



BANK NEGARA MALAYSIA
CENTRAL BANK OF MALAYSIA

Liquidity Coverage Ratio

Applicable to:

1. Licensed banks
2. Licensed investment banks
3. Licensed Islamic banks

Issued on: 25 August 2016

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TABLE OF CONTENTS

PART A	Overview.....	1
1	Introduction.....	1
2	Applicability	1
3	Legal provisions.....	1
4	Effective date.....	1
5	Interpretation	1
6	Related legal instruments and policy documents	2
7	Policy documents superseded	2
PART B	General requirements.....	3
8	Liquidity Coverage Ratio.....	3
9	Minimum requirements	4
PART C	Stock of HQLA	6
10	Eligible HQLA	6
11	Operational requirements on the maintenance of stock of HQLA and the use of SRR balances	11
12	Encumbrance and transferability of assets	12
PART D	Expected cash outflows	15
13	General computation requirements.....	15
14	Retail deposits.....	15
15	Unsecured wholesale funding.....	17
16	Secured funding	22
17	Liquidity needs from derivatives, financing transactions and other contracts ..	23
18	Loss of funding from structured finance instruments.....	25
19	Drawdowns on credit and liquidity facilities	26
20	Other contractual obligations	28
21	Contingent funding obligations.....	28
PART E	Expected cash inflows	30
22	Loans and other credit facilities	30
23	Secured lending or financing	30
24	Derivatives transactions.....	31
25	Facilities at other financial institutions.....	31
26	Other cash inflows	32
PART F	Investment accounts	33
27	Unrestricted Investment Account (UA).....	33
28	Restricted Investment Account (RA).....	34
PART G	Reporting requirements	36
29	Information to be reported to the Bank.....	36
30	Specific reporting requirements	37
	Appendices	41

31	Appendix 1: Characteristics of high-quality liquid assets.....	41
32	Appendix 2: Examples of LCR calculation and liquidity reporting for investment account funds	43

PART A OVERVIEW

1 Introduction

- 1.1. The Liquidity Coverage Ratio (LCR) is a quantitative requirement which seeks to ensure that banking institutions hold sufficient high-quality liquid assets (HQLA) to withstand an acute liquidity stress scenario over a 30-day horizon at both the entity and consolidated level.

2 Applicability

- 2.1 The LCR is applicable to all banking institutions as defined in paragraph 5.2 of this document.

3 Legal provisions

- 3.1 The requirements in this policy document are specified pursuant to sections 47 and 143 of the Financial Services Act 2013 (FSA) and sections 57 and 155 of the Islamic Financial Services Act 2013 (IFSA).

4 Effective date

- 4.1 The LCR requirements in this document shall take effect on 25 August 2016.

5 Interpretation

- 5.1 The terms and expressions used in this document shall have the same meanings assigned to them in the FSA and IFSA, unless otherwise defined in this document.

- 5.2 For purposes of this document:

“**S**” denotes a standard, requirement or specification that must be complied with. Failure to comply may result in one or more enforcement actions;

“**G**” denotes guidance which may consist of such information, advice or recommendation intended to promote common understanding and sound industry practices which are encouraged to be adopted;

“**banking institutions**” refers to licensed banks, licensed investment banks and licensed Islamic banks except for licensed international Islamic banks;

“**debt securities**” includes any sukuk structured under any Shariah compliant contract;

“**financial institution**” refers to any entity, whether incorporated in Malaysia or otherwise, engaged primarily in financial services¹;

“**Restricted Committed Liquidity Facility (or RCLF)**” refers to a liquidity facility offered by the Bank to banking institutions in accordance with the Guidance Note on the RCLF; and

“**significant currency**” refers to any non-Ringgit currency amounting to 5% or more of a banking institution’s total on- and off-balance sheet liabilities.

6 Related legal instruments and policy documents

- 6.1 This document must be read together with the following policy documents/guidance note:
- i. *Capital Adequacy Framework (Basel II – Risk-Weighted Assets)*;
 - ii. *Capital Adequacy Framework for Islamic Banks (Risk-Weighted Assets)*;
 - iii. *Classification and Impairment Provisions for Loans/Financing*;
 - iv. *Investment Account*; and
 - v. *Restricted Committed Liquidity Facility*.

7 Policy documents superseded

- 7.1 This document supersedes the guidelines/policy document on:
- i. *Liquidity Framework* and *Liquidity Framework-i* issued on 1 July 1998; and
 - ii. *Liquidity Coverage Ratio* issued on 31 March 2015.

¹ This shall include banking, investment banking, insurance/takaful, securities broking, fund management, asset management, leasing and factoring services.

PART B GENERAL REQUIREMENTS

8 Liquidity Coverage Ratio

S 8.1 A banking institution shall calculate its LCR in the following manner:

$$\text{LCR} = \frac{\text{Stock of HQLA}}{\text{Total net cash outflows over the next 30 calendar days}}$$

S 8.2 Unless otherwise specified, a banking institution shall comply with the requirements in this document at the following levels:

- i. entity level², referring to the global operations of the banking institution (i.e. including its overseas branch operations) on a stand-alone basis, and its Labuan banking subsidiary;
- ii. consolidated level, which includes entities covered under the entity level requirement, and the consolidation³ of all subsidiaries⁴, except insurance and/or takaful subsidiaries; and
- iii. *Skim Perbankan Islam*⁵ (hereafter referred to as an “SPI”) level, as if it were a stand-alone banking institution.

8.3 The liquidity parameters set out for the computation of the LCR assume a scenario which entails a combined institution-specific and market-wide shock that would result in:

- i. the run-off of a proportion of retail deposits and investment accounts;
- ii. a partial loss of unsecured wholesale funding capacity;
- iii. a partial loss of secured, short-term financing with certain collateral and counterparties;
- iv. additional contractual outflows that would arise from a downgrade in a banking institution’s public credit rating by up to and including three notches, including collateral posting requirements;
- v. increases in market volatilities that impact the quality of collateral or potential future exposure of derivative positions and thus require larger collateral haircuts or additional collateral, or lead to other liquidity needs;
- vi. unscheduled draws on committed but unused credit and liquidity facilities that a banking institution has provided to its customers; and/or
- vii. the potential need for a banking institution to buy back debt or honour non-contractual obligations in the interest of mitigating reputational risk.

S 8.4 When calculating the LCR, a banking institution shall apply the rules and

² Also referred to as the “solo” or “stand-alone” level.

³ Consolidation of financial reporting shall be in accordance with the Malaysian Financial Reporting Standards (MFRS).

⁴ Refers to financial and non-financial subsidiaries.

⁵ Refers to the *Guidelines on Skim Perbankan Islam*.

parameters as specified in this document to its overseas operations, except for the areas specified in paragraph 8.5.

- S** 8.5 Where a banking institution operates in a jurisdiction which has implemented the Basel III LCR, the banking institution shall apply the host jurisdiction's parameters to foreign operations in the following areas when calculating its LCR:
- i. run-off rate of insured retail and small business deposits;
 - ii. eligible assets recognised by the host jurisdiction in accordance with Alternative Liquidity Approaches⁶ as prescribed under the Basel III rules text (i.e. banking institution may count these assets toward the total stock of HQLA in computing the LCR at both the entity and consolidated level).

9 Minimum requirements

- S** 9.1 A banking institution shall hold, at all times, an adequate stock of HQLA such that it maintains a minimum of the following LCR levels in accordance with the timeline below:

With effect from	1 June 2015	1 January 2016	1 January 2017	1 January 2018	1 January 2019 and thereafter
Minimum LCR	60%	70%	80%	90%	100%

- S** 9.2 A banking institution shall report and comply with the minimum LCR levels specified in paragraph 9.1 separately for its net cash outflows denominated in:
- i. Ringgit; **and**
 - ii. Ringgit and all other currencies **on an aggregated basis**, at the entity, consolidated and where relevant, SPI levels as specified in paragraph 8.2.
- S** 9.3 For purposes of paragraph 9.2(ii), a banking institution shall include the foreign currency exposures reported under paragraph 9.5 in Ringgit-equivalent terms.
- S** 9.4 A banking institution shall determine total net cash outflows over the next 30 calendar days as total expected cash outflows less total expected cash inflows, based on the outflow and inflow rates provided in Parts D, E and F of this document. The banking institution shall cap the amount of inflows that can offset outflows shall be capped at 75% of its total expected cash outflows.
- S** 9.5 A banking institution with liabilities denominated in foreign currencies shall:

⁶ Refers to paragraphs 55 to 68 of the Basel III rules text, namely the recognition of the following as HQLA: (i) contractual committed liquidity facilities from the relevant central bank; (ii) foreign currency HQLA to cover domestic liquidity needs; or (iii) additional use of Level 2 assets with higher haircuts.

- i. report its LCR positions for US dollars and Singapore dollars separately, regardless of whether these are significant currencies for the banking institution;
- ii. report its LCR positions for each significant currency separately; and
- iii. monitor the liquidity needs in significant currencies on an ongoing basis and establish liquidity plans to meet obligations denominated in these currencies.

G 9.6 The liquidity plans described in paragraph 9.5(iii) to meet obligations denominated in foreign currencies may include holdings of HQLA in each significant currency to generate liquidity in the currency and jurisdiction in which the net cash outflows arise. A banking institution should establish internal liquidity risk tolerance levels for foreign currency liabilities and take into account the risk that its ability to swap currencies (e.g. swap facilities with counterparties to obtain required foreign currencies) and access to the relevant foreign exchange markets may rapidly erode under stressed conditions. The banking institution should also adequately account for sudden, adverse exchange rate movements that could sharply widen existing mismatched positions in their liquidity plans.

S 9.7 A banking institution shall comply with any requirement to hold additional liquidity buffers as may be specified by the Bank after having regard to the liquidity risk profile of the banking institution and the adequacy of the risk mitigation measures that have been put in place by the banking institution.

S 9.8 In the event of financial stress resulting in a banking institution's non-compliance with the minimum prescribed LCR, the banking institution shall immediately notify the Bank, with an explanation of the following:

- i. factors leading to non-compliance;
- ii. measures which will be taken to restore the LCR position; and
- iii. expected duration of the LCR remaining below the minimum prescribed level.

Based on an assessment of the banking institution and market-specific factors, the Bank may grant an institution temporary relief from having to comply with the minimum LCR requirements specified in paragraph 9.1.

S 9.9 A banking institution shall comply with any condition imposed by the Bank pursuant to paragraph 9.8, which may include specific actions to be taken by the banking institution to reduce its exposures to liquidity risk.

PART C STOCK OF HQLA

10 Eligible HQLA

- S 10.1 Assets to be included in the stock of HQLA shall comprise only Level 1, Level 2A and Level 2B assets which are defined as follows and in paragraph 10.2:

Category	Asset	Haircut
Level 1	Cash	0%
	Central bank reserves, to the extent that these reserves can be drawn down in times of stress	
	<u>Placements with the Bank</u> <ul style="list-style-type: none"> ▪ Overnight deposits ▪ Term deposit placements ▪ Wadiah acceptances ▪ Commodity <i>Murabahah</i> program ▪ Surplus cash balances held in eSPICK and RENTAS accounts ▪ Balances held under the Statutory Reserve Requirement (SRR) <u>Placements with other central banks</u> Overnight deposits, and term deposits with other central banks which: (i) are explicitly and contractually repayable on notice; or (ii) constitute a loan against which the banking institution can borrow on a term basis, or on an overnight basis with automatic renewal ⁷ .	
Marketable securities representing claims on or claims explicitly guaranteed by sovereigns, central banks, PSEs ⁸ , the Bank for International Settlements, the International Monetary Fund, the European Commission, or multilateral development banks that satisfy all of the		

⁷ Term deposits with other central banks which do not fulfill these criteria are not eligible as stock of HQLA; under such circumstances, only term deposits maturing within 30 days may be included as cash inflows under paragraph 22.2.

