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ANNEX 1: GUIDELINES ON LIQUIDITY RISK MANAGEMENT FOR ISLAMIC BANKS

Content

1. INTRODUCTION

1.1. Liquidity risk is the potential loss to an Islamic bank arising from their inability either to meet their obligations or to fund increases in assets as they fall due, without incurring unacceptable costs or losses.

1.2. These Guidelines focus primarily on funding liquidity risk. Liquidity risk can be categorised into two major types: funding and market liquidity risk.

(a) Funding liquidity risk is the risk that an Islamic bank will not be able to meet efficiently both its expected and unexpected current and future cash flow and collateral needs without affecting either daily operations or the financial condition of the Islamic bank.

(b) Market liquidity risk is the risk that an Islamic bank cannot easily offset or eliminate a position at the market price because of inadequate market depth or market disruption.

1.3. Liquidity risk can arise due to funding or market risk, or various factors arising due to a combination of these risks, which might be linked to changes in institutional or systemic behaviour. The fundamental role of Islamic banks in the maturity transformation of short-term deposits into long-term assets makes Islamic banks inherently vulnerable to liquidity risk, both of an Islamic bank-specific nature and that which affects markets as a whole. Virtually, every financial transaction or commitment has implications for an Islamic bank’s liquidity.

1.4. Effective liquidity risk management helps ensure an Islamic bank's ability to meet cash flow obligations, which are uncertain as they are affected by external events and other agents' behaviour. Liquidity risk management is of paramount importance because a liquidity shortfall at a single Islamic bank can have system-wide repercussions.

2. GOVERNANCE

2.1. BOARD

2.1.1. The Board should review and approve, at least on an annual basis, the **Islamic bank's** Liquidity Risk Management Framework (LRMF), and ensure that senior management translates the Board's decisions into clear guidance and operating processes in accordance with ***Hukum Syara'*** for effective implementation.

2.1.2. Specifically, the Board should be:

(a) Ensuring the competence of senior management and appropriate personnel in measuring, monitoring and controlling liquidity risk in terms of expertise, systems and resources, and in taking appropriate and prompt remedial actions to address concerns when necessary;

(b) Reviewing regular reports and stress testing results on the Islamic bank's liquidity positions and becoming fully aware of the Islamic bank's performance and overall liquidity risk profile;

(c) Understanding, supported by senior management of the Islamic bank, how other risks (e.g. credit, market, operational, displaced commercial risk, reputational and Syariah non-compliant risks) interact with liquidity risk and affect the overall LRMF, ensuring that the interaction of these risks is considered and taken into account by the relevant Board-level committees including the Syariah Advisory Body and Risk Management function within the Islamic bank; and

(d) The Board should be informed immediately of new or emerging liquidity concern, and should ensure that senior management takes appropriate remedial actions to address the concerns. These concerns include:

- increasing funding costs or concentrations
- the growing size of a funding gap
- the drying up of alternative sources of liquidity
- material and/or persistent breaches of limits

- a significant decline in the cushion of unencumbered, high quality liquid assets
- changes in external market conditions which could signal future difficulties.

LIQUIDITY RISK TOLERANCE

2.1.3. The Board should be ultimately responsible for determining the types and magnitude of liquidity risk that the Islamic bank can tolerate according to the liquidity risk management strategy, and for ensuring that there is an appropriate organisation structure for managing liquidity risk.

2.1.4. The risk tolerance should be set in a way that:

(a) Defines clearly the level of liquidity risk that the Islamic bank is willing to assume, under normal and stressed business conditions[1];

(b) Is appropriate for the business strategy of the Islamic bank and its role in the financial system and should reflect the Islamic bank's financial condition;

(c) Is commensurate with its ability to have sufficient recourse to Syariah-compliant funds in order to mitigate this risk;

(d) Can be easily communicated, understood and monitored by relevant personnel of the Islamic bank involved in the liquidity risk management process; and

(e) Reflects the Islamic bank's assessment of the sources of liquidity risk it faces, as well as the trade-off between risks and profits.

2.1.5. The risk tolerance level should be adequately documented and articulated, preferably with a combination of qualitative and quantitative factors[2].

[1] For example, an Islamic bank may quantify its liquidity risk tolerance in terms of the level of unmitigated funding liquidity risk the Islamic bank decides to take under normal and stressed business conditions.

[2] For example, the specification of a minimum survival period under a range of sufficiently severe, but plausible, stress scenarios. Other quantitative measures may, for example, relate to controls over areas such as liquid asset holdings, maturity or currency mismatches, concentration of funding and contingent liquidity obligations, and other limits on liquidity indicators used for controlling different aspects of liquidity risk.

2.2. SENIOR MANAGEMENT

2.2.1. Senior management is responsible for developing and implementing the Islamic bank's LRMF in accordance with its risk tolerance established by the Board, and ensuring that the Islamic bank maintains sufficient liquidity.

2.2.2. Senior management is also responsible for:

(a) Determining the structure, responsibilities and controls for managing liquidity risk and for overseeing the liquidity positions of all legal entities, branches and subsidiaries in the jurisdictions in which an Islamic bank is active, and outlining these elements clearly in the Islamic bank's liquidity policies;

(b) Communicating the liquidity risk management strategy, key policies and procedures, liquidity pricing framework and liquidity risk management structure to all relevant business units and personnel throughout the organisation, that conduct activities with an impact on liquidity;

(c) Continuously reviewing information on the Islamic bank's liquidity developments and reporting to the Board on a regular basis;

(d) Ensuring that there are close communication links between treasury, liquidity risk managers and other business and risk managers having access to critical information that affects liquidity;

(e) Ensuring that liquidity risk managers have sufficient authority and independence from risk-taking units to discharge their function effectively;

(f) Appointing skilled and capable personnel who understand the nature and peculiarities of Syariah-compliant contracts and instruments to handle the liquidity risk management and internal control functions;

(g) Ensuring that adequate internal controls are executed by independent personnel with the necessary skills and competence to safeguard the integrity of the Islamic bank's liquidity risk management process;

(h) Closely monitoring the current trends and potential market developments that may require timely changes or updates to the liquidity risk management strategy, systems and internal controls to address any significant challenges;

(i) Defining the specific process for handling exceptions to policies and limits, including the procedures for escalation, reporting and consideration of follow-up actions;

(j) Ensuring the effectiveness of stress tests and contingency funding plans, as well as the appropriateness of the liquidity cushion maintained; and

(k) Informing the Board of any new and emerging liquidity concerns, through regular and ad hoc submission of risk management reports and risk analysis, in a timely manner.

