the liquidity monitoring tools 24

Annex 10: Indonesia's implementation of the principles of sound liquidity risk management and supervision 27

Annex 11: List of issues for follow-up RCAP assessments 31

Annex 12: Areas where Indonesian LCR rules are stricter than the Basel standards 32

Annex 13: Implementation of LCR elements subject to prudential judgment or discretion in Indonesia 33

Glossary

ALA	Alternative Liquidity Approaches
BCBS	Basel Committee on Banking Supervision
BI	Bank Indonesia
BIS	Bank for International Settlements
BPeR	Bank performance report
C	Compliant (grade)
CFP	Contingency funding plan
D-SIB	Domestic systemically important bank
FAQ	Frequently asked question
HQLA	High-quality liquid assets
IDR	Indonesian rupiah
KYB	Know your bank
LC	Largely compliant (grade)
LCR	Liquidity Coverage Ratio
MNC	Materially non-compliant (grade)
OJK	Otoritas Jasa Keuangan, the Indonesian Financial Services Authority
NA	Not applicable
NC	Non-compliant (grade)
PBI	Bank Indonesia Regulation (Peraturan BI)
PDG	Bank Indonesia Board of Governors Regulation (Peraturan Dewan Gubernur)
PDK	OJK Board of Commissioners Internal Regulation (Peraturan Dewan Komisioner)
POJK	OJK Regulation (Peraturan OJK)
RCAP	Regulatory Consistency Assessment Programme
RWA	Risk-weighted assets
SE BI	Bank Indonesia External Circular Letter (Surat Edaran BI)
SE DK	OJK Board of Commissioners Internal Circular Letter (Surat Edaran Dewan Komisioner)
SE INTERN	Bank Indonesia Internal Circular Letter (Surat Edaran Intern)
SE OJK	OJK Circular Letter (Surat Edaran OJK)
SIG	Supervision and Implementation Group
SME	Small and medium-sized entities
SREP	Supervisory review and evaluation process

Preface

The Basel Committee on Banking Supervision (Basel Committee) sets a high priority on the implementation of regulatory standards underpinning the Basel III framework. The prudential benefits of 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 on the domestic adoption of the Basel Liquidity Coverage Ratio (LCR) standard in Indonesia and its consistency with the minimum requirements of the Basel III framework. The assessment focuses on the adoption of Basel standards applied to Indonesian banks that are internationally or regionally active and of significance to Indonesia's domestic financial stability.

The RCAP Assessment Team was led by Ms Kerstin af Jochnick, First Deputy Governor of Sveriges Riksbank. The Assessment Team comprised eight technical experts drawn from France, Georgia, Germany, India, Mexico, the Philippines and South Africa (Annex 1). The main counterparts for the assessment were the Indonesian Financial Services Authority (OJK) and Bank Indonesia (BI). The overall work was coordinated by the Basel Committee Secretariat with support from staff from Sveriges Riksbank.

The focus of the assessment was on the consistency and completeness of Indonesia's regulations with regard to the Basel minimum requirements. Issues relating to prudential outcomes, the liquidity position of individual banks or the OJK's supervisory effectiveness were not in the scope of this RCAP assessment exercise. The assessment relied upon the data, information and materiality computations provided by the OJK and BI by 30 June 2016. The assessment findings are based primarily on an understanding of the current processes in Indonesia as explained by OJK and BI staff and the Assessment Team's expert view on the documents and data reviewed.

The assessment began in May 2015 and consisted of three phases: (i) completion of an RCAP questionnaire (a self-assessment) by the Indonesian authorities; (ii) an assessment phase (January to May 2016); and (iii) a post-assessment review phase (May to November 2016). The second phase included discussions by conference call with the OJK and BI, representatives of Indonesian banks and representatives of two consultancy firms. These exchanges provided the Assessment Team with a deeper understanding of the implementation of the LCR in Indonesia. The third phase consisted of a two-stage technical review of the assessment findings: first by a separate RCAP Review Team and the Basel Committee's Supervision and Implementation Group (SIG); and second, by the RCAP Peer Review Board and the Basel Committee. This two-step review process is a key part of the RCAP, providing quality control and ensuring the integrity of the assessment findings.

Where domestic regulations and provisions were identified as not conforming with the Basel framework, those deviations were evaluated for their current and potential impact (or non-impact) on the reported LCRs for a sample of Indonesian banks. Some findings were evaluated on a qualitative basis. The assessment outcome was based on the materiality of findings and use of expert judgment. The Assessment Team also identified areas for follow-up action (Annex 11).

The report has three sections and a set of annexes: (i) an executive summary with a statement from the Indonesian authorities 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 OJK and BI throughout the assessment process. In particular, the team sincerely thanks the staff of the Indonesian authorities for their role in coordinating the assessment exercise. The series of comprehensive briefings and clarifications provided by the OJK and BI helped the RCAP assessors to arrive at their expert assessment. The Assessment Team would also like to thank the representatives of Indonesian banks that

provided data and information. The Assessment Team hopes that the RCAP assessment exercise has contributed to the sound initiatives that have been undertaken by the OJK and BI and to further strengthening the prudential effectiveness and full implementation of the recent reform measures in Indonesia.

Executive summary

The Indonesian framework for LCR requirements was issued in December 2015 through the publication of the Regulation on the Liquidity Coverage Ratio for Commercial Banks (see Annex 2). The LCR applies to conventional commercial banks categorised as BUKU 4, BUKU 3 and foreign banks. The BUKU 3 category includes banks with core capital of between 5 trillion Indonesian rupiahs (IDR) and IDR 30 trillion, while the BUKU 4 category includes banks with core capital of at least IDR 30 trillion. The foreign bank category refers to:

- branch offices of banks domiciled overseas;
- commercial banks in the form of an Indonesian legal entity with more than 50% of their shares owned by foreign citizens and/or foreign legal entities, both individually or jointly; and
- banks that are less than 50% owned, either individually or jointly, by foreign citizens and/or foreign legal entities but with control by these foreign citizens and/or foreign legal entities.

Overall, as of 30 September 2016 (the cutoff date for the RCAP assessment), the LCR regulations in Indonesia are assessed as compliant with the Basel LCR standards. This is the highest grade. All components of the Basel LCR standards are also assessed as compliant.

The Assessment Team compliments the OJK for its implementation of and alignment with the Basel LCR framework. A pedagogical effort has been made by Indonesian authorities to make the implementation of the LCR as straightforward as possible for local banks. Therefore, Indonesian regulations are sometimes less specific and precise than Basel rules. Indeed, Indonesian authorities strive to keep prudential regulation as simple, straightforward and understandable by local banks as possible. This is quite acceptable for now, but adjustments and complements to the prudential legal corpus may be necessary should the Indonesian financial environment become more sophisticated. The Assessment Team recommends that a follow-up assessment is conducted as the financial system develops, to ensure that the level of guidance is consistent with the complexity of the transactions being conducted (see Annex 11).

In addition to the formal assessment of the LCR standard and disclosure requirements, this report contains annexes that summarise Indonesia's implementation of the LCR monitoring tools and the Basel Committee's *Principles for sound liquidity risk management* (see Annexes 9 and 10). Further, a summary is provided of the key national discretions and approaches that the OJK has adopted in their implementation of the LCR standard (Annex 14). These annexes show how national authorities implement certain aspects of the Basel standards that do not fall within scope of the formal RCAP LCR assessment. 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 increase consistency of LCR implementation and improve its effectiveness in practice.

Response from the Indonesian authorities

The Indonesia Financial Services Authority (OJK) would like to take this opportunity to express its gratitude to the Assessment Team for its assessment of the implementation of the Basel III liquidity requirements in Indonesia. We greatly appreciate the professionalism and hard work of the RCAP Assessment Team and its leader, Ms Kerstin af Jochnick.

We are strongly committed to adopting the Basel liquidity framework and are pleased to see that our efforts to comply with the framework were fruitful and recognised by the Assessment Team. We would also like to state that we have greatly benefited from the RCAP process itself as it was a great opportunity to deepen our understanding of the framework and, accordingly, enhance the effectiveness of our regulations.

In general, we see the RCAP as an important process as it improves the consistency of banking standards across jurisdictions, whilst providing an opportunity for jurisdictions to better understand the Basel framework. At the same time, the RCAP also enables the Assessment Teams to better understand jurisdictions' unique regulatory frameworks.