⁸ As defined in paragraph 2.20 of the policy document on *Capital Adequacy Framework (Basel II – Risk-Weighted Assets)* and paragraph 2.24 of the policy document on *Capital Adequacy Framework for Islamic Banks (Risk-Weighted Assets)*.

Category	Asset	Haircut
	<p>following conditions:</p> <ul style="list-style-type: none"> ▪ assigned a rating by a recognised external credit assessment institution (ECAI ⁹) corresponding to a 0% risk-weight as set out in Appendix III of the <i>Capital Adequacy Framework (Basel II – Risk-Weighted Assets)</i> or paragraph 2.22 of the <i>Capital Adequacy Framework for Islamic Banks (Risk-Weighted Assets)</i>; ▪ traded in large, deep and active repurchase agreement (repo) ¹⁰ or cash markets characterised by a low level of concentration; ▪ proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions¹¹; and ▪ not an obligation of a financial institution or any of its affiliated entities <p>Debt securities issued by a non-0% risk-weighted sovereign or central bank denominated in <u>domestic currencies</u> of the sovereign or central bank¹²:</p> <ul style="list-style-type: none"> ▪ in the country in which the liquidity risk is being taken¹³ or in the banking institution's home country; or ▪ where the holdings of such debt matches the currency needs of the banking institution's operations¹⁴; or ▪ where the sovereign or central bank has established a CBCA¹⁵ with the central bank of the country in which the liquidity risk is 	

⁹ As defined in the policy document on *Capital Adequacy Framework (Basel II – Risk-Weighted Assets)*, and policy document on *Capital Adequacy Framework for Islamic Banks (Risk-Weighted Assets)*. Where a security is rated by more than one ECAI, refer to paragraphs 2.8 and 2.12 of these documents respectively.

¹⁰ Any reference to repo or repos in this document shall include all Shariah-compliant alternatives to repo such as Sell and Buy Back Agreement and Collateralised *Murabahah* instruments.

¹¹ Refer to Appendix 1: Characteristics of high-quality liquid assets.

¹² This includes marketable debt securities which represent a claim on or are guaranteed by the Federal Government of Malaysia (e.g. MGS, GII, MTB, MITB) and Bank Negara Malaysia (e.g. BNMN, BNMN-i, BNM *Mudharabah* Certificate).

¹³ For example, MGS or GII held by banking institutions with operations in Malaysia, or Indonesian Government Securities held by banking institutions with operations in Indonesia.

¹⁴ For example, Rupiah-denominated Indonesian Government Securities held by a banking institution's operations in Malaysia for liquidity risk exposures denominated in Rupiah.

¹⁵ Refers to arrangements between central banks or monetary authorities which enable financial institutions operating in one jurisdiction to obtain liquidity denominated in that jurisdiction's local currency from the local central bank by pledging securities issued by a foreign sovereign/central bank, which are denominated in that foreign currency.

Category	Asset	Haircut
	<p>being taken</p> <p>Debt securities issued by a non-0% risk-weighted domestic sovereign or central bank denominated in <u>foreign currencies</u>, to the extent that the holdings of such debt matches the currency needs of the banking institution's operations in that jurisdiction¹⁶</p>	
Level 2A	<p>Marketable securities representing claims on or claims guaranteed by sovereigns, central banks, PSEs or multilateral development banks that satisfy all of the following conditions:</p> <ul style="list-style-type: none"> ▪ assigned a 20% risk weight ¹⁷ under Appendix III of the <i>Capital Adequacy Framework (Basel II – Risk-Weighted Assets)</i> or paragraph 2.22 of the <i>Capital Adequacy Framework for Islamic Banks (Risk-Weighted Assets)</i>; ▪ traded in large, deep and active repo or cash markets characterised by a low level of concentration; ▪ proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions¹¹; and ▪ not an obligation of a financial institution or any of its affiliated entities <p>Debt securities issued by corporates¹⁸, including commercial papers, that satisfy the following conditions:</p> <ul style="list-style-type: none"> ▪ in the case of debt securities issued by corporates, such debt securities are not issued by a financial institution or any of its 	15%

¹⁶ For example, bonds or sukuk issued by the Government of Malaysia in USD held to meet USD liquidity needs of the Malaysian operations of a banking institution, or Indonesian Government Securities in USD held to meet USD liquidity needs of the Indonesian operations of a banking institution. This category shall also include sukuk issued by the International Islamic Liquidity Management Corporation (IILM), unless otherwise specified by the Bank.

¹⁷ For PSEs, this refers to those which meet the criteria set out in paragraph 2.19 of the policy document on *Capital Adequacy Framework (Basel II – Risk-Weighted Assets)* and paragraph 2.23 in the policy document on *Capital Adequacy Framework for Islamic Banks (Risk-Weighted Assets)*.

¹⁸ Includes only plain vanilla assets whose valuation is readily available based on standard methods and does not depend on private knowledge (unlike, for example, complex structured products or asset-backed securities). In the case of a merger, the assets issued by the new company should receive the liquidity value of the respective company whose assets had the least liquid characteristics before the merger.

Category	Asset	Haircut
	<p>affiliated entities;</p> <ul style="list-style-type: none"> ▪ in the case of covered bonds¹⁹/sukuk, such bonds/sukuk are not issued by the banking institution itself or any of its affiliated entities; ▪ assigned a rating of AAA/P1 by a recognised ECAI or internally rated with a probability of default (PD) corresponding to a credit rating of AAA; ▪ traded in large, deep and active repo or cash markets characterised by a low level of concentration; and ▪ proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions¹¹ <p>Marketable debt securities, including commercial papers, issued by Cagamas Berhad which have been assigned a rating of AAA/P1 by a recognised ECAI or are internally rated as having a PD corresponding to a credit rating of AAA</p>	
Level 2B	<p>Debt securities issued by corporates¹⁸, including commercial papers, that satisfy all of the following conditions:</p> <ul style="list-style-type: none"> ▪ not issued by a financial institution or any of its affiliated entities; ▪ assigned a rating of between AA- and AA+ by a recognised ECAI or internally rated with a PD corresponding to a credit rating of at least AA-; ▪ traded in large, deep and active repo or cash markets characterised by a low level of concentration; and ▪ proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions¹¹ <p>Debt securities issued by corporates¹⁸, including commercial papers, that satisfy all of the following conditions:</p>	20%
	<p>Debt securities issued by corporates¹⁸, including commercial papers, that satisfy all of the following conditions:</p>	50%

¹⁹ Covered bonds are bonds issued and owned by a bank or mortgage institution and are subject by law to special public supervision designed to protect bond holders. Proceeds deriving from the issue of these bonds must be invested in conformity with the law in assets which, during the whole period of the validity of the bonds, are capable of covering claims attached to the bonds and which, in the event of the failure of the issuer, would be used on a priority basis for the reimbursement of the principal and payment of the accrued interest.

Category	Asset	Haircut
	<ul style="list-style-type: none"> ▪ denominated in non-Ringgit currencies; ▪ not issued by a financial institution or any of its affiliated entities; ▪ assigned a rating of between A- to A+ by a recognised ECAI or internally rated with a PD corresponding to a credit rating of between A- to A+; ▪ traded in large, deep and active repo or cash markets characterised by a low level of concentration; and ▪ proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions¹¹ 	
	Residential mortgage-backed securities (RMBS) issued by Cagamas MBS Berhad, which have been assigned a rating of AAA by a recognised ECAI, or in the absence of a long term rating, a short-term rating equivalent in quality to the long-term rating	15%
	Total undrawn amount of the RCLF	0%

- S** 10.2 A banking institution shall include the following assets as Level 2A HQLA with a haircut of 15%:
- i. Bankers' Acceptances (BAs) or Accepted Bills-i (AB-is) issued by institutions with a rating of AA/P2/MARC2 and above, excluding the banking institution's own issuances; and
 - ii. Negotiable Instruments of Deposit (NIDs) or Islamic Negotiable Instruments (INIs) issued by institutions with a rating of AA/P2/MARC2 and above, excluding the banking institution's own issuances.

- S** 10.3 All BAs, AB-is, NIDs and INIs that are recognised as Level 2A HQLA shall be subject to gradual derecognition as follows:

With effect from	1 June 2015	1 January 2016	1 January 2017	1 January 2018	1 January 2019 and thereafter
Total outstanding amount recognised as HQLA	80%	60%	40%	20%	0% (i.e. fully de-recognised)

- S** 10.4 For purposes of complying with paragraph 9.2(i), a banking institution shall only count the following towards its stock of HQLA to buffer against the net cash outflows:

- i. HQLA denominated in Ringgit; and
- ii. issuances by other sovereigns or central banks with whom the Bank has established a CBCA which are held by the banking institution's overseas operations, but limited to the amount which the banking institution has internally designated as buffers for Ringgit liquidity risk exposures only and subject to paragraph 12.6.

- S** 10.5 The amount of HQLA held to meet the LCR shall be subject to the following limits:

Asset	Limit
Level 1	Unlimited
Level 2A and 2B	In aggregate, no more than 40% of total HQLA held
Level 2B	No more than 15% of total HQLA held

- S** 10.6 The calculation of the 40% aggregate limit for Level 2A and 2B, and 15% limit for Level 2B by a banking institution shall be determined after the application of the required haircuts, and assuming the unwinding of all short-term securities financing transactions²⁰ maturing within 30 calendar days that involve the exchange of HQLA. In this context, short-term transactions shall refer to transactions with a maturity date up to and including 30 calendar days.
- G** 10.7 The portfolio of Level 2 assets held by any banking institution is expected to be well diversified in terms of type of assets, counterparty or issuer, and the economic sector in which the issuer participates.
- S** 10.8 In order to mitigate cliff effects that could arise, if an eligible liquid asset becomes ineligible (e.g. due to a rating downgrade), a banking institution shall be permitted to keep such assets in its stock of liquid assets for an additional 30 calendar days to adjust its stock as needed or replace the asset²¹.

11 Operational requirements on the maintenance of stock of HQLA and the use of SRR balances

- S** 11.1 A banking institution shall ensure that it is able to immediately use the stock of HQLA as a source of contingent liquidity convertible into cash through outright sale or repo, to address funding gaps that may arise at any time within the 30-day stress period, with no restriction on the use of the liquidity generated. In particular, a banking institution shall:
- i. have procedures and information systems which identify the legal entities, geographical locations, currencies and specific custodial or bank accounts where HQLA are held to determine the composition of the

²⁰ These include repo, securities borrowing and lending and collateral swap transactions.

²¹ For the avoidance of doubt, the requirements stated in paragraphs 10.5 and 10.6 will continue to apply during this 30-day window.

