ISLAMIC FINANCIAL SERVICES BOARD

GN-6

GUIDANCE NOTE ON QUANTITATIVE MEASURES FOR LIQUIDITY RISK MANAGEMENT IN INSTITUTIONS OFFERING ISLAMIC FINANCIAL SERVICES [EXCLUDING ISLAMIC INSURANCE (*TAKĀFUL*) INSTITUTIONS AND ISLAMIC COLLECTIVE INVESTMENT SCHEMES]

April 2015

ISBN: 978-967-5687-43-3

ABOUT THE ISLAMIC FINANCIAL SERVICES BOARD (IFSB)

The IFSB is an international standard-setting organisation which was officially inaugurated on 3 November 2002 and started operations on 10 March 2003. The organisation promotes and enhances the soundness and stability of the Islamic financial services industry by issuing global prudential standards and guiding principles for the industry, broadly defined to include banking, capital markets and insurance sectors. The standards prepared by the IFSB follow a lengthy due process as outlined in its Guidelines and Procedures for the Preparation of Standards/Guidelines, which involves, among others, the issuance of exposure drafts, the holding of workshops and, where necessary, public hearings. The IFSB also conducts research and coordinates initiatives on industry-related issues, as well as organises roundtables, seminars and conferences for regulators and industry stakeholders. Towards this end, the IFSB works closely with relevant international, regional and national organisations, research/educational institutions and market players.

For more information about the IFSB, please visit **www.ifsb.org.**

COUNCIL

Chairman
H.E. Agus D.W. Martowardojo – Governor, Bank Indonesia

Members*

H.E. Dr Ahmad Mohamed Ali	President, Islamic Development Bank
H.E. Rasheed M. Al-Maraj	Governor, Central Bank of Bahrain
H.E. Dr Atiur Rahman	Governor, Bangladesh Bank
H.E. Yusof Abd Rahman	Managing Director, Autoriti Monetari Brunei Darussalam
H.E. Ahmed Osman	Governor, Banque Centrale De Djibouti
H.E. Hisham Ramez Abdel Hafez	Governor, Central Bank of Egypt
H.E. Dr Valiollah Seif	Governor, Central Bank of the Islamic Republic of Iran
H.E. Dr Ziad Fariz	Governor, Central Bank of Jordan
H.E. Dr Mohammad Y. Al Hashel	Governor, Central Bank of Kuwait
H.E. Abdellatif Jouahri	Governor, Bank Al-Maghrib
H.E. Dr Zeti Akhtar Aziz	Governor, Bank Negara Malaysia
H.E. Dr. Azeema Adam	Governor, Maldives Monetary Authority
H.E. Rameswurlall Basant Roi G.C.S.K.	Governor, Bank of Mauritius
H.E. Godwin Emefiele	Governor, Central Bank of Nigeria
H.E. Ashraf Mahmood Wathra	Governor, State Bank of Pakistan
H.E. Sheikh Abdulla Saoud Al-Thani	Governor, Qatar Central Bank
H.E Dr. Fahad Al-Mubarak	Governor, Saudi Arabian Monetary Agency
H.E. Ravi Menon	Managing Director, Monetary Authority of Singapore
H.E. Abdelrahman Hassan Abdelrahman Hashim	Governor, Central Bank of Sudan
H.E. Mutalip Ünal	Acting Chairman, Banking Regulation and Supervisory Agency, Turkey
H. E. Mubarak Rashed Khamis Al Mansoori	Governor, Central Bank of the United Arab Emirates

***In alphabetical order of the country the member's organisation represents**

TECHNICAL COMMITTEE

Chairman

H.E. Dr Ahmed Abdulkarim Alkholifey – Saudi Arabian Monetary Agency *(from 10 December 2013)*
Dr Abdulrahman A. Al-Hamidy – Saudi Arabian Monetary Agency *(until 24 October 2013)*

Deputy Chairman

Dr. Mohammad Yousef Al Hashel – Central Bank of Kuwait (until 29 March 2012)
Mr. Khalid Hamad Abdulrahman Hamad – Central Bank of Bahrain (until 12 December 2012)
Mr. Mu'jib Turki Al Turki – Qatar Central Bank (from 7 April 2013)

Members*

Dr Salman Syed Ali *(until 29 March 2012)*	Islamic Development Bank
Mr Haseeb Ullah Siddiqui *(from 30 March 2012)*	Islamic Development Bank
Mr Ahmed Abdul Khalid (*until 6 April 2013)*	Islamic Corporation for the Development of the Private Sector (ICD)
Mr Lotfi S. Zairi *(from 30 March 2012)*	Islamic Corporation for the Insurance of Investment and Export Credit (ICIEC)
Mrs Aysha AlJalahma *(until 28 February 2014)*	Central Bank of Bahrain
Mr Hussain Ali Sharaf *(from 27 March 2014)*	Central Bank of Bahrain
Mr K.M. Abdul Wadood *(until 4 March 2014)*	Bangladesh Bank
Mr Md Nasiruzzaman *(until 20 October 2014)*	Bangladesh Bank
Mr Chowdhury Md. Feroz Bin Alam *(from 11 December 2014)*	Bangladesh Bank
Ms Mahani Mohsin *(from 27 March 2014)*	Autoriti Monetari Brunei Darussalam
Mr Farag Abdul Hameed Farag *(until 17 November 2011)*	Central Bank of Egypt
Mr Nawawi *(until 5 December 2013)*	Bank Indonesia
Dr Agusman *(from 27 March 2014)*	Bank Indonesia
Mr Edy Setiadi *(from 27 March 2014)*	Indonesia Financial Services Authority
Mr Abdolmahdi Arjmand Nejad *(until 29 March 2012)*	Central Bank of the Islamic Republic of Iran
Mr Morteza Setak *(from 30 March 2012)*	Central Bank of the Islamic Republic of Iran
Dr Ali Salehabadi *(until 20 October 2014)*	Securities and Exchange Organization, Iran
Mr Arafat Alfayoumi *(from 27 March 2014)*	Central Bank of Jordan
Mr Talal Al Zemami *(from 27 March 2014)*	Capital Market Authority of Kuwait
Mr Ahmad Hizzad Baharuddin *(until 17 November 2011)*	Bank Negara Malaysia

Dato' Dr Nik Ramlah Mahmood *(until 29 March 2012)*	Securities Commission Malaysia
Mr Zainal Izlan Zainal Abidin *(from 30 March 2012)*	Securities Commission Malaysia
Mr Ahmed Ali Al Mamari *(from 27 March 2014)*	Capital Market Authority of Oman
Mr Adrian Tsen Leong Chua *(until 29 March 2012)*	Monetary Authority of Singapore
Ms Ng Chuin Hwei *(until 6 April 2013)*	Monetary Authority of Singapore
Mr Tan Keng Heng *(until 13 November 2014)*	Monetary Authority of Singapore
Mr Ethan Goh Cheng Hing *(from 13 November 2014)*	Monetary Authority of Singapore
Mr Mohamed Elhassan Elsheikh *(until 11 December 2012)*	Central Bank of Sudan
Mrs Rabaa Ahmed El Khalifa Makki *(until 6 April 2013)*	Central Bank of Sudan
Dr Badreldin Gorashi Mustafa *(from 7 April 2013)*	Central Bank of Sudan
Mr Mehmet Siddik Yurtcicek *(from 27 March 2014)*	Banking Regulation and Supervision Agency of Republic of Turkey
Mr Ahmet Bicer *(from 27 March 2014)*	Central Bank of Republic of Turkey
Mr Bircan Akpinar *(from 27 March 2014)*	Capital Market Board of Turkey
Mr Eser Sagar *(from 11 December 2014)*	Capital Market Board of Turkey
Mr Khalid Omar Al-Kharji	Central Bank of the United Arab Emirates
Mr Peter Casey *(until 11 December 2012)*	Dubai Financial Services Authority, United Arab Emirates
Mr Prasanna Seshachellam *(from 12 December 2012)*	Dubai Financial Services Authority, United Arab Emirates

***In alphabetical order of the country the member's organisation represents**

SUB-COMMITTEE OF THE IFSB TECHNICAL COMMITTEE FOR GUIDANCE NOTE ON QUANTITATIVE MEASURES FOR LIQUIDITY RISK MANAGEMENT OF IIFS

CHAIRMAN
Mr Naimi Shuib – Bank Negara Malaysia

Deputy Chairman
Ms Hana Ahmed Al Murran – Central Bank of Bahrain
(Until January 2015)

Members*

Dr Kodeidja Malled Diallo (*until October 2013*)	Islamic Development Bank
Mr Zine Elabidine Bachiri	Islamic Development Bank
Mrs Nyimas Rohmah (*until January 2014*)	Bank Indonesia
Mr Dadang Muljawan *(from January 2014)*	Bank Indonesia
Mr Mohammad Khodayari	Central Bank of the Islamic Republic of Iran
Mr Musa Iliyasu Igabi	Central Bank of Nigeria
Ms Mashair Mohamed Ibrahim	Central Bank of Sudan

***In alphabetical order of the country the member's organisation represents**

ISLAMIC DEVELOPMENT BANK *SHARĪ`AH* BOARD*

Chairman
Sheikh Dr Hussein Hamed Hassan

Deputy Chairman
Sheikh Dr Abdulsattar Abu Ghuddah

H.E. Sheikh Abdullah Bin Suleiman Al-Mani'	Member
Sheikh Mohammad Ali Taskhiri	Member
Sheikh Mohamed Hashim Bin Yahaya	Member
Sheikh Mohamed Mokhtar Sellami	Member
Sheikh Muhammad Taqi Al-Usmani	Member

***In alphabetical order**

SECRETARIAT, ISLAMIC FINANCIAL SERVICES BOARD

Mr Jaseem Ahmed	Secretary-General
Mr Zahid ur Rehman Khokher	Assistant Secretary-General
Professor Dr Simon Archer	Consultant
Mr Erdem Oz	Member of the Secretariat, Technical and Research

TABLE OF CONTENTS

ABBREVIATIONS

ALA	Alternative liquidity approaches
ASF	Available stable funding
BCBS	Basel Committee on Banking Supervision
BOD	Board of directors
CLF	Committed liquidity facility
CMT	Commodity *Murābahah* transactions
ECAI	External credit assessment institution
GN	Guidance note
HQLA	High-quality liquid assets
IAHs	Investment Account Holders
IDB	Islamic Development Bank
IFSB	Islamic Financial Services Board
IFSB-12	*IFSB Guiding Principles on Liquidity Risk Management for IIFS*, March 2012
IFSB-15	*IFSB Revised Capital Adequacy Standard*, December 2013
IFSI	Islamic financial services industry
IIFS	Institution(s) offering Islamic financial services (excluding Islamic insurance/*Takāful* institutions and Islamic collective investment schemes)
IILM	International Islamic Liquidity Management Corporation
ILAAP	Internal liquidity adequacy assessment process
LCR	Liquidity Coverage Ratio
LOLR	Lender of last resort
MDBs	Multilateral development banks
NSFR	Net Stable Funding Ratio
OBS	Off-balance sheet
OTC	Over the counter
PSEs	Public sector entities
PSIA	Profit-sharing investment account
QIS	Quantitative impact study
RCLF	Restricted-use committed liquidity facility
RMBS	Residential mortgage-backed securities
RPSIA	Restricted profit-sharing investment account
RSF	Required stable fund
SLOLR	*Sharī`ah*-compliant lender of last resort
SLRP	Supervisory liquidity review process
TC	Technical Committee
UPSIA	Unrestricted profit-sharing investment account

Bismillahirrahmanirrahim

Allahumma salli wasallim 'ala Sayyidina Muhammad wa'ala alihi wasahbihi

Section 1: Background

1.1 Introduction

1. Effective management of liquidity risk is fundamental to the effective functioning of financial institutions, including institutions offering Islamic financial services (IIFS). During the financial crisis of 2007–8, inadequate liquidity risk management in financial institutions resulted in substantial liquidity outflows and strain on profitability, which led to problems of viability and insolvency of certain institutions in extreme cases. To manage liquidity risk effectively, a financial institution needs to have, among other things, adequate liquid assets of a high quality, stable funding sources, proper asset–liability maturity balance and well-managed off-balance sheet (OBS) exposures. Due to the strong interlinkages between the domestic, regional and international financial systems in our increasingly interconnected world, liquidity stress at one institution could affect the performance of other institutions. In extreme cases, the disruption in liquidity markets could affect the whole intermediation process and the real economy if it is not managed effectively at an early stage. The significance of this subject in ensuring the systemic stability and resilience of financial systems has resulted in a number of developments in the global regulatory landscape in recent years.

2. The banking sector plays the most significant role in the financial intermediation process in the global financial system, especially in emerging markets due to its high market share in the domestic financial systems and its deposit-taking capabilities. Therefore, a major focus of global financial reforms in recent years has been the banking sector. At the global level, the Basel Committee on Banking Supervision (BCBS) issued its *Principles for Sound Liquidity Risk Management and Supervision* in September 2008. For the Islamic financial services industry (IFSI), the Islamic Financial Services Board (IFSB) issued IFSB-12: *Guiding Principles on Liquidity Risk Management for IIFS* in March 2012, which provides a set of 23 principles for the robust management of liquidity risk by IIFS and its vigorous supervision and monitoring by their supervisory authorities. Besides providing guidance on prudential aspects related to liquidity risk management in IIFS, IFSB-12 outlined necessary elements of effective liquidity risk management in the IFSI.

3. In order to further strengthen the regulatory regime for the liquidity risk management of banking institutions, the BCBS issued Basel III in December 2010. A major component of this reform package was the issuance at the same time of *International Framework for Liquidity Risk Measurement, Standards and Monitoring*, which proposed the introduction of new regulatory standards – namely, the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR) – as a complement to the capital adequacy regulations. This document also suggested five liquidity monitoring tools – namely, contractual maturity mismatch, concentration of funding, availability of unencumbered assets, LCR by significant currency, and market-related monitoring tools. After the observation phase and further calibration and monitoring of the initial parameters, the BCBS issued final rules for LCR in January 2013 in the document entitled *Basel III: Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools,* and for NSFR in October 2014 in the document entitled *Basel III: The Net Stable Funding Ratio*. Significant adjustments to the components of LCR and NSFR were made in these documents. The LCR document also introduced a protracted timeline for the adoption of LCR. Although January 2015 was maintained as the initial application date of the LCR as a regulatory requirement, the level of LCR required was set at 60% initially. With an increase of 10% every year, the LCR was expected to reach the desired 100% level by early 2019. The NSFR document,

on the other hand, is planned to be adopted later with implementation in 2018 according to the timeline specified in the 2010 Basel III publication.

4. Following issuance of the initial draft of Basel III, the IFSB conducted a survey in 2011 on adapting Basel III liquidity standards. These findings were deliberated on by the Technical Committee (TC) in its 25th meeting held in Abu Dhabi, UAE, on 6 October 2011. After the deliberations, the TC agreed to recommend to the IFSB Council the preparation of a new guidance note (GN) for IIFS based on the Basel III liquidity standards. The IFSB Council approved the preparation of this GN at its 19th meeting, held on 17 November 2011 in Kuala Lumpur, Malaysia.

5. After the issuance of the final LCR rules by the BCBS in January 2013, the IFSB Secretariat submitted its initial assessment at the 29th meeting of the TC held on 7 March 2013 in Kuala Lumpur. The TC resolved to establish a subcommittee to assist in the preparation of the GN. In carrying out its work, the subcommittee was mandated to conduct a quantitative impact study (QIS) and survey of the market players and supervisory authorities to calibrate and gather first-hand information on the liquidity position of, and application of the LCR to, the IIFS.

1.2 Objectives

6. As noted in IFSB-12, from a funding liquidity risk perspective, two main sources of fund generation used by conventional banks are not applicable to the IIFS: (a) an IIFS cannot take out an interest-based financing from the interbank market or other sources; and (b) in most jurisdictions, it is not allowed to transfer its debt, other than at its face value. The shortage or unavailability of *Sharī`ah*-compliant securities/*Sukūk* in many jurisdictions adds to these problems, compelling IIFS to maintain a higher level of cash and non-earning liquid assets than conventional institutions. In those jurisdictions where some *Sharī`ah*-compliant securities/*Sukūk* are available, the unavailability of an active *Sharī`ah*-compliant trading or repurchase (repo) market remains an ongoing problem. More generally, the vast majority of jurisdictions lack any form of a *Sharī`ah*-compliant lender of last resort (SLOLR) scheme to protect the soundness and stability of IIFS in situations of serious liquidity stress. On the other side of the balance sheet, in most jurisdictions deposits and profit-sharing investment accounts (PSIA) generated by the IIFS are not covered by a reliable *Sharī`ah*-compliant deposit insurance scheme.[1] All these factors affect the performance and competitiveness of IIFS vis-à-vis conventional financial institutions in such jurisdictions.

7. The aforementioned market conditions, *Sharī`ah* requirements and balance sheet structure of IIFS require a thorough review of the proposed parameters of the new liquidity standards so that these specificities are fully taken into account in the calculation of ratios. In line with the objective of the IFSB "to promote the development of a prudent and transparent IFSI through introducing new, or adapting existing, international standards consistent with *Sharī`ah* rules and principles, and recommending these for adoption", this GN aims to provide a level playing field for the IIFS and their supervisory authorities in the application of global liquidity standards.

8. In light of these considerations, this GN is being prepared with the following objectives:

a. to complement other prudential standards issued by the IFSB, as well as to support the harmonised application of the international regulatory regime in the area of liquidity risk management, by providing guidance on the application of global liquidity standards for the IIFS,

[1] As noted in Section 2 below, whether or not deposits or PSIA are covered by a deposit insurance scheme (or a *Sharī`ah*-compliant equivalent) has an effect on their treatment in the context of the LCR.

especially the LCR and NSFR at the current stage, with suitable adjustments based on the specific operational characteristics;

b. to provide guidance to supervisory authorities on the application of the LCR and NSFR in their jurisdictions and on their role in assessing the discretionary items specified in this GN, including application of the alternative liquidity approaches (ALA);

c. to delineate the disclosure requirements required alongside the application of liquidity standards; and

d. to present the templates of the LCR and NSFR, which need to be considered in the planning and monitoring of liquidity risk.

9. The new liquidity regulatory regime is expected to promote better liquidity risk management in banking institutions, including IIFS, in a number of ways, including: (a) the improvement of banks' liquidity buffers and the placing of limits on maturity transformation at the micro level; and (b) reducing excessive interconnectedness in the financial system and mitigating systemic liquidity risk at the macro level.

10. Nevertheless, considering the present market conditions and the state of the liquidity infrastructure in many jurisdictions where IIFS are in operation, the application of liquidity standards will require improvements in such infrastructure, including the provision of *Sharī`ah*-compliant deposit insurance and an SLOLR scheme, as well as a sufficient and regular supply of high-quality liquid assets (HQLA). As mentioned in TN-1[2] of the IFSB, It is important to organise a regular issuance programme by governments or relevant authorities of a sufficient volume of *Sharī`ah*-compliant HQLA to build market liquidity. Most jurisdictions do not incorporate the issuance of government *Sharī`ah*-compliant instruments as part of their regular issuance arrangements. As the government is a major issuer, it can, in principle, generate a programme of regular issues of financing instruments in sufficient volume, and in standard maturities, thereby providing a basis for a liquid, deep and active market in these instruments suitable for complying with the requirements for HQLA.

1.3 Scope of Application

11. This GN complements IFSB-12 and should be read in conjunction with other applicable IFSB standards and guidelines dealing with liquidity risk management specifically and risk management in general, as well as the supervisory review process.