2.2.3. In addition, senior management should have a thorough understanding of the close links between funding liquidity risk and market liquidity risk, as well as how other risks, including credit, market, operational, Syariah non-compliance and reputation risks affect the Islamic bank’s overall liquidity risk strategy.

ALLOCATION OF LIQUIDITY COSTS, BENEFITS AND RISKS

2.2.4. Senior management should appropriately incorporate liquidity costs, benefits and risks in the internal pricing, performance measurement and new product approval processes, thereby aligning the risk-taking incentives of individual business lines with the liquidity risk tolerance established by the Board.

2.2.5. Senior management should ensure that the liquidity pricing framework involves the charging of a liquidity premium to activities that consume liquidity (e.g. granting new advances) and the assignment of a liquidity value to those that generate liquidity (e.g. obtaining new deposits), based on a predetermined mechanism for attributing liquidity costs, benefits and risks to these activities. The following considerations, at a minimum, should be factored into the framework:

(a) The framework should reflect the level of liquidity risk inherent in a business activity;

(b) The framework should cover all significant business activities, including those involving the creation of contingent exposures which may not immediately have a direct balance sheet impact;

(c) The framework should incorporate the measurement and allocation process factors related to the anticipated holding periods of assets and liabilities, their market liquidity risk characteristics and any other relevant factors, including the benefits from having access to relatively stable sources of funding, such as some types of retail deposits;

(d) The framework should take account of both contractual maturity, as well as behavioural patterns in estimating the length of tenor of any relevant asset or liability item for the determination of the liquidity value or premium to be allocated;

(e) The framework should provide an explicit and transparent process, at the line management level for quantifying and attributing liquidity costs, benefits and risks; and

(f) The framework should include consideration on how liquidity would be affected under stressed conditions.

2.2.6. Senior management should periodically review the liquidity pricing framework, taking into account changes in business and financial market conditions.

2.3. LIQUIDITY RISK MANAGEMENT OVERSIGHT STRUCTURE

2.3.1. An Islamic bank should establish a liquidity risk management oversight structure that is commensurate with its nature, scale and complexity of the Islamic bank's business activities.

2.3.2. In the case of a domestic Islamic banking group with overseas operations (whether in the form of a branch or subsidiary), the Board should determine the appropriate LRMF for overseeing all such overseas operations, taking into account the differences in their liquidity risk characteristics and the transferability of funds between them in light of any potential legal, regulatory or operational restrictions.

2.3.3. In the case of foreign Islamic bank branches in Brunei Darussalam, the head office of the Islamic bank may, where appropriate, delegate certain tasks for liquidity risk management to the domestic branch management, provided that adequate oversight is exercised by the Islamic bank's Board (or a delegated risk governance function at the head office or regional level) in approving the branch policies and monitoring the branch's compliance with such policies.

ASSET AND LIABILITY MANAGEMENT COMMITTEE (ALCO)

2.3.4. As part of forming a robust LRMF, Islamic banks should establish asset and liability management committee (ALCO). The framework should describe the role of ALCO and its relationship with the risk management function, and articulate the delineation of powers, responsibilities and reporting lines for different departments and levels of management, so that the LRMF is implemented effectively.

2.3.5. The Board should ensure that any authority that is delegated to the Islamic bank's ALCO to carry out some of its responsibilities for liquidity risk management is adequately executed. However, such delegation of authority does not absolve the Board and its members from their risk management responsibilities and the need to oversee the work of any such committee(s) exercising delegated authority.

2.3.6. For the ALCO, or any similar committee, to perform a liquidity risk governance function on behalf of the Board effectively, its membership should be extended to comprise personnel from the treasury function, the risk management function, the financial control function and other principal business areas that affect the Islamic bank's liquidity risk profile. It should also be supported by competent risk managers with a dedicated responsibility for liquidity risk management.

INDEPENDENT OVERSIGHT OF SYARIAH COMPLIANCE

2.3.7. An Islamic bank needs to have a robust Syariah governance system[3] in order to ensure an effective independent oversight of Syariah compliance over various structures and processes within the organisational framework.

2.3.8. Keeping in view a number of Syariah issues that can be faced by an Islamic Bank during structuring, offering and executing Syariah-compliant liquidity risk management products and mechanisms, members of the Syariah Advisory Body are required to take an active role.

2.3.9. The role of the Syariah Advisory Body in both ex-ante and ex-post Syariah governance processes includes, among others, close liaison between an Islamic bank's Syariah Advisory Body and its internal Syariah compliance department/unit, as well as the internal Syariah review, Syariah Risk Management, and Syariah audit function.

2.3.10. Some areas related to the LRMF of an Islamic Bank where the Syariah Advisory Body can play an important role include, but are not limited to:

(a) approving new Syariah-compliant liquidity risk management products and mechanisms, including Syariah-compliant hedging products;

(b) ensuring proper execution of its approved products and mechanisms, in association with internal Syariah compliant and audit functions;

(c) verifying and controlling the non-commingling of funds between Islamic windows/branches/subsidiaries and parent conventional entities; and

[3] As elaborated in the Notice to Financial Institution on Syariah Governance Framework, as may be revised from time to time

(d) verifying and controlling the extent of an Islamic bank investments with the conventional financial institutions.

3. LIQUIDITY RISK MANAGEMENT FRAMEWORK (LRMF)

3.1. OVERVIEW

3.1.1. An Islamic bank is responsible for the sound management of liquidity risk. An Islamic bank should establish a robust LRMF that ensures it maintains sufficient liquidity, including a cushion of unencumbered, Syariah-compliant, high quality liquid assets, to withstand a range of stress events, including those involving the loss or impairment of both unsecured and secured funding sources.