- banking institution's stock of HQLA on a daily basis;
 - ii. ensure that the stock of HQLA is under the control²² of the function charged with the responsibility to manage the liquidity of the banking institution²³, whereby the function shall have access to all necessary information to execute the monetisation of any asset at any time; and
 - iii. have processes to identify any liquidity transfer restrictions and to monitor legislative, regulatory and Shariah developments in the jurisdictions in which the branches and subsidiaries of the banking institution operate and assess their liquidity implications for the banking institution as a whole.
- S** 11.2 A banking institution shall be allowed to draw down its SRR balances under a liquidity stress scenario **only** after it has made all reasonable and practical efforts to utilise its available stock of HQLA to generate liquidity. During ordinary business conditions, the banking institution is expected to maintain its stock of non-SRR HQLA such that it avoids over reliance on SRR balances to meet LCR requirements.
- G** 11.3 A banking institution is encouraged to test its access to the market and the effectiveness of its processes for monetisation to ensure the availability of the assets for the purpose of meeting liquidity needs in a timely manner and to minimise the risk of negative signalling during a period of actual stress. This may be done by periodically monetising a representative proportion of the stock of HQLA through a repo or an outright sale.

12 Encumbrance and transferability of assets

- S** 12.1 A banking institution shall ensure that the stock of HQLA is free from any legal, regulatory, tax, accounting, and contractual encumbrances or other practical restrictions on the ability of the banking institution to liquidate, sell, transfer, or assign the asset.
- S** 12.2 An HQLA shall be treated as encumbered when it is:
- i. pledged (either explicitly or implicitly) to secure, collateralise or credit-enhance any transaction, including where the asset is designated to support the banking institution's access to the RCLF; **or**
 - ii. subject to operational constraints that may impede the monetisation of the assets (see paragraph 12.3)²⁴.

²² Control should be evidenced either by maintaining assets in a separate pool managed by the function with the sole intent for use as a source of contingent funds, or by demonstrating that the function can monetise the asset at any point in the 30-day stress period and that the proceeds are available to the function throughout the 30-day stress period.

²³ Which is typically the treasury function.

²⁴ A banking institution should exclude from the stock of HQLA those assets for which there are impediments to sale, such as large fire-sale discounts which would cause it to breach minimum solvency requirements, or requirements to hold such assets (including, but not limited to, statutory minimum inventory requirements for market making).

- S** 12.3 In considering the operational constraints stated in paragraph in paragraph 12.2, a banking institution shall also assess whether an HQLA is encumbered based on the following factors:
- i. whether the monetisation of assets would directly conflict with its internal business or risk management strategy and policy (e.g. an asset should not be included in the stock if the sale of that asset, without replacement throughout the 30-day period, would remove a hedge that would create an open risk position to the banking institution in excess of internal limits);
 - ii. potential differences in financial market conventions in other jurisdictions, where applicable (e.g. settlement period, processing time, etc.) that may affect the timely monetisation of assets; and
 - iii. whether the asset is internally designated to cover operational costs (e.g. rents and salaries).
- S** 12.4 Where a banking institution maintains HQLA in its **overseas branch** to meet the liquidity²⁵ requirements imposed by the host supervisory authority, the eligible stock of HQLA held by the overseas branch shall be counted towards the stock of HQLA for purposes of computing the banking institution's entity and consolidated level LCR, **up to the total net cash outflows for the branch.**
- S** 12.5 Where a banking institution maintains HQLA in a **subsidiary** to meet the liquidity²⁵ requirements imposed either by the Bank or another supervisory authority of the subsidiary, the eligible stock of HQLA held by the subsidiary shall be counted towards the stock of HQLA for purposes of computing the banking institution's consolidated level LCR, **up to the total net cash outflows for the subsidiary.**
- S** 12.6 In respect of paragraphs 12.4 and 12.5, a banking institution shall recognise excess HQLA (e.g. assets held over and above the total net cash outflows of the branch or subsidiary) **only if** these assets are not:
- i. subject to restrictions which impede the transferability of the HQLA and/or the liquidity generated from the HQLA between the banking institution and the branch or subsidiary (e.g. ring-fencing measures, non-convertibility of local currency, foreign exchange controls); **and**
 - ii. encumbered based on the considerations set out in paragraphs 12.1 to 12.3.
- S** 12.7 Subject to paragraph 12.8, the following assets shall be considered as **unencumbered** and shall therefore be included in the banking institution's stock of HQLA:
- i. assets received by a banking institution in reverse repo and securities financing transactions that have not been re-hypothecated, and are legally and contractually available for the banking institution's use;
 - ii. assets received as collateral for derivatives transactions that are not segregated, and are legally and contractually available for the use or rehypothecation by the banking institution; and

²⁵ Refers to LCR and non-LCR requirements.

- iii. assets that qualify for the stock of HQLA that have been pre-positioned or deposited with, or pledged to the central bank²⁶, a PSE or a payment and settlement system²⁷, which have not been used to generate liquidity.

- S** 12.8 Where a banking institution has received an asset whereby the beneficial owner of that asset has the contractual right to withdraw the assets during the next 30 calendar days, such an asset shall be excluded from the banking institution's stock of HQLA.

²⁶ This excludes cases where the HQLA is designated to support the banking institution's access to the RCLF.

²⁷ Including HQLA securities held in RENTAS collateral account or other settlement systems such as Clearstream and Euroclear, which have not been used to obtain liquidity.

PART D EXPECTED CASH OUTFLOWS

13 General computation requirements

- S** 13.1 Unless otherwise specified by the Bank, a banking institution shall calculate the total expected cash outflows by multiplying the outstanding balances of various categories of liabilities and off-balance sheet commitments by the outflow rates as specified in paragraphs 14.1 to 21.1.

14 Retail deposits

- S** 14.1 Retail deposits shall consist of deposits placed with a banking institution by a natural person. Retail deposits subject to the LCR shall include all retail demand deposits and retail term deposits, whether denominated in Ringgit or other currencies.
- S** 14.2 A banking institution shall divide retail deposits that are subjected to the LCR into 'stable' and 'less stable' portions of funds and such retail deposits shall be assigned a minimum run-off rate in accordance with paragraphs 14.3 and 14.7.

Stable deposits

- S** 14.3 Stable deposits shall refer to retail deposits which are fully insured²⁸ by an effective deposit insurance scheme (i.e. up to the maximum coverage limit by the deposit insurance scheme) or by a public guarantee²⁹, **and** fulfil either one of the following criteria:
- i. depositors have one or more established relationships with the banking institution in accordance with paragraph 14.4; **or**
 - ii. deposits are in transactional accounts, which refer to accounts which are regularly credited or debited (e.g. accounts where salaries are automatically deposited).
- A banking institution shall assign a run-off rate of 5% to stable deposits.

²⁸ "Fully insured" means that 100% of the deposit amount, up to the deposit insurance limit, is covered by an effective deposit insurance scheme. Deposit balances up to the deposit insurance limit can be treated as "fully insured" even if a depositor has a balance in excess of the deposit insurance limit. However, any amount in excess of the deposit insurance limit is to be treated as "less stable". For example, if a depositor has a deposit of 150 that is covered by a deposit insurance scheme, which has a limit of 100, where the depositor would receive at least 100 from the deposit insurance scheme if the financial institution were unable to pay, then 100 would be considered "fully insured" and treated as stable deposits while 50 would be treated as less stable deposits.

²⁹ This refers to an explicit public guarantee with a clearly defined coverage. For the avoidance of doubt, a public guarantee which is recognised by a host jurisdiction as equivalent to an effective deposit insurance scheme for the purpose of compliance with LCR requirements shall be deemed to have fulfilled the criteria specified in paragraph 14.5. In respect of Malaysian deposits, public guarantee shall refer only to an explicit guarantee by the Federal Government of Malaysia.

- S** 14.4 An established relationship shall refer to any banking relationship excluding deposit and credit card relationships, whereby:
- i. the relationship has existed for at least 12 months; **or**
 - ii. the depositor is contractually bound to the relationship with the banking institution for at least the next 12 months.
- S** 14.5 With respect to paragraph 14.3, an effective deposit insurance scheme³⁰ refers to a scheme which fulfils the following criteria:
- i. the scheme guarantees that it has the ability to make prompt payouts;
 - ii. the coverage of the scheme is clearly defined; **and**
 - iii. public awareness of the scheme is high.
- For the avoidance of doubt, all deposits insured by Perbadanan Insurans Deposit Malaysia (PIDM) shall be deemed as deposits insured by an effective deposit insurance scheme.
- S** 14.6 A banking institution shall have an internal methodology in determining the regularity of crediting or debiting for purposes of classifying a deposit account as a transactional account as provided under paragraph 14.3(ii).

Less stable deposits

- S** 14.7 A banking institution shall categorise retail deposits which do not meet the criteria set out in paragraph 14.3 as less stable deposits and shall assign a run-off rate of 10% to such deposits. These retail deposits shall include any amounts in excess of the maximum coverage limit by the deposit insurance scheme.

Qualifying retail term deposits

- S** 14.8 A banking institution shall exclude all **qualifying retail term deposits** from the calculation of its expected cash outflows. Qualifying retail term deposits shall refer to retail term deposits with a residual maturity or withdrawal notice period of greater than 30 days, **and** which meet one of the following criteria:
- i. depositor has no legal right³¹ to withdraw the deposits within the next 30 calendar days; **or**
 - ii. withdrawal prior to contractual maturity results in a penalty amounting to at least the full amount of accrued interest or profit³².
- In relation to criteria (ii) above, a banking institution shall recognise as qualifying retail term deposits all retail term deposits with a residual maturity of greater than 30 days whereby a withdrawal prior to contractual maturity results in a loss of at least 50% of accrued interest or profit for a period until 31 December 2018 only.

³⁰ Generally, an effective deposit insurance scheme should conform to core principles for effective deposit insurance systems set out by the International Association of Deposit Insurers.

³¹ This shall include deposits which are pledged by depositors (whereby a lien is created on the deposits) to secure a credit facility from the banking institution.

³² If a portion of the term deposit can be withdrawn without incurring such a penalty, that portion shall be treated as a demand deposit and included in the calculation of total expected cash outflows. Only the remaining balance of the deposit may be treated as a term deposit and excluded from total expected cash outflows.

- S** 14.9 Where there a banking institution has allowed a depositor to withdraw its deposit prior to maturity despite the depositor having no legal right to withdraw, or without applying the corresponding penalty, the banking institution shall treat the entire category of these funds as demand deposits (i.e. regardless of the remaining term) and subject these deposits to the run-off rates specified in paragraphs in 14.3 and 14.7, notwithstanding that the contractual features of the deposit meet the criteria specified in paragraph 14.8.