12. This GN establishes a minimum level of liquidity for IIFS, including full-fledged IIFS, Islamic windows of conventional banks and Islamic banking subsidiaries of conventional banks on an individual and a consolidated basis. Supervisory authorities can extend the application of this GN to Islamic investment banks and other financial institutions at their discretion.

13. The parameters of LCR and NSFR in this document are built upon BCBS proposals, with a number of additions and adjustments to meet the specificities of IIFS. The LCR and the NSFR should be applied consistently across the jurisdiction for the IIFS sector. However, supervisory authorities may modify or exclude certain components of the LCR and the NSFR, taking account of specific economic conditions and the business model of IIFS. Discretion has been provided to supervisory authorities on a number of parameters, especially run-off rates, which require a careful calibration and study of the funding profile,

[2] IFSB, TN-1: *Technical Note on Issues in Strengthening Liquidity Management of IIFS: The Development of Islamic Money Markets*, March 2008.

business model, and characteristics of the various interbank and consumer products available to or offered by IIFS. In addition, supervisory authorities should consider market conditions, including the application of LCR in stress conditions. Supervisory authorities are expected to provide transparency and appropriate public disclosures in order to provide clarity to the IIFS and other stakeholders in applying these requirements. While the LCR and the NSFR are initially intended for application by internationally active banks, supervisory authorities are likely to apply them more broadly, but should pay due attention to the market conditions and potential difficulties for smaller IIFS, if these liquidity requirements – in particular, the associated onerous reporting requirements – are applied to such institutions.

1.4 Timeline of Implementation

14. Supervisory authorities shall put into effect the LCR requirement for IIFS in line with the timeline that has been agreed at the international level, according to which the LCR will be introduced on 1 January 2015, at the minimum level of 60%, with an increase of 10% each year until the required level of 100% is reached by 1 January 2019.

15. As noted in paragraph 6 above, a number of countries that have started to develop an IFSI lack a supportive liquidity infrastructure, including LOLR and deposit insurance schemes that are *Sharī`ah* compliant, and face a shortage of *Sharī`ah*-compliant HQLA. Supervisory authorities in such jurisdictions are expected to follow the aforementioned timeline in implementing the LCR, with due consideration of the ALA specified in section 2.2.5 below. The supervisory authorities will evaluate the availability of a supportive liquidity infrastructure in the financial system within their jurisdiction, and on the basis of this evaluation may choose a different implementation schedule.

16. The implementation date for the NSFR in line with the timeline that has been agreed at the international level is 1 January 2018. There is no provision for phasing in the requirements of the NSFR as has been proposed for the LCR.

Section 2: Application of the LCR in IIFS

17. The objective of the LCR is to promote IIFS' resilience against short-term liquidity shocks. To meet this requirement, an IIFS is obliged to have an adequate stock of unencumbered HQLA that can be converted easily and immediately into cash with no or little loss of value, in order to meet its liquidity needs for a 30-calendar-day period under a liquidity stress scenario. This is based on the assumption that, if the requirement is met, the IIFS could survive for the 30 days of the given stress scenario. This period allows the IIFS an adequate time to make necessary arrangements and undertake corrective actions to resolve internal liquidity problems, while supervisory authorities may also require some corrective actions to prevent the IIFS from falling into another such liquidity crisis.

18. By meeting the LCR requirement, an IIFS is expected not only to be able to manage short-term liquidity risks, but also to absorb shocks arising from financial and economic stress, thus reducing the risk of contagion from the financial sector to the real economy. Therefore, the LCR is based on the assumption that a combined set of idiosyncratic and market-wide shocks may trigger the run-off of a proportion of retail deposits, including unrestricted profit-sharing investment accounts (UPSIA), and a partial loss of unsecured wholesale funding capacity. The LCR is also developed based on the possibility that stressed market conditions would result in a partial loss of secured, short-term financing with certain collateral and counterparties, and an increase in market volatilities that impact the quality and solvency of the collateral, given that many IIFS transactions are backed by physical assets. In volatile market conditions, IIFS may encounter additional contractual outflows and unscheduled drawdowns of committed but unused credit and liquidity facilities. Similarly, an IIFS could find itself compelled to honour non-contractual obligations for the sake of avoiding the reputational risk that would arise from a perception by the market that the IIFS was, for example, allowing a related entity to become insolvent.

19. Regardless of the potential of the LCR as a key component of the supervisory approach to monitoring liquidity risk, an IIFS still needs to ensure that other aspects of its liquidity risk management framework as addressed in IFSB-12 are well implemented. Supervisory authorities therefore need to conduct detailed assessments of the implementation of IFSB-12 in order to ensure that IIFS have robust processes for managing and mitigating liquidity risk. In due course, they should also see to the effective implementation of the NSFR.

2.1 Formula for Calculating LCR

20. The LCR consists of two components: HQLA (*Sharī`ah*-compliant for IIFS) as the numerator and net cash outflows as the denominator, both in a stress scenario. The HQLA are the assets that can be easily and immediately converted into cash, with no or little loss of value, during a time of stress. The total net cash outflows will be calculated as the total expected cash outflows minus total expected cash inflows in the specified stress scenario for the subsequent 30 calendar days. The formula for calculating LCR, therefore, is as follows:[3]

$$\text{LCR} = \frac{\text{Stock of } \textit{Sharī`ah}\text{-compliant HQLA}}{\text{Total net cash outflows over the next 30 calendar days}} \geq 100\%$$

[3] *Basel III: Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools*, January 2013.

21. Total expected cash inflows are calculated by multiplying the outstanding balances of various categories of contractual receivables by the rates at which they are expected to flow in under the specified scenario up to an aggregate cap of 75% of total expected cash outflows. There is a cap applied on total cash inflows in order to prevent IIFS from relying solely on anticipated inflows to meet their liquidity requirements, and also to ensure a minimum level of HQLA holdings. Accordingly, the amount of inflows that can offset outflows is capped at 75% of total expected cash outflows. Therefore, by applying this cap, the IIFS is required to hold a minimum amount of stock of HQLA equal to 25% of the total net cash outflows.

Total *net* cash outflows over the next 30 calendar days = Total *gross* expected cash outflows – Lesser of (total expected cash inflows; 75% of total expected cash outflows)

22. IIFS are required to maintain the LCR at a level no lower than that required by the supervisory authority in both normal and financial stress times. However, IIFS may, with approval from the relevant supervisory authority, draw on their stock of HQLA during stress conditions in order to minimise the negative impact of the crisis. After the market settles and the situation becomes normal, IIFS will need to replenish their stock of HQLA in order to meet the required level of LCR.

23. The LCR requirement is based on a scenario that entails a combination of idiosyncratic and market-wide shocks that would result in:

a. the run-off of a proportion of retail funding, including current accounts, unrestricted and restricted PSIA[4], and other accounts;

b. a partial loss of unsecured wholesale funding capacity;

c. a partial loss of secured, short-term financing with certain collateral and counterparties;

d. additional contractual outflows that would arise from a downgrade in the IIFS's public credit rating by up to and including three notches, including additional collateral posting requirements;

e. increases in market volatilities that impact the quality of collateral or potential future exposure of *Sharī`ah*-compliant hedging positions and thus require larger collateral haircuts or additional collateral, or lead to other liquidity needs;

f. unscheduled draws on committed but unused credit and liquidity facilities that the IIFS has provided to its customers; and

g. the potential need for the IIFS to buy back or honour contractual and non-contractual obligations for the purpose of mitigating reputational risk.

24. Nevertheless, IIFS should develop their own scenarios based on liquidity stress testing of their portfolio. (See IFSB-13 for further detail on liquidity stress testing[5]) IIFS should hold more HQLA if the results of their stress tests indicate that this is necessary. Such internal stress tests should incorporate longer time horizons than that mandated by this GN. IIFS are expected to share the results of these additional stress tests with supervisory authorities.

[4] Please refer to Paragraph 53 for the treatment of RPSIA.

[5] IFSB, IFSB-13: *Guiding Principles on Stress Testing for IIFS*, March 2012.

2.2 Components of HQLA

2.2.1 Definition of HQLA

25. HQLA, forming the numerator of the LCR formula, are to be determined on the basis of the eligibility criteria for different categories of HQLA and must be subject to the limits applicable to each category. These eligibility criteria for HQLA and composition limits are intended to ensure that an IIFS's HQLA stock provides it with the ability to generate liquidity in fairly short order, through sale or secured funding in a stress scenario. The HQLA are defined as assets unencumbered by liens and other restrictions on transfer which can be converted into cash easily and immediately, with little or no loss of value, including under the stress scenario. The assets are required to meet fundamental and market-related characteristics, particularly in terms of low risk, ease and certainty of valuation, and low volatility. HQLA should also be eligible for intraday and overnight liquidity facilities offered by the central bank or other authority. If supervisory authorities allow IIFS to recognise unlisted instruments as HQLA, they have to satisfy themselves that the assets are liquid and can be easily traded in an over-the-counter (OTC) market.

26. To be considered as HQLA, an asset should also have a low correlation with risky assets, an active and sizeable market, and low volatility. This requirement has to be fulfilled at all times, including during an underlying stress scenario. These factors should assist supervisory authorities to determine which assets qualify as HQLA. Supervisory authorities also should consider risk components of HQLA, such as liquidity risk, market risk, credit risk, foreign exchange risk, and legal and operational risk. For *Sharī`ah*-compliant assets, the risk of *Sharī`ah* non-compliance and associated reputational problems could significantly limit liquidity for these assets – both sale and interbank trading – in the secondary market.

27. HQLA (except Level 2B assets, as defined below) should ideally be accepted by central banks as eligible for use as collateral when seeking short- to medium-term liquidity facilities from them. Although the BCBS document states that such eligibility does not by itself constitute a basis for categorising an asset as HQLA, in view of the novelty of the *Sharī`ah*-compliant securities that may serve as HQLA, these are unlikely to have a well-established history of trading in liquid secondary markets (see paragraph 28(b) below). Accordingly, this GN proposes that central banks should consider according HQLA status to *Sharī`ah*-compliant securities that they accept as eligible collateral, up the limit of the liquidity facility that they would accord to the IIFS holding such securities on the basis of such collateral.

28. To meet the aforementioned requirements, the assets therefore must possess the following characteristics:

a) Fundamental characteristics

The assets should be low risk, as reflected in the high credit rating of the issuer or the instruments. The assets should be easy to value, have a homogeneous and relatively simple structure, and not be subject to wrong-way (highly correlated) risk. *Sharī`ah* compliance of the structure and contracts underlying the liquid assets is another critical criterion of HQLA for IIFS. Ideally, the asset should be listed on a national, regional or international stock exchange to ensure that sufficient information on pricing and trading is available to the public.

b) Market-related characteristics

The assets are expected to be liquefiable at any time. Thus, as far as possible, there should be historical evidence of market breadth and depth. This could be demonstrated by low bid–ask spreads, high trading volumes, and a large and diverse number of market participants. Availability of market-makers is another factor for consideration. The asset prices are expected to have

remained relatively stable and be less prone to sharp price declines over time, including during stress conditions.

Assets should be tested through sale or *Sharī`ah*-compliant alternatives of repurchase (repo[6]) transactions to ascertain whether the liquid assets meet the criteria of "high quality" and fulfil the fundamental and market-related characteristics mentioned above. It is required that the liquidity-generating capacity of HQLA remains unchanged in periods of severe idiosyncratic and market stress. Lower-quality assets typically fail to meet that test. It should be noted that, in severe market conditions, if IIFS attempt to raise liquidity from lower-quality assets, this will lead to significantly discounted prices. This may not only worsen the market's confidence in the IIFS but also may generate mark-to-market losses for its similar assets and put pressure on its liquidity position. In these conditions, market liquidity for lower-quality assets is likely to disappear quickly.

2.2.2 Categorisation of HQLA

2.2.2.1 Level 1 Assets

29. HQLA are divided into two main categories or levels: Level 1 and Level 2. Level 1 assets can constitute an unlimited share of the pool and are not normally subject to a haircut under the LCR.[7] Level 1 assets are limited to:

a. coins and banknotes;

b. central bank reserves (including required reserves), to the extent that the central bank policies allow them to be drawn down in times of stress;

c. *Sukūk* and other *Sharī`ah*-compliant marketable securities issued or guaranteed by sovereigns, central banks, public-sector entities (PSEs), multilateral development banks (MDBs) or relevant international organisations such as the International Islamic Liquidity Management Corporation (IILM)[8] which are assigned a 0% risk weight under IFSB-15;

d. *Sukūk* and other *Sharī`ah*-compliant marketable securities issued by sovereign or central banks that have a non-0% risk weight, but are issued in domestic currencies by the sovereign or central bank in the country in which the liquidity risk is being taken or in the IIFS's home jurisdiction; and

e. *Sukūk* and other *Sharī`ah*-compliant marketable securities issued by sovereign or central banks that have a non-0% risk weight, but are issued by a domestic sovereign or central bank as securities in foreign currencies up to the amount of the IIFS's stressed net cash outflows in that specific foreign currency stemming from its operations in the jurisdiction where the liquidity risk is being taken.[9]

---

[6] Some alternative structures of repos and securities borrowing used by IIFS are not widely accepted by *Sharī`ah* scholars. The LCR application on these instruments will thus be subject to the approval of the *Sharī`ah* board of the IIFS, and the *Sharī`ah* board at the national level, if applicable.

[7] National supervisory authorities may wish to require haircuts for Level 1 securities based on, among other things, their duration, credit and liquidity risk, and typical repo haircuts.

[8] IILM is an international institution established by central banks, monetary authorities and multilateral organisations to create and issue short-term *Sharī`ah*-compliant financial instruments to facilitate effective cross-border Islamic liquidity management. Its short-term *Sukūk* are currently denominated in USD.

[9] In jurisdictions where the currency is pegged to an international currency such as the US dollar (USD), *Sukūk* and other *Sharī`ah*-compliant securities issued in that international currency may also be included. See also the ALA treatment in paragraph 42.

Assets in categories (e) should be:

- traded in a market characterised by a low level of concentration; and
- able to be regarded as a reliable source of liquidity at all times.

2.2.2.2 Level 2A Assets

30. Level 2 assets compromise Level 2A and Level 2B assets as permitted by the supervisory authorities. Level 2A assets are limited to the following, subject to a 15% haircut applied to the current market value of each asset:

a. *Sharī`ah*-compliant marketable securities/*Sukūk* issued or guaranteed by sovereigns, central banks, PSEs, MDBs or relevant international organisations, which are assigned a 20% risk weight under IFSB-15;
b. *Sharī`ah*-compliant securities (including *Sharī`ah*-compliant commercial paper) and *Sukūk* that satisfy all of the following conditions:
    i) not issued by an IIFS/financial institution or any of its affiliated entities;
    ii) either: (a) have a long-term credit rating from a recognised external credit assessment institution (ECAI) of at least AA- or, in the absence of a long-term rating, a short-term rating equivalent in quality to the long-term rating; or (b) do not have a credit assessment by a recognised ECAI but are internally rated as having a probability of default corresponding to a credit rating of at least AA-.

These assets should be:

- traded in a market characterised by a low level of concentration; and
- able to be regarded as a reliable source of liquidity at all times (i.e. maximum decline of price not exceeding 10% or increase in haircut not exceeding 10 percentage points over a 30-day period during a relevant period of significant liquidity stress).

2.2.2.3 Level 2B Assets

31. The Level 2B assets are limited to the following:

a. *Sukūk* and other *Sharī`ah*-compliant securities backed by commodity(ies) and other real asset(s)[10] that satisfy all of the following conditions, subject to a 25% haircut:
    i) not issued by, and the underlying assets have not been originated by, the IIFS itself or any of its affiliated entities;
    ii) have a long-term credit rating from a recognised ECAI of AA or higher, or in the absence of a long-term rating, a short-term rating equivalent in quality to the long-term rating;
    iii) being traded in a market characterised by a low level of concentration and being regarded as a reliable source of liquidity at all times – that is, a maximum decline in price not exceeding 20% or an increase in a haircut over a 30-day period not exceeding 20 percentage points during a relevant period of significant liquidity stress; and
    iv) the underlying asset pool is restricted to *Sharī`ah*-compliant (residential) mortgages and cannot contain structured products.

[10] Thus, conventional mortgage backed securities (MBS) are not eligible as HQLA.

b. *Sukūk* and other *Sharī`ah*-compliant securities that satisfy all of the following conditions may be included in Level 2B, subject to a 50% haircut:
    i) not issued by a financial institution or any of its affiliated entities;
    ii) either: (a) have a long-term credit rating from a recognised ECAI of between A+ and BBB- or, in the absence of a long-term rating, a short-term rating equivalent in quality to the long-term rating; or (b) do not have a credit assessment by a recognised ECAI and are internally rated as having a probability of default corresponding to a credit rating of between A+ and BBB-; and
    iii) being traded in a market characterised by a low level of concentration and being regarded as a reliable source of liquidity at all times – that is, a maximum decline in price not exceeding 20% or an increase in a haircut over a 30-day period not exceeding 20 percentage points during a relevant period of significant liquidity stress.
c. *Sharī`ah*-compliant equity shares that satisfy all of the following conditions may be included in Level 2B, subject to a 50% haircut:
    i) not issued by a financial institution or any of its affiliated entities;
    ii) exchange traded and centrally cleared;
    iii) a constituent of the major stock index in the home jurisdiction or where the liquidity risk is taken, as decided by the supervisor in the jurisdiction where the index is located;
    iv) denominated in the domestic currency of an IIFS's home jurisdiction or in the currency of the jurisdiction where its liquidity risk is taken; and
    v) being traded in a capital market characterised by a low level of concentration and being regarded as a reliable source of liquidity at all times – that is, a maximum decline in share price not exceeding 40% or an increase in a haircut not exceeding 40 percentage points over a 30-day period during a relevant period of significant liquidity stress.
d. Other *Sharī`ah*-compliant instruments or *Sukūk* that are widely recognised in the home jurisdiction may be included in Level 2B, subject to a minimum 50% haircut if they meet the following conditions:
    i) not issued by a financial institution or any of its affiliated entities; and
    ii) being traded in a market characterised by a low level of concentration and being regarded as a reliable source of liquidity at all times.
e. *Sukūk* and other *Sharī`ah*-compliant marketable securities issued by sovereign or central banks rated BBB+ to BBB- that are not included in Level 1 assets may be included in Level 2B assets with a 50% haircut.

f. In addition, supervisory authorities may choose to include within Level 2B assets the undrawn value of any *Sharī`ah*-compliant committed liquidity facility (CLF) provided by a central bank where this has not already been included in HQLA in accordance with Option 1 in the alternative liquidity approaches (See paragraph 43 below). Such facility must be structured using a *Sharī`ah*-compliant contract in which fee or return is payable after using the facility, as a commitment fee payable in advance is not *Sharī`ah*-compliant. The RCLF must be supported by unencumbered collateral of a type specified by the central bank or other authority providing the facility. The collateral must be held in a form which supports immediate transfer to the central bank or other authority should the facility need to be drawn and be sufficient (post-haircut) to cover the total size of the facility. Collateral used to support an RCLF cannot simultaneously be used as part of HQLA.

32. A cap will be applicable to the use of Level 2 assets, up to 40%[11] of the total stock of HQLA, after the application of required haircuts. Specific to the Level 2B assets, the total assets under this category should comprise no more than 15%[12] of the total stock of HQLA after the application of required haircuts and must be included within the overall 40% cap on Level 2 assets. Supervisory authorities may apply different caps based on the availability of *Sharī`ah*-compliant instruments in respective jurisdictions.