1 Assessment context and main findings

1.1 Context

Status of implementation

The Otoritas Jasa Keuangan (OJK) is the main regulatory and supervisory authority for banks in Indonesia. It was established in 2011 by Law No 21/2011 and assumed regulatory and supervisory responsibilities for capital markets and non-bank financial institutions on 31 December 2012. On 1 January 2014, the OJK took over banking supervision from Bank Indonesia (BI), the Indonesian central bank.[1]

In December 2015, the OJK issued a Regulation on the Liquidity Coverage Ratio for Commercial Banks. It applies to conventional commercial banks classified as BUKU 3 and BUKU 4 by the OJK, as well as foreign banks. BUKU 4 banks must implement the LCR from January 2016, with BUKU 3 banks being subject to the requirements from June 2016.[2]

The Basel standard allows jurisdictions that have a structural shortfall in high-quality liquid assets (HQLA) to implement Alternative Liquidity Approaches (ALA). At the time of the assessment, the Indonesian authorities had not implemented ALA.

Regulatory system and model of supervision

In Indonesia, the Basel framework applies to all conventional commercial banks. These comprise over 95% of Indonesian banking assets. The Basel framework does not apply to sharia or rural banks. In evaluating the materiality of its findings, the Assessment Team focused on eight large Indonesian banks, including the four largest commercial banks.

In addition to the supervision of minimum liquidity requirements, the OJK monitors banks' liquidity buffers through the Basel liquidity monitoring tools (Annex 9). The quality of banks' liquidity risk management is further assessed against the *Principles for sound liquidity risk management* and involves both on- and off-site assessments (Annex 10).

1.2 Structure, enforceability and binding nature of prudential regulations

The OJK's liquidity regulation follows the same regulatory policymaking process as the risk-based capital regulations. The following table provides an overview of the legal hierarchy of prudential regulations in Indonesia. The structure and binding nature of prudential regulations in Indonesia are outlined in greater detail in the RCAP assessment report on the Indonesian risk-based capital requirements for banks.[3] The Assessment Team finds that the LCR regulations in Indonesia meet the RCAP criteria of being enforceable and binding in practice (see also Annex 6).

[1] For more details on the OJK's status and structure, see Basel Committee on Banking Supervision, *RCAP assessment of Basel III risk-based capital regulations – Indonesia*, December 2012, www.bis.org/bcbs/publ/d394.htm.

[2] The OJK's BUKU classifications for commercial banks are based on core capital. BUKU 3 and BUKU 4 banks are those with core capital in excess of Indonesian IDR 5 trillion.

[3] Basel Committee on Banking Supervision, *RCAP assessment of Basel III risk-based capital regulations – Indonesia*, December 2012, www.bis.org/bcbs/publ/d394.htm.

Structure of Indonesian laws and regulatory instruments	Table 1
Laws that empower the OJK as banking supervisor	The establishment of the OJK was mandated by Law No 23/1999 on BI and enacted by Law No 21/2011 on the Indonesian Financial Services Authority. These laws give the regulations issued by the OJK the same legal power as regulations set by other institutions and bodies such as BI. Law No 12/2011 sets out the legal hierarchy of Indonesian laws and regulations. Under this framework, BI and OJK Regulations are recognised and legally binding as long as they are mandated by a law or enacted based on authority.[4]
Supervisory regulatory instruments issued by the OJK and BI derived from the above laws	OJK Regulations (Peraturan OJK, or POJK) apply externally or to the public in general. These are written rules set by the Board of Commissioners. They are legally binding and published in the National Gazette. BI Regulations (Peraturan Bank Indonesia, or PBI) are written regulations set by BI. They are legally binding for all individuals and bodies and are published in the National Gazette.
	OJK External Circular Letters (Surat Edaran OJK, or SE OJK) are written rules set by a member of the Board of Commissioners. They include implementation instructions or technical guidance. BI External Circular Letters (Surat Edaran BI, or SE BI) are written documents that provide implementation or technical guidelines on a BI Regulation. They are published in the National Gazette. Both OJK and SE BI are legally binding on financial institutions.
Internal instruments	A Board of Commissioners Regulation (Peraturan Dewan Komisioner, or PDK) is a written rule set by the OJK Board of Commissioners. It is legally binding within OJK on those conducting its activities. A Board of Governors Regulation (Peraturan Dewan Gubernur, or PDG) is a written regulation set by BI. It contains provisions on various internal aspects of the organisation.
	A Board of Commissioners Circular Letter (Surat Edaran Dewan Komisioner, or SE DK) is a written rule set by a member of the OJK Board of Commissioners. It includes implementation or technical guidance on POJK or PDK. A BI Internal Circular Letter (Surat Edaran Intern, or SE INTERN) is a written document that provides implementation or technical guidelines on a PDG. Both SE DK and SE INTERN are legally binding.

1.3 Scope of the assessment

The LCR requirements applicable to conventional commercial banks in Indonesia (henceforth, "banks") were assessed as of 30 June 2016. The assessment had two dimensions:

- a comparison of domestic regulations with the Basel LCR standards to ascertain that all the required provisions have been adopted (*completeness* of the Indonesian domestic regulation); and
- whether there are any differences in substance between the domestic regulations and the Basel LCR standards and their significance (*consistency* of the Indonesian regulation).

[4] BI Regulations are mentioned explicitly in Article 8 of Law No 12/2011. OJK Regulations fall into the same category, but are not cited as an example because the OJK did not exist at the time the law was issued.

In its assessment, the Assessment Team considered all binding documents that effectively implement the Basel LCR framework in Indonesia. Importantly, the assessment did not evaluate the adequacy of liquidity or resilience of the banking system in Indonesia or the supervisory effectiveness of the Indonesian authorities.

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 as an 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 banks' LCRs. The quantification was, however, limited to the agreed sample of banks. Wherever relevant and feasible, the Assessment Team, together with the Indonesian authorities, attempted to quantify the impact based on data collected from Indonesian banks in the agreed sample of banks (see Annex 8). In addition to the available data, the assessment relied on expert judgment as to whether the domestic regulations met the Basel framework in letter and in spirit. The non-quantifiable aspects of identified deviations were discussed and reviewed in the context of the prevailing regulatory practices and processes with the Indonesian authorities.

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 one area, the treatment of stable deposits, the Indonesian rules go beyond the minimum Basel standards (see Annex 12). This has not been taken into account when assessing compliance under the RCAP methodology as per the agreed assessment methodology.

1.4 Main findings

A summary of the main findings is given below. Overall, the Assessment Team finds the LCR regulation issued in January 2016 to be compliant with the Basel standard. All components are also assessed as compliant.

[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 (NA). See www.bis.org/publ/bcbs264.htm for further details.

Summary assessment grading	Table 2
Key components of the Basel LCR framework	Grade
Overall grade	C
Definition of high-quality liquid assets (numerator)	C
Definition of net outflows (denominator)	C
Definition of net inflows (denominator)	C
LCR disclosure requirements	C

Compliance assessment scale: C (compliant), LC (largely compliant), MNC (materially non-compliant) and NC (non-compliant).

In general terms, the Indonesian implementation follows the Basel standard for issues related to the application of the LCR such as: frequency of calculation and reporting, scope of application, differences in home/host liquidity requirements, treatment of liquidity transfer restrictions and currencies. The Assessment Team recommends that a follow-up assessment is conducted as the financial system develops, to ensure that the level of guidance is consistent with the complexity of the transactions being conducted (see Annex 11).

Main findings by component

High-quality liquid assets (numerator)

The principles regarding HQLA under the Indonesian rules are compliant with the Basel standards.

The Assessment Team has three findings related to the level of precision of the Indonesian regulations. However, these findings are not considered material, and are complemented by aspects of the supervisory process. The first relates to the requirement that banks have policies and limits in order to avoid concentration with respect to asset types, issue and issuer types, and currency. The Assessment Team found that the Indonesian regulations explicitly require banks to have such policies and limits, except for "issue type". The second and third non-material findings are related to the wording in the requirements under which banks must conduct an assessment of the Level 2A and 2B assets during significant liquidity stress. The Indonesian regulations do not explicitly define that the stressed period must be a "relevant period of significant liquidity stress". However, Indonesian authorities confirmed to the Assessment Team that banks do incorporate liquidity stress conditions into their assessments.

Outflows (denominator)

The Indonesian rules regarding liquidity outflows are compliant with the Basel standards. There are only four non-material findings, with other observations being solely due to the use of less precise wording in the Indonesian articles (some examples of which are included in Section 2.3).