15 Unsecured wholesale funding

- S** 15.1 Unsecured wholesale funding shall consist of liabilities that are raised from non-natural persons (i.e. legal entities, including sole proprietorships, partnerships and small and medium-sized enterprises (SMEs)³³) and are not collateralised by legal rights to specifically designated assets owned by the borrowing banking institutions in the case of bankruptcy, insolvency, liquidation or resolution. These shall include:
- i. any liability which the banking institution expects to fulfil within the next 30 calendar days, notwithstanding its contractual maturity;
 - ii. all wholesale funding that is callable or has an earliest contractual maturity date within the next 30 calendar days; and
 - iii. funding with an undetermined maturity.
- S** 15.2 A banking institution shall identify the portions of unsecured wholesale funding which qualify as operational deposits, which is defined and assigned a minimum run-off rate in accordance with paragraphs 15.5 to 15.16. A banking institution shall treat other forms of unsecured wholesale funding based on the profile of the funds provider (i.e. small business customers, non-financial corporates, sovereigns, central banks, multilateral development banks, PSEs and other legal entity customers), and shall assign minimum run-off rates in accordance with paragraphs 15.17 to 15.25.
- S** 15.3 A banking institution shall exclude all **qualifying wholesale term funding** from the calculation of its expected cash outflows. Qualifying wholesale term funding shall refer to unsecured wholesale funding with a residual maturity or redemption or withdrawal notice period of greater than 30 days, **and** meeting one of the following criteria:
- i. funds provider has no legal right³¹ to call, redeem or withdraw the funds within the next 30 calendar days; **or**
 - ii. where the funding is a deposit, withdrawal prior to contractual maturity results in a penalty amounting to at least the full amount of accrued interest or profit³².
- In relation to criteria (ii) above, a banking institution shall recognise as qualifying wholesale term funding all wholesale term funding with a residual

³³ As defined in footnote 17 of the policy document on *Capital Adequacy Framework (Basel II – Risk-Weighted Assets)* and footnote 16 of the policy document on *Capital Adequacy Framework for Islamic Banks (Risk-Weighted Assets)*.

maturity of greater than 30 days whereby a call, redemption or withdrawal prior to maturity results in a loss of at least 50% of accrued interest or profit for a period until 31 December 2018 only.

- S** 15.4 Where there is evidence indicating that a banking institution has allowed the wholesale funds provider to call, redeem or withdraw its funding prior to maturity without applying the corresponding penalty, or despite the funds provider having no legal right to call, redeem or withdraw, the banking institution shall subject the entire category of these funds to the run-off rates specified in paragraphs in 15.5 to 15.25, notwithstanding that the contractual features of the funding meet the criteria specified in paragraph 15.3.

Operational deposits

- S** 15.5 **Operational deposits** shall refer to deposits placed by financial or non-financial customers with a banking institution arising from qualifying activities, namely clearing, custody or cash management activities (defined in paragraphs 15.9 to 15.11) that meet the criteria set out in paragraphs 15.7 to 15.8.
- S** 15.6 A banking institution shall assign a run-off rate of 25% to operational deposits. A banking institution shall apply a run-off rate of 5% on the portion of operational deposits which is fully covered by an effective deposit insurance scheme as referred to in paragraph 14.5.
- S** 15.7 To qualify for the treatment of operational deposits, a banking institution shall satisfy itself that the customers of qualifying activities are reliant on the banking institution as an independent third party to perform the activities over the next 30 days, based on the depth of relationship (e.g. length of relationship, other products and services provided, geographical coverage of services, other relationships with the customer's affiliates) as well as the materiality and frequency of transactions processed for the customer. In addition, the banking institution must ensure that either one of the following criteria are met:
- i. qualifying activities must be provided under a legally binding agreement whereby the termination of such agreements shall be subject to a notice period of at least 30 days; **or**
 - ii. significant switching costs for the customer to whom qualifying activities are being provided (e.g. transaction costs, early termination or legal costs, or information technology costs arising from the integration between the customer and banking institution's infrastructure to enable operational transactions).
- S** 15.8 The operational deposits arising from clearing, custody or cash management activities shall be the deposits which are:
- i. by-products of the underlying activities performed by a banking institution which were not sought out in the wholesale market with the sole purpose of offering interest income; **or**

- ii. held in specifically designated accounts and priced without giving an economic incentive to a customer (not limited to paying market interest rates³⁴) to leave any excess funds in these accounts.
- S** 15.9 A **clearing relationship** shall refer to a service arrangement that enables customers to transfer funds or securities through direct participants in domestic settlement systems to final recipients. Such services shall be limited to the following activities: transmission, reconciliation and confirmation of payment orders; overdraft, overnight financing and maintenance of post-settlement balances; and determination of intra-day and final settlement positions.
- S** 15.10 A **custody relationship** shall refer to the provision of services connected with the safekeeping, reporting, and processing of financial assets on behalf of customers³⁵ that transact and hold financial assets. Such services shall be limited to the settlement of securities transactions, the transfer of contractual payments, the processing of collateral, and the provision of custody related cash management services³⁶. Also included are the receipt of dividends and other income, client subscriptions and redemptions.
- S** 15.11 A **cash management relationship** shall refer to the provision of cash management and related services to customers for the purposes of payment remittance, collection and aggregation of funds, payroll administration, and control over the disbursement of funds.
- S** 15.12 A banking institution shall identify the amounts held in accounts with operational deposits that would be considered as excess balances. The excess balances shall not qualify for the run-off rates provided in paragraph 15.6 and shall be treated as non-operational deposits in accordance with one of the categories set out in paragraphs 15.17 to 15.24 based on the profile of the funds provider.
- S** 15.13 A banking institution shall determine the excess balances based on a methodology or set of criteria/indicators to be approved by the Bank. The banking institution shall conduct the assessment of excess balances at a sufficiently granular level³⁷, taking into account relevant factors that would indicate whether a wholesale customer has above average balances in advance of specific payment needs³⁸.

³⁴ Other examples of economic incentives include rebates and reduction on fees for other services.

³⁵ Including trusts.

³⁶ Custodial services can be extended to asset and corporate trust servicing, treasury, escrow, funds transfer, stock transfer and agency services; including payment and settlement services (excluding correspondent banking); and depository receipts.

³⁷ For example, a banking institution may undertake the assessment by observing the minimum and average balance over a historical period at the portfolio or account level. Nonetheless, a portfolio level assessment may not be appropriate under all circumstances, such as where there is a significant concentration of deposits by a single/group of customers.

³⁸ This may be reflected through a ratio to compare account balances against the actual needs of wholesale customers (e.g. payment or settlement volumes, assets under custody) over a period of time.

- S** 15.14 If the banking institution is unable to determine the amount of the excess balance, then the banking institution shall assume the entire deposit to be non-operational. However, a banking institution shall assume that there are no excess balances in an account, **if the interest or profit paid on that account is below the market rate**³⁹, in which case the full balance in the account shall be treated as operational deposits.
- S** 15.15 A banking institution shall treat deposits received under correspondent banking or prime brokerage services as non-operational deposits with a run-off rate of 100%.
- S** 15.16 In respect of paragraph 15.15, correspondent banking shall refer to arrangements under which one banking institution (correspondent) holds deposits owned by other banking institutions (respondents) and provides payment and other services in order to settle foreign currency transactions⁴⁰, while prime brokerage shall refer to a package of services⁴¹ offered to large active investors, particularly institutional hedge funds.

Non-operational unsecured wholesale funding

(a) Small business customers

- S** 15.17 Small business customers shall refer to:
- i. sole proprietorships, partnerships and SMEs³³; and
 - ii. non-individual customers for whom total aggregate⁴² funding raised from the customer is less than RM5 million (on a consolidated basis⁴³, where applicable) and where deposits from the customer are managed as retail deposits in the banking institution's internal risk management systems consistently over time, and not individually managed like large corporate deposits.
- For the avoidance of doubt, a banking institution shall exclude funds providers in this category from the categories specified in paragraphs 15.19 to 15.25.
- S** 15.18 A banking institution shall treat unsecured wholesale funding provided by small business customers in the same way as retail deposits as described in paragraphs 14.3 and 14.7. The banking institution shall distinguish between the "stable" and "less stable" portion of such funding.

³⁹ In respect of Malaysian operations, the "market rate" in this paragraph shall be assumed to be the overnight Kuala Lumpur Interbank Offered Rate (KLIBOR).

⁴⁰ For example, nostro and vostro accounts used to settle transactions in a currency other than the domestic currency of the respondent bank for the provision of clearing and settlement services.

⁴¹ These services usually include: clearing, settlement and custody; consolidated reporting; financing (margin, repo or synthetic); securities lending; capital introduction; and risk analytics.

⁴² "Aggregated funding" means the gross amount (i.e. not netting any form of credit extended to the legal entity) of all forms of funding (e.g. deposits or debt securities or similar derivative exposure for which the counterparty is known to be a small business customer).

⁴³ Applying the limit on a consolidated basis means that where one or more small business customers are affiliated with each other, they may be considered as a single creditor such that the limit is applied to the total funding received by the banking institution from this group of customers.

(b) Non-financial corporates⁴⁴, sovereigns, central banks, multilateral development banks, and PSEs⁴⁵

- S** 15.19 A banking institution shall assign a run-off rate of 40% to funds received from non-financial corporate customers and (both domestic and foreign) sovereigns, central banks, multilateral development banks, and PSE customers, which are not held for operational purposes.
- S** 15.20 A banking institution shall assign a run-off rate of 20% to a deposit where the entire amount of the deposit is fully covered by an effective deposit insurance scheme or by a public guarantee.
- S** 15.21 A banking institution shall exclude special funds⁴⁶ received from the Bank from the calculation of its expected cash outflows.

(c) Other legal entity customers

- S** 15.22 A banking institution shall assign a run-off rate of 100% to non-operational unsecured funding from financial institutions, fiduciaries, beneficiaries, conduits and special purpose vehicles, affiliated entities of the banking institution⁴⁷ and other entities that are not included in the prior categories.
- S** 15.23 In respect of paragraph 15.22:
- i. a fiduciary refers to a legal entity that is authorised to manage assets on behalf of a third party. Fiduciaries include asset management entities such as pension funds and other collective investment vehicles which do not qualify as PSEs; and
 - ii. a beneficiary refers to a legal entity that receives, or may become eligible to receive, benefits under a will, *hibah* (gift), insurance policy, *takaful* certificate, retirement plan, annuity, trust, or other contract.
- S** 15.24 Except as provided in paragraph 15.25, a banking institution shall include all funding raised from the issuances of notes, commercial papers, bonds/sukuk and other debt securities by the banking institution in this category regardless of the holder and assign a 100% run-off rate to such funding.
- S** 15.25 A banking institution shall assign a run-off rate of 10% to securities issued by the banking institution which are sold exclusively in the retail market to retail and small business customers, **and** cannot be bought and held by parties other than retail or small business customers.

⁴⁴ Includes societies and trade unions.

⁴⁵ As defined in paragraph 2.20 of the *Capital Adequacy Framework (Basel II – Risk-Weighted Assets)* policy document and paragraph 2.24 of the *Capital Adequacy Framework for Islamic Banks (Risk-Weighted Assets)* policy document. For the avoidance of doubt, examples of PSEs under this category include Kumpulan Wang Simpanan Pekerja and Lembaga Tabung Haji.

⁴⁶ Includes funds received for purposes of Fund for Food (3F), Bumiputera Entrepreneur Project Fund-i (BEPF-i), Fund for Small and Medium Industries 2 (FSMI2), New Entrepreneurs Fund 2 (NEF2) and the Micro Enterprise Fund (MEF).

⁴⁷ Outflows on unsecured wholesale funding from affiliated entities of the bank are included in this category unless the funding is part of an operational relationship.