3.1.2. An Islamic bank should establish a robust LRMF that is well integrated into the bank-wide risk management process.

3.1.3. A primary objective of the LRMF should be to ensure with a high degree of confidence that the Islamic bank is in a position to both address its daily liquidity obligations and withstand a period of liquidity stress affecting both secured and unsecured funding, the source of which could be Islamic bank-specific or market-wide.

3.1.4. An Islamic bank's LRMF should cover, at a minimum, the following key aspects:

(a) Liquidity risk appetite and tolerance established by the Board;

(b) Liquidity risk management strategy, including the goals and objectives underlying the strategy;

(c) Liquidity risk management responsibilities, with clearly defined lines of authority, responsibilities and reporting structure;

(d) Liquidity risk management systems and tools for identifying, measuring, monitoring, controlling and reporting liquidity risk;

(e) The funding strategy, including the level of diversity and stability of funding targeted by the Islamic bank;

(f) The approach to intraday liquidity management;

(g) The approach to collateral management;

(h) The maintenance of liquidity cushion;

(i) The approach to intragroup liquidity management;

(j) The framework for conducting liquidity stress testing; and

(k) Contingency funding plan.

INDEPENDENT REVIEWS

3.1.5. The daily oversight function, management committees (such as ALCO) and/or independent risk management functions, should be operationally independent and staffed with personnel who have the skills and authority to challenge the Islamic bank's treasury and other liquidity risk management businesses.

3.1.6. The LRMF should be subject to effective and comprehensive independent review. Such review should be undertaken on a periodic basis by the internal audit or a third party, and the results of such audits should be reported to the Board and senior management. Any deficiencies identified should be promptly addressed.

3.2. INTERACTIONS OF LIQUIDITY RISK AND IMPLICATIONS OF ISLAMIC FINANCING CONTRACTS

3.2.1. The Islamic banks should ensure that liquidity risk management practices are incorporated within a firmwide, integrated enterprise risk management framework that fully takes into account the interactions between liquidity risk and other risks, including market, credit and operational risk, displaced commercial risk, reputational and Syariah non-compliance risk. This framework should also address liquidity risk arising from various Syariah-compliant financial contracts, either directly due to the nature of the contract or indirectly as a consequence of other risks at any stage during the period of the contract.

3.2.2. In view of its critical importance to the viability of an Islamic bank, liquidity risk management should be integrated into a firm-wide, enterprise risk management framework. The ERM process of an Islamic bank should be designed to identify potential events that may affect the institution, to manage risk within risk tolerances set by the board, and to provide reasonable assurance regarding the achievement of the Islamic bank's objectives of growth, profitability and stability.

3.2.3. By identifying and proactively addressing risks and opportunities, an Islamic bank can protect and create value for its stakeholders, including shareholders, investors, depositors, employees, customers, regulators, and society as a whole.

3.2.4. The LRMF of the Islamic bank should fully take into account the interactions between liquidity risk and other risks, including market, credit, operational, displaced commercial risk, and reputational and Syariah non-compliance risk. An Islamic bank can take various steps to strengthen its integrated risk universe with respect to liquidity risk and other risks, including but not limited to the following: -

(a) coordination between heads of various risks at the operational level which can be extended to committees;
(b) reviewing of all the aspects of new product or business proposals from a holistic point of view;
(c) participation of risk managers in liquidity crisis teams;
(d) integrated risk reporting for senior management and board committees; and
(e) considering the aforementioned risks in the stress testing exercise.

3.2.5. In an Islamic bank, various types of risks interact with liquidity risk in a variety of ways, both in normal and stressed conditions:

(a) Credit risk in an Islamic bank can transform into liquidity risk if it faces major defaults in its financing and investment portfolio. Uncertainty about the creditworthiness and quality of an Islamic bank's financing portfolio can make it difficult to obtain funding from the market or to resell an eligible asset portfolio to other Islamic banks.

(b) Further, any reputational problem experienced by an Islamic bank due to perceived Syariah compliance or fiduciary risk may result in the withdrawal of funds by the fund providers, resulting in heightened liquidity risk for the Islamic banks.

The liquidity risk management framework of the Islamic banks should factor-in these and similar relationships and interactions between liquidity risk and other risks while setting limits, performing stress testing, preparing CFP, and executing its risk management strategy and policies in its operational environment.

3.2.6. An Islamic bank should also address liquidity risks arising from various Syariah-compliant modes for financing and investment. Islamic banks should especially look into risk transformation in these transactions during the various stages of execution, which might impact the liquidity of these products, directly or indirectly.

(a) In a Tawarruq contract, an Islamic bank's liquidity is impacted by the risk of late or non-payment by customers.

(b) In the case of Ijarah, an Islamic bank may face liquidity risk due to the late or non-payment of rentals by the customer, or default by the customer.

(c) In the case of the profit-sharing modes, i.e. Mudharabah and Musharakah, liquidity risk can arise in the case of late or non-payment of profit payments during the contract and non-payment by the customer of the existing principal at the end of the contract.

3.2.7. In the case of default by the customer in certain contracts, i.e Ijarah, an Islamic bank may repossess the assets and sell them in the market. If such assets fetch a price lower than their book value, the Islamic bank may face a liquidity risk due to the lower-than-expected cash flows. The Islamic bank may take into consideration that liquidity risk can arise either directly due to the nature of the contract or indirectly as a consequence of other risks at any stage during the period of the contract, mostly through credit risk, whereas continuous illiquidity in the Sukuk market mostly impacts an Islamic bank's liquidity through market risk.

3.2.8. Overall, an Islamic bank should be able to analyse its financing and investment portfolio with reference to features of Syariah-compliant contracts that can lead to liquidity risk and make appropriate adjustments in the case of need. Overall liquidity risk for an Islamic bank will largely depend on the mix of various Syariah-compliant modes of financing and investment in its asset portfolio and the concentration of individual customers exposed to each type of contract.