First, the Basel LCR standard requires that, where an item can be counted in multiple outflow categories, a bank must assume the maximum contractual outflow (to avoid "cherry-picking"). This is not incorporated in the Indonesian regulation, in which each outflow rate applies to only one outflow category.

Second, the Basel standard requires supervisory approval for the use of a preferential run-off rate for operational deposits. Instead, the OJK relies on an ex post review process based on bank LCR reports.

Third, the Indonesian regulations are less specific regarding non-contractual contingent funding obligations (ie potential liquidity draws from joint ventures or minority investments in entities). However, such funding obligations are not common in Indonesia.

Fourth, the Indonesian regulations are less specific than the Basel framework regarding a bank's liquidity support to entities that are not consolidated under the scope of application of the LCR. Most

Indonesian banks' investments are currently consolidated under the LCR scope of application, so this is not material.

Inflows (denominator)

The Indonesian rules on liquidity inflows are compliant with the Basel III standards.

Disclosure requirements

The Indonesian disclosure requirements are compliant with the Basel LCR disclosure requirements.

The Assessment Team made some observations on the use of less precise guidance in the Indonesian rules (some examples are in Section 2.3). Also, the first binding reporting date for Indonesian banks was on 31 December 2015, which is consistent with the fact that the implementation of the LCR itself in Indonesia has been delayed.

In addition, Basel disclosure standard 13 requires the quarterly LCR disclosure data to be presented as simple averages of daily observations over the previous quarter. Banks can calculate averages based on monthly figures up to the first reporting period after 1 January 2017. The Indonesian regulations are compliant for BUKU 4 banks but are less demanding for (smaller) BUKU 3 banks, for which the obligation to compute the LCR on the basis of daily observations becomes effective starting 1 October 2017. According to the OJK, this is because the LCR implementation on a daily basis requires the availability of complex information systems.

2 Detailed assessment findings

The component-by-component details of the assessment of compliance with the LCR in the Basel framework are detailed below. The focus of Sections 2.1 and 2.2 is on findings that were assessed as deviating from the Basel minimum standards and their materiality. Section 2.3 lists some observations and other findings specific to the implementation practices in Indonesia.

2.1 LCR

2.1.1 High-quality liquid assets (numerator)

Section grade	Compliant
Summary	The Indonesian implementation of the principles for recognising HQLA for the purpose of the LCR generally follows the Basel standard. The Assessment Team only reported three deviations from the Basel rules. These are not material.
Basel paragraph number	44: diversification of the stock of HQLA
Reference in the domestic regulation	POJK No. 42/POJK.03/2015 Article 8; Article 9 paragraphs (4) and (5)
Findings	The Basel standard requires that banks should have policies and limits in order to avoid concentration with respect to asset types, issue and issuer types, and currency. The Indonesian regulations explicitly require banks to have policies and limits to avoid most types of concentration, but do not include issue type. As of December 2015, Indonesia banks' HQLA are basically composed of sovereign debt of the bank's home jurisdiction, central bank reserves, central bank debt securities and cash, which are exempted from the diversification requirement.
Materiality	Not material
Basel paragraph number	52 (a) and (b): Level 2A assets
Reference in the domestic regulation	POJK No. 42/POJK.03/2015 Article 11 paragraph (1) and (2)
Findings	The Basel standard states that that Level 2A assets must have a proven record as a reliable source of funding, even during stressed marked conditions – where the maximum price decline must be measured during a relevant period of significant liquidity stress. The Indonesian regulations do not explicitly define that the stress period during which banks must assess the liquidity of the assets must be a relevant period of significant liquidity stress. This could overstate the stock availability of Level 2A assets. However, the Assessment Team understands that banks do incorporate periods of liquidity stress into their assessments in practice. Hence, the finding is not deemed to be material.
Materiality	Not material
Basel paragraph number	54 (a), (b) and (c): Level 2B assets
Reference in the domestic regulation	POJK No. 42/POJK.03/2015 Article 11 paragraph (1) and (2)
Findings	The Basel standard states that the maximum price decline must be measured during a relevant period of significant liquidity stress. The Indonesian regulations do not explicitly define that the stressed period under which banks must assess the liquidity of assets must be a relevant period of significant liquidity stress. This could overstate the stock availability of the Level 2B assets. However, the Assessment Team understands that banks do incorporate periods of liquidity stress into their assessments in practice. Hence, the finding is not considered material.
Materiality	Not material

2.1.2 Outflows (denominator)

Section grade	Compliant
Summary	The Basel text is generally well transposed. There are no material findings, but the Indonesian regulations in several instances are less precise than the Basel text (see Section 2.3). The Assessment Team only reported three deviations from the Basel rules. However, these are not material.
Basel paragraph number	72: multiple outflow categories
Reference in the domestic regulation	POJK No. 42/POJK.03/2015 Elucidation to article 41 paragraph (1)
Findings	The Basel standards require that, where an item can be counted in multiple outflow categories, a bank must use the maximum contractual outflow for that product. This is in order to avoid "cherry-picking" (ie choosing the lowest outflow rate). The last sentence of Basel paragraph 72 that deals with this issue is not transcribed in the corresponding POJK No. 42 articles. The OJK explained that there is no risk of cherry-picking, because in its regulation each outflow rate only applies to only one outflow category. Thus, the Indonesian regulations do not give rise to the situation wherein a bank would face a choice of more than one outflow rate for a given product. Therefore, the finding is not considered material.
Materiality	Not material
Basel paragraph number	93: supervisory approval for operational deposit treatment
Reference in the domestic regulation	POJK No. 42/POJK.03/2015 Article 24 (1) and its Elucidation Attachment to Bank Indonesia Circular Letter No. 13/36/INTERN dated 25 October 2011 – HANDBOOK OF LIQUIDITY RISK ASSESSMENT page 61
Findings	The Basel framework states that a 25% run-off rate may apply to operational deposits but supervisory approval is needed. There is no explicit approval requirement in the corresponding Indonesian articles. The OJK explained that this is implemented in practice via a review process of banks' LCR reports. Based on this review, the supervisory authority may require modifications if it does not agree with a bank's LCR calculation. The OJK also conducts on-site inspections to assess banks' liquidity condition and LCR implementation, which should mitigate the risk that a bank underestimates its HQLA needs. Nevertheless, the supervisory approval is then given ex post, and the amount of operational deposits might be significant. On balance, the Assessment Team considered this difference in approach not to be material.
Materiality	Not material
Basel paragraph number	137: non-contractual contingent funding obligations
Reference in the domestic regulation	POJK No. 42 Elucidation part I – General Review; POJK 42 Article 39 paragraphs 1, 2
Findings	Basel paragraph 137 is related to non-contractual contingent funding obligations related to potential liquidity draws from joint ventures or minority investments in entities. There is no explicit reference to this outflow category in the corresponding Indonesian articles. However, such funding obligations are not common in Indonesia. Hence, this finding is not deemed material.
Materiality	Not material
Basel paragraph number	165: scope of application
Reference in the domestic regulation	POJK No. 42/POJK.03/2015 Article 4 and its Elucidation
Findings	The Basel standard states that banks must consider as part of their outflows the liquidity impact (liquidity support) to those entities that are not consolidated under the scope of application of the LCR. The Indonesian regulations do not reflect this requirement explicitly as the OJK considers this impact as part of other contingent funding obligations. Most of the

	investments of Indonesian banks are controlling investments that are currently consolidated under the LCR scope of application.
Materiality	Not material

2.1.3 Inflows (denominator)

Section grade	Compliant
Summary	The Assessment Team has found that the Indonesian regulations follow the Basel standards determining inflows allowed in the denominator of the LCR.

2.2 LCR disclosure requirements

Section grade	Compliant
Summary	The Basel LCR disclosure requirements have generally been well transposed into the Indonesian rules. Although the Indonesian regulations are sometimes less specific and precise than the Basel rules (some examples are in Section 2.3), the Assessment Team did not consider these differences to affect the compliance of the Indonesian regulations with the Basel framework.

2.3 Observations and other findings specific to the implementation practices in Indonesia

The following observations highlight special features of the regulatory implementation of the Basel LCR standards in Indonesia. These are presented for contextual and informational purposes. Observations are considered fully compliant with the Basel standard and do not have a bearing on the assessment outcome.