16 Secured funding

- S** 16.1 Secured funding shall refer to those liabilities and obligations that are collateralised by legal rights to specifically designated assets owned by the banking institution in the case of bankruptcy, insolvency, liquidation or resolution. Repos, collateral swaps, collateral lending to customers⁴⁸ and any other transaction with a similar form shall be considered as secured funding transaction.
- S** 16.2 A banking institution shall calculate the amount of outflow based on the **amount of funds raised** through the transaction and not the value of the underlying collateral. For collateral swap or collateral lending transactions, the amount of outflow shall be calculated based on the market value of the asset received.
- S** 16.3 A banking institution shall apply the following factors to all outstanding secured funding transactions with maturities within 30 calendar days:

Categories for outstanding maturing secured funding transactions	Amount to add to cash outflows ⁴⁹
Backed by Level 1 assets or with central banks	0%
Backed by Level 2A assets	15%
Backed by Level 2B RMBS ⁵⁰	15%
Backed by Level 2B corporate debt securities rated between AA- to AA+	20%
Secured funding transactions with domestic sovereign, PSEs ⁵¹ or multilateral development banks that are backed by Level 2B corporate debt securities rated between A- to A+ denominated in non-Ringggit or non-HQLA	25% ⁵²

⁴⁸ Typically, such a transaction is conducted to enable a banking institution's customers to cover their short positions. A customer short position in this context describes a transaction where a banking institution's customer sells a security it does not own, and the banking institution subsequently obtains the same security from internal or external sources to make delivery into the sale. Internal sources include the banking institution's own inventory of collateral as well as rehypothecatable collateral held in other customer margin accounts. External sources include collateral obtained through a securities borrowing, reverse repo, or like transactions.

⁴⁹ Due to the high-quality of Level 1 assets, no reduction in funding availability against these assets is assumed to occur. Moreover, no reduction in funding availability is expected for any maturing secured funding transactions with the banking institution's domestic central bank. A reduction in funding availability will be assigned to maturing transactions backed by Level 2 assets equivalent to the required haircuts.

⁵⁰ Only applicable to RMBS which is recognised under this policy document (i.e. AAA-rated Cagamas RMBS).

⁵¹ In this context, PSEs that receive this treatment should be limited to those that are 20% risk-weighted or better, and "domestic" is defined as a jurisdiction where a bank is legally incorporated.

⁵² In recognition that these entities are unlikely to withdraw secured funding from banks in a time of market-wide stress. This, however, gives credit only for outstanding secured funding transactions, and not for unused collateral or merely the capacity to borrow.

Backed by Level 2B corporate debt securities rated between A- to A+ denominated in non-Ringgit only	50%
All others	100%

17 Liquidity needs from derivatives, financing transactions and other contracts

Calculation of derivatives cash outflows

- S** 17.1 A banking institution shall calculate the expected contractual derivative cash inflows and outflows⁵³ based on the mark-to-market values or valuation methodologies which are being applied for the purposes of financial reporting, as applicable.
- S** 17.2 A banking institution shall calculate cash flows on a net basis (i.e. inflows due from can offset outflows due to) by counterparty, only where a **valid and enforceable master netting agreement exists**. Where derivative payments are collateralised by HQLA, the banking institution shall calculate cash outflows **net of any corresponding cash or collateral inflows** which have been received and are contractually due from the derivative counterparty, if the banking institution is legally entitled and operationally capable to re-use the collateral received. Where the corresponding cash or collateral inflow has been received, the banking institution shall only include the asset either as part of its stock of HQLA **or** by netting the amount against its expected derivative cash flows to ensure that there is no double-counting of liquidity buffers.
- S** 17.3 A banking institution shall assign a 100% factor to the sum of all net cash outflows arising from derivative contracts in the calculation of the banking institution's expected cash outflows.

Collateral outflows

- S** 17.4 A banking institution shall include all contractually due or potential collateral outflows in the calculation of its expected cash outflows based on the contractual triggers and outflow rates as set out in paragraphs 17.5 to 17.10.
- S** 17.5 Where a banking institution has entered into collateralisation arrangements to secure against **mark-to-market exposures** on derivatives and other transactions, the banking institution shall include any outflows related to market valuation changes in the calculation of expected cash outflows by identifying the largest absolute net 30-day collateral flow realised during the preceding 24 months. The absolute net collateral flow shall be based on both realised outflows and inflows, regardless of the direction of these flows. To the extent

⁵³ For the avoidance of doubt, a banking institution shall report only cash flows which are contractually due within the next 30 calendar days. Nonetheless, where an option is exercisable within the next 30 calendar days, the option shall be assumed to be exercised when they are 'in the money' to the option buyer.

that these transactions are executed under a valid and enforceable master netting agreement, the collateral inflows and outflows from the same counterparty shall be calculated by the banking institution on a net basis

- S** 17.6 A banking institution shall include 100% of the value of any collateral which is contractually due to a counterparty in the calculation of total expected cash outflows, even if the counterparty has not yet demanded the collateral to be posted.
- S** 17.7 Where downgrade triggers are embedded in derivatives, financing transactions and other contracts⁵⁴, a banking institution shall include 100% of additional collateral or cash that would be posted, in the calculation of total expected cash outflows for any downgrade **up to and including a 3-notch downgrade** of the banking institution's long-term credit rating. Triggers linked to the banking institution's short-term rating shall be assumed to be triggered at the corresponding long-term rating in accordance with published rating criteria. The banking institution shall assess the impact of its rating downgrade on all types of margin collateral requirements and contractual triggers that may change rehypothecation rights for non-segregated collateral.
- S** 17.8 To reflect potential valuation changes on **collateral posted** to secure against the mark-to-market valuation of derivatives positions and other transactions, a banking institution posting non-Level 1 HQLA collateral shall include 20% of the notional amount required to be posted, after applying the relevant haircuts⁵⁵, and net of collateral received (provided that such collateral received can be re-used or rehypothecated without restrictions), in the calculation of total expected cash outflows.
- S** 17.9 Where a banking institution holds **non-segregated collateral** in excess of the counterparty's current collateral requirements and the collateral can be contractually called at any time by the counterparty, the banking institution shall include 100% of the excess non-segregated collateral in the calculation of total expected cash outflows.
- S** 17.10 In cases where a banking institution enters into a contract which allows collateral received to be **substituted to non-HQLA assets** without the banking institution's consent, the banking institution shall include 100% of the collateral amount received in the calculation of total expected cash outflows if the collateral received is not segregated and is used to secure another transaction.

⁵⁴ Often, contracts governing derivatives and other transactions have clauses that require the posting of additional collateral, drawdown of contingent facilities, or early repayment of existing liabilities upon the bank's downgrade by a recognised credit rating organisation. The scenario therefore requires that for each contract in which "downgrade triggers" exist, the bank assumes that 100% of this additional collateral or cash outflow will have to be posted for any downgrade up to and including a 3-notch downgrade of the bank's long-term credit rating.

⁵⁵ Refer to haircuts as prescribed in this document.

18 Loss of funding from structured finance instruments***Asset-backed securities⁵⁶, covered bonds/sukuk and other structured financing investments***

- S** 18.1 A banking institution shall assume that the existing funding raised from the issuance of asset-backed securities, covered bonds/sukuk and other structured finance instruments maturing within 30 calendar days to be unavailable. The banking institution shall assign a 100% outflow rate to the total outstanding amount of these instruments maturing within 30 calendar days.

Asset-backed commercial paper, conduits, securities investment vehicles and other such financing facilities

- S** 18.2 Where a banking institution has structured financing facilities which remain outstanding, such as the issuance of short-term asset-backed commercial paper, the banking institution shall assume that it is potentially unable to refinance the maturing debt, and shall include 100% of the amount of the structured finance instrument maturing within the next 30 calendar days in its expected cash outflows.
- S** 18.3 In cases where derivatives or derivative-like components which may allow the **“return” of assets to a banking institution or require the banking institution (“asset originator”) to provide liquidity⁵⁷** are contractually written into the documentation associated with the structured financing facility, the banking institution shall include 100% of the amount of assets that could potentially be returned, or the liquidity required, in its expected cash outflows.
- S** 18.4 In applying the requirements set out in paragraphs 18.2 to 18.3, a banking institution shall look through to the maturity of the debt instruments issued by an SPV⁵⁸ and any embedded options in financing arrangements that may potentially trigger the “return” of assets or the need for liquidity, irrespective of whether the SPV issuing the structured finance instrument is consolidated.

⁵⁶ To the extent that sponsored conduits/SPVs are required to be consolidated under liquidity requirements, their assets and liabilities will be taken into account.

⁵⁷ Effectively ending the financing arrangement within the next 30 calendar days.

⁵⁸ As defined in Appendix XXVII of the policy document on *Capital Adequacy Framework (Basel II – Risk-Weighted Assets)* and Appendix XXVII of the policy document on *Capital Adequacy Framework for Islamic Banks (Risk-Weighted Assets)*.

19 Drawdowns on credit and liquidity facilities

Committed credit facilities⁵⁹

- S** 19.1 For the purposes of paragraph 19, a credit facility shall refer to any contractually irrevocable (i.e. “committed”) or conditionally revocable agreements to extend funds in the future.
- S** 19.2 A banking institution shall apply the following drawdown rates on the undrawn portion of the committed credit facilities:

Counterparty	Drawdown rate of credit facility (% of undrawn portion)
Retail and small business customers	5%
Non-financial corporates, sovereigns and central banks, PSEs and multilateral development banks	10%
Banks subject to prudential supervision	40%
Other financial institutions including securities firms, insurance companies, takaful operators, fiduciaries and beneficiaries	40%
Other legal entities (including SPEs ⁶⁰ , conduits and special purpose vehicles, and other entities not included in the prior categories)	100%

- S** 19.3 To the extent that the counterparty has already posted HQLA to secure the facility or the posting of collateral (in the form of HQLA) is contractually required for the counterparty to draw down the facility, a banking institution shall calculate the undrawn portion of such facilities net of any HQLA posted, if:
- i. the banking institution is legally entitled and operationally capable to re-use the collateral in new cash raising transactions once the facility is drawn; and
 - ii. there is no undue correlation between the probability of drawing the facility and the market value of the collateral.
- The collateral shall be netted against the undrawn portion of the facility only if the collateral is not already counted in the stock of HQLA to avoid double-counting.

⁵⁹ These off-balance sheet facilities or funding commitments can have long- or short-term maturities, with short-term facilities frequently renewing or automatically rolling-over. In a stressed environment, it will likely be difficult for customers drawing on facilities of any maturity, even short-term maturities, to be able to quickly pay back the borrowings. Therefore, for purposes of this standard, all facilities are assumed to be drawn at the rates specified in paragraph 19.2, regardless of maturity. For the avoidance of doubt, this category includes facilities granted to corporate entities for general working capital purposes (e.g. revolving credit facilities).

⁶⁰ The potential liquidity risks associated with the bank’s own structured financing facilities should be treated according to paragraphs 18.1 to 18.4 of this document (100% of maturing amount and 100% of returnable assets are included as outflows).