2.2.3 Operational Considerations for HQLA

33. Assets meeting the fundamental and market-related characteristics cannot automatically be recognised as HQLA. The assets are subject to operational requirements that are designed to ensure that the stock of HQLA is managed in such a way that an IIFS can, and is able to demonstrate that it can, immediately use the stock of assets as a source of contingent funds that is available to the IIFS to convert into cash through *Sharī`ah*-compliant mechanisms – that is, outright sale or the use of *Sharī`ah*-compliant alternatives to repurchase (repo) transactions – to fill funding gaps between cash inflows and outflows at any time during the 30-day stress period, with no restriction on the use of the liquidity generated. IIFS may follow the internationally accepted operational requirements for the asset to be recognised as HQLA.[13] In particular:

a. All assets included in HQLA should meet the requirement to be unencumbered, which means free of legal, regulatory, contractual or other restrictions on the ability of the IIFS to liquidate, sell, transfer or assign the asset. The assets shall not be pledged (either explicitly or implicitly) to secure, collateralise or credit-enhance any transaction, or be designated to cover operational costs (such as rents and salaries). The assets cannot be re-hypothecated, and are legally and contractually available for the IIFS. In these circumstances, assets that have been utilised as underlying assets of *Sukūk* issued by the IIFS, and as underlying assets for other transactions with various counterparties including other IIFS, cannot be recognised as HQLA. However, assets which qualify for HQLA that have been pre-positioned or deposited with, or pledged to, the central bank or a PSE, but have not been used to generate liquidity, may be included in the stock.

b. The stock should be under the control of the IIFS's liquidity risk management function. One of the most effective ways of achieving this would be to segregate the HQLA from other assets with the sole intent to use HQLA as a source of liquidity. An IIFS should undertake the necessary initiatives to ensure the assets are accessible to the market, to minimise the risk that they cannot be transferred and liquidated during a period of actual stress. This requirement is important for, and must be observed by, IIFS with cross-border operations and investments. Assets in other jurisdictions can be recognised as HQLA only if they are freely available to the consolidated entity without any restrictions due to regulatory, legal, tax, accounting or other impediments, both during stress conditions and normal economic situations. To ensure the liquidity of the HQLA in a stress

[11] The calculation of the 40% cap on Level 2 assets should take into account the impact on the stock of HQLA of the amounts of Level 1 and Level 2 assets involved in secured funding, and some alternative structures of repo and securities borrowing transactions maturing within 30 calendar days. The maximum amount of adjusted Level 2 assets in the stock of HQLA is equal to two-thirds of the adjusted amount of Level 1 assets after haircuts have been applied. The calculation of the 40% cap on Level 2 assets will take into account any reduction in eligible Level 2B assets on account of the 15% cap on Level 2B assets.

[12] The calculation of the 15% cap on Level 2B assets should take into account the impact on the stock of HQLA of the amounts of HQLA assets involved in secured funding, and some alternative structures of repo and securities borrowing transactions maturing within 30 calendar days. The maximum amount of adjusted Level 2B assets in the stock of HQLA is equal to 15/85 of the sum of the adjusted amounts of Level 1 and Level 2 assets, or, in cases where the 40% cap is binding, up to a maximum of 1/4 of the adjusted amount of Level 1 assets, in both cases after haircuts have been applied.

[13] Paragraphs 28–43, *Basel III: Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools*, January 2013.

period, IIFS should periodically liquidate a sample of HQLA to test their access to the market, the effectiveness of their processes of liquidation, and the availability of the assets.

c. IIFS should mitigate market and rate of return risk associated with ownership of the stock of HQLA. The mitigation process or technique, however, is subject to the approval of the *Sharī`ah* board at the institutional and, if applicable, supervisor level. IIFS should also consider the impact of early settlement on the mitigation technique, if applicable, as well as other risks that may occur due to such transactions. If an IIFS chooses to mitigate some underlying risk by hedging it in a *Sharī`ah*-compliant manner, the IIFS must include in its total cash outflows those that would result from the termination of any specific hedging transaction against the HQLA.

d. Any surplus of HQLA held by a legal entity within a group can be included at the consolidated level only if those assets would also be freely available to the consolidated (parent) entity in times of stress. In the case of Islamic windows where the parent (conventional) entity is situated in another jurisdiction, the supervisory authority in whose jurisdiction the window is situated may need to apply the LCR to the window as though it were a separate legal entity, since the parent entity's HQLA are not necessarily available to it or, indeed, *Sharī`ah*-compliant.

e. An IIFS should develop and implement procedures, systems and controls that enable it to determine the stock of HQLA in terms of composition and various characteristics. Such procedures and systems enable the IIFS to:

    i) confirm the eligibility of HQLA for inclusion as a HQLA;

    ii) ensure that its HQLA are appropriately diversified across asset type, issuer, currency and other factors associated with liquidity risk;

    iii) identify the location of HQLA; and

    iv) confirm that the amounts of HQLA held in foreign markets are adequate to meet its LCR in those markets.

f. An IIFS should periodically monetise a representative proportion of the assets in its stock of HQLA through sale and *Sharī`ah*-compliant alternatives of repurchase (repo) transactions in order to test its access to the market, the effectiveness of its processes for liquidation and the availability of the assets,[14] and to minimise the risk of negative signalling during a period of actual stress. In some jurisdictions where *Sharī`ah*-compliant alternatives of repurchase (repo) transactions are not available, or where large, deep and active *Sharī`ah*-compliant alternatives of repurchase (repo) markets do not exist for eligible asset classes, such assets are likely to be monetised through outright sale. In these circumstances, an IIFS should exclude from the stock of HQLA those assets if there are impediments to sale which lead to large fire-sale discounts.

g. As stated in IFSB-12,[15] IIFS should actively manage their intraday liquidity, both during normal and stress times. However, IIFS and supervisory authorities should be aware that an LCR stress scenario as per paragraph 23 does not cover expected or unexpected intraday liquidity needs.

[14] That is, the assets are unencumbered.

[15] IFSB 12: Principle 13: *Irrespective of whether an IIFS uses a net or a gross payment and settlement system, it should be able to manage short-term (overnight and intraday) liquidity in order to meet on a timely basis its payment and settlement obligations in all circumstances. In view of the interdependencies and interconnectedness between payment and settlement systems, an IIFS should ensure that its critical payments are always made on a timely basis in order to avoid any potential systemic disruptions which could prevent the smooth functioning of other payment systems and money markets.*

2.2.4 Infrastructure Issues in the Availability of *Sharī`ah*-compliant HQLA

34. This GN acknowledges that it is difficult for IIFS to find liquid instruments that can meet the above definition and operational requirements (sections 2.2.1 and 2.2.3). According to the 2013 QIS and survey conducted by the IFSB, although a majority of IIFS were able to meet the minimum LCR requirements, HQLA of the IIFS were mainly composed of coins and banknotes as well as central bank reserves (including required reserves) to the extent that the central bank policies allow them to be drawn down in times of stress. In some cases, the HQLA were solely composed of these two categories. In some jurisdictions where an Islamic capital market is relatively well developed, IIFS may also hold *Sharī`ah*-compliant securities with a 0% risk credit risk weight, issued or guaranteed by the sovereign or by the central bank. However, the amount of such instruments in the total composition of HQLA is minimal due to the limited supply of *Sharī`ah*-compliant instruments and, most importantly, the low level of trading in these instruments even during normal market conditions.

35. A lack of HQLA that meet the stringent requirements of Level 1 and Level 2 assets is also being experienced by the conventional banking sector even in those countries with advanced financial services industries. However, there are some activities that conventional banks can perform to create liquid assets to meet the HQLA requirements – for example, collateralising both financial and non-financial assets, and undertaking repo transactions to generate liquidity. IIFS cannot collateralise financial assets (with the exception of *Sukūk*) or use conventional repo to generate liquidity. Similarly, *Sharī`ah*-compliant alternatives to repos are currently not widespread due to a number of operational and *Sharī`ah* compliance issues facing such transactions.

36. While some *Sharī`ah*-compliant instruments meet most of the fundamental characteristics of HQLA set out above, they may not fulfil the criteria with regard to market-related characteristics. IIFS tend to hold most of the instruments up to maturity. In addition, few jurisdictions have an active Islamic money market and capital market; thus, Basel III requirements for the instruments to be traded in a large, active and deep repo market are effectively difficult, if not impossible, to meet. Moreover, although some *Sharī`ah*-compliant assets may be less risky than many conventional instruments, such assets are as yet untested during stress conditions as very few jurisdictions in which Islamic finance has been widely developed have experienced a severe financial crisis in the past decade or so. Supervisory authorities, therefore, need to come up with their own guidance on the market-related characteristics of the *Sharī`ah*-compliant HQLA that is compatible with their jurisdiction-specific characteristics. In particular, attention is drawn to the proposal in paragraph 27 above to include within HQLA those instruments, such as the IILM *Sukūk,* which are accepted as eligible collateral for *Sharī`ah*-compliant liquidity facilities. For the same reasons, central banks should similarly exercise their discretion with respect to including such *Sukūk* in the list of *Sharī`ah*-compliant instruments considered as eligible collateral for liquidity facilities.

37. IIFS tend to have high holdings of liquid assets due to the absence of a reliable *Sharī`ah*-compliant lender of last resort (LOLR) facility that is key to meeting short-term obligations when there is a liquidity disruption. As IIFS continue to develop as an important part of the financial system in a number of jurisdictions, the establishment of a reliable *Sharī`ah*-compliant LOLR facility framework by the central bank or another authority is becoming crucial for the development of a more effective liquidity and crisis management framework for IIFS. LOLR facilities include a *Sharī`ah*-compliant collateralised financing facility, as well as emergency financing based on appropriate *Sharī`ah*-compliant contracts from a provider of LOLR.[16] Central banks should also evaluate, and where possible expand, the list of *Sharī`ah*-compliant

[16] For further study on this subject, refer to IFSB *Working Paper on Strengthening the Financial Safety Net: The Role of Sharī`ah-compliant Lender of Last Resort (SLOLR) Facilities as an Emergency Financing Mechanism*, April 2014.

HQLA considered eligible as collateral for the LOLR facility. *Sharī`ah*-compliant deposit insurance is another area which needs the attention of supervisory authorities to improve the "stability" of the deposits and UPSIA, and to reduce the risk of withdrawals on the occurrence of adverse idiosyncratic or systemic events.

2.2.5 ALA Treatments for IIFS

38. As is evident from the previous section, in most jurisdictions IIFS face a variety of problems in meeting the LCR requirement. Considering the fact that the Islamic finance sector in many jurisdictions is still in an early stage of development, such jurisdictions experience a lack of supply of *Sharī`ah*-compliant HQLA both at Level 1 and Level 2. Most Level 1 assets are non-income-generating HQLA, particularly coins and banknotes, as well as central bank reserves. Therefore, in order to meet the demand for *Sharī`ah*-compliant HQLA, particularly in domestic currency, supervisory authorities may apply the ALA treatments. However, such authorities shall allow IIFS to utilise the ALA treatments only when there is evidence of a true shortfall in HQLA in the domestic currency relative to the net cash outflows in that currency as per section 2.3.[17] To conclude that there is an insufficiency of HQLA in its jurisdiction, a supervisory authority should compile the following information:

a. supply of *Sharī`ah*-compliant HQLA: including breakdown by asset category and future prospects for the availability of HQLA;
b. market for *Sharī`ah*-compliant HQLA: nature of the market for the HQLA in primary and secondary markets and the constraints faced; and
c. demand for *Sharī`ah*-compliant HQLA by IIFS and other entities.

39. Based on the above, in order to apply the ALA treatment, supervisory authorities should evaluate and be able to demonstrate through public disclosure that there is an insufficient supply of HQLA in the domestic and other major currencies used by the IIFS in the jurisdiction, taking into account all relevant factors affecting the supply of, and demand for, such HQLA. Sufficient evidence should be available to confirm that the insufficiency cannot be resolved within the medium term and is caused by long-term structural constraints. Such constraints may relate to infrastructural issues in the capital and interbank market, fiscal policies, structure of the monetary system and operations, all resulting in an insufficient supply of *Sharī`ah*-compliant HQLA. Supervisory authorities should evaluate these constraints, analyse how they result in an insufficient supply of *Sharī`ah*-compliant HQLA, and evaluate the steps needed to be taken to tackle these constraints in the medium term (i.e. three to five years).

40. Moreover, supervisory authorities should ensure that they have the capacity, through any *Sharī`ah*-compliant mechanism or regulatory control in place, to limit or mitigate the risk that the ALA treatment cannot be effective. However, supervisory authorities need to disclose all relevant information with regard to the application of ALA treatments, based on international best practices.18

41. The business practices and reporting systems of the IIFS also need to be aligned to meet the operational requirements specified in section 2.2.3. For this purpose, supervisory authorities should collect reliable information on how ALA affect the availability of HQLA, and how various ALAs could help in remedying the insufficiency of *Sharī`ah*-compliant HQLA.

[17] Supervisory authorities may set their own criteria prior to applying the ALA treatment. At the international level, they can adopt a peer review function in line with the recommendation of BCBS.

[18] Supervisory authorities could also engage in independent peer reviews to check the eligibility of their jurisdiction for ALA treatment specific to the IFSI.

42. Supervisory authorities should be vigilant and be committed to supervisory monitoring, public disclosure, and periodic self-assessment and independent peer review in relation to liquidity risk management as outlined in IFSB-12 and this GN. Supervisory authorities should have a system to ensure that use of the ALA has the expected results. To achieve this, supervisory authorities should have a framework in place to provide guidance to IIFS on the parameters of the ALA and the corrective actions to be taken when the expected results are not achieved. The framework may include the level of use of the ALA options and their effectiveness as well as treatment of haircuts for assets included in Option 2 and 3. The monitoring approach followed by supervisory authorities could include off-site analysis of data submitted and on-site examination, if necessary.

43. The following three options are available to supervisory authorities under the ALA:

- ***Option 1: Contractual committed liquidity facilities from the relevant central bank, with a fee:***

  Option 1 would allow the IIFS to access contractual committed liquidity facilities from the relevant central bank or other authority for a fee or return in order to compensate for the shortfall in *Sharī`ah*-compliant HQLA in domestic and other major currencies used by the IIFS. The facility can be constructed by using a *Wakālah*, *Muḍārabah* or Commodity *Murābahah* Transactions (CMT) contract, or any other or a combination of various *Sharī`ah*-compliant contracts. Against the use of such facilities, the IIFS pays a fixed fee, a profit share or a mark-up to the central bank, as appropriate. These facilities shall be differentiated from regular central bank standing arrangements and shall have a maturity date which, at a minimum, falls outside the 30-day LCR window and must be irrevocable prior to maturity and involve no ex-post financing decision by the central bank.

- ***Option 2: Foreign currency HQLA to cover domestic currency liquidity needs:***

  Option 2 would allow IIFS to hold HQLA in a currency that does not match the currency of the associated liquidity risk if there is a shortfall of HQLA in the domestic currency. For this option, the IIFS can hold *Sukūk* and other *Sharī`ah*-compliant securities issued in foreign currencies that fall under categories of Level 1 and Level 2 assets. *Sukūk* issued by MDBs, as well as other international Islamic infrastructure institutions such as the Islamic Development Bank (IDB) and the IILM fall under this category, which fulfils the conditions mentioned in section 2.2.2.

  Supervisory authorities and IIFS, however, shall take into account the exposure of the IIFS to foreign exchange risk due to holding these instruments. Therefore, to account for foreign exchange risk associated with foreign currency HQLA used to cover liquidity needs in the domestic currency, such liquid assets should be subject to a minimum haircut of 8% for major currencies that are active in global foreign exchange markets. For other currencies, jurisdictions should increase the haircut to an appropriate level on the basis of historical (monthly) exchange rate volatilities between the currency pair over an extended period of time. If the domestic currency is formally pegged to another currency under an effective mechanism, the haircut for the pegged currency can be lowered to a level that reflects the limited exchange rate risk under the peg arrangement.

  Supervisory authorities, at their discretion, may waive the 8% haircut on foreign currency if the mismatches are within the foreign currency exposure limit stipulated by the IIFS. Alternatively, supervisory authorities may apply a haircut only to that portion of the foreign currency HQLA that exceeds a certain threshold – for example, the portion greater than 25% of the foreign currency exposure limit. This is in order to accommodate a certain level of currency mismatches.

- ***Option 3: Additional use of Level 2 assets with a higher haircut:***

  Option 3 is available for jurisdictions where there are insufficient Level 1 assets, as determined through a supervisory liquidity review process (SLRP), but where there are sufficient Level 2A assets. IIFS are, however, allowed to hold additional Level 2A assets within the 40% cap of total HQLA. The additional level 2A assets would be subject to a minimum haircut of 20%. Any Level 2B assets held by the IIFS would remain subject to the cap of 15%, regardless of the amount of other Level 2 assets held. Supervisory authorities have to evaluate whether the additional haircut is sufficient for Level 2A assets beyond the 40% cap. The higher haircut is used to cover any additional price and market liquidity risks arising from increased holdings of Level 2A assets and to provide a disincentive for IIFS to use this option based on yield considerations.

44. Supervisory authorities should apply a limit to the usage of ALA. The limit should be expressed in terms of the maximum amount of HQLA associated with the use of the options (whether individually or in combination) that an IIFS is permitted to include in its LCR, as a percentage of the total amount of HQLA. The maximum usage of the options is, of course, further constrained by the IIFS's actual shortfall of HQLA in the currency concerned.

45. Supervisory authorities shall decide the limit on the usage of these options based on real demand to meet minimum level of HQLA only. The authorities may cooperate with other national supervisory authorities or international organisations to conduct a peer review process to scrutinise the appropriateness of the maximum level of usage of the options allowed by a supervisor. The supervisor should explain how this level is derived, and justify why this is supported by the insufficiency of HQLA in the banking system. Supervisory authorities shall also observe international best practices, particularly principles of applying the ALA treatments as highlighted by the BCBS.[19] Supervisory authorities may be involved in the independent peer review process to determine the appropriateness of the maximum level of usage of the options in comparison with other peer jurisdictions.

2.2.6 Diversification of the Stock of HQLA

46. The stock of HQLA should be well diversified within the asset classes (except for instruments issued by the sovereign of the IIFS's home jurisdiction or from the jurisdiction in which the IIFS operates, central bank reserves, central bank securities and cash). IIFS should therefore have policies and limits in place in order to avoid concentration with respect to asset types, issue and issuer types, and currency (consistent with the distribution of net cash outflows by currency) within asset classes.

2.3 Components of Total Net Cash Outflows

47. The term "total net cash outflows" is defined as the total expected cash outflows minus total expected cash inflows in the specified stress scenario for the subsequent 30 calendar days. Total expected cash outflows are calculated by multiplying the outstanding balances of various categories or types of liabilities and PSIA, and OBS commitments by the rates at which they are expected to run off or be drawn down.

[19] Refer to Annex 2: "Principles for Assessing Eligibility for Alternative Liquidity Approaches (ALA)" and Annex 3: "Guidance on Standards Governing Banks' Usage of the Options for Alternative Liquidity Approaches (ALA)" under LCR, *Basel III: Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools*, January 2013.

48. Total expected cash inflows are calculated by multiplying the outstanding balances of various categories of contractual receivables by the rates at which they are expected to flow in under the scenario up to an aggregate cap of 75% of total expected cash outflows.

49. While most run-off and draw-down rates, and similar factors, are harmonised across jurisdictions as outlined in this GN, a few parameters are to be determined by supervisory authorities at the national level. The parameters should be transparent and made publicly available. Supervisory authorities may apply different run-off and draw-down rates based on results of stress testing to the IIFS' portfolio. If such data are not available, the rates mentioned in this document are the minimum rates that shall be applied by the supervisory authorities.

50. To avoid double counting, for assets that are included as part of the stock of HQLA (i.e. the numerator of the LCR), the associated cash inflows cannot also be counted as cash inflows in calculating net cash outflows. Therefore, instruments that are utilised for intraday liquidity facilities must be excluded from the components of HQLA. Obligations arising from the assets will remain recorded as components of total net cash outflows.