2.3.1 High-quality liquid assets (numerator)

Basel paragraph number	50: Level 1 assets
Reference in the domestic regulation	POJK No. 42/POJK.03/2015 Article 10 paragraph (1) POJK No. 32/POJK.03/2016 Article I 13
Observation	The Basel standard states that Level 1 assets include non-0% risk weight sovereign or central bank debt as long as such debt securities are issued in domestic currencies by the sovereign or central bank in the country in which the liquidity risk is being taken. Additionally, it states that where the domestic sovereign or central bank debt securities are issued in foreign currencies, they can be recognised as Level 1 assets up to a limit. This limit is the amount of the bank's stressed net cash outflows in that specific foreign currency stemming from the bank's operations in the jurisdiction where the bank's liquidity risk is being taken. POJK No. 42/POJK.03/2015 Article 10 paragraph (1) states that securities issued by the central government and BI in foreign currencies are included as Level 1 HQLA, without mentioning any restriction. However POJK No. 32/POJK.03/2016 Article I 13 makes clear that "securities issued by the Central Government and Bank Indonesia in foreign exchange that can be counted as Level 1 HQLA is not more than the net cash outflow demanded in such foreign exchange". The scope of this regulation covers all banks within the scope of the LCR requirements. Notwithstanding the bindingness of POJK No. 32/POJK.03/2016, it should be noted this regulation does not directly deal with LCR requirements. It primarily concerns disclosure and transparency requirements and is not focused on liquidity risk. For the sake of clarity, it may therefore be advisable that at a later stage this requirement be transposed into a new version of POJK No. 42/POJK.03/2015, which is the main regulation implementing LCR requirements for commercial banks.

2.3.2 Outflows (denominator)

Basel paragraph number	76: stable deposits
Reference in domestic regulation	Article 11 of Law 24-2004
Observation	Under the Basel framework, stable deposits may receive a preferential run-off rate. One of the criteria for being considered stable is that the deposits are fully insured by an effective deposit insurance scheme, for which the coverage is clearly defined. The Indonesian deposit insurance scheme currently covers IDR 2 billion for each depositor per bank. However, Article 11 of Law 24-2004 related to the Indonesian deposit guarantee scheme states that "[t]he insured deposit amount may be adjusted [...] if there is a substantial amount of funds being withdrawn simultaneously in the banking industry" or if other conditions apply. The Assessment Team considered whether this possibility to change the insured deposit amount might mean that the coverage is not clearly defined or understood by depositors. The Indonesian authorities explained that any change to the deposit coverage is subject to parliamentary approval and so would not be changed frequently. Therefore, the Assessment Team concluded that the preferential run-off rate could be applied consistently.
Basel paragraph number	79, 89 and 160: number of outflow and inflow rates
Reference in domestic regulation	POJK No. 42/POJK.03/2015 Article 18; Article 19; Article 20 paragraph (1) and(2);Article 21 paragraph (1) and (2);Article 47; Elucidation to article 47 letter b; Article 49
Observation	Indonesian authorities use a single outflow rate of 10% for less stable deposits and unsecured wholesale funding provided by small businesses, and a single inflow rate of 50% for other contractual cash inflows. Basel paragraphs 79, 89 and 160 prescribe that different buckets be defined within these categories, but this simplification is not considered to affect the consistency of the Indonesian framework with the Basel framework.
Basel paragraph number	80: guaranteed deposits
Reference in domestic regulation	POJK No. 42/POJK.03/2015 Article 17 and Article 20
Observation	The Indonesian regulations do not specify how banks should apply the preferential run-off rate on guaranteed deposits. Namely, it is not clear if only deposits below IDR 2 billion are eligible for the preferential treatment or if a bank can apply the preferential treatment on the covered fraction of a larger deposit. According to the OJK, a bank can apply the stable deposit run-off rate on the covered fraction of the total amount held by a depositor (each depositor is registered under an identification number allowing the bank to know exactly the total outstanding value of its deposits). For instance, if an individual customer holds IDR 3 billion in a bank, it can apply the stable deposit run-off rate on IDR 2 billion and the less stable run-off rate on IDR 1 billion. This treatment is consistent with the Basel framework.
Basel paragraph number	81: domestic and foreign currency deposits
Reference in domestic regulation	Law 24 of 2004 and Law 66 of 2008
Observation	Indonesian authorities do not make any distinction between domestic and foreign currency deposits in their regulation, which implicitly means that the same run-off rate applies. This is acceptable because both types of deposit are covered up to IDR 2 billion per customer per bank (Law 24 of 2004 and Law 66 of 2008). However, more clarity on this point would have been appreciated.
Basel paragraph number	96 and 97: operational deposits
Reference in domestic regulation	POJK No. 42/POJK.03/2015 Article 24 paragraph (1), (2) and (3)
Observation	Basel paragraphs 96 and 97 emphasise that the excess amount of operational deposits must be estimated in order to be excluded from the outstanding amount receiving a preferential 25% run-off rate. The Indonesian regulations only require the banks to have

	a method for determining the value of deposits that can be classified as operational deposits, which is less specific.

2.3.3 Disclosure requirements

Basel paragraph number	Disclosure standard 13
Reference in domestic regulation	POJK No. 42/POJK.03/2015 Article 53 paragraph (1) and (2); Article 57 paragraph (1) and (2)
Observation	The first binding reporting date for Indonesian banks was 31 December 2015, which is consistent with the fact that the implementation of the LCR in Indonesia has been delayed. Also, Basel disclosure standard 13 requires the quarterly LCR disclosure data to be presented in the template as simple averages of daily observations over the previous quarter. However, banks can calculate averages based on monthly figures up to the first reporting period after 1 January 2017. The Indonesian regulations are compliant for BUKU 4 banks but are less demanding for (smaller) BUKU 3 banks. According to the OJK, this is because the LCR implementation on a daily basis requires the availability of complex information systems.
Basel paragraph number	Disclosure standard 18
Reference in domestic regulation	Circular Letter No. 11 /SEOJK.03/2015 regarding Transparency And Publication Of Conventional Commercial Bank Reports Section IV.2.d.3).b).vi.(a) and (b)
Observation	Basel disclosure standard 18 states that a bank may choose to disclose additional quantitative information related to its internal liquidity risk measurement and management framework (non-prescriptive items). The Indonesian regulations do require the publication of information concerning risk management. However, they do not give precise guidance concerning additional quantitative information that banks may consider disclosing (eg concentration limits on sources of funding).
Basel paragraph number	Disclosure standard 19
Reference in domestic regulation	Circular Letter No. 11 /SEOJK.03/2015 concerning Transparency And Publication Of Conventional Commercial Bank Reports Section IV.2.d.3).b).vi.(a) and (b)
Observation	Basel disclosure standard 19 requires banks to provide a qualitative discussion of their LCR results. It also states that a bank may choose to provide other qualitative information on its internal liquidity risk management (non-prescriptive items, eg risk tolerance, funding strategy). The Indonesian regulations are less specific as they do not elaborate on the qualitative information that banks may choose to disclose.

Annexes

Annex 1: RCAP Assessment Team and Review Team

Assessment Team Leader

Ms Kerstin af Jochnick	Sveriges Riksbank

Assessment Team members

Mr Jonas Bernes	Comisión Nacional Bancaria y de Valores, Mexico
Mr Maximilien Demarquette	Bank of France
Mr Bruno Estecahandy	Bank of France
Ms Alexandra Gebauer	Federal Financial Supervisory Authority (BaFin), Germany
Mr Otar Gorgodze	National Bank of Georgia
Ms Lyn Javier	Bangko Sentral ng Pilipinas
Ms Irene Peter	South African Reserve Bank
Ms Anupam Sonal	Reserve Bank of India

Supporting members

Ms Katarina Wagman	Sveriges Riksbank
Ms Louise Eggett	Basel Committee Secretariat
Mr Olivier Prato	Basel Committee Secretariat

Review Team members

Mr Neil Esho	Basel Committee Secretariat
Mr Piers Haben	European Banking Authority
Ms Sophie Schiltz	Surveillance Commission for the Financial Sector, Luxembourg
Mr James Watkins	Federal Deposit Insurance Commission, United States

Annex 2: Local regulations issued by Indonesian authorities for implementing Basel LCR standards

Overview of issuance dates of important Indonesian liquidity regulations — Table A.1