Liquidity facilities

- S** 19.4 A liquidity facility shall refer to any committed, undrawn back-up facility that would be utilised to **refinance the debt obligations of a customer** in situations where such a customer is unable to rollover that debt in financial markets (e.g. pursuant to a commercial paper programme, secured financing transactions, obligations to redeem units). This shall include any facility provided to hedge funds, money market funds and special purpose funding vehicles or other vehicles used to finance the banking institution's own assets, but shall exclude:
- i. the portion of a liquidity facility that is backing debt that does not mature within the 30-day period; and
 - ii. any additional amount of the liquidity facility over and above the amount required to backstop the currently outstanding debt issued. This additional amount shall be treated as a committed credit facility based on the corresponding drawdown rates as specified in paragraph 19.2.
- S** 19.5 The amount of the undrawn commitment arising from a liquidity facility shall be the **amount of the currently outstanding debt issued** by the customer (or proportionate share, if a syndicated facility) maturing within a 30-day period that is backstopped by the facility. To calculate the expected cash outflows from the liquidity facility, a banking institution shall multiply this amount of outstanding debt issued with the following drawdown rates:

Counterparty	Drawdown rate of liquidity facility (% of undrawn portion)
Retail and small business customers	5%
Non-financial corporates, sovereigns and central banks, PSEs and multilateral development banks	30%
Banks subject to prudential supervision	40%
Other financial institutions including securities firms, insurance companies, fiduciaries and beneficiaries	100%
Other legal entities (including SPEs, conduits and special purpose vehicles, and other entities not included in the prior categories)	100%

- S** 19.6 A banking institution that is also the provider of liquidity facilities for financing programs referred to in paragraphs 18.1 to 18.4 that are maturing or have liquidity puts that may be exercised within 30 calendar days shall not count both the maturing financing instrument and the liquidity facility. The banking institution shall apply a 100% outflow rate to the amount of financing instrument maturing in the 30-day horizon, or the maximum amount of liquidity facility that would be extended, whichever is higher.

20 Other contractual obligations

- S** 20.1 A banking institution shall treat any other contractual obligations to **extend funds** within 30 calendar days not provided for elsewhere in this document as follows:
- i. for any contractual obligations to extend funds to financial institutions, a 100% outflow rate shall be applied to the contractual amount; and
 - ii. for any contractual obligations to extend funds to retail, small business and non-financial corporate customers, a 100% outflow rate shall apply, if these obligations exceed 50% of the aggregated contractual inflows due from these customers in the next 30 calendar days. The 100% outflow rate shall be applied to the difference between the contractual outflow and the 50% of the total contractual inflows.
- S** 20.2 A banking institution shall assign a 100% outflow rate to any **other contractual cash outflows** within the next 30 calendar days, such as outflows to cover unsecured collateral borrowings, uncovered short positions, declared dividends or contractual interest/profit payments. For the avoidance of doubt, the banking institution shall exclude outflows related to operating costs from the calculation of the LCR.
- S** 20.3 With respect to paragraph 20.2, in the case where a **banking institution enters into a short position** that is being covered by an unsecured securities borrowing, the banking institution shall assume that it will experience a cash outflow arising from the need to secure the borrowing with HQLA or to close out the short position by buying back the security.

21 Contingent funding obligations

- S** 21.1 A banking institution shall calculate the expected cash outflows for liquidity calls arising from **non-contractual contingent funding obligations** according to the following outflow rates:

Category	Outflow rate
Unconditionally revocable (“ uncommitted ”) credit and liquidity facilities ⁶¹	0%
Contingent funding obligations related to trade finance (e.g. documentary trade letters of credit, documentary and clean collection, import bills and export bills, guarantees directly related to trade finance obligations)	3% of trade finance obligations
Non-contractual contingent funding obligations related	10% of the

⁶¹ This refers to commitments which are eligible to receive a 0% CCF under paragraph 2.84(i) of the policy document on *Capital Adequacy Framework (Risk-Weighted Assets)* and paragraph 2.101(i) of the policy document on *Capital Adequacy Framework for Islamic Banks (Risk-Weighted Assets)*.

to potential liquidity draws by unconsolidated joint ventures or minority investments in entities	investment value
Guarantees and letters of credit unrelated to trade finance obligations	10% of the amount of guarantees and letters of credit
Potential requests for debt repurchases of the banking institution's own debt or that of related conduits, SIVs and other such financing facilities	10% of the total outstanding amount
Structured products ⁶²	10% of total outstanding amount
Managed funds ⁶³ that are marketed with the objective of maintaining a stable value (e.g. money market mutual funds, other types of stable value collective investment funds, etc.)	10% of total outstanding amount
Outstanding debt securities having maturities greater than 30 calendar days whereby the banking institution or its affiliate is a dealer or market maker	10% of total outstanding amount
Non-contractual obligations where customer's short positions are covered by other customers' collateral , where the collateral does not qualify as Level 1 or Level 2 assets	50% of the collateral amount used to cover customer's short positions

⁶² Structured products refer to any investment products offered by a banking institution to customers with embedded derivatives (e.g. options) that are linked to the performance of an underlying asset such as interest rates, equities, foreign currency rates, etc. This shall also include structured products which are linked to securities as defined under the Guidelines on the Offering of Structured Products issued by the Securities Commission Malaysia.

⁶³ At the entity level, this shall only include managed funds being sold by the banking institution, not funds which are distributed by the banking institution on behalf of a third party.

PART E EXPECTED CASH INFLOWS

22 Loans and other credit facilities

S 22.1 When calculating expected cash inflows from loans and other credit facilities, a banking institution shall only include **contractual cash flows** (including interest or profit payments) from outstanding credit facilities that are fully performing⁶⁴ and for which the banking institution has no reason to expect a default within the 30 calendar days.

S 22.2 Inflow rates arising from loans and other credit facilities shall be determined by counterparty as follows:

Counterparty	Inflow rates
Retail and small business customers	50%
Non-financial corporates ⁴⁴ , sovereigns, multilateral development banks and PSEs	50%
Financial institutions and central banks	100%

S 22.3 Inflows from loans/financing that have no specific maturity (i.e. have no defined or open maturity) shall be excluded by a banking institution from the calculation of total cash inflows and **no assumptions shall be applied** by the banking institution as to when maturity of such loans/financing would occur. For revolving credit facilities, the banking institution shall assume that the existing loan/financing is rolled over and that no principal or interest/profit payment is received.

S 22.4 However, minimum payments of principal, fee or interest/profit associated with an open maturity loan/financing shall be recognised by a banking institution based on the inflow rates as prescribed in paragraph 22.2, provided that such payments are contractually due within 30 calendar days.

23 Secured lending or financing⁶⁵

S 23.1 A banking institution shall assume that a reverse repo, securities borrowing or collateral swap transactions maturing in the next 30 calendar days will be rolled over (i.e. apply a cash inflow rate of 0%), if the collateral obtained from the secured lending transaction is **rehypothecated to cover the banking institution's short positions**⁶⁶ that could be extended beyond the 30-day horizon.

⁶⁴ This shall exclude credit exposures which are defined as "impaired" in the policy document on *Classification and Impairment Provisions for Loans/Financing*.

⁶⁵ Including reverse repos and securities borrowing transactions.

⁶⁶ This reflects its need to continue to cover the short position or to re-purchase the relevant securities. Short positions include both instances where in its "matched book" the banking

- S** 23.2 However, if the collateral obtained from secured lending transactions is **not used to cover the banking institution's short position**, a banking institution shall apply the following inflow rates from maturing reverse repurchase or securities borrowing agreements based on the type of asset securing the transaction:

Maturing secured lending transactions backed by the following asset category	Inflow rate⁶⁷ (if collateral is not used to cover short positions)
Level 1 assets	0%
Level 2A assets	15%
Level 2B RMBS	15%
Level 2B corporate debt securities rated between AA- to A+	20%
Level 2B corporate debt securities rated between A- to A+ denominated in non-Ringgit only	50%
Margin lending ⁶⁸ backed by all other collateral	50%
Other collateral	100%

24 Derivatives transactions

- S** 24.1 The amounts of derivatives cash inflows shall be calculated by a banking institution in accordance with the methodology prescribed in paragraphs 17.1 to 17.3. The banking institution shall assign a 100% inflow factor to the sum of all net cash inflows from derivatives.
- S** 24.2 Where derivatives are collateralised by HQLA, a banking institution shall calculate cash inflows net of any corresponding cash or collateral outflows which have occurred or are contractually due to the derivative counterparty, given that these contractual obligations would reduce the stock of HQLA.

25 Facilities at other financial institutions

- S** 25.1 A banking institution shall assign a 0% inflow rate to all credit facilities, liquidity facilities or other contingent funding facilities that the banking institution has

institution sold short a security outright as part of a trading or hedging strategy and instances where the banking institution is short a security in the 'matched' repo book (i.e. it has borrowed a security for a given period and lent the security out for a longer period).

⁶⁷ The inflow rate shall be applied to the outstanding amount of the secured lending transaction, which is set based on the extent to which the secured lending transaction will be rolled over having regard to the riskiness of the underlying collateral securing the transaction.

⁶⁸ Collateralised loans extended by banking institutions to customers for the purpose of taking leveraged trading positions (e.g. margin loans to purchase shares) is considered as a form of secured lending.

secured at other financial institutions.

26 Other cash inflows

- S** 26.1 A banking institution shall assign a 100% inflow rate on inflows from securities maturing within 30 calendar days (e.g. coupon payment) **not already included in the stock of HQLA**. If an asset is included as part of the stock of HQLA, the cash inflows associated with that asset shall not be counted by the banking institution as cash inflows.
- S** 26.2 Deposits held at other financial institutions for operational purposes, as outlined in paragraphs 15.5 to 15.16 (namely clearing, custody, and cash management purposes) shall be assumed by a banking institution to remain at those institutions for operational reasons, and therefore not available to the depositing banking institution. A 0% inflow rate shall be applied to operational deposits for the depositing banking institution.
- S** 26.3 A banking institution shall assign a 100% inflow rate to deposits held at other financial institutions for non-operational purposes, such as inter-bank deposits, which are redeemable within the next 30 calendar days. Similarly, to the extent that the banking institution is able to redeem, within the next 30 calendar days, any of its funds placed in investment accounts managed by another banking institution, the banking institution shall assign a 100% inflow rate to these funds.
- S** 26.4 Contingent cash inflows such as expected dividend payments from the banking institution's investments in equities or equity-like instruments shall not be included by the banking institution as expected cash inflows.

PART F INVESTMENT ACCOUNTS⁶⁹**27 Unrestricted Investment Account (UA)****Calculation by funds**

- S** 27.1 The banking institution shall calculate and report the LCR for UA for **each individual** UA fund. The calculation of LCR for each UA fund shall only include the HQLA held specifically for that UA fund, along with the expected cash outflows and expected cash inflows arising from that particular UA fund.
- S** 27.2 The banking institution shall exclude HQLA held specifically for a particular UA fund, as well as the expected cash outflows and expected cash inflows of the UA fund, from the calculation of the LCR at the banking institution level (and the SPI level, where applicable) and for other investment account funds.
- S** 27.3 Where the LCR of a particular UA fund is lower than the minimum level required in paragraph 9.1, a banking institution shall add the deficit amount to the total net cash outflows for the calculation of the LCR at the banking institution level (and the SPI level, where applicable). Where the LCR of a particular UA fund is higher than the minimum level, the banking institution shall not recognise the surplus amount in the calculation of the LCR at the banking institution level (and the SPI level, where applicable) and for other investment account funds⁷⁰.
- S** 27.4 A banking institution shall exclude a UA fund from its computation of the LCR if the UA fund meets one of the following criteria:
- i. has a residual maturity or withdrawal notice period of greater than 30 days and where the investment account holder (IAH) has no legal right to withdraw the funds within the next 30 calendar days; **or**
 - ii. has other contractual features which significantly mitigate liquidity risks to the banking institution such as those applicable to Restricted Investment Account (RA) funds in paragraph 28.1.
- S** 27.5 Where a banking institution offers a UA fund which fulfils criterion (ii) in paragraph 27.4, the banking institution must obtain the Bank's approval to exclude the fund from the LCR requirements.