3.2.9. An Islamic bank should be able to take fully into account the interaction between funding and market liquidity in its analysis of liquidity risk. With the increasing interconnections between the two types of liquidity, it is imperative that the Islamic banks evaluate the potential systemic consequences of liquidity problems.

(a) In a period of crisis, problems with funding liquidity can lead to asset sales and may lower asset prices, which may impact the Islamic bank's market liquidity.

(b) Similarly, efforts by an Islamic bank to sell a significant amount of some of its assets, due to doubts about their quality and future performance, can impact market liquidity by reducing the price of assets. Thus the Islamic bank ends up with a lower amount than expected.

(c) The collapse of market liquidity is also likely when market makers are risk averse or lack absorption capacity.

(d) The interaction can also become significant when Islamic banks start stockpiling liquidity (i.e. liquid assets) due to pessimistic expectations about prospective market conditions.

3.3. LIQUIDITY RISK IDENTIFICATION, MEASUREMENT, MONITORING AND CONTROL

3.3.1. An Islamic bank should have a sound process for identifying, measuring, monitoring and controlling liquidity risk in accordance with ***Hukum Syara'*** and within the context of available Syariah-compliant products and markets. This process should include a robust framework for comprehensively projecting cash flows arising from assets, liabilities and off-balance sheet items over an appropriate set of time horizons.

3.3.2. An Islamic bank should use a range of liquidity metrics for identifying, measuring and analysing liquidity risk. These metrics should enable the management to understand its day-to-day liquidity positions and structural liquidity mismatches, as well as its resilience under stressed conditions. In particular, these metrics should perform the functions of:

(a) Ensuring compliance with statutory liquidity requirements;

(b) Projecting the Islamic bank's future cash flows and identifying potential funding gaps and mismatches under both normal and stressed conditions over different time horizons;

(c) Evaluating potential liquidity risks inherent in the Islamic bank's balance sheet structure and business activities, including the liquidity risks that may arise from any embedded options and other contingent exposures or events;

(d) Assessing the Islamic bank's capability to generate funding, as well as its vulnerability to, or concentration on, any major source of funding;

(e) Identifying the Islamic bank's vulnerabilities to foreign currency movements; and

(f) Identifying market related information.

In addition, the metrics should take into account all assets, liabilities, off-balance sheet positions and activities of the Islamic bank, across business lines, legal entities and overseas operations in a timely and effective manner.

3.3.3. An Islamic bank should use metrics and tools that are appropriate for their business mix, complexity and risk profile. The following liquidity indicators should be monitored:

(a) Maturity mismatch analysis, based on contractual maturities, as well as behavioural assumptions of cash inflows and outflows. Such metrics provide insight into the extent to which an Islamic bank engages in maturity transformation and identify potential funding needs that may need to be bridged;

(b) Information on the level of concentration of funding from major counterparties (including retail and wholesale fund providers);

(c) Major funding instruments (e.g. by issuing various types of securities);

(d) Information on the size, composition and characteristics of unencumbered assets included in an Islamic bank's liquidity cushion for assessing the Islamic bank's potential capacity to obtain liquidity, through sale or secured funding, at short notice from private markets or BDCB in times of stress; and

(e) Liquidity Coverage Ratio (LCR)[4] in individual currencies.

(f) Medium-term funding ratio, stable or core deposit ratio, or any similar ratio that reflects the stability of an Islamic bank's funding;

(g) Financing-to-deposit ratio, or any similar ratio that reflects the extent to which a major category of asset is funded by a major category of funding; and

(h) Metrics tracking intragroup lending and funding.

RISK CONTROL LIMITS

3.3.4. An Islamic bank should, where appropriate, set limits for the liquidity metrics they employ in monitoring and controlling their liquidity risk exposures. The limits set should be relevant to an Islamic bank's business activities and consistent with its liquidity risk tolerance.

3.3.5. The limits should be used for managing day-to-day liquidity within and across business lines and entities. A typical example is the setting of maturity mismatch limits over different time horizons in order to ensure that an Islamic bank can continue to operate in a period of market stress.

3.3.6. The limit framework also should include measures aimed at ensuring that the Islamic bank can continue to operate in a period of market stress, bank-specific stress and a

[4] Of which BDCB will determine the requirements, and as revised from time to time

combination of the two. Simply stated, the objective of such measures is to ensure that, under stress conditions, available liquidity exceeds liquidity needs. This is discussed further in the section on liquidity cushions.

3.3.7. An Islamic bank should ensure compliance with the established limits, and define the procedures for escalation and reporting of exceptions or breaches which can be early indicators of excessive risk or inadequate liquidity risk management. The limits set, and the corresponding escalation and reporting procedures, should be regularly reviewed.

3.3.8. An Islamic bank should consider setting stricter internal limits on intrabank funding denominated in foreign currencies where the convertibility and transferability of such funding is not certain, particularly in stressed situations.

EARLY WARNING INDICATORS

3.3.9. To complement liquidity metrics, an Islamic bank should adopt a set of indicators that are more readily available, either internally or from the market, to help in identifying at an early stage emerging risks in their liquidity risk positions or potential funding needs, so that management review and where necessary, mitigating measures can be undertaken promptly.

3.3.10. Such early warning indicators can be qualitative or quantitative in nature and may include, but are not limited to, the following:

(a) Rapid asset growth, especially when funded with potentially volatile liabilities;
(b) Growing concentrations on certain assets or liabilities or funding sources;
(c) Increasing currency mismatches;
(d) Increasing overall funding costs;
(e) Worsening cash-flow or structural liquidity positions as evidenced by widening negative maturity mismatches, especially in the short-term time bands (e.g. up to 1 month);
(f) A decrease in weighted average maturity of liabilities;
(g) Repeated incidents of positions approaching or breaching internal or regulatory limits;

(h) Negative trends or heightened risk, such as rising delinquencies or losses, associated with a particular business, product or activity;

(i) Significant deterioration in earnings, asset quality, and overall financial condition;

(j) Negative publicity;

(k) A credit rating downgrade;

(l) Stock price declines;

(m) Widening spreads on credit default swaps or senior and subordinated debt;

(n) Counterparties beginning to request additional collateral for credit exposures or to resist entering into new transactions to provide unsecured or longer dated funding;

(o) Reduction in available credit lines from correspondent banks;

(p) Increasing trends of retail deposit withdrawals;

(q) Increasing redemptions of certificates of deposit before maturity; and

(r) Difficulty in accessing longer-term funding or placing short-term liabilities (e.g. commercial paper).