Domestic regulations	Name of the document, version and date
Law	Micro Small Medium Enterprise Act No. 20/2008
OJK Regulations	Regulation on Liquidity Coverage Ratio Requirement for Commercial Banks (December 2015) Regulation on Transparency and Publication of Banks Reports (first issued in October 2012, last version September 2016) Regulation on Risk Management Implementation for Commercial Banks (first issued in 2003, last version March 2016) Regulation on Business Operation and Office Network Based on Bank Core Capital (first issued in 2012, last version 2016)
OJK Circular Letters	Circular Letter on Transparency and Publication of Banks Reports (first issued in December 2012, last version September 2016) Circular Letter on Guideline for Risk Management Implementation for Commercial Banks (first issued in 2003, last version September 2016) Handbook for Liquidity Risk Assessment for Supervisors (October 2011)

Hierarchy of Indonesian laws and regulatory instruments — Table A.2

Level of rules (in legal terms)	Type
1945 Constitution	Constitution
Law	Law enacted by Parliament
BI / OJK Regulation (internal or external)	Regulations made by the BI Board of Governors or OJK Board of Commissioners
BI / OJK Circular Letter (internal or external)	Technical or implementation guidelines, made by a member of the BI Board of Governors or OJK Board of Commissioners

Annex 3: List of LCR standards under the Basel framework used for the assessment

Basel documents in scope of the assessment

- *The Liquidity Coverage Ratio*, January 2013, including *Frequently Asked Questions on Basel III's January 2013 Liquidity Coverage Ratio*, April 2014
- *Liquidity coverage ratio disclosure standards*, January 2014

Basel documents reviewed for information purposes

- *Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools*, January 2013 (part on liquidity risk monitoring tools)
- *Monitoring tools for intraday liquidity management*, April 2013
- *Principles for sound liquidity risk management and supervision*, September 2008

Annex 4: Details of the RCAP assessment process

Off-site evaluation

- Completion of a self-assessment questionnaire by the Indonesian authorities
- Evaluation of the self-assessment by the RCAP Assessment Team
- Independent comparison and evaluation of the domestic regulations issued by the Indonesian authorities with corresponding Basel standards issued by the BCBS
- Identification of observations
- Refinement of the list of observations based on clarifications provided by the Indonesian authorities
- Assessment of materiality of deviations for all quantifiable deviations based on data and non-quantifiable deviations based on expert judgment
- Forwarding of the list of observations to the Indonesian authorities

Assessment

- Discussion of individual observations with the Indonesian authorities
- Conference call with selected Indonesian banks and consultancy firms
- Discussion with the Indonesian authorities and revision of findings to reflect additional information received
- Assignment of component grades and overall grade
- Submission of the detailed findings to the Indonesian authorities with grades
- Receipt of comments on the detailed findings from the Indonesian authorities

Review and finalisation of the RCAP report

- Review of comments by the RCAP Assessment Team, finalisation of the draft report and forwarding to the Indonesian authorities for comments
- Review of the Indonesian authorities' comments by the RCAP Assessment Team
- Review of the draft report by the RCAP Review Team
- Reporting of findings to the SIG by the Team Leader
- Review of the draft report by the Peer Review Board
- Approval of the report by the Basel Committee and publication

Annex 5: List of rectifications by the Indonesian authorities

Basel paragraph	Reference to Indonesian document and paragraph	Brief description of the correction
		LCR requirements
50	POJK No. 42/POJK.03/2015 Article 10 paragraph (1)	The Basel standard states that, where the domestic sovereign or central bank debt securities are issued in foreign currencies, they can be recognised as Level 1 assets up to a limit. Previously, the Indonesian regulations permitted such securities to be included as Level 1 HQLA without any restriction. The Indonesian regulations have been amended so that such securities may now only be recognised up to the amount of the bank's stressed net cash outflows in that specific foreign currency, in line with the Basel standard.
		LCR disclosure requirements
Disclosure standard 12	POJK No. 42/POJK.03/2015 Article 58 paragraph (2); Attachment II in POJK 42 Annex	The Basel disclosure standard requires the disclosure of quantitative information on unsecured debt and inflows from fully performing exposures. These items were not included in the original Indonesian LCR disclosure regulations, but the regulations have since been amended to include them.
Disclosure standard 13	POJK No. 42/POJK.03/2015 Article 53 paragraph (1) and (2); Article 57 paragraphs (1) and (2)	Under the Basel standards, banks must publish the number of data points used in calculating average figures. This requirement has been added to the Indonesian regulations.
Disclosure standard 15	POJK No. 42/POJK.03/2015 Article 53 paragraphs (1) and (2); Article 57 paragraphs (1) and (2)	The Basel requirement that banks must publish qualitative information on their liquidity positions has been added to the Indonesian regulations. Indonesian banks must publish an analysis of their liquidity condition, which includes sufficient qualitative discussion around the LCR to facilitate understanding of the results and data provided. Examples given in the regulation include the main drivers of the LCR results, changes over time, the composition of HQLA, concentration of funding sources, derivative exposures and potential collateral calls, currency mismatch, group liquidity management and other inflows and outflows not captured in the disclosure templates but relevant for a bank's liquidity risk profile.

Annex 6: Assessment of the bindingness of regulatory documents

The following table summarises the assessment of the seven criteria used by the Assessment Team to determine the eligibility of Indonesian regulatory documents. The Assessment Team concluded that the regulatory instruments issued and used by the OJK and BI as set out in Annex 2 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.	The establishment of the OJK was mandated by Law No. 23/1999 on BI and enacted by Law No. 21/2011 on the Indonesian Financial Services Authority. These laws give the regulations issued by the OJK the same legal power as regulations set by other institutions and bodies such as BI. Law No. 12/2011 sets out the legal hierarchy of Indonesian laws and regulations. Under this framework, BI and OJK Regulations are recognised and legal binding as long as they are mandated by a law or enacted based on authority.6
(2) They are public and easily accessible.	OJK and BI Regulations are published in the National Gazette. OJK Circular Letters are published on the OJK's website.
(3) They are properly communicated and viewed as binding by banks as well as by supervisors.	Regulations and Circular Letters are binding for banks and supervisors and viewed as such.
(4) They would generally be expected to be legally upheld if challenged and are supported by precedent.	Law No. 12/2011 sets out the legal hierarchy of Indonesian laws and regulations. Under this framework, BI and OJK Regulations are recognised and legally binding as long as they are mandated by a law or enacted based on authority.7 Regulations issued by the OJK and BI have never been challenged in court. Courts will take into consideration that according to Law No. 21/2011, the OJK was established with a mandate of, among others, regulating and supervising banks, as well as the fact that regulations stipulated in Law No. 12/2011 are binding in nature. An important phase of the rule-making process is the public hearing phase, which underlines the importance of transparency and provides an opportunity for stakeholders to provide suggestions, views, and input.
(5) Consequences of failure to comply are properly understood and carry the same practical effect as for the primary law or regulation.	The BI and OJK Act contains sufficient powers for BI and the OJK to ensure compliance with prudential standards and regulations, laws and guidelines. BI and the OJK have full powers to enforce compliance and a range of powers sufficient to address any given situation up to and including revocation of the licence.
(6) The regulatory provisions are expressed in clear language that complies with the Basel provisions in both substance and spirit.	Indonesian Regulations uses the language found in the Basel standards to avoid any misinterpretation and to aid easy enforcement. Additionally, the OJK and BI issue Circular Letters to serve as guidelines to provide more clarity for both the supervisor and banks.
(7) The substance of the instrument is expected to remain in force for the foreseeable future.	Regulations are in force until they are amended or repealed. BI Regulations and Circular Letters issued before the transfer of supervision to the OJK remain valid unless otherwise revoked or converted into an OJK Regulation.

6 BI Regulations are mentioned explicitly in Article 8 of Law No. 12/2011. OJK Regulations fall into the same category, but are not cited as an example because the OJK did not exist at the time the law was issued.