High-quality liquid assets (HQLA)

- S** 27.6 The stock of HQLA to be included in the calculation of the LCR for a UA fund shall be computed by a banking institution based on the definitions, haircuts and limits specified in Part C of this document.

⁶⁹ For the avoidance of doubt, UA and RA refer to URIA and RIA respectively as defined the policy document on *Investment Account*.

⁷⁰ For the avoidance of doubt, a fund with surplus HQLA may transfer it to the banking institution or other investment account funds on an arm's length basis as described in paragraph 22.5 of the policy document on *Investment Account*.

Expected cash outflows

- S** 27.7 Where a UA fund is fully invested in either any **or** a combination of assets that can be quickly converted into cash, which include:
- i. HQLA in accordance with this document;
 - ii. other securities which are traded in a secondary market;
 - iii. exchange-traded commodities; **or**
 - iv. deposits placed with a banking institution which are maturing or callable within the next 30 calendar days,
- the banking institution shall calculate the expected cash outflows arising from the UA fund by multiplying the fund's **net asset value (NAV)**⁷¹ with a run-off rate of 10%. Unless otherwise approved by the Bank, a UA fund shall not be included in this category if it is invested in assets other than (i) to (iv) specified above.

- S** 27.8 For a UA fund which does not meet the criteria in paragraph 27.7, the expected cash outflows arising from retail and unsecured wholesale funding shall be calculated by multiplying the following run-off rates (based on the type of investment account holder (IAH)) with the IAH's portion of the **NAV** of the underlying assets of the UA fund⁷²:

Type of IAH	Run-off rate
Retail and small business customers	10%
Sovereigns, PSEs, central banks, MDBs or non-financial corporates	40%
Other legal entities	100%

- 27.9 The treatment of expected cash outflows arising from funding other than retail and unsecured wholesale funding, if any, shall be calculated by a banking institution in accordance with paragraphs 16.1 to 21.1.

Expected cash inflows

- S** 27.10 The total expected cash inflows of a UA fund shall only include contractual cash inflows from the underlying assets and shall be computed based on the inflow rates set out in Part E of this document. A banking institution shall limit the recognition of expected cash inflows in the calculation of LCR to a maximum of 75% of the total expected cash outflows of the UA fund.

28 Restricted Investment Account (RA)

- S** 28.1 Unless otherwise specified by the Bank, a banking institution shall exclude RA funds from the LCR requirements as RA funds are subject to redemption

⁷¹ Refer to paragraph 14.1 of the Investment Account policy document.

⁷² For example, if a fund's NAV is RM100 million and 30% of the fund is owned by a retail IAH, the expected cash outflows would be RM3 million (RM100 million x 30% x 10% (run-off rate) = RM3 million).

conditions that would significantly mitigate liquidity risk⁷³. These conditions include where redemption is only allowed upon:

- i. maturity of the underlying assets;
- ii. the sale of the underlying assets to a third party (other than the banking institution); or
- iii. the replacement of funds from an Investment Account Holder (IAH) other than the banking institution.

- S** 28.2 For the avoidance of doubt, a banking institution shall exclude HQLA held specifically for a particular RA fund and the expected cash outflows and expected cash inflows of the RA fund from the calculation of the LCR at the banking institution level (and at SPI level where applicable) and for other investment account funds.

⁷³ Please refer to paragraphs 22.16 to 22.18 of the Investment Account policy document.

PART G REPORTING REQUIREMENTS

29 Information to be reported to the Bank

- S 29.1 A banking institution shall submit the following liquidity reports based on end-of-month positions in accordance with the following parameters:

Reports required	Level of reporting	Worksheet reference	Frequency	First submission
LCR				
Table 1a: LCR	Entity, consolidated and where applicable, SPI	LCR_Main	Monthly	30 July 2015
Table 1b: LCR by currency <ul style="list-style-type: none"> • MYR • USD • SGD • Other significant foreign currencies 		LCR_MYR LCR_USD LCR_SGD LCR_FX		
Table 1c: LCR for UA funds		LCR_UA		
Monitoring tools				
Table 2a: Liquidity position for RA funds	Entity and where applicable, SPI	MT_RA	Monthly	30 July 2015
Table 2b: Contractual Maturity Mismatch	Entity	MT_CMM		
Table 2c: Concentration of Funding <ul style="list-style-type: none"> • Significant Funding Sources by Counterparty • Significant Funding Sources by Product • Funding Ratios 		MT_COF		
Table 2d: Available Unencumbered Assets		MT_AUA		
Table 2e: Detailed HQLA Holdings	Entity and consolidated	MT_DHQLA	Made available upon request	Not applicable

- S 29.2 A banking institution shall submit all completed reporting templates to the Bank through the Financial Institutions Network (FINET) based on the following timelines, except as specified in paragraph 29.3:

Report	1 June 2015	1 June 2017 and thereafter
Entity	No later than 30 days from reporting position date ⁷⁴	No later than 7 days from reporting position date
Consolidated		No later than 14 days from reporting position date

⁷⁴ i.e. End-of-month position date.

Hardcopy submissions are not required.

- S** 29.3 With respect to the reporting requirements outlined in paragraphs 30.4 to 30.16, a banking institution shall submit the templates to the Bank through FINET no later than 30 days from the reporting position date from 1 June 2015 and thereafter.
- 29.4 Further details on the reporting requirements are provided in paragraphs 30.3 to 30.17 below.

30 Specific reporting requirements

Application of host jurisdictions' parameters for specified items

- S** 30.1 A banking institution shall report, at both the entity and the consolidated level, eligible assets held at its foreign operations which are recognised by host jurisdictions under the Alternative Liquidity Approaches, to the extent that the host jurisdiction adopts any of the Alternative Liquidity Approaches. The amounts reported shall be the amounts after applying any haircuts and limits as may be specified by the host jurisdiction.
- S** 30.2 A banking institution shall report, at both the entity and consolidated level, insured retail and small business deposits raised by its overseas operations where a 3% run-off rate is applied by the host jurisdiction to such deposits.

UA funds

- S** 30.3 A banking institution shall report the LCR positions for each investment account fund in accordance with the cash flow treatment as specified in Part F of this document. Any deficit amount from UA funds calculated in this report shall be added to the total net cash outflows for the calculation of LCR at the banking institution level (and/or the SPI level, where applicable).

RA funds

- S** 30.4 A banking institution shall report the liquidity positions of RA funds based on the parameters provided in the Bank's reporting template. This category shall also include any UA fund that is approved for exclusion from the LCR calculation under paragraph 27.4.

Contractual maturity mismatch

- S** 30.5 A banking institution shall report all contractual cash and security outflows and inflows from all on- and off-balance sheet items, according to the specified time buckets based on exposures in Ringgit and all other currencies on an aggregated basis. In reporting a contractual maturity mismatch, a banking institution shall assume that the existing liabilities will not be rolled over and that no new asset contracts will be entered into.
- S** 30.6 A banking institution shall report cash flows that have no specific maturity (i.e. undefined or open maturity) in the "No specific maturity" column as provided in

Table 3, without any assumption applied as to when maturity occurs.

- S** 30.7 A banking institution shall report the cash or security flows which are contractually due and can be determined in derivatives transactions (e.g. interest/profit rate payments that would need to be exchanged, payment obligations under a forward contract), in the relevant maturity bucket.

Concentration of funding

- S** 30.8 A banking institution shall report the following concentration of funding data based on exposures in Ringgit and all other currencies on an aggregated basis:
- i. the amount of funding liabilities received from each counterparty⁷⁵ which accounts for the largest 20 funding exposures of the banking institution;
 - ii. the amount of funding sourced from each product which accounts for more than 5% of the banking institution's total funding; and
 - iii. funding ratios as described in paragraph 30.12.

- S** 30.9 *(a) Significant sources of funding as indicated by the largest 20 funding exposures*
A banking institution shall calculate the amount of funding liabilities by aggregating all funding products or instruments⁷⁶ provided by each counterparty based on remaining contractual maturity.

- S** 30.10 A banking institution shall identify and separately report in Table 2c funds raised through deposits and investment accounts by entities within the banking institution's group (e.g. from subsidiaries or affiliates), irrespective of their significance.

- S** 30.11 *(b) Significant sources of funding by products or instruments*
A banking institution shall calculate the amount of funding sourced from each significant funding product or instrument and categorise it into retail and wholesale categories based on remaining contractual maturity. For the purpose of this reporting requirement, a funding product or instrument shall be considered as significant if the amount of funding raised through the particular instrument or product accounts for more than 5% of the banking institution's total on-balance sheet liabilities.

- S** 30.12 *(c) Funding ratios*
A banking institution shall report the following ratios:
- i. adjusted loans/financing⁷⁷ to adjusted deposits and investment account funds⁷⁸;

⁷⁵ Where the counterparty is consolidated as part of a wider group, the banking institution should, on a best effort basis, treat all counterparties within the group as a single counterparty and aggregate all funding liabilities received from such counterparties accordingly for purposes of this requirement.

⁷⁶ A funding product or instrument shall include all types of liabilities as well as all other direct, secured (e.g. repos, collateralised borrowing/funding), unsecured borrowing/funding (e.g. overnight and term deposits, NIDs, INIs) and investment accounts.

- ii. net offshore borrowing/acceptance to total domestic deposits and investment account funds;
- iii. net domestic interbank borrowing/acceptance to total domestic deposit and investment account funds ratio;
- iv. net domestic overnight interbank borrowing/acceptance as a percentage of total interbank borrowing/acceptance less overnight domestic interbank lending/placement; and
- v. short-term domestic interbank borrowing/acceptance as a percentage of short-term domestic total funding.

S 30.13 A banking institution shall adopt the following definitions⁷⁹ for purposes of paragraph 30.12:

- i. “adjusted loans/financing” refers to the amount of loans/financing less banker’s acceptances (BA) payable;
- ii. “adjusted deposits and investment account funds” comprises deposits, investment accounts⁷⁸, non-interbank repos/sell-buy back agreements and non-interbank NIDs/INIs (less percentage set aside to meet the statutory reserve requirement), shareholders’ funds, Tier 2 capital instruments, subordinated term loans and loans sold to Cagamas;
- iii. “net offshore borrowing/acceptance” refers to all deposits, investment accounts, NIDs/INIs, repos/sell-buy back agreements and interbank borrowing/acceptance (including vostro accounts from non-residents, less deposits placed, placement of funds in investment accounts, NIDs/INIs held, reverse repos/buy-sell back agreements and interbank lending/placement (including nostro accounts) with non-residents;
- iv. “total domestic deposits and investment account funds” refers to all deposits, investment accounts, non-interbank repos and non-interbank NIDs/INIs from residents;
- v. “net domestic interbank borrowing/acceptance” refers to interbank borrowing/acceptance, interbank repos/sell-buy back agreements, interbank NIDs/INIs and interbank investment accounts from residents, less interbank lending/placement, interbank reverse repos/sell-buy back agreements, interbank NIDs/INIs held and interbank investment account funds placed with residents;
- vi. “net domestic overnight interbank borrowing/acceptance” refers to total overnight interbank borrowing/acceptance and interbank investment accounts from residents less total overnight interbank lending/placement to and interbank investment account funds placed with residents;
- vii. “total domestic interbank borrowing less domestic overnight interbank lending” refers to total interbank borrowing/acceptance, interbank repos/sell-buy back agreements, interbank NIDs/INIs and interbank

⁷⁷ For the avoidance of doubt, any reference to financing in paragraphs 30.8 to 30.13 shall exclude financing funded by UA funds with contractual features that significantly mitigate liquidity risk and RA funds specified in paragraphs 27.4 and 28.1 respectively.