MANAGEMENT INFORMATION SYSTEMS

3.3.11. An Islamic bank should have reliable management information systems ('MIS') that provide the Board, senior management and other appropriate personnel with timely and forward-looking information on its liquidity positions, including in identifying emerging concerns on liquidity, as well as in managing liquidity stress events.

3.3.12. The MIS should be appropriate for the purpose of supporting the Islamic bank's day-to-day liquidity risk management and continuous monitoring of compliance with established policies, procedures and limits.

3.3.13. An Islamic bank's MIS should encompass information in respect of the Islamic bank's liquidity cushion, major sources of funding and all significant sources of liquidity risk, including contingent risks and the related triggers and those arising from new activities. Moreover, an Islamic bank's MIS should have the ability to calculate risk measures to monitor liquidity positions:

(a) In all currencies, both individually and on an aggregate basis;

(b) Under normal business conditions and during stress events, with the ability to deliver more granular and time-sensitive information for the latter;

(c) For different time horizons; and

(d) At appropriate intervals (in times of stress, the MIS reports should be capable of being produced at more frequent intervals such as daily, or even intraday if necessary).

3.3.14. To facilitate liquidity risk monitoring, there should be reporting criteria specifying the scope, manner and frequency of reporting liquidity information for various recipients (e.g. daily/weekly and monthly for those responsible for managing liquidity risk, and at each meeting convened by the Board or its relevant delegated committee(s) during normal times, with increased reporting frequency in times of stress) and the parties responsible for preparing the reports.

3.3.15. In particular, the reporting should compare current liquidity exposures to established limits (both for internal liquidity risk management and statutory compliance purposes) to identify any limit breaches. Breaches in liquidity risk limits should be reported to the appropriate level of management. Thresholds and reporting guidelines should be specified for escalation of the reporting of breaches to higher levels of management and the Board.

CASH-FLOW APPROACH TO MANAGING LIQUIDITY RISK: OVERALL

3.3.16. An Islamic bank should adopt a cash-flow approach to managing liquidity risk, under which they should have in place a robust framework for projecting comprehensively future cash flows arising from assets, liabilities and off-balance sheet items over an appropriate set of time horizons. The framework should be used for:

(a) Monitoring on a daily basis their net funding gaps under normal business conditions; and

(b) Conducting regular cash-flow analysis based on a range of assumptions and techniques.

3.3.17. Cash-flow projections involve the estimation of an Islamic bank's cash inflows against its outflows and the liquidity value of its assets to identify the potential for future net funding shortfalls. The projections should be forward-looking and based on reasonable assumptions and techniques, covering liquidity risks stemming from:

(a) On-balance sheet assets and liabilities;

(b) Off-balance sheet positions and Islamic derivative transactions (including sources contingent liquidity demand and related triggering events associated with such positions);

(c) Special Purpose Vehicles: an Islamic bank should have a detailed understanding of its contingent liquidity risk exposure and event triggers arising from any contractual and non-contractual relationships with special purpose vehicles; and

(d) Core business lines and activities (for example, correspondent, custodian and settlement activities).

3.3.18. Cash-flow projections should address a variety of factors over different time horizons, including:

(a) Vulnerabilities to changes in liquidity needs and funding capacity on an intraday basis;

(b) Day-to-day liquidity needs in, say, 5 to 7 days ahead;

(c) Funding capacity over short and medium-term horizons (e.g. 14 day, 1, 2, 3, 6 and 9 months) of up to 1 year;

(d) Longer-term liquidity needs over 1, 2, 3, 4 and beyond 5 years; and

(e) Vulnerabilities to events, activities and strategies that can put a significant strain on an Islamic bank's capacity for generating liquidity.

3.3.19. Cash-flow projections should cover positions in Brunei dollar (BND) where appropriate and in all significant currencies[5] in aggregate. Separate cash-flow projections should also be performed for individual foreign currencies in which an Islamic bank has significant positions.

CASH-FLOW APPROACH TO MANAGING LIQUIDITY RISK: NET FUNDING GAPS

3.3.20. In order to meet their obligations as they fall due and thereby stay in business, an Islamic bank needs to ensure:

(a) Positive cash-flow position is maintained;
(b) Sufficient cash can be generated from their assets; or
(c) Adequate funding sources are available to cover their funding gaps promptly.

3.3.21. Net funding gaps can be assessed through the construction of a maturity profile, supplemented where relevant with additional analysis of the funding capacity of specific on- or off-balance sheet items.

3.3.22. An Islamic bank's maturity profile should encompass adequate time bands so that the Islamic bank can monitor its liquidity needs for various time horizons. For example, daily time bands in the very short term (say for a period of 5 to 7 days ahead) should be considered, which may be followed by wider and less granular time bands for other periods.

3.3.23. An Islamic bank should set internal limits to control the size of their cumulative net mismatch positions (i.e. where cumulative cash inflows are exceeded by cumulative cash outflows). At a minimum, an Islamic bank should consider setting limits for the short and medium-term time bands (e.g. next day, 5 to 7 days ahead, 14 days, 1, 2, 3, 6 and 9 months). Such limits should be in line with the established liquidity risk tolerance, and should take into account the potential impact of adverse market conditions on the Islamic bank's funding capacity. Maturity mismatch limits should also be imposed for individual foreign currencies in which an Islamic bank has significant positions.

[5] A currency may be considered 'significant' if the aggregate liabilities (both on and off-balance sheet) in that currency amount to 5 percent or more of the Islamic bank's aggregate liabilities.

3.3.24. The maturity mismatch limits should be properly documented. An Islamic bank should regularly review the suitability of such limits.