7 See footnote 6.

Annex 7: Key liquidity indicators of the Indonesian banking system

Overview of Indonesian banking sector liquidity as of June 2016 Table A.3

Size of banking sector (IDR billions)		
Total assets of all banks operating in the jurisdiction (including off-balance sheet assets)	7,543,719	
Total assets of all locally incorporated internationally active banks	0	
Total assets of locally incorporated banks to which liquidity standards under the Basel framework are applied	5,765,490	
Number of banks		
Number of banks operating in the jurisdiction (excl local representative offices)	118	
Number of global systemically important banks (G-SIBs)	0	
Number of domestic systemically important banks (D-SIBs)	0	
Number internationally active banks	0	
Number of banks required to implement Basel III liquidity standards	52	
Number of banks required to implement domestic liquidity standards	118	
Breakdown of LCR for seven RCAP sample banks (IDR billions)	**Unweighted**	**Weighted**
Total HQLA	844,358	837,763
Level 1 HQLA	820,426.07	820,426.07
Level 2A HQLA	15,346.21	13,044.28
Level 2B HQLA	8,585.58	4,292.79
ALA HQLA	–	–
Total cash outflows	1,513,179	96,068
Retail and small business stable deposits	1,105,003	55,250
Retail and small business less stable deposits	548,094	54,809
Wholesale unsecured operational deposits	341,490.32	75,302.98
Wholesale unsecured non-operational funding	475,167.52	215,854.32
Secured funding	16,009.96	608.34
Debt issued instruments (incl credit and liquidity facilities)	316,475.28	92,556.48
Other contractual outflows	957.34	957.34
Contingent funding obligations	287,790.61	7,598.64
Total cash inflows	214,084	134,117
Secured lending	7,104.29	1,225.92
Fully performing unsecured loans	142,978.44	70,902.47
Other cash inflows	64,000.81	61,988.52
Liquidity Coverage Ratio (%)		227%

Annex 8: Materiality assessment

The outcome of the RCAP assessment is based on the materiality of the findings. As a general principle, and mirroring the established RCAP assessment methodology for risk-based capital standards, a distinction is made between quantifiable and non-quantifiable findings. 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 any deviations at different points in time.

In line with underlying RCAP principles, for quantifiable gaps the materiality assessment is based on a determination of the cumulative impact of the identified deviations on the reported LCR ratios of banks in the RCAP sample (see below). For non-quantifiable gaps, the team relies on expert judgment only. Following this approach, an attempt was made to determine whether findings are "not material", "material" or "potentially material". The following table summarises the number of deviations according to their materiality.

Number of gaps/differences by component — Table A.4

Component	Not material	Potentially material	Material
Definition of HQLA (numerator)	3	0	0
Outflows (denominator)	4	0	0
Inflows (denominator)	0	0	0
LCR disclosure requirements	0	0	0

RCAP sample of banks

The following Indonesian banks were selected for testing the materiality of quantifiable deviations. Together these banks represent approximately 60% of the total assets of the Indonesian banking system. Currently, in Indonesia there are no banks that fall into the category of internationally active banks.

RCAP sample banks — Table A.5

Banking group	Share of banks' assets in total Indonesian banking sector assets (per cent)
Bank Mandiri	15.01
Bank Rakyat Indonesia	13.31
Bank Central Asia	10.99
Bank Negara Indonesia	7.50
Bank CIMB Niaga	4.58
Bank Permata	3.76
Bank Danamon Indonesia	3.25
Bank OCBC NISP	2.41
Total	60.62

Source: OJK. For this purpose, banking assets include both on- and off-balance sheet assets.

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

Basel liquidity monitoring tools

In addition to the minimum standard for the LCR, the Basel LCR framework outlines the metrics to be used to monitor liquidity risks ("the monitoring tools"). The monitoring tools capture specific information related to a bank's cash flows, balance sheet structure, available unencumbered collateral and certain market indicators. The monitoring tools supplement the LCR standard and are a cornerstone for supervisors in assessing a bank's liquidity risk. This annex provides a qualitative overview of the implementation of the monitoring tools in Indonesia.

Liquidity risk management in Indonesia

Bank liquidity risk management became a requirement under Circular Letter SE No. 13-23-DPNP-2011 and its annex. Liquidity risk management is a factor assessed by supervisors in determining a bank's risk profile, particularly in terms of liquidity. In line with the publication of the Basel monitoring tools in January 2013, the Indonesian authorities issued a regulation concerning the LCR (POJK No. 42/POJK.03/2015), which emphasises the importance of banks having liquidity monitoring tools as well as meeting LCR minimum requirements. In the aforementioned regulation, banks are required to use monitoring tools as part of their risk management. As the purpose of the monitoring tools is for banks' liquidity risk management, banks are not required to report to the supervisor the results of the monitoring tools regularly. However, supervisors use these tools to perform quarterly liquidity risk assessments. In the assessment process, supervisors gather all pertinent information, including those derived from the monitoring tools. If the information is not available, supervisors have the power to request such information from the bank at any time. Supervisors may take supervisory action if the banks do not use monitoring tools or if supervisors detect risks that may arise from the implementation of monitoring tools.

As stipulated under POJK No. 42/POJK.03/2015, in addition to the obligation to calculate the LCR, the OJK requires banks to monitor the condition and adequacy of liquidity by using certain indicators. These are set out in POJK No. 42/POJK.03/2015 and include:

1. Contractual maturity mismatch, which indicates banks' potential liquidity needs for defined time bands when outflows occur.
2. Concentration of funding, which aims to identify those sources of corporate funding that are of such significance that withdrawal of this funding could trigger liquidity problems.
3. Available unencumbered assets, which have the potential to be used as collateral and as such can be taken into account as HQLA or for securing funding from secondary markets or central banks.
4. The LCR based on significant currencies, to capture potential mismatches in certain currencies. This indicator uses the Basel LCR definition and calculation. A currency is considered significant if the aggregate liabilities denominated in that currency amount to 5% or more of the bank's total liabilities.
5. Market-related monitoring tools, including market information, information on the financial sector and bank-specific information.

As stated above, banks also have to perform liquidity risk measurement as part of their implementation of risk management (under SE 13-23-DPNP-2011). For example, banks are obliged to have a measuring tool which can quantify the liquidity risk which results from assets, liabilities and off-balance-sheet items in a timely and comprehensive manner.

Brief explanation of the implementation of the liquidity risk monitoring tools

I. Reporting and monitoring of contractual maturity mismatch

The maturity profile must present asset, liability and off-balance sheet items, all classified by time scale based on the remaining time to maturity according to the contract or based on certain assumptions, especially for the on- and off-balance sheet items which have no contractual maturity date. The factors which are considered in determining the assumptions to estimate the on- and off-balance sheet items which have no contractual residual maturity date are product characteristic, counterparty or client behaviour, market conditions and historical experience. The maturity profile is compiled in order to identify liquidity gaps in certain time scales. Maturity profiles must be compiled at least every month in terms of rupiah or foreign currency. Banks may classify their maturity profile based on foreign currency for internal purposes.

II. Reporting and monitoring of funding concentration

The OJK requires banks monitor to the condition and adequacy of liquidity by using certain indicators, including the concentration of funding.[8] This is defined as corporate funding of such significance that a withdrawal would risk triggering liquidity problems. To monitor the concentration of funding, banks must:

1. calculate the percentage of funding sources originating from counterparties that are categorised as being significant for a bank's total liabilities. A significant counterparty is defined as a single counterparty or business group of affiliated counterparties whose deposits account in aggregate for more than 1% of a bank's total balance sheet;
2. calculate the percentage of funding sources originating from each product or instrument that is categorised as being significant for total liabilities. A significant product or instrument is a single product or instrument or group of similar products or instruments that in aggregate amount to more than 1% of a bank's total balance sheet; and
3. list the amount of assets and liabilities based on currencies that are categorised as being significant, to capture the mismatch in significant currencies. A currency is considered significant if the aggregate liabilities denominated in that currency amount to 5% or more of a bank's total liabilities.

III. Reporting and monitoring of available unencumbered assets

In addition to the obligation to calculate the LCR, the OJK requires banks to monitor the condition and adequacy of liquidity by using certain indicators, including available unencumbered assets.[9] Banks must monitor: (i) available unencumbered assets that can be used as collateral in secondary markets; and (ii) available unencumbered assets that are eligible for central banks' funding facilities.

IV. Reporting and monitoring of the LCR by foreign currency

In addition to the obligation to calculate the LCR, banks monitor the condition and adequacy of liquidity by using certain indicators, including the LCR based on significant currencies, defined and calculated as per the Basel LCR standard. However there is no internationally defined minimum required threshold for

[8] The requirements are set out in Article 15 of POJK No. 42/POJK.03/2015 and its Elucidation.