⁷⁸ Excluding UA funds with contractual features that significantly mitigate liquidity risk and RA funds specified in paragraphs 27.4 and 28.1 respectively.

⁷⁹ The definitions of “resident” and “non-resident” shall have the same meanings assigned to them in section 213 of the FSA.

- investment accounts from residents less overnight interbank lending/placement to and investment account funds placed with residents;
- viii. “short-term domestic interbank borrowing/acceptance” refers to total interbank borrowing/acceptance, interbank repos/sell-buy back agreements, interbank investment account funds received and interbank NIDs/INIs from residents with remaining maturity up to 1 month; and
- ix. “short-term domestic total funding” refers to all deposits, investment account funds placed, repos/sell-buy back agreements and NIDs/INIs and interbank borrowing/acceptance from residents with remaining maturity up to 1 month.

Available unencumbered assets

- S** 30.14 A banking institution shall report the available unencumbered assets which could be used as collateral to raise additional HQLA, including assets that could be designated to support the banking institution’s access to the RCLF, or secured funding in secondary markets and those which are eligible for secured funding transactions with the Bank through the standing facility. A banking institution shall report the asset class, issuer, credit rating (where applicable), market value, estimated haircut, currency, geographical location where the asset is held and business unit (e.g. treasury department of parent banking institution or treasury department of the reporting banking institution) which has access to those assets.
- S** 30.15 A banking institution shall report separately the collateral received from customers that the banking institution is permitted to deliver or re-pledge and the part of such collateral that has not been delivered or re-pledged as of the reporting date.
- S** 30.16 For the avoidance of doubt, a banking institution shall not include assets which have already counted as HQLA for compliance with the LCR in the reporting of available unencumbered assets.

Detailed HQLA holdings

- S** 30.17 A banking institution shall report a detailed list of HQLA holdings, including the asset class, issuer, credit rating (where applicable), market value, currency, the geographical location where the asset is held and the business unit which has access to those assets in accordance with Table 6, as and when requested by the Bank.

APPENDICES

31 Appendix 1: Characteristics of high-quality liquid assets

Assets are considered to be high-quality liquid assets (HQLA) if they can be easily and immediately converted into cash at little or no loss of value. The liquidity of an asset depends on the underlying stress scenario, the volume to be monetised and the timeframe considered. Nevertheless, there are certain assets that are more likely to generate funds without incurring large discounts due to fire-sales even in times of stress.

This appendix outlines the factors that influence whether or not the market for an asset can be relied upon to raise liquidity when considered in the context of possible stresses.

Fundamental characteristics

- i. Low credit and market risk: Assets that are less risky tend to have higher liquidity. High credit standing of the issuer and a low degree of subordination increases an asset's liquidity. Low duration, low volatility, low inflation risk and denomination in a convertible currency with low foreign exchange risk all enhance an asset's liquidity.
- ii. Ease and certainty of valuation: An asset's liquidity increases if market participants are more likely to agree on its valuation. The pricing formula of a HQLA must be easy to calculate and not depend on strong assumptions. The inputs into the pricing formula must also be publicly available. In practice, this should rule out the inclusion of most structured or exotic products.
- iii. Low correlation with risky assets: The stock of HQLA should not be subject to wrong-way (highly correlated) risk. For example, assets issued by financial institutions are more likely to be illiquid in times of liquidity stress in the banking sector.
- iv. Listed on a developed and recognised exchange market: Being listed increases an asset's transparency.

Market-related characteristics

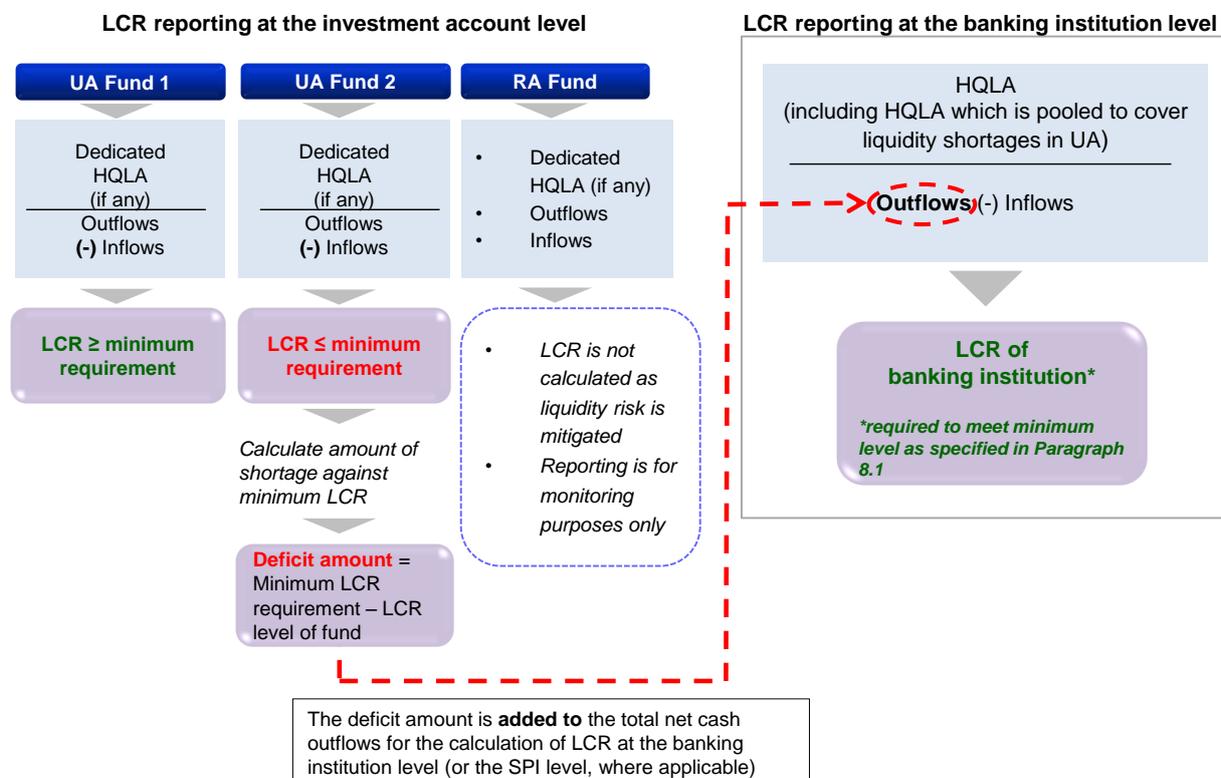
- i. Active and sizable market: The asset should have active outright sale or repo (repo) markets at all times (which means having a large number of market participants and a high trading volume). There should be historical evidence of market breadth (price impact per unit of liquidity) and market depth (units of the asset that can be traded for a given price impact).
- ii. Presence of committed market makers: Quotes will most likely be available for buying and/or selling a high-quality liquid asset.
- iii. Low market concentration: A diverse group of buyers and sellers in an asset's market increases the reliability of its liquidity.
- iv. Flight to quality: Historically, the market has shown tendencies to move into these types of assets in a systemic crisis.

As outlined by these characteristics, the test of whether liquid assets are of “high-quality” is that, by way of sale or secured borrowing, their liquidity-generating capacity is assumed to remain intact even in periods of severe idiosyncratic and market stress. Such assets often benefit from flight to quality in these circumstances. Lower quality assets fail to meet that test. An attempt by a banking institution to raise liquidity from lower quality assets under conditions of severe market stress would entail acceptance of a large fire-sale discount or haircut to compensate for high market risk. That may not only erode the market’s confidence in the banking institution, but would also generate mark-to-market losses for banking institutions holding similar instruments and add to the pressure on their liquidity position, thus encouraging further fire sales and declines in prices and market liquidity. In these circumstances, private market liquidity for such instruments is likely to disappear extremely quickly. Taking into account the system-wide response, only HQLA that meet the test can be readily converted into cash under severe stress in private markets.

HQLA should also ideally be eligible at central banks for intraday liquidity needs and overnight liquidity facilities. In the past, central banks have provided a further backstop to the supply of banking system liquidity under conditions of severe stress. Central bank eligibility should thus provide additional confidence that banking institutions are holding assets that could be used in events of severe stress without damaging the broader financial system. This in turn would raise confidence in the safety and soundness of liquidity risk management in the banking system.

32 Appendix 2: Examples of LCR calculation and liquidity reporting for investment account funds

i. Illustrative Example



Notes:

1. The diagram illustrates the LCR calculation for investment accounts for an Islamic bank which operates two UA funds (i.e. UA Fund 1 and UA Fund 2) and a RIA fund.
2. The LCR is calculated separately for each individual investment account fund. The LCR calculation for UA Fund 1 shall only include the HQLA held specifically for UA Fund 1, and the expected cash outflows and expected cash inflows arising from the fund. The same rule shall apply when calculating the LCR for UA Fund 2.
3. In this example, the LCR for UA Fund 2 is lower than the minimum level required in paragraph 9.1. The deficit amount shall therefore be **added to** the total net cash outflows for the calculation of the LCR at the banking institution level.
4. In the case of UA Fund 1 where the LCR is higher than the minimum level, the surplus amount shall not be included in the calculation of the LCR at the banking institution level or in the calculation of the LCR for UA Fund 1 and the RIA fund.

ii. Numerical Example

The LCR requirement for each investment fund (i.e. UA Fund 1, UA Fund 2) is calculated separately:

Items (in RM'000)	UA Fund 1	UA Fund 2	Banking institution's LCR calculation	
Stock of HQLA				
Level 1 asset	2,250	1,000	7,500,000	Deficit of RM3m from UA Fund 2 increases cash outflows from RM39,998m to RM40,001m
Level 2 asset	250	0	1,000,000	
<u>Total stock of HQLA</u>	2,500	1,000	8,500,000	
Net cash outflow				
Cash outflows	7,250	10,000	40,001,400	Shortage shall be included in the total net cash outflows of the banking institution's LCR
Cash inflows	5,000	6,000	32,000,000	
<u>Total net cash outflows</u>	2,250	4,000	8,001,400	
LCR				
Total stock of HQLA	2,500	1,000	8,500,000	
Total net cash outflows	2,250	4,000	8,001,400	
<u>LCR</u>	111%	25%	106%	
Amount of surplus/(deficit)	250	(3,000)		

Note: Assume 100% LCR requirement for the calculation of the surplus and deficit amounts

Notes:

1. UA Fund 1 has a surplus amount of RM0.25mil which shall neither be included in the calculation of the LCR for any other investment account fund nor the calculation of the LCR at the banking institution level.
2. UA Fund 2 has a deficit amount of RM3mil which shall be added to the total net cash outflows for the calculation of LCR at the banking institution level.