CASH-FLOW APPROACH TO MANAGING LIQUIDITY RISK: CASH FLOW PROJECTION ASSUMPTIONS AND TECHNIQUES

3.3.25. While certain cash flows can be projected based on contractual maturities, some cash flow may need to be estimated based on certain assumptions. In these circumstances, an Islamic bank should make realistic assumptions (with a reasonable degree of prudence) to reflect the characteristics of their businesses and products, as well as economic and market conditions. The following factors are examples that an Islamic bank could consider in setting the assumptions for cash flow projection:

(a) Expected future growth or contractions in the balance sheet;

(b) The proportion of maturing assets and liabilities that an Islamic bank reasonably expect to roll-over or renew;

(c) The quality and proportion of liquid assets or other marketable securities that can be used as collateral to obtain secured funding;

(d) The behaviour of assets and liabilities with no clearly specified maturity dates, such as repayment of overdrafts and demand deposits as well as sticky deposits;

(e) The potential cash flows arising from off-balance sheet activities, e.g., drawdown under financing commitments and contingent liabilities (including all potential draws from contractual or non-contractual commitments);

(f) The behaviour of cash flows under different service delivery channels (e.g. branches vs e-banking channels);

(g) The convertibility of foreign currencies;

(h) The lead time required for the monetization of marketable debt securities; and

(i) Access to wholesale markets, standby facilities and intragroup funding.

3.3.26. Techniques employed by an Islamic bank for designing cash flow assumptions should be commensurate with the nature and complexity of their business activities.

3.3.27. In deriving behavioural cash flow assumptions, an Islamic bank may analyse historical observations on cash flow patterns. While there is no standard methodology for making such assumptions, it is important that the assumptions used are consistent and reasonable and they should be supported by sufficient historical or empirical evidence.

3.3.28. An Islamic bank should document the underlying assumptions used for estimating cash flow projections and the rationale behind them. The assumptions and their justifications should be approved, and subject to regular review, by the ALCO to take account of available statistical evidence and changing business environment.

FOREIGN CURRENCY LIQUIDITY MANAGEMENT

3.3.29. An Islamic bank should assess its aggregate foreign currency liquidity needs and determine acceptable currency mismatches. An Islamic bank should undertake a separate analysis of its strategy for each currency in which it has significant activity, considering potential constraints in times of stress. The size of foreign currency mismatches should take into account:

(a) the Islamic bank's ability to raise funds in foreign currency markets;

(b) the likely extent of foreign currency back-up facilities available in its domestic market;

(c) the ability to transfer a liquidity surplus from one currency to another, and across jurisdictions and legal entities; and

(d) the likely convertibility of currencies in which the Islamic bank is active, including the potential for impairment or complete closure of foreign exchange swap markets for particular currency pairs.

3.3.30. An Islamic bank should be aware of, and have the capacity to manage, liquidity risk exposures arising from the use of foreign currency deposits and short-term credit lines to fund domestic currency assets as well as the funding of foreign currency assets with domestic currency.

3.3.31. An Islamic bank should take account of the risks of sudden changes in foreign exchange rates or market liquidity, or both, which could sharply widen liquidity mismatches and alter the effectiveness of foreign exchange hedges and Syariah-compliant hedging strategies.

3.3.32. Moreover, an Islamic bank should assess the likelihood of loss of access to the foreign exchange markets as well as the likely convertibility of the currencies in which the Islmaic bank carries out its activities.

3.3.33. An Islamic bank should negotiate a liquidity back-stop facility[6] for a specific currency, or develop a broader contingency strategy, if the Islamic bank runs significant liquidity risk positions in that currency.

3.4. FUNDING STRATEGY

3.4.1. An Islamic bank should establish a funding strategy that provides effective diversification in the sources and tenor of funding. It should maintain an ongoing presence in its chosen funding markets and strong relationships with funds providers to promote effective diversification of funding sources.

3.4.2. An Islamic bank should regularly gauge its capacity to raise funds quickly from each source. It should identify the main factors that affect its ability to raise funds and monitor those factors closely to ensure that estimates of fund raising capacity remain valid.

FUNDING DIVERSIFICATION

3.4.3. An Islamic bank should establish an effective funding strategy to achieve sufficient diversification, both of their funding sources and in the composition of their liquid

[6] An Islamic bank needs to carefully manage market access to ensure that liquidity sources – including credit lines – can be accessed when needed.

assets. An Islamic bank's funding strategy should consider correlations between sources of funds and market conditions.

3.4.4. An Islamic bank should put in place concentration limits on liquid assets and funding sources, as appropriate, with reference to such characteristics:

(a) type of asset, product, market or instrument;
(b) nature of issuer, counterparty or fund provider;
(c) maturity;
(d) currency;
(e) geographical location; and
(f) economic sector.

3.4.5. An Islamic bank should maintain an appropriate mix of liquid assets (including the type and quality of assets, and level of such holdings) as a source of liquidity for day-to-day operational needs (e.g. for settlement and clearing purposes), as well as for meeting emergency funding needs.

ALTERNATIVE FUNDING SOURCES

3.4.6. An Islamic bank should assess their exposure to significant funding providers (or depositors) on an ongoing basis. For this purpose, an Islamic bank should have in place, as part of their MIS, regular reports on the funding received from significant funding providers to facilitate monitoring. Such reports should consolidate all funding that an Islamic bank obtains from each significant funding provider (including a group of related funding providers which, when aggregated, amount to a significant funding provider).

(a) The historical amount of funds provided by these funding providers, e.g. in terms of the maximum, minimum and average balances over the previous 12 months, should also be monitored.

(b) Trigger ratios should be established to identify any funding concentration for management review. In the case of a retail Islamic bank, a funding concentration may exist if a significant percentage of its total deposit base is from a limited number of the top-ranking depositors or a single depositor (or group of related depositors). An Islamic bank should consider appropriate actions to diversify the deposit base.