2.3.1 Cash Outflows

51. IIFS shall calculate total cash outflows based on the categories of cash outflows as listed below. Each category consists of various types of liabilities or PSIA, which have their own run-off factors tied to their behavioural characteristics. Supervisory authorities, however, may apply different run-off factors for various components, should the behavioural characteristics of these liability and PSIA components so suggest. This application should be supported by proper monitoring and calibration of the data over a sufficiently long period of time (i.e. behavioural data over a period of at least five years).

2.3.1.1 Treatment of PSIA

52. Income-earning deposits with IIFS, whether retail or wholesale, typically take the form of PSIA, which are categorised as follows:

a. Restricted PSIA (RPSIA), in respect of which the usage of the funds by the IIFS is subject to investment criteria specified by the IIFS in the *Muḍārabah* or *Wakālah* contract, or agreed upon between the investment account holders (IAH) and the IIFS at the time of contracting. The IAH share in the returns and bear the risks of a specific class of assets or a specified type of asset portfolio, as agreed with the restricted IAH, and there is typically no commingling of IIFS funds and IAH funds. RPSIA are normally reported off-balance sheet in financial statements.
b. Unrestricted PSIA (UPSIA), in respect of which the IIFS has full discretion in making investment decisions, and the IAH funds may be used "commingled" in an asset pool in which shareholders' and current account holders' funds (which are guaranteed by the IIFS) are also invested. UPSIA are expected to share in the overall risks of the jointly funded investments made by the IIFS, as reflected in the volatility of overall returns from investments made with a proportion of UPSIA funds and proportions of shareholders' and current account holders' funds that have been commingled. UPSIA are normally reported on-balance sheet in financial statements.

53. The applicable run-off factor for PSIA depends on the withdrawal rights of the IAH and whether they are retail or wholesale accounts, as indicated in paragraphs 56–70 below. Whether the PSIA are reported on- or off-balance sheet is not relevant. In the case of RPSIA, IAH may or may not have the right

to withdraw funds before the contractual maturity date. For RPSIA with no withdrawal rights prior to maturity, the IIFS managing the RPSIA is not exposed to run-off for LCR purposes, unless the contract maturity date falls within the next 30 days. Alternatively, IAH may have withdrawal rights subject to giving at least 30 days' notice. In this case, also, the IIFS managing these RPSIA is not exposed to run-off from them for LCR purposes (except for those accounts for which notice of withdrawal has been given and the withdrawal date falls within the next 30 days, or those which mature within the next 30 days). Only in the case of RPSIA from which the IAH may withdraw funds at less than 30 days' notice without any "significant reduction of profit"[20] is the IIFS exposed to run-off for LCR purposes. To be "significant", a reduction of profit must be considerably more than a mere loss of accrued income. Where an IIFS offers such RPSIA, it would be expected to retain a proportion of HQLA in the relevant RPSIA fund in order to meet withdrawals, in which case the HQLA would be netted off the amount of the run-off in calculating the total net cash outflows. However, it should be noted that if an IIFS has voluntarily waived such restrictions and permitted withdrawals to be made at short notice (i.e. less than 30 days) without any significant reduction of profit, such restrictions will have to be ignored subsequently in determining the applicable run-off factor. The run-off factor applied to the RPSIA is based on the aforementioned minimum ratios in paragraphs 52–69 or on historical or experimental studies of the behavioural characteristics of RPSIA. Where the funds of RPSIA are invested in assets with a liquid secondary market, such that under normal conditions the assets may be monetised rapidly in time to meet a demand for withdrawal, there is a risk that under stressed conditions it may not be possible to monetise the assets so readily. Hence, there is a potential exposure to a (net) run-off for LCR purposes. The amount of the run-off for LCR purposes should therefore be reduced only in respect of cash and HQLA held in the RPSIA fund.

54. For UPSIA, in some cases withdrawals will be permitted either on demand or at less than 30 days' notice, and the supervisory authority will need to apply the appropriate run-off factor as set out below. The run-off factor applied to UPSIA again depends on the contractual withdrawal rights of the IAH.[21]

55. In some jurisdictions PSIA may be offered on a *Wakālah* basis such that the IIFS acts as the agent in charge of funds. As the agent, the IIFS (*Wakīl*) manages and invests funds in *Sharī`ah*-compliant investment activities. In some cases, the *Wakālah* contract states that the IIFS as *Wakīl* is to deliver an "expected rate of return", and the IIFS indicates the expected rate to the IAH with an agreed period of investment. In such cases, in the event that the actual profit is higher than the expected profit, the IAH will have agreed that the difference between the actual profit and expected profit shall be retained by the IIFS as a performance fee. In the event that the actual profit is lower than the expected profit, the IIFS is only obliged to pay the actual profit to the IAH. In both cases the IIFS as a Wakil has the right to the fees as specified in the contract. In other cases, the IIFS passes all profits or losses to the IAH, but charges a fee for its services. Similarly to the *Muḍārabah* principle, the IIFS is only liable for losses of invested funds in the event of misconduct, negligence or breach of contract by the *Wakīl*. Run-off rates for *Wakālah*-based PSIA are again based on the contractual withdrawal rights of the IAH, as indicated above.

[20] In the Basel document, the term "significant penalty" is used to refer to any amount charged to the customer that is materially greater than the loss of interest in case of early withdrawal. In the case of RPSIA, premature withdrawal of funds by an RPSIA holder is likely to require the IIFS to realise assets at less than their carrying value. Any losses and other costs of so doing, properly determined, would be borne by the RPSIA holder in addition to loss of accrued income.

[21] The amounts to be withdrawn from PSIA may be less than the amounts deposited in case of losses. The situation described in footnote 20 could also apply to UPSIA.

2.3.1.2 Retail Deposits and PSIA

56. The retail deposits[22] and PSIA are composed of funds placed with an IIFS by a natural person. As set out in the explanation of Principle 4 in IFSB-12 (paragraphs 42–51), IIFS offer various types of accounts for generating funds, including current accounts, saving accounts, UPSIA and RPSIA, etc. Recently, some IIFS have also started seeking funds on the basis of *Murābahah* accounts from their customers. While the underlying contracts, their distinguishing characteristics and liquidity risk associated with various types of accounts are available in detail in IFSB-12, it may be noted that deposits from legal entities, sole proprietorships or partnerships are captured in wholesale deposit categories.

57. The retail deposits and PSIA are further divided into "stable" and "less stable" categories. "Stable" funds are collected from fund providers that have an established relationship with the IIFS that make withdrawal highly unlikely or where the deposit/PSIA is in transactional accounts. These accounts are fully insured by a *Sharī`ah*-compliant deposit insurance scheme that meets the criteria of an "effective" deposit insurance scheme[23] or by an explicit and legally binding public guarantee that provides equivalent protection. An effective deposit insurance scheme enables prompt payouts to the account holders, with a clearly defined coverage amount and timeline for payment and a high level of public awareness. The *Sharī`ah*-compliant deposit insurer has formal legal powers to fulfil its mandate and is operationally independent, transparent and accountable. A 5% run-off factor is assigned to cash outflows paid to these types of accounts.[24]

58. A jurisdiction can apply the 3% run-off factor if, in addition to the above stable deposit criteria, they meet the following criteria for *Sharī`ah*-compliant deposit insurance schemes:

a. the *Sharī`ah*-compliant deposit insurance scheme is based on a system of prefunding via the periodic collection of contributions from IIFS against insured deposits and PSIA*;*
b. the scheme has adequate means of ensuring ready access to additional funding in the event of a large call on its reserves (e.g. an explicit and legally binding guarantee from the government, or a standing authority to receive *Sharī`ah*-compliant financial support from the government); and
c. access to insured deposits or PSIA is available to fund providers in a short period of time once the *Sharī`ah*-compliant deposit insurance scheme is triggered.[25]

59. The deposits or PSIA not falling in the above category of stable accounts will be considered as "less stable" accounts. Supervisory authorities may further split this type of account into additional categories based on their risk profile and should assign different run-off rates for each category, with a minimum run-off rate of 10%. In particular, retail PSIA in IIFS which do not practise "smoothing" of profit payouts to the IAH – for example, by using reserves such as profit equalisation reserve and investment risk reserve (see IFSB GN-3) - should receive a higher run-off rate as they are likely to be less stable.

60. If no *Sharī`ah*-compliant deposit insurance scheme is available in the jurisdiction, or the supervisory authority is not able to readily identify which retail accounts would qualify for the "stable" category according

[22] In some jurisdictions, the term "deposits" implies capital certainty, but in this GN, the term is used in a generic sense and no capital certainty is implied. Whether there is capital certainty or not is a matter for the underlying *Sharī`ah*-compliant contract.

[23] Paragraph 76, *Basel III: Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools*, January 2013.

[24] Only the amount that is fully covered can be treated as stable. The rest of the amount beyond the coverage of the deposit insurance scheme is treated as less stable.

[25] This period of time would typically be expected to be no more than seven business days.

to the above definition, the account shall be recognised as falling into the "less stable" category.[26] Foreign currency retail accounts that are denominated in any other currency than the domestic currency in the home jurisdiction would also fall into the "less stable" category. Supervisory authorities shall determine the run-off factor that IIFS in their jurisdiction should use for foreign currency accounts, taking into account the factors influencing the volatility of foreign currency accounts, including the type and sophistication of the fund providers and the characteristics of such accounts.

61. IIFS may exclude cash flows from retail term accounts with a residual maturity or withdrawal notice period of greater than 30 days if the fund provider has no legal right to withdraw deposits within the 30-day horizon of the LCR, or if early withdrawal results in a significant reduction of profit that is materially greater than the expected profit for the period. A run-off rate of 0% is applied to this type of term account. Supervisory authorities have discretion to apply a higher run-off rate if it is expected that account holders would withdraw their term accounts in a similar fashion as retail current account holders during either normal or stress times. If an IIFS allows an account holder to withdraw such funds without applying the corresponding reduction of profit, despite a clause that says the account holder has no legal right to withdraw, the entire category of these funds regardless of the remaining term would be subject to the run-off rates as mentioned in paragraphs 58–60. Supervisory authorities should define the circumstances that provide a legal right to the account holder to withdraw the funds from their accounts before the expiry of the 30-day period without any significant reduction of profit and clearly separate the circumstances that are excluded from the calculation of cash outflows.

2.3.1.3 Unsecured Wholesale Funding

62. Unsecured wholesale funding is defined as those liabilities and general obligations of the IIFS that are raised from non-natural persons such as legal entities, including sole proprietorships and partnerships and are not collateralised by legal rights to specifically designated assets owned by the funding institution in the case of bankruptcy, insolvency, liquidation or resolution. The wholesale funding included in the LCR includes funding that is callable within the LCR's horizon of 30 days or that has its earliest possible contractual maturity date situated within this horizon, as well as funding with an undetermined maturity. Wholesale funding that is callable by the funds provider subject to a contractually defined and binding notice period surpassing the 30-day horizon is not included.

63. The outflows to unsecured wholesale funding are further categorised into five categories. First are current and term accounts (less than 30 days' maturity) provided by small business customers. As with the categorisation of retail deposits, these types of current and term accounts are further divided into stable and less stable deposits. Treatment of the current and term accounts provided by small business customers is also similar to the treatment of the retail deposits. Stable deposits are assigned a 5% run-off factor, while less stable deposits are assigned run-off factors based on the different buckets that are determined according to the risk profiles of each group, with a minimum run-off factor of 10%. As indicated in paragraph 59 above, in the case of IIFS that do not practise "smoothing" of profit payouts to IAH, a higher run-off factor should be applied. Categorisation of the buckets and their run-off factors shall be similar to that of the buckets of less stable current and term accounts in the retail category.

[26] This GN acknowledges the lack of a *Sharī`ah*-compliant deposit insurance scheme in many jurisdictions, while acknowledging that many jurisdictions apply a conventional deposit insurance scheme to *Sharī`ah*-compliant accounts. However, supervisory authorities have to consider the potential *Sharī`ah* non-compliance risk associated with this practice. Therefore, a higher run-off factor could be applicable on such accounts.

64. The second category is operational accounts generated by clearing, custody and cash management activities.[27] These deposits are defined as deposits placed by financial and non-financial customers in order to facilitate their access to and ability to use payment and settlement systems and otherwise make payments. These funds are assigned a 25% run-off factor. However, this factor is only applicable if the customer has a substantive dependency on the IIFS and the deposit required for such activities, and meets the international definition and qualifying criteria for funds to be recognised as operational accounts. The portion of the operational accounts generated by clearing, custody and cash management activities that is fully covered by *Sharī`ah*-compliant deposit insurance can receive the same treatment as "stable" retail deposits/PSIA.

65. In order to ensure consistent and effective implementation of operational accounts, the following criteria are outlined for determining the eligibility of any account as an operational account:

a. used for providing cash management, custody or clearing products only;

b. must be provided under a legally binding agreement to institutional customers;

c. termination of these accounts shall be subject to either a notice period of at least 30 days or a significant reduction of profit for closing these accounts; and

d. returns on these accounts are determined without giving any economic incentive to the customer to leave any excess funds in the accounts.

66. Any excess balances that could be withdrawn and would still leave enough funds to fulfil the clearing, custody and cash management activities do not qualify for the 25% factor. In other words, only that part of the deposit balance with the service provider that is proven to serve a customer's operational needs can qualify as stable. Excess balances should be treated in the appropriate category for non-operational accounts. If the IIFS is unable to determine the amount of the excess balance, then the entire deposit should be assumed to be excess to requirements and, therefore, considered non-operational. The IIFS must determine the methodology for identifying excess deposits that are excluded from this treatment. This assessment should be conducted at a sufficiently granular level to adequately assess the risk of withdrawal in an idiosyncratic stress scenario.

67. The third category includes funds from an institutional network of cooperative IIFS. In some jurisdictions, there are IIFS that act as "central institutions" or central service providers for lower-tier IIFS, such as Islamic cooperatives. A 25% run-off rate can be applied by such an IIFS to the amount of deposits member institutions place with it as their central institution or specialised central service provider that are placed (a) due to statutory minimum deposit requirements, and which are registered at regulatory authorities, or (b) in the context of common task-sharing and legal, statutory or contractual arrangements. As with other operational accounts, these deposits would receive a 0% inflow assumption for the IIFS. Supervisory approval would be needed in each case to ensure that IIFS utilising this treatment actually are the central institutions or central service providers (e.g. to a cooperative network).

68. The fourth category is unsecured wholesale funding provided by non-financial corporates and sovereigns, central banks, MDBs and PSEs. If the entire amount of such funding is covered by a *Sharī`ah*-

[27] Some examples of activities that may generate operational accounts are: transmission; reconciliation; confirmation of payment orders; settlement of securities transactions; transfer of contractual payments; the processing of collateral; the provision of custody related cash management services; asset and corporate trust servicing; treasury, escrow, funds transfer, stock transfer and agency services; payroll administration and control over the disbursement of funds. The activities categorised as operational accounts are described in detail in paragraphs 100–103 of *Basel III: Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools,* January 2013 which are applicable to IIFS subject to *Sharī`ah* approval

compliant, effective deposit insurance scheme, a run-off factor of 20% may be assigned to funds from these sources. Otherwise, a 40% run-off factor is applicable to funds from such sources that are not specifically held for operational purposes.

69. The last category is "other entities". This category consists of all deposits and funding from other institutions including, among others, banks, IIFS, securities firms, insurance or Islamic insurance (*Takāful*) companies, etc., fiduciaries and beneficiaries, conduits and special purpose vehicles, affiliated entities of the IIFS, and any other entities that are not specifically held for operational purposes and are not included in the prior categories. The run-off factor for these funds is 100%.

70. Supervisory authorities may, however, assign different run-off rates if these are supported by a detailed study and analysis of the behaviour of the wholesale funds. A supervisory authority may also choose not to permit IIFS to utilise the operational accounts run-off rates in cases where concentration risk exists – for example, where a significant proportion of operational accounts is provided by a small number of customers.

2.3.1.4 Secured Funds

71. Secured funding is defined as liabilities and general obligations with maturities of less than 30 days that are collateralised by legal rights to specifically designated assets owned by the counterparty in the case of bankruptcy, insolvency, liquidation or resolution. Various run-off factors are assigned to these funds, depending on the type of collateral. The secured funding transactions with a central bank counterparty or backed by Level 1 assets with any counterparty are assigned a 0% run-off factor. A 15% run-off factor is assigned to secured funding transactions backed by Level 2A assets with any counterparty.

72. Higher run-off factors are assigned to secured funding not backed by Level 1 or Level 2A assets. Secured funding transactions backed by assets that are neither Level 1 nor Level 2A, with domestic sovereign, MDBs or domestic PSEs as a counterparty, as well as secured funding backed by commodity or real assets eligible for inclusion in Level 2B, may receive 25% run-off factors. On the other hand, secured funding backed by other Level 2B assets and all other secured funding transactions that do not fall within the above categorisations shall be assigned 50% and 100% run-off factors, respectively.

73. For all other maturing transactions, the run-off factor is 100%, including transactions where an IIFS has met customers' short positions with its own long inventory. Table 2.1 summarises the applicable standards.

Table 2.1: Amount to Add to Cash Outflows

Categories for outstanding maturing secured funding transactions	Amount to add to cash outflows
• Backed by Level 1 assets or with central banks	0%
• Backed by Level 2A assets	15%
• Secured funding transactions with domestic sovereign, PSEs or MDBs that are not backed by Level 1 or 2A assets. PSEs	25%

that receive this treatment are limited to those that have a risk weight of 20% or lower. • Backed by *Sharī`ah*-compliant residential mortgage-backed securities (RMBS)[28] eligible for inclusion in Level 2B	
• Backed by other Level 2B assets	50%
• All others	100%

2.3.1.5 Additional Requirements

74. Sources of funds from instruments other than the aforementioned are categorised into additional requirements. As not many instruments under this category have been widely utilised by IIFS at the national or global levels, data are not widely available on the behaviour of such instruments. If any jurisdictions have some *Sharī`ah*-compliant instruments available in this category, supervisory authorities should study the related data and assign run-off rates based on the calibration.

75. Some instruments under this category could include *Sharī`ah*-compliant hedging (*Tahawwut*) instruments, which are assigned a 100% run-off factor; undrawn credit and liquidity facilities to retail and small business customers, which are assigned a 5% run-off factor; undrawn financing facilities to non-financial corporates as well as sovereigns, central banks, PSEs and MDBs, which are assigned a 10% run-off factor for credit and a 30% run-off factor for liquidity; as well as other contractual obligations extended to financial institutions/IIFS, which are assigned a 100% run-off factor.

76. Trade finance-related obligations – including *Sharī`ah*-compliant guarantees and letters of credit, that fall under other contingent funding obligations – are also commonly used by IIFS. If revocable, this category shall receive a 0% run-off factor. If irrevocable, a 5% or lower run-off factor is applicable.