[9] These requirements are set out in Article 51 of POJK No. 42/POJK.03/2015 and its Elucidation.

foreign currency LCRs. Under the Indonesian regime, a currency is considered significant if the aggregate liabilities denominated in that currency amount to 5% or more of the bank's total liabilities.[10]

V. Market-related monitoring tools

In addition to the obligation to calculate the LCR, banks must monitor the condition and adequacy of liquidity by using certain indicators; including market-related monitoring tools.[11] These include monitoring of market information, information on the financial sector and bank-specific information. Early warning indicators comprise internal indicators and external indicators. Examples include:

- declines in transaction volumes;
- market rumours about problem banks, declines in other banks' share prices or falls in their share prices; and
- declines in the bank's own credit rating or share price, or increases in its costs of funds.

Basel guidance on monitoring tools for intraday liquidity management

The Basel Committee issued guidance on monitoring tools for intraday liquidity management in April 2013. The Indonesian authorities have implemented parts of this guidance in Annex 4 of SE 13-36-INTERN-2011.

The OJK assesses the adequacy of banks' management of intraday liquidity position and liquidity risk by reviewing, among other things, the following:

- the systems, tools and methods used by a bank to predict cash outflows and cash inflows at any time during the day and the funding need that may arise at any time during the day;
- the monitoring mechanism used by a bank on its intraday liquidity position in order to allocate intraday liquidity effectively between the bank's own needs and its customers' needs;
- limit-setting for intraday liquidity;
- a bank's funding sources for the purpose of meeting intraday funding needs and the availability of those funding sources when needed;
- the availability of collateral in the form of liquid assets for obtaining intraday funding facilities, the internal process for mortgaging or conveying collaterals to BI, correspondent banks, PT Kustodian Sentral Efek Indonesia (Indonesia Security Central Custodian), custodians or other fund providers; and
- that the bank's stress testing assumptions or scenarios and contingency funding plan have included disruptions in intraday funding.

[10] These requirements are set out in Article 51 of POJK No. 42/POJK.03/2015 and its Elucidation.

[11] These requirements are set out in Article 51 of POJK No. 42/POJK.03/2015 and its Elucidation.

Annex 10: Indonesia's implementation of the principles of sound liquidity risk management and supervision

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

The Indonesian authorities have implemented most of the principles of sound liquidity risk management and supervision in Indonesia in SE BI No. 13-23-DPNP, as amended and converted into SE OJK No. 34/SEOJK.03/2016. This explains that, in general, liquidity risk management aims at the good management of a bank's liquidity sources, so that the bank can achieve business objectives and minimise losses that occur due to its failure to meet its obligations or debts at maturity dates. Learning from the 2008 global crisis, the main focus of liquidity management currently is on stress testing or scenario analysis as well as the maintenance of adequate liquid assets to meet liquidity needs at various time scales.

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

The first principle states that banks are responsible for having processes in place to actively monitor and manage liquidity risk.

In Indonesia, a bank must have adequate processes and tools for identifying, monitoring and measuring risks and exercising control over a bank's activities and support functions. Implementation of risk identification should be proactive, covering all bank activities, and performed for the purpose of analysing liquidity risk sources and potential losses that might originate from those risks. Furthermore, banks are obliged to measure liquidity risk in line with their liquidity risk characteristics and complexity. In the liquidity risk monitoring process, banks are obliged to establish a unit, independent of the parties that undertake transactions, in order to monitor the level of liquidity risk and its trend. In addition, liquidity risk management processes should be supplemented by efforts to control risks through independent reviews performed by internal audit or an independent work unit. The risk management process needs to be supported by availability of adequate tools, namely adequate liquidity risk management information system and competent human resources.

Governance of liquidity risk management – Principles 2–4

Principles 2–4 of the management and supervision of liquidity risk are stipulated clearly under SE No. 13/23/DPNP. Under this regulation, banks' directors have the authority and responsibility to:

- Arrange policies, strategies and a risk management framework in written form. These should comprehensively include risk limits in aggregate and per type of risk, by paying attention to level of risk which will be taken and the risk tolerance according to the bank's condition as well as taking into account the impact of the risk on capital adequacy. The policies, strategies and risk management framework are subject to approval by the board of commissioners.
- Arrange, establish and update procedures and means to identify, measure, monitor and control risks.
- Arrange and establish the mechanism of transaction approval, including approval of those that are over the limit and the necessary authority for every level of position.
- Evaluate or renew policies, strategies and the risk management framework at least once a year or more frequently in the event of a change in factors which influences the bank's business activities, risk exposure or risk profile significantly.
- Establish the organisation's structure including clear authority and responsibility for every level of position related to the implementation of risk management.

- Implement the policies, strategies and risk management framework approved by the board of commissioners, and evaluate and give directions according to reports from the risk management unit, including the report on the risk profile.
- Ensure all material risks and their impact have been followed up and submit an accountability report to the board of commissioners periodically. The report should include the report of development and problems related to material risks and remedial measures which have been , are being and will be carried out.
- Ensure the implementation of remedial measures for problems or deviations in the bank's business activities which are found by the internal audit unit.
- Develop risk management culture, including risk awareness, at every level of the organisation. This includes, for example, adequate communication to every level of the organisation on the importance of effective internal controls.
- Ensure the adequacy of financial support and infrastructure to manage and control risks.
- Ensure the risk management function is independent. This is reflected by such things as the separation between the functions of the risk management unit which identifies, measures, monitors and controls risk from the work unit which executes and finalises transactions.

In terms of liquidity risk, one of the powers and responsibilities of the banks' board of directors is to submit a report to the board of commissioners regarding liquidity position, liquidity risk profile and the implementation of the risk management policy and procedures for liquidity risk. This includes an evaluation of the policy, strategy and liquidity procedure, periodically or when there is a significant change.

The banks' board of commissioners must approve the risk management policy, including the strategy and the risk management framework set according to each bank's risk appetite and tolerance. The board of commissioners must also evaluate the risk management policy and strategy at least once a year, or more frequently in the event of a change in factors that influence the bank's business activities significantly.

Banks' liquidity management policies and procedures should cover at least: the composition of assets and liabilities; the level of liquid assets the bank should maintain; the type and allocation of assets classified as HQLA; the diversification and stability of funding sources; liquidity management for every funding source (according to market, counterparty, location, type of currency etc); daily liquidity management including intraday and intragroup liquidity management (liquidity of the business group); and liquidity risk limit.

Measurement and management of liquidity risk – Principles 5–12

Under SE OJK No. 34/SEOJK.03/2016, banks should have an independent risk management unit with responsibility for, among other things, developing liquidity risk management policies, and procedures for identifying, measuring, monitoring and controlling liquidity risk.

Banks' liquidity risk monitoring should pay attention to the early warning indicators to understand how liquidity risk might increase. The early warning indicators comprise internal indicators and external indicators. Internal indicators cover a bank's funding and asset growth strategy, the increase of concentration on the asset or the liability side, increase in foreign exchange mismatch, positions which are repeatedly close to or over internal or regulatory limits, and increases in a bank's cost of funds. External indicators may come from third parties, analysts or market participants. In general, these indicators are related to banks' credit capacity. Examples of indicators from third parties are: rumours in the market concerning a bank's issue, a credit rating downgrade by a rating institution, a decrease in a bank's stock price, a decrease of transaction volumes or a decrease in credit lines.

Each bank should have a method for measuring and monitoring funding needs. In a very simple method, funding needs are measured by deducting cash outflows from inflows so that the bank can identify its future funding needs.

Liquidity risk control is performed through a bank's funding strategy and management of its daily liquidity position and liquidity risk, intragroup liquidity position and liquidity risk, HQLA and contingency funding plan.

Funding strategy includes a diversification strategy for funding sources and maturity periods that is aligned with the bank's characteristics and business plan. Banks should identify and monitor the main factors that influence their capacity to acquire funds, including identifying and monitoring alternative funding sources and market access that can strengthen their capacity to withstand crises.

Active management of the daily liquidity position and liquidity risk aims at meeting liabilities at any time during the day (intraday) on time, in both normal and crisis conditions, by prioritising critical liabilities. Banks should analyse changes in their liquidity positions that occur due to payments and/or receipts throughout the day. Changes in the liquidity position are monitored based, among other things, on cash flow projections that should be developed and presented daily, in rupiahs as well as foreign currencies, which should cover at least the projections for the next week. Cash flow projections should be developed by the unit that executes treasury activities.

Banks should have high-quality assets in sufficient amount and composition that are in line with their business characteristics and liquidity risk profile for the purpose of meeting intraday, short-term and long-term liquidity needs. They should evaluate and monitor of all high-quality assets and their composition, including assets that have been pledged and/or provided as collateral; and the availability of active markets, as well as the time required for mortgage processing.