3.4.7. An Islamic bank should avoid any potential concentration in their reliance on particular funding markets and sources. An Islamic bank should take into account the following major factors in assessing the degree of funding concentration:

(a) The maturity profile and credit-sensitivity of the liabilities;

(b) The mix of secured funding and unsecured funding;

(c) The extent of reliance on a single fund provider or a group of related fund providers; particular markets, instruments or products (e.g. interbank money market, retail versus wholesale deposits, and repo agreements and swaps); and intragroup funding;

(d) Geographical location, industry or economic sector of fund providers; and

(e) The currency of funding sources.

3.4.8. An Islamic bank with a large deposit base should, in particular, conduct more granular analysis on the stability of different types of deposits taking into account the relevant contractual and behavioural characteristics of such deposits (e.g. in terms of deposit insurance coverage, currency denomination, nature of depositors, such as retail, wholesale or private banking customers, etc.). They should monitor the trends and levels of their stable deposits regularly.

3.4.9. An Islamic bank needs to identify alternative sources of funding that strengthen its capacity to withstand a variety of severe yet plausible bank-specific and market-wide liquidity shocks. Depending on the nature, severity and duration of the liquidity shock, potential sources of funding include the following:

(a) deposit growth;
(b) the lengthening of maturities of liabilities;
(c) new issues of short- and long-term debt instruments;

(d) intra-group fund transfers, new capital issues, the sale of subsidiaries or lines of business;

(e) asset securitization;

(f) the sale or repo of unencumbered, syariah-compliant high quality liquid assets;

(g) drawing-down committed facilities; and

(h) funding from the central bank's marginal lending facilities.

3.4.10. As a general liquidity management practice, an Islamic bank should limit concentration in any one particular funding source or tenor. Some Islamic banks are increasingly reliant on wholesale funding, which tends to be more volatile than retail funding. Consequently, these Islamic banks should:

(a) ensure that wholesale funding sources are sufficiently diversified to maintain timely availability of funds at the right maturities and at reasonable costs.

(b) maintain a relatively higher proportion of unencumbered, high quality liquid assets than Islamic banks that rely primarily on retail funding.

3.4.11. For Islamic banks active in multiple currencies, Islamic banks should have access to diverse sources of liquidity in each currency, since Islamic banks are not always able to swap liquidity easily from one currency to another.

MARKET ACCESS

3.4.12. An Islamic bank should maintain an active presence in markets relevant to their funding strategy. This entails an ongoing commitment and investment in adequate and appropriate infrastructures, processes and information systems.

3.4.13. To ensure their access to funding markets in a timely manner, an Islamic bank should periodically utilise the established systems, documentation and arrangements for accessing those markets to confirm whether willing counterparties are readily available.

3.4.14. The ability to obtain funds in the interbank market is an important source of liquidity for an Islamic bank. An Islamic bank should be in a position to estimate their 'normal' funding capacity, based on past experience, and aim to limit their wholesale funding needs for both local and foreign currencies.

3.4.15. An Islamic bank should identify and build strong relationships with funding providers. In particular, an Islamic bank should maintain a solid and close relationship with its 25 largest depositors on an ongoing basis, to ensure that the Islamic bank has the ability to obtain funds in case of need (e.g. during events of stress), to prevent and/or limit an Islamic bank runoff and to safeguard its major sources of funding.

3.4.16. Nevertheless, an Islamic bank should take a prudent view of how such relationships may be strained in times of stress. In the formulation of stress scenarios and contingency funding plans, an Islamic bank should take into account possible situations where funding sources, including its 10 largest depositors, may dry up and markets may close, and where market perceptions of an Islamic bank's financial position may change.

3.4.17. Additionally, increased uncertainty about an Islamic bank's repayment ability can cause significant deterioration in the willingness of counterparties to provide funding. In such situations, the quality and strength of an Islamic bank's capital cushion can positively influence the willingness of counterparties to maintain funding relationships. Stress test scenarios and contingency funding plans should consider the effects that losses and the resulting reduction in capital can have on the bank's ability to maintain funding relationships.

3.5. INTRADAY LIQUIDITY MANAGEMENT

3.5.1. An Islamic bank should actively manage its intraday liquidity positions and risks to meet payment and settlement obligations on a timely basis under both normal and stressed conditions and thus contribute to the smooth functioning of payment and settlement systems.

3.5.2. Aside from direct participation in payment and settlement systems, an Islamic bank may incur intraday liquidity risk through their provision of correspondent and custodian banking services. Where an Islamic bank relies on other correspondent or custodian banks to conduct payment and settlement activities, operational or financial disruptions at those banks will also affect the Islamic bank's own liquidity position and should have alternate arrangements in place to ensure it is able to meet its obligations.

3.5.3. A key challenge in intraday liquidity risk management lies in the uncertainty in both the amount and timing of an Islamic bank's gross cash inflows and outflows during the day, in part because such cash flows may reflect the activities of its customers or counterparties which are beyond the Islamic bank's control, especially where the Islamic bank provides correspondent or custodian services. Moreover, the timing of the cash flows may be dictated by the rules governing payment and settlement systems (e.g. payment obligations may be due by specific times during the day).

(a) Because an Islamic bank's daily gross cash outflows can often far exceed the bank's gross cash inflows at different points of time during a day, or its net overnight balances even under normal circumstances, differences in the timing of its inflows and outflows could result in significant intraday liquidity shortfalls.

(b) These shortfalls may necessitate the Islamic bank funding funds on an intraday basis, prioritizing its outflows to meet critical payments, or funding additional overnight funds (if certain expected cash inflows are not received before the end of the working day).