2.3.1.6 CMT-based Deposits

77. Some IIFS offer deposits based on commodity *Murābahah* transactions (CMT), in which the IIFS purchases a commodity from a customer (depositor) through a Reverse *Murābahah* transaction on a deferred payment basis and then sells it for cash. If the remaining term of the Reverse *Murābahah* does not exceed 30 days, then the following run-off factors should be applied to the balance of the Reverse *Murābahah* payable:

a. Retail and small business deposits: 20%

b. Non-financial corporates (other than small businesses) and sovereigns, central banks, MDBs and PSEs when the deposits are not held for operational purposes: 40% unless entirely covered by an effective *Sharī`ah*-compliant deposit insurance scheme or guarantee, in which case the run-off factor is 20%

c. Financial institutions, fiduciaries, beneficiaries, SPVs and affiliated entities, when the deposits are not held for operational purposes: 100%

[28] Examples of *Sharī`ah*-compliant RMBS are certain *Sukūk* based on *Ijārah Muntahia Bittamlīk.*

78. If the remaining term exceeds 30 days but the IIFS allows early withdrawal at its discretion of the original amount with no mark-up, then the applicable run-off factor will be the same as that for the relevant category of deposits or PSIA, as set out in section 2.3.1.1 above.[29]

2.3.1.7 Sharī`ah-compliant Interbank Contracts

79. The instruments traded in the conventional interbank market are usually short-term and liquid in nature, and their maturities range from one day up to a year. The trading is wholesale and mostly conducted over the counter. An Islamic interbank money market would essentially perform similar functions with the exception that the instruments used must comply with *Sharī`ah* principles. Widely used *Sharī`ah*-compliant instruments used by IIFS for interbank liquidity management are based on *Muḍārabah,* commodity *Murābahah or Wakālah* arrangements. All these contracts are structured as unsecured wholesale funding (see section 2.3.1.3). The run-off rate applied to these transactions, maturing in the next 30 calendar days, is 100%.*Sharī`ah*-compliant funding of Islamic banking windows of conventional banks from their headquarters do not exhibit a high risk of withdrawal even under stressed conditions. Supervisory authorities may reduce the run-off factor on such funding to not more than 50%. In case any such transaction is secured by *Sharī`ah*-compliant assets, such as a collateralised commodity *Murābahah* transaction, the run-off rate will be based on the type of underlying asset as specified in section 2.3.1.4. It may be the case that such transactions result in both asset and liability positions being held with the same counterparty, in which case the run-off rate would apply only to the net asset position, if any.

2.3.2 Cash Inflows

80. IIFS should adopt the international definition of cash inflows for LCR set by the BCBS in calculating cash inflows of IIFS.[30] When considering its cash inflows, an IIFS should include only contractual inflows from outstanding exposures that are fully performing and for which the IIFS has no reason to expect a default within the 30-day time horizon. Contingent inflows (such as returns on profit-sharing instruments) are not included in total net cash inflows. IIFS and supervisors need to monitor the concentration of expected inflows across wholesale counterparties, and supervisors may set a limit on contractual inflows by counterparty to reduce concentration risk which may impact an IIFS's liquidity position during stress conditions. In order to prevent IIFS from placing too much reliance on expected inflows to meet their liquidity requirement, and to ensure a minimum level of HQLA holdings, the amount of inflows that can offset outflows is capped at 75% of total expected cash outflows as defined in this GN.

81. The first category of cash inflows is secured financing, including *Sharī`ah*-compliant alternatives to reverse repos and securities borrowing. Unless supervisory authorities have strong evidence otherwise, the run-off rates mentioned in the following can be applied.

82. IIFS should assume that the maturity of financing secured by Level 1 assets will be rolled over and will not give rise to any cash inflows. Therefore, an inflow factor of 0% will be applied to this kind of transaction. Maturing financing secured by Level 2 assets will lead to cash inflows equivalent to the relevant haircut for the specific assets. For instance, a 15% inflow factor is assigned if the transaction is secured by Level 2A assets; and an inflow factor of 25–50% is assigned if it is secured by Level 2B assets. An IIFS is assumed not to roll over maturing secured financing covered by non-HQLA assets, and can assume that it will receive back 100% of the cash related to those agreements (i.e. an inflow factor of 100%).

[29] See the IFSB's GN 2: *Guidance Note in Connection with the Risk Management and Capital Adequacy Standards: Commodity Murābahah Transactions*, December 2010.
[30] Paragraphs 145–160: *Basel III: Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools*, January 2013.

83. The second category of IIFS cash inflows is committed facilities. No financing facilities, liquidity facilities or other contingent funding facilities that the IIFS holds at other institutions for its own purposes will be assumed to be drawn. Such facilities receive a 0% inflow rate, meaning that this scenario does not consider inflows from committed financing or liquidity facilities. This is intended to reduce contagion risk, where liquidity shortages at one IIFS cause shortages at other IIFSs, and to reflect the risk that other IIFSs may not be in a position to honour financing facilities, or may decide to incur the legal and reputational risk involved in not honouring the commitment in order to conserve their own liquidity or reduce their exposure to that IIFS.

84. The third category of cash inflows is inflows from various counterparties, for which the inflow rate is determined by the type of counterparty. This category of inflows takes into account cash inflows from either secured or unsecured transactions from various counterparties, which are categorised as: (a) retail customers and small business customers and (b) wholesale inflows, including non-financial corporates, central banks, as well as financial institutions/IIFS and other entities. The inflow rate will be determined based on the type of counterparty. Non-financial wholesale counterparties, as well as retail customers, may be assigned a 50% inflow factor, while financial institutions/IIFS and central bank counterparties may be assigned a 100% inflow factor.

85. Inflows from financing that have no specific maturity (i.e. have undefined or open maturity) should not be included. Therefore, no assumptions should be applied as to when maturity of such financing would occur. An exception to this would be minimum payments of principal, fee or profit associated with an open maturity financing, provided that such payments are contractually due within 30 days. These minimum payment amounts should be captured as inflows, at the rates prescribed in paragraph 82, to these transactions.

86. Inflows from securities maturing within 30 days that are not included in the stock of HQLA should be placed in the same category as inflows from financial institutions (i.e. 100% inflow). IIFS may also recognise in this category inflows from the release of balances held in segregated accounts in accordance with regulatory requirements for the protection of customer trading assets, provided that these segregated balances are maintained in HQLA. These inflows should be calculated in line with the treatment of other related outflows and inflows covered in this GN. Level 1 and Level 2 securities maturing within 30 days should be included in the stock of HQLA rather than being counted as inflows, provided that they meet all operational and definitional requirements, as laid out in sections 2.2.1 and 2.2.3.

87. Deposits held at other IIFS for operational purposes which fall under the category of operational accounts are assumed to stay at the counterparties. Thus, no inflows can be counted for these funds (0% inflow rate). The same treatment applies for deposits held at the centralised institution in a cooperative banking network, as such funds are assumed to stay at the centralised institution.

88. The last category is other cash inflows – that is, inflows that are not categorised under the above categories. This category includes *Sharī`ah*-compliant hedging to which an inflow rate of 100% is assigned. On the other hand, national discretion is applied to other contractual cash inflows. Inflow percentages should be determined as appropriate for each type of inflow by supervisory authorities in each jurisdiction. Cash inflows related to non-financial revenues, however, are not taken into account in the calculation of the net cash outflows for the purposes of the LCR.

Section 3: Application of the NSFR in IIFS

89. The NSFR is the second quantitative global standard introduced by the BCBS with the intention of promoting more stable funding of the assets and activities of banking institutions. As such, the NSFR is applicable to IIFS. The purpose of the NSFR is to promote resilience over a longer time horizon than the LCR by creating additional incentives for institutions to fund their activities with more stable sources of funding on an ongoing basis. The NSFR supplements the LCR and has a time horizon of one year. It has been developed to promote a sustainable maturity structure of assets and liabilities. It ensures that longer-term assets are funded with at least a minimum amount of stable liabilities over a `12-month time horizon.

90. The NSFR can be summarised as the requirement for a minimum amount of "stable funding" over a one-year time horizon based on liquidity risk factors assigned to assets, OBS liquidity exposures and other contingent funding obligations. The objective of the standard is to ensure stable funding on an ongoing, viable entity basis, over one year to cover an extended idiosyncratic stress scenario. The NSFR must also cover the following conditions:

a. a significant decline in profitability or solvency resulting from credit, market or operational risk;

b. a potential downgrade in financing, counterparty credit or deposit rating; and

c. a material event that calls into question the reputation or credit quality of the institution.

91. The NSFR constrains the ability of banks and IIFS as financial intermediaries to benefit from maturity transformation and the so-called yield curve – namely, the fact that they can normally raise short-term funds more cheaply than the rates of return they can earn by providing longer-term funding. From the perspective of IIFS that are mostly involved with retail banking, the NSFR requirement can be assumed as being less onerous compared to its effect on IIFS relying substantially on wholesale funding. However, for all IIFS the effect may be to constrain profits from intermediation to a greater or lesser extent. The NSFR requirement could thus induce IIFS that rely on wholesale funding to modify their business models so as to attract more retail funding. However, it might be difficult for them to make such a change in their business model, especially in jurisdictions with smaller populations and relatively small retail deposit markets, where there are only limited significant potential sources of long-term stable funding.

3.1 Formula for Calculating NSFR

92. There are two components of the NSFR: available stable funding (ASF) and required stable funding (RSF). The NSFR is defined as the ratio of the amount of available amount of stable funding to the amount of required stable funding. This ratio should be equal to at least 100% on an ongoing basis. Available stable funding is defined as the portion of those types and amounts of equity and liability financing expected to be reliable sources of funds over a one-year time horizon under conditions of extended stress. Required stable funding is based on the liquidity characteristics and residual maturities of the various kinds of assets under an extended idiosyncratic stress scenario, held by IIFS as well as those included in its OBS exposures.

$$\text{NSFR} = \frac{\text{Available stable funding (ASF)}}{\text{Required stable funding (RSF)}} \geq 100\%$$

93. The amount of ASF is composed of the total amount of an IIFS's (1) capital, (2) UPSIA with a maturity equal to or greater than one year, (3) liabilities or *Sukūk* issued with effective or remaining maturities of one year or greater, and (4) that portion of "stable" deposits and/or UPSIA with maturities of less than one year that would be expected to stay with the IIFS for an extended period in an idiosyncratic stress event. On the other hand, the amount of RSF is measured using supervisory assumptions about the broad characteristics of the liquidity risk profiles of an IIFS's assets and OBS exposures. A certain RSF factor is assigned to each asset type, with those assets deemed to be more liquid receiving a lower RSF factor and therefore requiring less stable funding.

94. The ASF and RSF are based on presumed degree of stability of liabilities and liquidity characteristics of assets under the extended stress conditions, respectively. On the liability side (ASF), funding tenor and funding type and counterparty are two dimensions that should be taken into account. For example, longer-term liabilities are assumed to be more stable than short-term liabilities, and deposits or UPSIA from retail and small business customers are more stable than wholesale funding with the same maturity. Mostly, IIFS rely on deposits and UPSIA provided by retail customers. These deposits and UPSIA are behaviourally more stable than other types of deposit. This is not a big deal for the IIFS. However, on the asset side (RSF), resilient credit creation, IIFS behaviour, asset tenor, asset quality and liquidity value are the criteria for the appropriate amount of required stable funding. There is trade-off between these criteria. The difficulties for the IIFS are lack of HQLA, unavailability of a *Sharī`ah*-compliant repo mechanism to securitise and trade, and the absence of a secondary market.

95. The NSFR remains subject to an observation period ahead of its implementation on 1 January 2018. IIFS should start to collect NSFR information from scenarios based on this GN. During this observation period, IIFS should diversify their funding structures, especially to fund assets that are not readily saleable with long-term funding

3.2 Available Stable Funding

96. The amount of available stable funding (ASF) is calculated by multiplying the carrying values of funding side items by the applicable ASF factors which are based on the broad characteristics of the relative stability of an IIFS's funding sources, including the contractual maturity of its liabilities and the differences in the propensity of different types of funding providers to withdraw their funding. Five categories are mentioned in this GN, IIFS should first assign the carrying value of an IIFS's capital and liabilities to one of the five categories as presented below. The amount assigned to each category is then multiplied by an ASF factor, and the total ASF is the sum of the weighted amounts. Carrying value represents the amount at which a liability or equity instrument is recorded before the application of any regulatory deductions, filters or other adjustments.

97. When determining the maturity of an equity or liability instrument, investors are assumed to redeem a call option at the earliest possible date in *Sharī`ah*-compliant ways. For funding with options exercisable at the IIFS's discretion, supervisory authorities should take into account reputational factors that may limit an IIFS's ability not to exercise the option. In particular, where the market expects certain liabilities to be redeemed before their legal final maturity date, IIFS and supervisory authorities should

assume such behaviour for the purpose of the NSFR and include these liabilities in the corresponding ASF category. For long-dated liabilities, only the portion of cash flows falling at or beyond the six-month and one-year time horizons should be treated as having an effective residual maturity of six months or more and one year or more, respectively.

98. RPSIA do not count as ASF, but retail UPSIA may fall into one of the categories mentioned below mostly receiving ASF factors in the 100%, the 95% or the 90% category. *Sukūk* issued with an effective maturity of one year or more would also qualify for a 100% ASF.

99. The first category of ASF is the liabilities and capital instruments receiving a 100% ASF factor. This category comprises:

a. the total amount of regulatory capital, before the application of capital deductions, as defined in paragraphs 20 and 21 of the IFSB-15[31] text, excluding the proportion of Tier 2 instruments with residual maturity of less than one year;

b. the total amount of any capital instrument not included in (a) that has an effective residual maturity of one year or more, but excluding any instruments with explicit or embedded options that, if exercised, would reduce the expected maturity to less than one year; and

c. the total amount of secured and unsecured fundings and liabilities (including deposits and/or UPSIA) with effective residual maturities of one year or more. Cash flows falling below the one-year horizon but arising from liabilities with a final maturity greater than one year do not qualify for the 100% ASF factor.

100. The second category is the liabilities receiving a 95% ASF factor. This category comprises “stable” deposits and/or UPSIA with residual maturities of less than one year provided by retail and small business customers.

101. The third category is the liabilities of IIFS receiving a 90% ASF factor. It comprises “less stable” defined in this GN as deposits and/or UPSIA with residual maturities of less than one year provided by retail and small business customers.

102. The fourth category is the liabilities receiving a 50% ASF factor which comprises:

a. funding (secured and unsecured) with a residual maturity of less than one year provided by non-financial corporate customers;

b. operational accounts (defined in paragraphs 64 and 65);

c. funding with residual maturity of less than one year from sovereigns, public sector entities (PSEs), and multilateral and national development banks; and

d. other funding (secured and unsecured) not included in the categories above with residual maturity between six months and less than one year, including funding from central banks and financial institutions.

103. The last category is the liabilities receiving a 0% ASF which are:

[31] Capital instruments for IIFS are defined in “IFSB-15: *Revised Capital Adequacy Standard for IIFS*”

a. all other liabilities and equity categories not included in the above categories, including other funding with residual maturity of less than six months from central banks and financial institutions;

b. other liabilities without a stated maturity. Two exceptions can be recognised for liabilities without a stated maturity:

    i) first, deferred tax liabilities, which should be treated according to the nearest possible date on which such liabilities could be realised; and

    ii) second, minority interest, which should be treated according to the term of the instrument, usually in perpetuity.

    These liabilities would then be assigned either a 100% ASF factor if the effective maturity is one year or greater, or 50% if the effective maturity is between six months and less than one year.

c. net NSFR Sharī`ah-compliant hedging liabilities[32] as calculated according to this GN, and

d. "trade date" payables arising from purchases of financial instruments, foreign currencies and commodities that

    i) are expected to settle within the standard settlement cycle or period that is customary for the relevant exchange or type of transaction, or

    ii) have failed to, but are still expected to, settle.

3.2.1. Calculation of *Sharī`ah*-compliant Hedging Liability Amounts

104. *Sharī`ah*-compliant hedging liabilities (e.g. Islamic swaps) are calculated first based on the replacement cost for the *Sharī`ah*-compliant hedging contracts (obtained by marking to market), such as ISDA/IIFM Tahawwut Master Agreement (TMA), where the contract has a negative value. When an eligible bilateral netting contract is in place, the replacement cost for the set of *Sharī`ah*-compliant hedging exposures covered by the contract will be the net replacement cost.

105. In calculating NSFR *Sharī`ah*-compliant hedging liabilities, collateral posted in the form of variation margin that follows *Sharī`ah* principles in connection with *Sharī`ah*-compliant hedging contracts as in the TMA contract, regardless of the asset type, must be deducted from the negative replacement cost amount.

3.3 Required Stable Funding

106. The amount of required stable funding (RSF) is calculated by multiplying the carrying values of assets and OBS exposures by the applicable RSF factors which are based on the broad characteristics of liquidity risk profile of an IIFS's assets and OBS exposures. Eight categories are mentioned in this GN, IIFS should first assign the carrying values of an IIFS's assets to one of eight categories as presented below. The amount assigned to each category is then multiplied by an RSF factor. The total RSF is the sum of the weighted amounts of each asset category and the amount of OBS activity (or potential liquidity exposure) multiplied by its associated RSF factor.

107. he RSF factors assigned to various types of assets are intended to approximate the amount of a particular asset that would have to be funded, either because it will be rolled over, or because it

[32] If NSFR *Sharī`ah*-compliant hedging liabilities are greater than NSFR *Sharī`ah*-compliant hedging assets.

could not be monetised through sale or used as collateral in a secured financing transaction over the course of one year without significant expense.

108. Asset categorisation to the various types of RSF is based on their residual maturity or liquidity value. When determining the maturity of an instrument, investors should be assumed to exercise any option to extend maturity. For assets with options exercisable at the IIFS's discretion, supervisors should take into account reputational factors that may limit IIFS's ability not to exercise the option. In particular, where the market expects certain assets to be extended in their maturity, IIFS and supervisory authorities should assume such behaviour for the purpose of the NSFR and include these assets in the corresponding RSF category.

109. For purposes of determining its RSF, an IIFS should: (a) include financial instruments, foreign currencies and commodities for which a purchase order has been executed; and (b) exclude financial instruments, foreign currencies and commodities for which a sales order has been executed, even if such transactions have not been reflected in the balance sheet under a settlement-date accounting model, provided that (i) such transactions are not reflected as *Sharī`ah*-compliant hedging contracts or secured financing transactions in the IIFS's balance sheet, and (ii) the effects of such transactions will be reflected in the IIFS's balance sheet when settled.

110. The first category is the assets assigned a 0% RSF factor and comprises:

a. coins and banknotes immediately available to meet obligations;

b. all central bank reserves (including required reserves and excess reserves);[33]

c. all claims on central banks with residual maturities of less than six months; and

d. "trade date" receivables arising from sales of *Sharī`ah* -compliant financial instruments, foreign currencies and commodities that (i) are expected to settle within the standard settlement cycle or period that is customary for the relevant exchange or type of transaction, or (ii) have failed to, but are still expected to, settle.

111. The second category is the assets assigned a 5% RSF factor and comprises unencumbered Level 1 assets as defined in paragraph 29, excluding assets receiving a 0% RSF as specified above, and including:

a. *Sukūk* and other *Sharī`ah*-compliant marketable securities issued or guaranteed by sovereigns, central banks, public sector entities (PSEs), multilateral development banks (MDBs) or relevant international organisations such as the IILM which are assigned a 0% risk weight under IFSB-15; and

b. certain non-0% risk-weighted sovereign or central bank *Sukūk* and other *Sharī`ah*-compliant marketable securities as specified in the paragraph 29.

112. The third category is the assets assigned a 10% RSF factor which consist of the unencumbered financings to financial institutions with residual maturities of less than six months, where the financing is secured against Level 1 assets as defined in paragraph 29.

[33] Supervisory authorities may discuss and agree with the relevant central bank on the RSF factor to be assigned to required reserves, based in particular on consideration of whether or not the reserve requirement must be satisfied at all times and thus the extent to which reserve requirements in that jurisdiction exist on a longer-term horizon and therefore require associated stable funding.