Although liquidity management is generally performed under normal conditions, banks need to estimate funding need under crisis situations. For this purpose, the OJK obliges banks to perform stress tests by determining "what-if" scenarios that take into account factors that influence bank's liquidity internally (bank-specific) as well as externally (market-related). In each scenario, banks are obliged to take into account both positive and negative effects on their liquidity. Results of the stress tests show how susceptible the bank's liquidity position is under various crisis scenarios, and the bank's capacity to meet funding needs in crisis situations.

A contingency funding plan (CFP) must at least cover bank management's planned actions in a liquidity crisis situation and the methods used to acquire funds in a funding crisis. The board of directors and/or the asset-liability committee is obliged to periodically evaluate and update the CFP to ensure its effectiveness. The CFP comprises estimated cash flows and a plan to ensure availability of funding in various crisis situations.

Public disclosure – Principle 13

The Indonesian disclosure requirements for liquidity risk are set out in POJK No 6/POJK.03/2015 (Articles 2, 3, 23 and 24) and POJK No 42/POJK.03/2015 (Article 52 and 57). The latter covers LCR-specific disclosure requirements, while the former covers a broader range of disclosure requirements. Pursuant to Article 15A of POJK No. 32/POJK.03/2016, banks that must prepare and publish a report on the LCR should add information on their LCR in quarterly public reports. Disclosure of the LCR comprises: quantitative information comprising the calculation and value of the LCR; and qualitative information that explains the calculation and value of the LCR.

The role of supervisors – Principles 14–17

In line with the Basel Committee principles, the OJK has developed assessment criteria which are used to review aspects of the quality of banks' liquidity risk management implementation, covering: (i) liquidity risk governance; (ii) liquidity risk management framework; (iii) liquidity risk management processes, risk

management information systems and human resources; as well as (iv) risk control systems. These are set out in the OJK's Handbook of Liquidity Risk.

Liquidity risk assessment covers an assessment of inherent risk and an assessment on the quality of liquidity risk management implementation.

Assessment of inherent risk is performed comprehensively using "know your bank" (KYB) information, analysis of quantitative and qualitative parameters and indicators, and analysis of reports on the bank's liquidity management, covering, among other things, maturity profile, cash flow projection and liquidity stress test. To assess inherent risks, OJK bank supervisors analyse the following factors:

- composition of assets, liabilities and off-balance sheet account transactions;
- concentration of assets and liabilities (concentration mix);
- funding needs in normal condition, is reflected by maturity mismatch and cash flow gap, as well as funding need in crisis conditions, which is reflected by stress test results; and
- access to funding sources.

These factors are assessed using quantitative and qualitative indicators. Quantitative indicators are ratios available in the Bank Performance Report (BPeR) application. Bank supervisors can analyse these ratios at the individual bank level as well as by comparing them with other banks in the relevant peer group. In addition to the ratios, other quantitative information that is not available in the BPeR application but that bank supervisors use to perform inherent risk assessment includes the Maturity Profile Report and Cash Flow Projection Report and liquidity risk stress tests. In analysing quantitative data, bank supervisors should at least take into account data trends for the last 12 months.

In order for a bank supervisor to obtain a full picture of bank's inherent risk level, the results of the assessment of quantitative indicators should be supplemented with understanding and an assessment of relevant qualitative aspects; for example, the bank's capacity to sell or mortgage liquid assets to meet liquidity needs, how stable its funding sources are, and its capacity to access funding sources from the market. Qualitative information is obtained based on KYB information, results of discussions with a bank, and other information that can support supervisors' assessment. Results of assessments of quantitative and qualitative indicators are then used to determine a bank's inherent risk rating.

The adequacy of liquidity risk management implementation quality is assessed based on analysis of aspects of the adequacy of liquidity risk management, which include: (i) adequacy of liquidity risk governance; (ii) the liquidity risk management framework; (iii) the adequacy of process, risk management information system (MIS) and human resources; and (iv) the adequacy of the liquidity risk control system, which covers independent reviews and internal controls. Results of the inherent risk assessment and assessment of liquidity risk management implementation quality are the basis for determining the inherent risk rating, rating of risk management implementation adequacy and liquidity risk level.

If there are deficiencies in a bank's liquidity risk management processes or liquidity position, the OJK may require remedial action, under PBI No 13/1/PBI/2011 (Articles 1, 2, 6, 7 and the Elucidations). In assessing bank soundness, including liquidity risk, the OJK may take into account information on the results of evaluations by other authorised authorities.

Annex 11: List of issues for follow-up RCAP assessments

The Assessment Team identified the following issue for follow-up in a future RCAP assessment of Indonesia.

A pedagogical effort has been made by Indonesian authorities to make the implementation of the LCR as straightforward as possible for local banks. Therefore, the Indonesian regulations are sometimes less specific and precise than the Basel rules. Indeed, Indonesian authorities put the emphasis on keeping prudential regulation as simple, straightforward and understandable by local banks as possible. This is quite acceptable for now but adjustments and complements to the prudential legal corpus may be necessary should the Indonesian financial environment become more sophisticated. This could be reviewed in a future RCAP.

Annex 12: Areas where Indonesian LCR rules are stricter than the Basel standards

The Indonesian authorities have adopted a stricter approach to the treatment of stable deposits than the minimum Basel Committee standards. This annex, prepared by the OJK, describes the Indonesian treatment. It should be noted that this approach has not been taken into account as a mitigant for the overall assessment of compliance.

The Basel LCR standard and liquidity risk monitoring tools state that jurisdictions may choose to apply a run-off rate of 3% to stable deposits in their jurisdiction, if they meet the stable deposit criteria and the following additional criteria for deposit insurance schemes:

- The insurance scheme is based on a system of pre-funding via the periodic collection of levies on banks with insured deposits.
- The scheme has adequate means of ensuring ready access to additional funding in the event of a large call on its reserves, eg an explicit and legally binding guarantee from the government, or a standing authority to borrow from the government.
- Access to insured deposits is available to depositors in a short period of time once the deposit insurance scheme is triggered.

Jurisdictions applying the 3% run-off rate to stable deposits with deposit insurance arrangements that meet the above criteria should be able to provide evidence of run-off rates for stable deposits within the banking system below 3% during any period of stress experienced that is consistent with the conditions in the LCR.

Even though Indonesia is able to meet all the requirements, it has decided not to apply the run-off rate of 3% for stable deposits. Instead, the Indonesian authorities have set the run-off rate at 5%. The intention is that the run-off rate for stable deposits is implemented conservatively until Indonesia obtains the valid run-off rate data to support implementation of a lower rate.

Annex 13: Implementation of LCR elements subject to prudential judgment or discretion in Indonesia

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 a similar fashion to the studies on risk-weighted asset variation for the capital standards.

Elements requiring judgment (non-comprehensive list) Table A.6

Basel paragraph	Description	Implementation by the OJK
134	Other contingent funding obligations (run-off rates at national discretion): national supervisors will work with supervised institutions in their jurisdictions to determine the liquidity risk impact of these contingent liabilities and the resulting stock of HQLA that should accordingly be maintained. Supervisors should publicly disclose the run-off rates they assign to each category.	The OJK has implemented the following run-off rates for other contingent funding obligations. - Originating from trade finance instruments: 3% - Originating from unconditionally revocable uncommitted credit facilities and liquidity facilities: 0% - Originating from letters of credit and guarantees unrelated to trade finance obligations: 5% - Originating from potential requests for debt repurchases of a bank's own debt or that of related securities investment vehicles and other financing facilities: 5% - Originating from structured products where customers anticipate ready marketability: 5% - Originating from managed funds that are sold with the objective of maintaining a stable value: 5% - Obligations to cover potential repurchase of securities, with or without collateral, having maturities greater than 30 days for issuers with an affiliated dealer or market-maker: 5% - Non-contractual obligations on customer short positions hedged with other customer collateral: 50%
160	Other contractual cash inflows: other contractual cash inflows should be captured here, with an explanation given as to what comprises this bucket. Inflow percentages should be determined as appropriate for each type of inflow by supervisors in each jurisdiction. Cash inflows related to non-financial revenues are not taken into account in the calculation of the net cash outflows for the purposes of this standard.	The OJK has implemented a 50% run-off rate for other contractual cash inflows.