113. The fourth category is the assets assigned a 15% RSF factor which comprise:

a. unencumbered Level 2A assets as defined in paragraph 30, including: (i) *Sukūk* and other *Sharī`ah*-compliant marketable securities issued or guaranteed by sovereigns, central banks, PSEs, MDBs or relevant international organisations, which are assigned a 20% risk weight under IFSB-15; and (ii) corporate *Sukūk* with a credit rating equal or equivalent to at least AA⁻; and

b. all other unencumbered financings to financial institutions with residual maturities of less than six months not included in paragraph 111.

114. The fifth category is the assets assigned a 50% RSF factor which comprise:

a. unencumbered Level 2B assets as defined and subject to the conditions set forth in paragraph 31, including: (i) *Sukūk* and other *Sharī`ah*-compliant securities backed by commodity(ies) and other real asset(s) with a credit rating of at least AA; (ii) corporate *Sukūk* and other *Sharī`ah*-compliant securities with a credit rating of between A+ and BBB⁻; and (iii) *Sharī`ah*-compliant equity shares not issued by financial institutions or their affiliates;

b. any HQLA as defined in the LCR that are encumbered for a period of between six months and less than one year;

c. all financings to financial institutions and central banks with a residual maturity of between six months and less than one year; and

d. deposits or UPSIA held at other financial institutions for operational purposes, as outlined in paragraphs 64 and 65, that are subject to the 50% ASF factor in paragraph 102; and

e. all other non-HQLA not included in the above categories that have a residual maturity of less than one year, including financing to non-financial corporate clients, financings to retail customers (ie natural persons) and small business customers, and financings to sovereigns and PSEs.

115. The sixth category is the assets assigned a 65% RSF factor which comprise:

a. unencumbered residential real estate financing with a residual maturity of one year or more that would qualify for a 35% or lower risk weight under IFSB-15; and

b. other unencumbered financing not included in the above categories, excluding financing to financial institutions, with a residual maturity of one year or more that would qualify for a 35% or lower risk weight under IFSB-15.

116. The seventh category is the assets assigned an 85% RSF factor which comprise:

a. cash, securities or other assets posted as initial margin for *Sharī`ah*-compliant hedging contracts and cash or other assets provided to contribute to the default fund of a central counterparty;

b. other unencumbered performing financing assets that do not qualify for the 35% or lower risk weight under the IFSB-15 and have residual maturities of one year or more, excluding financing to financial institutions;

c. unencumbered *Sukūk* and other *Sharī`ah*-compliant securities with a remaining maturity of one year or more and *Sharī`ah*-compliant equity shares, that are not in default and do not qualify as HQLA according to the LCR; and

d. physical traded commodities.

117. The last category is the assets assigned a 100% RSF factor, which comprise:

a. all assets that are encumbered for a period of one year or more;

b. net NSFR *Sharī`ah*-compliant hedging assets as calculated according to this GN;

c. all other assets not included in the above categories, including non-performing financing, financing to financial institutions with a residual maturity of one year or more, non-exchange-traded *Sharī`ah*-compliant equities, fixed assets, items deducted from regulatory capital, insurance assets, and defaulted *Sharī`ah*-compliant securities; and

d. 20% of *Sharī`ah*-compliant hedging liabilities (i.e. negative replacement cost amounts) as calculated according to this GN (before deducting variation margin posted).

3.3.1 Encumbered Assets

118. Assets on the balance sheet that are encumbered for one year or more receive a 100% RSF factor. Assets encumbered for a period of between six months and less than one year that would, if unencumbered, receive an RSF factor lower than or equal to 50% receive a 50% RSF factor. Assets encumbered for between six months and less than one year that would, if unencumbered, receive an RSF factor higher than 50% retain that higher RSF factor. Where assets have less than six months remaining in the encumbrance period, those assets may receive the same RSF factor as an equivalent asset that is unencumbered. In addition, for the purposes of calculating the NSFR, assets that are encumbered for exceptional[34] central bank liquidity operations may receive a reduced RSF factor. Supervisory authorities should discuss and agree on the appropriate RSF factor with the relevant central bank, which must not be lower than the RSF factor applied to the equivalent asset that is unencumbered.

3.3.2 Secured Financing Transactions

119. For secured funding arrangements, use of balance sheet and accounting treatments should generally result in IIFS excluding, from their assets, *Sharī`ah*-compliant securities which they have used in securities financing transactions where they do not have beneficial ownership. Where IIFS have encumbered securities in *Sharī`ah*-compliant repos or other securities financing transactions, but have retained beneficial ownership and those assets remain on the IIFS's balance sheet, the IIFS should allocate such securities to the appropriate RSF category.

120. Securities financing transactions with a single counterparty may be measured net when calculating the NSFR.

3.3.3 Calculation of *Sharī`ah*-compliant Hedging Asset Amounts

121. *Sharī`ah*-compliant hedging assets (e.g. Islamic swaps) are calculated first based on the replacement cost for the *Sharī`ah*-compliant hedging contracts (obtained by marking to market), such as an ISDA/IIFM Tahawwut Master Agreement (TMA), where the contract has a positive value. When an

[34] In general, exceptional central bank liquidity operations are considered to be non-standard, temporary operations conducted by the central bank in order to achieve its mandate in a period of market-wide financial stress and/or exceptional macroeconomic challenges.

eligible bilateral netting contract is in place, the replacement cost for the set of *Sharī`ah*-compliant hedging exposures covered by the contract will be the net replacement cost.

122. In calculating NSFR *Sharī`ah*-compliant hedging assets, collateral received in connection with *Sharī`ah*-compliant hedging contracts may not offset the positive replacement cost amount, regardless of whether or not netting is permitted under the IIFS's operative accounting or risk-based framework, unless it is received in the form of cash variation margin. Any remaining balance sheet liability associated with initial margin received may not offset *Sharī`ah*-compliant hedging assets and should be assigned a 0% ASF factor.

3.3.4 Interdependent Assets and Liabilities

123. National supervisors have discretion in limited circumstances to determine whether certain asset and liability items, on the basis of contractual arrangements, are interdependent such that the liability cannot fall due while the asset remains on the balance sheet, the principal payment flows from the asset cannot be used for something other than repaying the liability, and the liability cannot be used to fund other assets. For interdependent items, supervisors may adjust RSF and ASF factors so that they are both 0%, subject to the following criteria:

a. The individual interdependent asset and liability items must be clearly identifiable.

b. The maturity and principal amount of both the liability and its interdependent asset should be the same.

c. The IIFS is acting solely as a pass-through unit to channel the funding received (the interdependent liability) into the corresponding interdependent asset.

d. The counterparties for each pair of interdependent liabilities and assets should not be the same.

124. Before exercising this discretion, supervisory authorities should consider whether perverse incentives or unintended consequences are being created. The instances where supervisory authorities will exercise the discretion to apply this exceptional treatment should be transparent, explicit and clearly outlined in the regulations of each jurisdiction, to provide clarity both within the jurisdiction and internationally.

3.3.5 Off-balance Sheet Exposures (OBS)

125. Off-balance sheet exposures also attract RSF factors as set out in Appendix 2. Many potential OBS liquidity exposures require little direct or immediate funding but can lead to significant liquidity drains over a longer time horizon. The NSFR assigns an RSF factor to various OBS activities in order to ensure that IIFS hold stable funding for the portion of OBS exposures that may be expected to require funding within a one-year horizon.

126. Consistent with the LCR, the NSFR identifies OBS exposure categories based broadly on whether the commitment is a credit or liquidity facility or some other contingent funding obligation.

127. Appendix 2 summarises all the various categories of ASF and RSF factors as well as the OBS items.

Section 4: Role of Supervisory Authorities

128. Supervisory authorities should assess the LCR, the NSFR and other liquidity monitoring tools[35] under the internal liquidity adequacy assessment process (ILAAP) and should make detailed supervisory assessments of other aspects of the IIFS's liquidity risk management framework in line with this GN. In addition, supervisory authorities may request detailed assessment of all aspects of LCR and NSFR especially for the jurisdictions having insufficient HQLA.

4.1 Internal Liquidity Adequacy Assessment and Supervisory Liquidity Review Processes

129. Supervisory authorities should encourage IIFS to have an ILAAP in which they thoroughly evaluate the LCR, the NSFR and other liquidity monitoring tools, and improve them if necessary. The ILAAP of IIFS should ensure a robust management of liquidity risk. Supervisory authorities should prepare guidance that shows the IIFS how to prepare its ILAAP. In turn, supervisory authorities should periodically carry out a supervisory liquidity review process (SLRP) of the IIFS in their jurisdiction. An SLRP is an in-depth review and assessment of an IIFS's quantitative and qualitative liquidity risk management processes and operations, and comprises a review of:

a. the IIFS's most recent ILAAP and other relevant documentation;

b. the IIFS's systems and controls for liquidity risk; and

c. the IIFS's internal stress testing and contingency funding plan.

130. While reporting on the ILAAP to supervisory authorities, the IIFS is expected to give a description and internal assessment of the way in which liquidity risk is managed and how to ensure the LCR and other liquidity monitoring tools. This includes evaluating all the aspects of LCR, both HQLA and net cash outflows, especially if the evaluation includes assessment of the unavailability of a *Sharī`ah*-compliant income-generating instrument such as an HQLA.

131. In this way, an IIFS must ensure that the current and future LCR and other liquidity measurements are adequate, even under stress, both for the IIFS itself and for its role in the financial system. To this end, the IIFS will draw up a liquidity risk profile based on the types of HQLA, cash outflows and cash inflows. The profile -including product groups, counterparties, duration and currency- will also provide insight into LCR and other liquidity measurement tools under normal and stressed circumstances.

132. The following factors are cited as relevant for supervisory authorities in assessing the risk profile of an IIFS:

a. the size of the IIFS, both in absolute terms and in relation to the financial system in the jurisdiction;

b. the nature of the activities and the risk profile of the IIFS; and

c. for IIFS that are part of a foreign group company, the extent of the integration of the business operations and the risk management with its main company.

[35] In April 2013, the BCBS issued *Monitoring Tools for Intraday Liquidity Management*. The tools suggested in this document can be broadly used by the IIFS and their supervisory authorities, subject to the approval of relevant *Sharī`ah* bodies.

133. An IIFS should be required to undertake an ILAAP annually, or more frequently if changes in its business strategy, balance sheet, the nature or scale of its activities, or its operational environment suggest that the level of liquidity resources is no longer adequate. If an IIFS finds that its liquidity position has changed, it should notify the supervisory authority.

134. ILAAP has a key function to inform an IIFS's board of directors (BOD) of the ongoing assessment and quantification of the firm's liquidity risks, including LCR and other liquidity measurement tools, how the IIFS intends to mitigate those risks, and how much current and future liquidity is required.

135. The SLRP is driven in large part by the findings of the ILAAP review and calls for, among other things, a detailed investigation and assessment of an IIFS's quantitative and qualitative liquidity risk management governance, approach, methodology and reporting. In conducting an SLRP, supervisory authorities focus on an IIFS's approach to dealing with a situation in which its LCR has fallen, or is expected to fall, below the required level. One of the key outcomes of the SLRP is a communication to the IIFS reviewing LCR with respect to both the numerator (HQLA) and the denominator (net cash outflows).

136. An IIFS is required to monitor frequently its conformity with its required LCR preferably on a daily basis. This is a dynamic requirement and is measured against the IIFS's current liquidity profile. Supervisory authorities also monitor all aspects of an IIFS's liquidity risk profile, including LCR, and hence its conformity with the liquidity requirements set by supervisory authorities, on a regular basis – for example, at least monthly through a reporting regime.

4.2 Application of LCR and NSFR

137. In their SLRP, supervisory authorities should make their assessment taking into account forward-looking forecasts of macroeconomic and financial conditions as well as prevailing macrofinancial conditions. While acting in response to the findings of an SLRP, supervisory authorities should be aware that some actions could be pro-cyclical if applied in circumstances of market-wide stress.

138. Supervisory authorities should take the following considerations into account on a consistent basis across their jurisdiction.

a. They should assess conditions at an early stage, and take actions if deemed necessary, to address potential liquidity risk.

b. They should allow for differentiated responses to a reported LCR and/or NSFR of below 100%. Any potential supervisory response should be proportionate to the drivers, magnitude, duration and frequency of the reported shortfall.

c. They should assess a number of firm- and market-specific factors as well as other considerations related to both domestic and global frameworks and conditions determining the appropriate response. Potential considerations include, but are not limited to:

    i) the reasons why the LCR and/or NSFR fell below the required level. This includes use of the stock of HQLA, an inability to roll over funding, or large unexpected draws on contingent obligations. In addition, the reasons may relate to overall credit, funding and market conditions, including liquidity in credit, asset and funding markets, affecting individual IIFS or all institutions, regardless of their own condition;

    ii) the extent to which the reported decline in the LCR and/or the NSFR is due to a firm-specific or market-wide shock;

iii) the IIFS' overall health and risk profile, including activities, positions with respect to other supervisory requirements, internal risk systems, controls and other management processes, among others;

iv) the magnitude, duration and frequency of the reported decline of HQLA ;

v) the potential for contagion to the financial system and additional restricted flow of credit or reduced market liquidity due to actions to maintain an LCR at the required level; and

vi) the availability of other sources of contingent funding such as central bank funding, or other actions by prudential authorities.

d. Supervisory authorities should have a range of tools at their disposal to address a reported LCR below the required level.

i) If appropriate, supervisory authorities could also require actions by an IIFS to reduce its exposure to liquidity risk, strengthen its overall liquidity risk management, or improve its contingency funding plan.

ii) However, in a situation of sufficiently severe system-wide stress, effects on the entire financial system should be considered. Potential measures to restore liquidity levels should be discussed, and should be executed over a period of time considered appropriate to prevent additional stress on both the IIFS and the financial system as a whole.

iii) Supervisory authorities' responses should be consistent with the overall approach to the prudential framework.

139. Supervisory authorities should develop supervisory guidance to set out the circumstances under which such usage of HQLA, causing the LCR to fall below the required level, may be acceptable, and the considerations underlying the supervisory response in the aforementioned circumstances.

140. The supervisory authorities should determine which *Sharī`ah*-compliant liquid assets qualify as HQLA according to the characteristics of HQLA set out in section 2.2, taking account of the alternative liquidity approaches discussed in section 2.2.5. Supervisory authorities and IIFS should ensure that such *Sharī`ah*-compliant liquid assets meet the required credit quality, liquidity and low volatility criteria, and test these assets under stress scenarios.

141. Given the shortage of *Sharī`ah*-compliant HQLA, even when ALA treatments are applied (see below), supervisory authorities should constitute formal ways to tackle this problem and evaluate possible actions to deal with such situations. In particular, acceptance of such HQLA as eligible collateral for *Sharī`ah*-compliant liquidity facilities from the central bank or other authority would enhance the liquidity of the HQLA.

4.3 LCR by Significant Currency

142. IIFS are expected to meet the required amount of LCR as reported in a single currency. The LCR requirements are calculated on a consolidated basis and reported in a domestic currency. However, in order to prevent the liquidity shocks based on other than domestic currency, IIFS and supervisory authorities should monitor LCR by significant currency.[36]

[36] Paragraph 211, *Basel III: Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools*, January 2013. A currency is considered "significant" if the aggregate liabilities denominated in that currency amount to 5% or more of the bank's total liabilities.

143. The definition of the stock of *Sharī`ah*-compliant high-quality foreign exchange assets and total net foreign exchange cash outflows should mirror those of the LCR for domestic currencies.

Foreign currency LCR	=	Stock of *Sharī`ah*-compliant HQLA in each significant currency Total net cash outflows over a 30-day time period in each significant currency* *(Note: Amount of total net foreign exchange cash outflows should be net of foreign exchange hedges)*

144. IIFS are expected to be able to meet their liquidity needs in a significant currency which is designated by supervisory authorities and to maintain HQLA consistent with the distribution of their liquidity needs by currency. This application of the LCR allows IIFS and the supervisory authorities to track potential significantly important currency mismatch issues.

145. In emerging and small economies, dollarisation and foreign exchange risk are the biggest issues for the financial crisis. Dollarised economies have experienced a number of severe banking and currency crises in which runs on bank and/or IIFS deposits, mainly dollar deposits, have played a major role. Supervisory authorities should determine the significantly important currencies and apply the appropriate level of LCR.[37]

146. Supervisory authorities should keep in mind that the application of LCR by significant currency requires IIFS to hold a larger amount of foreign-currency HQLA to comply with the LCR by currency, and this higher demand for foreign-currency HQLA may affect the availability of such assets, as well as their price. Supervisory authorities in this area should consider various factors, including the degree of dollarisation, the level of financial internationalisation, existing foreign exchange controls, currency convertibility and exchange rate volatility to determine the LCR by significant currency.

4.4 Principles for Applying Alternative Liquidity Approaches

147. There is a significant number of IIFS that would not currently be able to meet the LCR requirements and are likely to have difficulty in doing so, as these requirements are to be phased in from January 2015 onwards. In some jurisdictions where the number of IIFS is minimal, IIFS may have difficulty in finding *Sharī`ah*-compliant means of managing their liquidity. In countries with a more developed Islamic financial services industry, IIFS may still be affected by a shortage of *Sharī`ah*-compliant instruments, as demand for such assets tends to exceed supply and those who acquire them are inclined to hold them to maturity. To meet the demand for *Sharī`ah*-compliant liquidity instruments in order to fulfil the LCR requirement, supervisory authorities may therefore allow IIFS to apply one or more of the options included in the alternative liquidity approaches.

148. The principles to be followed in applying options for ALA treatments where there are insufficient HQLA are set out below:

- **Principle 1:** Supervisory authorities should ensure that an IIFS's use of the options is not simply an economic choice that maximises the profits of the IIFS through the selection of alternative HQLA

[37] The level of LCR should be higher for currencies in which the supervisory authorities evaluate an IIFS's ability to raise funds in foreign currency markets or the ability to transfer a liquidity surplus from one currency to another and across jurisdictions and legal entities to be limited.

based primarily on yield considerations. The liquidity characteristics of an alternative HQLA portfolio must be considered to be more important than its net yield.

- **Principle 2:** Supervisory authorities should ensure that the use of the options is subject to the required limits as set out in section 2.2.5 above, both for all IIFS with exposures in the relevant currency and on an IIFS-by-IIFS basis.

- **Principle 3:** Supervisory authorities should ensure that IIFS have, to the extent practicable, taken reasonable steps to use Level 1 and Level 2 assets and to reduce their overall level of liquidity risk to improve the LCR, before the alternative treatment can be applied.

- **Principle 4:** Supervisory authorities should have a mechanism for restraining the usage of the options to mitigate risks of non-performance of the additional HQLA permitted under Options 2 and 3.

4.5 Review Process of ALA Treatment

149. There should be a clearly documented supervisory framework for overseeing and controlling the usage of the options by its IIFS, and for monitoring their compliance with the relevant requirements applicable to their use of the options.

150. A supervisory authority should disclose its framework for applying the options to the IIFS in its jurisdiction. The disclosure should enable other national supervisory authorities and stakeholders to gain a sufficient understanding of its compliance with the qualifying principles and criteria and the manner in which it supervises the use of the options by its IIFS.

151. A supervisory authority should perform a self-assessment of its eligibility for options under the ALA every three to five years after it has adopted the options, and disclose the results to other national supervisory authorities and stakeholders.

4.6 Determination of Run-off Rates and Available Stable Funding Factors

152. While most run-off rates and ASF factors, and similar factors, are harmonised across jurisdictions as outlined in this GN, these rates are also the minimum rates for the jurisdictions. A few parameters remain to be determined by supervisory authorities at the national level. The parameters should be transparent and made publicly available.

153. It should be under the discretion of the supervisory authorities to make studies for the determination of run-off rates and ASF factors for each category of deposits and PSIA based on the actual data, especially under stress conditions defined in this GN both for LCR and NSFR.

154. The role of UPSIA is a major concern of supervisory authorities and IIFS regarding how the specificities of these accounts may impact the LCR. As indicated in paragraphs 53–55 above, the run-off rates applicable to PSIA depend on the withdrawal rights of the respective IAH. Where the residual maturity or withdrawal notice period exceeds 30 days (i.e. the IAH has no legal right to withdraw, or may do so only subject to a "significant reduction of profit"), PSIA would normally be excluded from total expected cash outflows – that is, be assigned a run-off factor of zero.[38] In other cases, only PSIA covered by a *Sharī`ah*-

[38] It should be noted that if an IIFS permits an IAH to make a withdrawal with less than 30 days' notice when this is not permitted by the contract for that category of PSIA without imposing a significant reduction of profit, then the supervisory authority should normally reclassify that category of PSIA as being subject to withdrawal on demand. It should be noted that a "significant reduction of profit" in this context includes bearing any costs or losses resulting from the IIFS having to realise assets in order to fund the withdrawal.

compliant deposit protection scheme might qualify (depending on additional criteria) as “stable deposits” with a run-off factor of 3% or 5%. In most jurisdictions, PSIA with a residual maturity or withdrawal notice period of less than 30 days would only meet the criteria for “less stable deposits”, with a run-off factor of 10% or higher. Supervisory authorities should make an analysis of likely run-off rates for PSIA, and in particular for UPSIA which are generally more subject to shorter withdrawal notice periods. According to the assessments, supervisory authorities should determine run-off rates for PSIA by designating different “stability buckets” depending on such criteria as whether the IAH fall into the high net worth or sophisticated category, whether withdrawals may be made using the internet, etc.

155. In current circumstances, most IAH in UPSIA are unlikely to know the performance of the underlying assets. Lack of transparency in UPSIA offered by the IIFS is one of the problems. Disclosing the performance and the risk of these accounts or investments to the IAH as required by IFSB-4 *Disclosures to Promote Transparency and Market Discipline* might increase the stability of UPSIA as well as attracting new customers. However, it might also have the opposite effect of making customers more liable to switch accounts between IIFS if the performance of underlying assets is lower than the other IIFS.

4.7 Concentration Risk of Wholesale Funding Sources

156. Supervisory authorities and IIFS need to monitor the concentration of funding sources across wholesale counterparties in the context of IIFS’ liquidity management, in order to ensure that their liquidity position is not overly exposed to withdrawals of funding by, or dependent on the arrival of expected inflows from, one or a limited number of wholesale counterparties.

4.8 Frequency of Monitoring

157. The LCR and other liquidity monitoring tools should be calculated daily and used on an ongoing basis to help monitor and control liquidity risk and should be reported to supervisory authorities at least monthly. The frequency of reporting may increase to weekly or even daily in stressed situations at the discretion of the supervisory authorities. IIFS are expected to inform supervisory authorities of their LCR and their liquidity profile on an ongoing basis. IIFS should also notify supervisory authorities immediately if their LCR has fallen, or is expected to fall, below the required level.

158. At a minimum, an IIFS should present an assessment of its liquidity position, including the factors that have contributed to its LCR falling below the required level when this is the case, the measures that have been and will be taken, and the expectations of the potential length of the situation. Enhanced reporting to supervisory authorities should be commensurate with the duration of the shortfall.

159. IIFS are expected to meet the NSFR requirement on an ongoing basis. The NSFR should be reported at least quarterly.

4.9 Disclosure Requirements

160. Public disclosure improves transparency, reduces uncertainty in the markets and strengthens market discipline. It is important that IIFS adopt a common disclosure framework to help market participants consistently assess the liquidity risk position of IIFS as well as to ensure greater consistency between disclosures from IIFS. There are, however, some challenges related to disclosure of liquidity positions under

certain or stress circumstances, including the potential for undesirable dynamics during stress.[39] Supervisory authorities should carefully formulate the disclosure framework to be used by both themselves and IIFS.

161. Supervisory authorities should disclose their frameworks for applying the options to IIFS and other additional precautions (whether on their website or through other means). The disclosure should enable stakeholders and other national supervisory authorities to gain a sufficient understanding of its compliance with the qualifying principles and criteria and the manner in which it supervises the use of the options by its IIFS.

162. IIFS also should publicly disclose qualitative and quantitative information on a regular basis to enable stakeholders to make informed judgements about the soundness of their liquidity risk management framework and liquidity position.

4.9.1 Disclosure Requirements for LCR

163. Supervisory authorities will give effect to the liquidity disclosure requirements set out in this GN by no later than the implementation date of LCR for IIFS. IIFS will be required to comply with these disclosure requirements from the date of publication of their first set of financial statements relating to balance sheet data on or after 1 January 2015. IIFS must publish this disclosure with the same frequency as, and concurrently with, the publication of their financial statements, irrespective of whether the financial statements are audited. To ease implementation burdens, however, supervisory authorities may exempt IIFS from the requirement for disclosure of LCR data based on averages of daily data up to the first reporting period after 1 January 2017 – for example, by allowing calculation of averages based on monthly or weekly figures.

164. The LCR information must be calculated on a consolidated basis[40] and presented in a single currency. Disclosed data must be presented as simple averages of daily observations over the previous quarter (i.e. the average is calculated over a period of, typically, 90 days).

165. Both unweighted and weighted values of the LCR components should be disclosed, for which purpose Appendix 3 presents the common template and calculation details. The unweighted values of inflows and outflows are to be calculated as outstanding balances of various categories or types of liabilities, off-balance sheet items and contractual receivables. The “weighted” value of HQLA is to be calculated as the value after haircuts are applied. The “weighted” values for inflows and outflows are to be calculated as the values after the inflow and outflow rates are applied. The values of total HQLA and total net cash outflows to be disclosed are the adjusted values, where the “adjusted” value of HQLA is the value of total HQLA after the application of both haircuts and any applicable caps on Level 2B and Level 2 assets. The adjusted value of net cash outflows is to be calculated after the cap on inflows is applied, if applicable.

166. IIFS must also provide links as well as references related to ALA or any such assumptions to the relevant supervisors’ rules or guidance on national implementation of the LCR. In addition to the quantitative data, IIFS should provide sufficient qualitative discussion around the LCR to facilitate a greater

[39] While frequent disclosure of IIFS’ liquidity position may enhance market transparency in normal times, during periods of stress, such disclosures can exacerbate the length and depth of an institution’s liquidity stress and in times of systemic stress spread contagion. Additionally, detailed or inadequate public disclosure of the components of the LCR could put those IIFS that are required to meet the standard and disclose information about their liquidity at a competitive disadvantage.

[40] For more detailed guidance on the scope of consolidation, please refer to paragraph 164-166, *Basel III: Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools*, January 2013

understanding of the results and data provided. For example, where significant to the LCR, IIFS could discuss:

a. the main drivers of their LCR results and the evolution of the contribution of inputs to the LCR's calculation over time;

b. intra-period changes as well as changes over time;

c. the composition of HQLA;

d. concentration of funding sources;

e. currency mismatch in the LCR;

f. a description of the degree of centralisation of liquidity management and interaction between the group's units; and

g. other inflows and outflows in the LCR calculation that are not captured in the LCR common template but which the institution considers to be relevant for its liquidity profile.

167. An IIFS may also choose to provide other qualitative information to enable market participants to understand the internal liquidity risk management and positions, particularly those related to that specific institution. This information should include:

a. governance of liquidity risk management, including: (i) risk tolerance; structure and responsibilities for liquidity risk management; (ii) internal liquidity reporting; and (iii) communication of liquidity risk strategy, policies and practices across business lines and with the BOD;

b. funding strategy, including policies on diversification in the sources and tenor of funding, and whether the funding strategy is centralised or decentralised;

c. liquidity risk mitigation techniques;

d. an explanation of how stress testing is used; and

e. an outline of contingency funding plans.

168. The additional quantitative information that IIFS may consider disclosing could include customised measurement tools or metrics that assess the structure of the IIFS's balance sheet, as well as metrics that project cash flows and future liquidity positions, taking into account off-balance sheet risk exposures which are specific to that IIFS. Other quantitative information could include key metrics that management monitors, including:

a. concentration limits on collateral pools and sources of funding (both products and counterparties);

b. liquidity exposures and funding needs at the level of individual legal entities, foreign branches and subsidiaries, taking into account legal, regulatory and operational limitations on the transferability of liquidity; and

c. balance sheet and off-balance sheet items broken down into maturity buckets and the resultant liquidity gaps.

4.9.2 Disclosure Requirements for NSFR

169. The disclosure requirements set out in this GN are applicable to IIFS on a consolidated basis but may be used for other banks and on any subset of entities of internationally active banks to ensure greater consistency and a level playing field between domestic and cross-border banks.

170. Supervisory authorities will give effect to the disclosure requirements set out in this standard by no later than 1 January 2018. IIFS will be required to comply with these disclosure requirements from the date of the first reporting period after 1 January 2018.

171. IIFS must publish this disclosure with the same frequency as, and concurrently with, the publication of their financial statements (i.e. typically quarterly or semi-annually), irrespective of whether the financial statements are audited.

172. IIFS must either include the disclosures required by this GN in their published financial reports or, at a minimum, provide a direct and prominent link to the completed disclosure on their websites or in publicly available regulatory reports. IIFS must also make available on their websites, or through publicly available regulatory reports, an archive (for a suitable retention period as determined by the relevant supervisors) of all templates relating to prior reporting periods. Irrespective of the location of the disclosure, the minimum disclosure requirements must be in the format required by this GN (i.e. according to the format in Appendix 4).

4.10 Cross-border Issues in Applying LCR Requirements

173. To ensure consistency in applying the consolidated LCR in IIFS across jurisdictions, further information is provided below on three application issues:

a) Differences in home/host liquidity requirements

National differences in liquidity treatment may occur in those items subject to national discretion (e.g. deposit run-off rates, contingent funding obligations, treatment of PSIA, etc.) and where more stringent parameters are adopted by some supervisory authorities. When calculating the LCR on a consolidated basis, a holding company (cross-border group or sub-group of IIFS) should apply the liquidity parameters adopted in the home jurisdiction of the holding company to all legal entities being consolidated except for the treatment of retail/small business deposits or UPSIA, which should follow the relevant parameters adopted in host jurisdictions in which the business units (branch or subsidiary) operate. This approach will enable the stressed liquidity needs of business units of the group (including branches) operating in host jurisdictions to be more suitably reflected, given that deposit run-off rates in host jurisdictions are more influenced by jurisdiction-specific factors such as the type and effectiveness of deposit insurance schemes in place and the behaviour of domestic depositors.

Home requirements for retail and small business deposits as well as for PSIA should apply to the relevant legal entities (including branches of those entities) operating in host jurisdictions if:

i) there are no host requirements for retail and small business deposits as well as for PSIA in the particular jurisdictions;

ii) those entities operate in host jurisdictions that have not implemented the LCR; or

iii) the home supervisory authority decides that home requirements should be used that are stricter than the host requirements.

b) Treatment of liquidity transfer restrictions

As noted in paragraph 33 (d), if there is reasonable doubt about the cross-border availability of liquidity, no excess liquidity should be recognised in its consolidated LCR by a cross-border holding company (within a group or sub-group of IIFS). Liquidity transfer restrictions (e.g. ring-fencing measures, non-convertibility of domestic currency, foreign exchange controls, etc.) in jurisdictions in which a holding company or its subsidiaries operate will affect the availability of liquidity by inhibiting the transfer of HQLA and fund flows within the group. The consolidated LCR should reflect such restrictions.

The liquidity transfer restrictions to be accounted for in the consolidated ratio are confined to existing restrictions imposed under applicable laws, regulations and supervisory requirements. A holding company (within a group or sub-group of IIFS) should have processes in place to capture all liquidity transfer restrictions to the extent practicable, and to monitor the rules and regulations in the jurisdictions in which the group operates and assess their liquidity implications for the group of IIFS as a whole. A holding company should inform the relevant supervisory authorities on how and when liquidity held centrally may be available to subsidiaries and branches.

c) Currencies

While the LCR is expected to be met on a consolidated basis and reported in a domestic currency, supervisory authorities and IIFS should also be aware of the liquidity needs in each significant currency, as mentioned in section 4.3. As indicated for the LCR, the currencies of the stock of HQLA should be similar in composition to the operational needs of the IIFS. Supervisory authorities and IIFS cannot assume that currencies will remain transferable and convertible in a stress period, even for currencies that in normal times are freely transferable and highly convertible.

4.11 Evaluation of the Market Liquidity of Assets

174. While each jurisdiction will make its own determination as to qualifications for instruments as *Sharī`ah*-compliant HQLA and their application to IIFS, supervisory authorities are expected to work within the framework of "levels" established in this GN, using the associated haircuts and diversification requirements associated with each level. As in this GN, national authorities can choose whether to include an additional class of Level 2B assets. There is scope for the potential inclusion in *Sharī`ah*-compliant HQLA of various kinds of assets, including *Sukūk, Sharī`ah*-compliant marketable securities, *Sharī`ah*-compliant equity shares and other *Sharī`ah*-compliant instruments with very different liquidity profiles.

175. Supervisory authorities require tools to help determine an initial assignment of assets into the appropriate HQLA category, if any. To ensure consistency across jurisdictions and to evaluate the *Sharī`ah*-compliant assets as HQLA, some commonalities in the tools and data used to make such determinations are mentioned in Appendix 5. However, the guidance for acceptance of assets as HQLA given in Appendix 5 is not intended for direct application to sovereign *Sukūk* and other *Sharī`ah*-compliant marketable securities issued or guaranteed by sovereigns, central banks, public sector enterprises of an IIFS' home jurisdiction or from the jurisdiction in which an IIFS operates; central bank reserves and cash. Such assets are categorised as HQLA, as set out in Section 2. This guidance may also be useful in supporting supervisory authorities' efforts to gather additional information on the liquidity of assets and asset classes.

DEFINITIONS

The following definitions are intended to assist readers in their general understanding of the terms used in the Guiding Principles. The list is by no means exhaustive.

Commodity Murābahah	The term "Commodity *Murābahah* transactions as a tool for liquidity management (CMT)" means a *Murābahah-based* purchase and sale transaction of *Sharī`ah*-compliant commodities, whether on cash or deferred payment terms.
Investment risk reserve (IRR)	The amount appropriated by the institution offering Islamic financial services out of the income of investment account holders (IAH), after allocating the *Muḍārib*'s share, in order to cushion against future investment losses for the IAH.
Islamic window	An Islamic window is part of a conventional financial institution (which may be a branch or dedicated unit of that institution) that provides both fund management (investment accounts) and financing and investment that are *Sharī`ah* compliant.
Muḍārabah	A partnership contract between the capital provider (*Rabb al-Māl*) and an entrepreneur (*Muḍārib*) whereby the capital provider would contribute capital to an enterprise or activity that is to be managed by the entrepreneur. Profits generated by that enterprise or activity are shared in accordance with the percentage specified in the contract, while losses are to be borne solely by the capital provider unless the losses are due to the entrepreneur's misconduct, negligence or breach of contracted terms.
Murābahah	A sale contract whereby the institution offering Islamic financial services sells to a customer at an agreed profit margin plus cost (selling price) a specified kind of asset that is already in their possession.
Profit equalisation reserve (PER)	The amount appropriated by the institution offering Islamic financial services out of the *Muḍārabah* income, before allocating the *Muḍārib*'s share, in order to maintain a certain level of return on investment for investment account holders and to increase owners' equity.
Restricted investment accounts	The account holders authorise the institution offering Islamic financial services to invest their funds based on *Muḍārabah* or agency contracts with certain restrictions as to where, how and for what purpose these funds are to be invested.
Sharī`ah	Divine Islamic law as revealed in the *Qur'an* and the *Sunnah.*
Sukūk (sing. *Sakk*)	Certificates that represent a proportional undivided ownership right in tangible assets, or a pool of assets that are *Sharī`ah* compliant.

Unrestricted investment accounts	The account holders authorise the institution offering Islamic financial services (IIFS) to invest their funds based on *Muḍārabah* or *Wakālah* (agency) contracts without imposing any restrictions. The IIFS can commingle these funds with their own funds and invest them in a pooled portfolio.
Wakālah	An agency contract where the customer (principal) appoints the IIFS as agent (*Wakīl*) to carry out the business on their behalf and where a fee (or no fee) is charged to the principal based on the contract agreement.

APPENDIX 1

Illustrative Summary of the Liquidity Coverage Ratio (LCR) for Institutions Offering Islamic Financial Services (IIFS)

(Percentages are factors to be multiplied by the total amount of each item)

Item	Factor
Stock of High Quality Liquid Assets (HQLA)	
A. Level 1 assets:	
• Coins and banknotes • Qualifying central bank reserves (including required reserves). • Qualifying *Sukūk* and other *Sharī`ah*-compliant marketable securities issued or guaranteed by sovereigns, central banks, public-sector entities (PSEs), multilateral development banks or relevant international organisations assigned a 0% risk weight for credit risk under IFSB-15 • Qualifying domestic currency *Sukūk* and other *Sharī`ah*-compliant marketable securities issued by sovereign or central banks that have a non-0% risk weight • Qualifying foreign currencies' *Sukūk* and other *Sharī`ah*-compliant marketable securities issued by sovereign or central banks that have a non-0% risk weight	100%
B. Level 2 assets (maximum of 40% of HQLA):	
Level 2A assets	
• *Sharī`ah*-compliant marketable securities issued or guaranteed by sovereigns, central banks, PSEs, multilateral development banks or relevant international organisations, qualifying for a 20% risk weighting for credit risk under IFSB-15. • Qualifying *Sharī`ah*-compliant securities (including commercial paper) and *Sukūk* that satisfy all of the conditions	85%
Level 2B assets (maximum of 15% of HQLA)	
• Qualifying *Sukūk* and other *Sharī`ah*-compliant securities	75%
• Qualifying *Sharī`ah*-compliant equity shares	50%
• Qualifying other *Sharī`ah*-compliant liquidity instruments that are widely recognised in the jurisdictions of the home country	50%
Total value of stock of HQLA	

Item	Factor
Cash Outflows	
A. Retail deposits:	
Demand deposits and term deposits (less than 30 days' maturity)	
• Stable deposits (*Sharī`ah*-compliant deposit insurance scheme meets additional criteria)	3%
• Stable deposits	5%
• Less stable retail deposits	10%
Term deposits with residual maturity greater than 30 days	0%
B. Unsecured wholesale funding:	
Demand and term deposits (less than 30 days' maturity) provided by small business customers:	
• Stable deposits	5%
• Less stable deposits	10%
Operational accounts generated by clearing, custody and cash management activities	25%
• Portion covered by deposit insurance	5%
Cooperative IIFS in an institutional network (qualifying deposits with the centralised institution)	25%
Non-financial corporates, sovereigns, central banks, multilateral development banks and PSEs	40%
• If the entire amount fully covered by deposit insurance scheme	20%
Other legal entity customers	100%
C. Secured funding:	
• Secured funding transactions with a central bank counterparty or backed by Level 1 assets with any counterparty.	0%
• Secured funding transactions backed by Level 2A assets, with any counterparty	15%
• Secured funding transactions backed by non-Level 1 or non-Level 2A assets, with domestic sovereigns, multilateral development banks or domestic PSEs as a counterparty	25%
• Backed by residential mortgage-backed securities (RMBS) eligible for inclusion in Level 2B	25%
• Backed by other Level 2B assets	50%
• All other secured funding transactions	100%
D. Additional requirements:[41]	
Sharī`ah-compliant hedging (*Tahawwut*)	100%
Undrawn credit and liquidity facilities to retail and small business customers	50%
Undrawn credit facilities to non-financial corporate, as well as sovereign, central banks, PSEs and multilateral development banks	10%
Other contractual obligations extend to financial institution	100%
Trade finance	0%
Any additional contractual outflows	100%
Any other contractual cash outflows	100%
Total cash outflows	

[41] Sources of funds from instruments other than the aforementioned are categorised into additional requirements. Given that not many instruments under this category have been widely utilised by IIFS at the national or global level, which results in a lack of data on the behaviour of these instruments, supervisory authorities may assign run-off factors that are internationally accepted, such as those proposed by the Basel Committee on Banking Supervision.

Item	Factor
Cash Inflows	
Maturing secured financing transactions backed by the following collateral:	
• Level 1 assets	0%
• Level 2A assets	15%
• Level 2B assets	25–50%
• All other assets	100%
Credit or liquidity facilities provided to the reporting bank or IIFS	0%
Operational accounts held at other financial institutions (include deposits held at centralised institution of a network of cooperative IIFS)	0%
Other inflows by counterparty:	
• Amounts to be received from retail counterparties • Amounts to be received from non-financial wholesale counterparties, from transactions other than those listed in the above inflow categories • Amounts to be received from financial institutions and central banks, from transactions other than those listed in the above inflow categories.	50% 50% 100%
Net *Sharī`ah*-compliant hedging cash inflows	100%
Other contractual cash inflows	National discretion
Total cash inflows	

Total net cash outflows = Total cash outflows minus the lesser of [total cash inflows; 75% of gross outflows]	

LCR = Stock of HQLA/Total net cash outflows	

APPENDIX 2

Illustrative Summary of the Net Stable Funding Ratio (NSFR) for Institutions Offering Islamic Financial Services (IIFS)

Summary of liability categories and associated available stable funding (ASF) factors

ASF factor	Components of ASF category
100%	• Total regulatory capital (excluding Tier 2 instruments with residual maturity of less than one year) • Other capital instruments and liabilities with effective residual maturity of one year or more
95%	• Stable deposits and/or unrestricted profit-sharing investment account (UPSIA) with residual maturity of less than one year provided by retail and small business customers
90%	• Less stable deposits and/or UPSIA with residual maturity of less than one year provided by retail and small business customers
50%	• Funding with residual maturity of less than one year provided by non-financial corporate customers • Operational accounts • Funding with residual maturity of less than one year from sovereigns, public-sector entities (PSEs), and multilateral and national development banks • Other funding with residual maturity between six months and less than one year not included in the above categories, including funding provided by central banks and financial institutions
0%	• All other liabilities and equity not included in the above categories, including liabilities without a stated maturity (with a specific treatment for deferred tax liabilities and minority interests) • Net NSFR *Sharī`ah*-compliant hedging liabilities (if NSFR *Sharī`ah*-compliant hedging liabilities are greater than NSFR *Sharī`ah*-compliant hedging assets) • "Trade date" payables arising from purchases of financial instruments, foreign currencies and commodities

Summary of asset categories and associated required stable funding (RSF) factors

RSF factor	Components of RSF category
0%	• All central bank reserves • All claims on central banks with residual maturities of less than six months • "Trade date" receivables arising from sales of financial instruments, foreign currencies and commodities
5%	• Unencumbered Level 1 assets, excluding coins, banknotes and central bank reserves
10%	• Unencumbered financings to financial institutions with residual maturities of less than six months, where the financing is secured against Level 1 assets
15%	• All other unencumbered financing to financial institutions with residual maturities of less than six months not included in the above categories • Unencumbered Level 2A assets

50%	• Unencumbered Level 2B assets • High-quality liquid assets (HQLA) encumbered for a period of six months or more and less than one year • Financing to financial institutions and central banks with residual maturities between six months and less than one year • Deposits held at other financial institutions for operational purposes • All other assets not included in the above categories with residual maturity of less than one year, including financings to non-financial corporate clients, financing to retail and small business customers, and financing to sovereigns and PSEs
65%	• Unencumbered residential real estate financing with a residual maturity of one year or more and with a risk weight of less than or equal to 35% under the standardised approach • Other unencumbered financing not included in the above categories, excluding financing to financial institutions, with a residual maturity of one year or more and with a risk weight of less than or equal to 35% under the standardised approach
85%	• Cash, securities or other assets posted as initial margin for *Sharī`ah*-compliant hedging contracts and cash or other assets provided to contribute to the default fund of a central counterparty. • Other unencumbered performing financing with risk weights greater than 35% under the standardised approach and residual maturities of one year or more, excluding financing to financial institutions • Unencumbered securities that are not in default and do not qualify as HQLA with a remaining maturity of one year or more and exchange-traded equities • Physical traded commodities
100%	• All assets that are encumbered for a period of one year or more • NSFR *Sharī`ah*-compliant hedging assets net of NSFR *Sharī`ah*-compliant hedging liabilities if NSFR *Sharī`ah*-compliant hedging assets are greater than NSFR *Sharī`ah*-compliant hedging liabilities • 20% of *Sharī`ah*-compliant hedging liabilities as calculated according to paragraph 104. • All other assets not included in the above categories, including non-performing financing, financing to financial institutions with a residual maturity of one year or more, non-exchange-traded equities, fixed assets, items deducted from regulatory capital, *Takāful* assets, and defaulted *Sharī`ah* -compliant securities

Summary of off-balance sheet categories and associated RSF factors

RSF factor	RSF category
5% of the currently undrawn portion	Irrevocable and conditionally revocable credit and liquidity facilities to any client
National supervisors can specify the RSF factors based on their national circumstances	Other contingent funding obligations, including products and instruments such as: • Unconditionally revocable credit and liquidity facilities • Trade finance-related obligations (including guarantees and letters of credit) • Guarantees and letters of credit unrelated to trade finance obligations • Non-contractual obligations such as: − potential requests for *Sukūk* and other *Sharī`ah*-compliant securities investment vehicles and other such financing facilities − managed funds that are marketed with the objective of maintaining a stable value

APPENDIX 3

Liquidity Coverage Ratio (LCR) Disclosure Template and Calculation Details

	(In domestic currency)	Total **unweighted**[42] value (average)	Total **weighted**[43] value (average)
HIGH-QUALITY LIQUID ASSETS (HQLA)			
1	Total HQLA*		
CASH OUTFLOWS			
2	Retail deposits/ profit-sharing investment account (PSIA) and deposits/PSIA from small business customers, of which:		
3	Stable deposits/PSIA		
4	Less stable deposits/PSIA		
5	Unsecured wholesale funding, of which:		
6	Operational accounts (all counterparties) and deposits in networks of cooperative institutions offering Islamic financial services.		
7	Non-operational accounts (all counterparties)		
8	Unsecured wholesale funding		
9	Secured wholesale funding*		
10	Additional requirements, of which:		
11	Outflows related to *Sharī`ah* -compliant hedging instrument exposures and other collateral requirements		
12	Outflows related to loss of funding on financing products		
13	Credit and liquidity facilities		
14	Other contractual funding obligations		
15	Other contingent funding obligations		
16	**TOTAL CASH OUTFLOWS***		
CASH INFLOWS			
17	*Sharī`ah*-compliant secured financing		
18	Inflows from fully performing exposures		
19	Other cash inflows		
20	**TOTAL CASH INFLOWS**		

			Total adjusted value[44]
21	**TOTAL HQLA***		
22	**TOTAL NET CASH OUTFLOWS***		
23	**LIQUIDITY COVERAGE RATIO (%)***		

[42] Unweighted values must be calculated as outstanding balances maturing or callable within 30 days (for inflows and outflows).
[43] Weighted values must be calculated after the application of respective haircuts (for HQLA) or inflow and outflow rates (for inflows and outflows).
[44] Adjusted values must be calculated after the application of both (a) haircuts and inflow and outflow rates, *and* (b) any applicable caps (i.e. cap on Level 2B and Level 2 assets for HQLA and on inflows).

Note: Not all reported figures will sum exactly, particularly in the denominator of the LCR. For example, "total net cash outflows" (line 22) may not be exactly equal to "total cash outflows" minus "total cash inflows" (line 16 minus line 20) if the cap on inflows is binding. Similarly, the disclosed LCR may not be equal to an LCR computed on the basis of the average values of the set of line items disclosed in the template.* No data should be entered in the cells of "Total **unweighted**[45] value (average)".

1. Figures entered in the above template must be averages of the observations of individual line items over the financial reporting period (i.e. the average of components and the average LCR over the most recent three months of daily positions, irrespective of the financial reporting schedule). The averages are calculated after the application of any haircuts, inflow and outflow rates and caps, where applicable.

For example:

$$\text{Total } \mathbf{unweighted} \text{ stable deposits}_{\text{Qi}} = \frac{1}{T} \times \sum_{t=1}^{T} (\text{Total } \mathbf{unweighted} \text{ stable deposits})_t$$

$$\text{Total } \mathbf{weighted} \text{ stable deposits}_{\text{Qi}} = \frac{1}{T} \times \sum_{t=1}^{T} (\text{Total } \mathbf{weighted} \text{ stable deposits})_t$$

where *T* equals the number of observations in period *Qi*.

2. *Weighted* figures of HQLA in line 1 must be calculated after the application of the respective haircuts but before the application of any caps on Level 2B and Level 2 assets.

3. Unweighted inflows and outflows (lines 2–8, 11–15 and 17–21, second column) must be calculated as outstanding balances. *Weighted* inflows and outflows (lines 2–21, third column) must be calculated after the application of the inflow and outflow rates.

4. Adjusted figures of HQLA in line 22 must be calculated after the application of both

a) haircuts and
b) any applicable caps (i.e. cap on Level 2B and Level 2 assets).

5. The LCR (line 23) must be calculated as the average of observations of the LCR

$$LCR_{\text{Qi}} = \frac{1}{T} \times \sum_{t=1}^{T} (LCR)_t$$

[45] Unweighted values must be calculated as outstanding balances maturing or callable within 30 days (for inflows and outflows).

APPENDIX 4

Net Stable Funding Ratio (NSFR) Disclosure Template

(in currency amount)		Unweighted value				Weighted value
		No maturity	< 6 months	6 months to < 1 year	≥ 1 year	
ASF Item						
1	Capital					
2	Regulatory capital					
3	Other capital instruments					
4	Retail deposits/profit-sharing investment account (PSIA) and deposits/PSIA from small business customers					
5	Stable deposits/PSIA					
6	Less stable deposits/PSIA					
7	Wholesale funding					
8	Operational accounts					
9	Other wholesale funding					
10	Liabilities with matching interdependent assets					
11	Other liabilities					
12	Net liabilities for *Sharī`ah*-compliant hedging contracts					
13	All other liabilities and equity not included in the above categories					
14	Total available stable funding					

	(in currency amount)	Unweighted value				Weighted value
		No maturity	< 6 months	6 months to < 1 year	≥ 1 year	
	RSF Item					
15	Total high-quality liquid assets (HQLA)					
16	Deposits/PSIA held at other financial institutions for operational purposes					
17	Performing financing and *Sharī`ah* - compliant securities					
18	Performing financing to financial institutions secured by Level 1 HQLA					
19	Performing financing to financial institutions secured by non-Level 1 HQLA and unsecured performing financing to financial institutions					
20	Performing financing to non-financial corporate clients, financing to retail and small business customers, and financing to sovereigns, central banks and public-sector entities, of which:					
21	With a risk weight of less than or equal to 35% under IFSB-15					
22	Performing financing for acquisition of residential real estate, of which:					
23	With a risk weight of less than or equal to 35% under IFSB-15					
24	Securities that are not in default and do not qualify as HQLA, including exchange-traded equities					
25	Assets with matching interdependent liabilities					
26	Other assets					
27	Physical traded commodities					
28	Net assets for *Sharī`ah*-compliant hedging contracts					
29	All other assets not included in the above categories					
30	Off-balance sheet items					
31	Total required stable funding (RSF)					
32	**NSFR (%)**					

APPENDIX 5

Evaluation of *Sharī`ah*-compliant Instruments as Eligible High-Quality Liquid Assets (HQLA)

1. Categorisation of financial instruments as HQLA relies on a combination of qualitative criteria, risk weights and external credit ratings to group broad asset classes into three levels: Level 1, 2A and 2B. However, individual assets in the balance sheet of institutions offering Islamic financial services (IIFS) within those broad categories, and across different jurisdictions, financial markets and currencies, can exhibit very different liquidity characteristics. In addition, the markets for specific assets, and thus the liquidity to be derived from a given set of assets, can vary over time.

2. Appropriate use of the guidance mentioned below to determine the eligibility of HQLA (in support of the application of the liquidity coverage ratio (LCR) definition of HQLA to domestic regulation) includes:

a) excluding an asset or asset class from HQLA altogether;

b) moving an asset or asset class down (temporarily or permanently) from its LCR-defined HQLA position;

c) selecting additional assets (from the prescribed list of potentially qualifying assets) for inclusion within a potential Level 2B asset category; and

d) raising the haircut on an individual asset or asset class.

3. The guidance is not to be used to:

a) introduce into HQLA an asset that is not currently part of the LCR classifications of acceptable assets;

b) place an asset into a higher HQLA level than that established by this guidance note;

c) lower the haircut on an individual asset or asset class; or

d) unilaterally reclassify sovereign *Sukūk* and other *Sharī`ah*-compliant marketable securities issued or guaranteed by sovereigns, central banks, public sector enterprises of IIFS's home jurisdiction or from the jurisdiction in which an IIFS operates, central bank reserves or cash.

1. Characteristics and Metrics that Supervisors Should Consider in Judging Asset Liquidity

4. A *Sharī`ah*-compliant asset's market liquidity is influenced both by its own specific features, including underlying asset quality and the characteristics of the broader market structure within which it is traded. These are some possible characteristics that can enhance the liquidity of an asset class.

1.1. Asset characteristics

5. The asset characteristics mentioned below for *Sukūk* and other *Sharī`ah*-compliant marketable securities, which are relevant to credit quality or liquidity, or both, are:

a) **Probability of default**: the credit quality of an asset will influence investors' willingness or ability to hold it. Information and data such as credit ratings, spreads to "risk-free" assets and

measurements of asset price declines during periods of market turmoil can all be indicators of credit quality.

b) **Flight to quality**: assets whose prices tend to rise during times of market turmoil typically exhibit higher market liquidity during stress. The correlation between asset price and banking system stress is one simple measure that could be used.

c) **Volatility**: assets with low volatility tend to be less risky and more liquid. Volatility of traded prices and spreads are simple proxy measures of market volatility. There should be historical evidence of relative stability of market terms (e.g. prices and haircuts) and volumes during stressed periods.

d) **Remaining time to maturity**: time to maturity is likely to affect the price volatility of a security and the range of investors who are able to hold it.

e) **Collateral eligibility**: if an asset is frequently accepted as collateral for transactions in other assets at a wide range of markets, clearing houses and payment systems.

f) **Standardisation of asset features**: where an asset has a standard structure, this can facilitate widespread understanding of the risks it poses, increasing investors' confidence in its pricing and hence boosting market liquidity.

g) **Price transparency**: availability of transparent, publicly available pricing sources can enhance willingness to trade and, hence, market liquidity.

1.2. Market structure characteristics

6. The market structure characteristics mentioned below for *Sukūk* and other *Sharī`ah*-compliant marketable securities are:

a) **Trading venues**: the ability to transact on an electronic trading platform or listed exchange enhances transparency; the ability to trade the asset in a broader range of trading environments can generate additional scrutiny and broaden participation, supporting market liquidity.

b) **Market size**: there are several aspects of the market size for an asset class that can have a bearing on the liquidity of that class as a whole, or of individual securities within that class. These include the aggregate outstanding value, the aggregate trading volume, the aggregate numbers of trades observed, and the weight of the asset class in global and domestic investment portfolios.

c) **Issue size**: the outstanding amount of a security available for trade affects the ability to buy and sell the security in large quantities.

d) **Related financing markets**: availability of *Sharī`ah*-compliant alternatives to a repo mechanism for an asset class increases the prospects for it to be liquid.

e) **Market participation**: widespread and diverse participation in the market is a signal of potentially higher asset liquidity.

f) **Market-makers**: asset markets with a large group of (well-capitalised) market-makers offering to trade on a continuous basis tend to have higher liquidity.

1.3. Direct Measures of Market Liquidity Metrics

7. In most jurisdictions, historical data can be difficult to obtain, particularly for *Sukūk* and other *Sharī`ah*-compliant marketable securities traded predominantly in over-the-counter markets or with very low transaction levels. Supervisory authorities are likely to use simple metrics, which may be straightforward to calculate and potentially more comparable across assets and markets. More complex metrics may have greater predictive power for market liquidity which needs high frequency and quality data.

a) **Depth/price impact of trading**: including Amihud ratio[46] (price changes relative to volume) and autocorrelation of returns.

b) **Breadth**: including bid–ask spreads.

c) **Immediacy**: including average number of trades per day and number of days with zero returns or volume.

2. Approaches for Supervisory Judgement

8. Three possible approaches for supervisory judgement are discussed below:

a) **Historical method**: Past evidence of the historical liquidity of assets would be one possible means of determining their eligibility as HQLA. The main challenges would lie in identifying which characteristics and which metrics of liquidity and credit quality should be given most weight. Once a historical dataset has been produced, it might be feasible within a single jurisdiction to identify threshold levels for individual metrics, beyond which an asset would be classified as eligible for the HQLA buffer – for example, where bid–offer spreads were below X basis points and daily trading volumes were above $Y.

It is important to note that such an approach would not be applicable in a harmonised manner across jurisdictions, as the appropriate thresholds cannot be set at a consistent absolute level across markets, but rather can only be arrived at through a process of informed judgement within a specific market.

The major drawback of the historical method is that the exercise should be repeated at regular intervals to ensure a consistent treatment over time, and it may also be difficult to apply to newly issued securities.

b) **Definitional method**: A definitional approach is more robust over time and may be more applicable across jurisdictions. However, it may involve a more complex analysis than the historical method. A definitional approach entails assessing how well a set of relevant asset and market characteristics actually predict market liquidity metrics. This approach has the advantage that it could be applied not only to asset classes where historical liquidity metrics are available, but also potentially to deriving definitions of liquidity for assets where such historical liquidity metrics are harder to obtain.

Under this method, supervisors would still be required to choose some metrics (ratings, correlation with financial stress, standardised product, etc.) that they feel best capture the market liquidity of the assets being examined. They would also need to make judgements about thresholds appropriate for their jurisdictions. However, such judgements would be used to assess which characteristics had useful predictive power over whether an individual asset was found to be liquid,

[46] Originally proposed by Amihud (2002), the illiquidity ratio is computed as the ratio of the absolute value of the asset's return and the dollar value of its trading volume:$Amihud = Average(\frac{Ir_{id}I}{DVOL_{id}})$ $w$here; $\mathrm{r}_{id} = ln\,(Price_{id}/Price_{\,id-1})$ and $\mathrm{DVOL}_{id} = (Price_{id}XVolume_{id})$ are the return and dollar value of trading volume for stock i on day d, respectively.

with those that were found to be useful predictors becoming components of a definition of a liquid asset.

c) **Checklist method**: The term “checklist method” refers to an approach where supervisors would use their judgement to devise a set of criteria that an asset or asset class would need to meet to be eligible to qualify as a particular component of HQLA. Two approaches are possible for this method: (i) the “strict checklist approach" would require all checks to be met for an asset to qualify; and (ii) a “threshold checklist approach” would require that a minimum number of checks be met.

As a practical matter, supervisory authorities might choose to use a checklist method for identifying eligible assets or asset classes if a lack of quantitative data on the historical liquidity of the assets being studied prevented them from adopting either the historical or definitional methods. Therefore, although the checklist could in principle incorporate quantitative checks where data are available for a limited set of metrics, it is most likely that in practice supervisors would use this method when they lacked more data.