RISK MANAGEMENT CONTROLS

3.5.4. An Islamic bank should have effective policies, procedures, systems and controls for managing their intraday liquidity risks in all of the financial markets and currencies in which they have significant payment and settlement activities. Such systems and controls should, among other things, ensure an Islamic bank's capacity to:

(a) Measure expected daily gross cash inflows and outflows, anticipate the intraday timing of these cash flows where possible, and, as such, forecast the range of potential net funding shortfalls at different time points during the day;

(b) Monitor intraday liquidity positions against expected activities and available resources (including liquidity balances, remaining intraday credit capacity, and available collateral) and prioritise payments, if necessary;

(c) Manage intraday liquidity positions so that there is always sufficient intraday funding to meet the Islamic bank's intraday liquidity needs;

(d) Manage and mobilise collateral as necessary to obtain intraday funds. An Islamic bank should have sufficient collateral available to acquire the level of intraday liquidity needed to meet its intraday objectives;

(e) Manage the timing of its liquidity outflows in line with its intraday objectives. An Islamic bank should have the ability to manage the payment outflows of key customers and, if customers are provided with intraday credit, that credit procedures should be capable of supporting timely decisions; and

(f) Manage unexpected disruptions to its intraday liquidity flows. An Islamic bank's stress testing and contingency funding plans should reflect intraday considerations. An Islamic bank also should understand the level and timing of liquidity needs that may arise as a result of the failure to settle procedures of payment and settlement systems in which it is a direct participant. Robust operational risk management and business continuity arrangements are also critical to the effectiveness of an Islamic bank's intraday liquidity management.

3.5.5. Intraday liquidity risk management demands cooperation between the front and back offices, as it typically involves close monitoring of expected payments and direct contacts with customers, where necessary, to quickly verify the reasons for delayed payments. A clear assignment of tasks and responsibilities to personnel involved is, therefore, important, particularly as time-critical decisions need to be made, for instance, to meet the settlement cut-off times.

3.5.6. The tools and resources applied by an Islamic bank in managing intraday liquidity risks should be tailored to the Islamic bank's business model and role in the financial system. This relates to, for example:

(a) whether the Islamic bank participates in a payment or settlement system directly or through correspondent or custodian banks, and

(b) whether it provides correspondent or custodian services and intraday credit facilities to other banks, firms or systems.

If an Islamic bank relies heavily on secured funding markets, the bank should have adequate systems and procedures in place to monitor positions in securities settlement systems.

3.6. COLLATERAL MANAGEMENT

3.6.1. An Islamic bank should actively manage its Syariah-compliant collateral positions, differentiating between encumbered and unencumbered assets. An Islamic bank should monitor the legal entity and physical location where collateral is held and how it may be mobilised in a timely manner.

3.6.2. The ready availability of assets that an Islamic bank can use as collateral to obtain funding by means of secured funding (e.g. repo) mitigates liquidity risk. Therefore, an Islamic bank should allocate sufficient resources to ensure efficient and effective management of collateral in their liquidity risk management process.

3.6.3. Collateral management should aim at optimising the allocation of collateral available for different operational needs, across products, business units, locations and currencies. It should be based on a prioritisation of needs and an awareness of the opportunity cost of its use, in both normal and stressed times.

MANAGEMENT OF COLLATERAL POSITIONS

3.6.4. An Islamic bank should have the ability to calculate all of their collateral positions, including assets currently deployed for use as collateral relative to amount of collateral required, and unencumbered assets available to be used as collateral.

3.6.5. An Islamic bank's level of available collateral should be monitored by legal entity, jurisdiction and currency exposure. An Islamic bank should be able to track precisely the legal entity and the physical location (i.e. the custodian or securities settlement system) at which each of the assets is held, and monitor how such assets may be mobilised in a timely manner in case of need.

3.6.6. An Islamic bank should have sufficient collateral to meet the following situations:

(a) expected and unexpected funding needs; and

(b) potential increases in margin requirements for pledged assets over different timeframes, including intraday, short-term and longer-term structural liquidity requirements

3.6.7. An Islamic bank should have adequate systems for monitoring the time shifts between intraday, overnight and term collateral usage.

3.6.8. In determining the required collateral to be allocated for intraday liquidity needs, an Islamic bank should consider the potential for significant uncertainty around the timing of payment flows during the day, as well as the potential for operational and liquidity disruptions that could necessitate the pledging or delivery of additional intraday collateral.

3.6.9. An Islamic bank should assess the eligibility of each major asset class for pledging as collateral with relevant central banks (for intraday, overnight and term credit or secured funding under standing facilities, as the case may be), as well as the acceptability of assets to major counterparties and fund providers in secured funding markets. They should also ensure that there is proper legal documentation for each asset class to be effectively pledged for liquidity.

3.6.10. An Islamic bank should diversify their sources of collateral to avoid excessive concentration on any particular funding provider or market, taking into account of the following considerations:

(a) capacity constraints, sensitivity of prices, haircuts and collateral requirements under conditions of bank-specific and market-wide stress, and
(b) the availability of funds from private sector counterparties in various market stress scenarios.

OPERATIONAL ISSUES

3.6.11. An Islamic bank should address various operational issues relating to the use of collateral for obtaining liquidity. These include, but are not limited to:

(a) Awareness of the operational and timing requirements associated with accessing the collateral given its physical location;

(b) Understanding the liquidity risks associated with different types of payment and settlement systems (e.g. 'net' systems versus 'gross' systems) and their implications for collateral management; and

(c) Taking into account the implications of obligations embedded in the contractual terms of certain transactions which, when triggered, may reduce the availability of collateral for liquidity risk management. These refer to, for example, margin requirements and triggering events that require an Islamic bank to:

i. Provide additional collateral as a result of changes in the market valuation of the transactions or in the Islamic bank's credit rating or financial position (in the case of derivative transactions), or;

ii. Hypothecate or deliver additional assets to the pool of underlying assets when the embedded triggering events occur (in the case of securitisation transactions).

3.6.12. An Islamic bank should test on a periodic basis, the ability to use its source of collateral in repo operations, to ensure its capability of using the securities to obtain the required liquidity, if needed, and assess the market appetite for a particular security, including the related haircut applied to put the operation in place. An Islamic bank should also ensure that there are no operational issues that could have an impact on the timing and the feasibility of the operation (e.g. limits to the transferability of the security, in case this is held in a local and foreign branch portfolio).

3.6.13. For secured funding, an Islamic bank should maintain all documentation related to the agreement with the counterparties.

3.7. MAINTENANCE OF LIQUIDITY CUSHION

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

3.7.2. The size of the liquidity cushion should reflect an Islamic bank's established risk tolerance, and should be sufficient to meet the Islamic bank's liquidity needs in the initial phase of liquidity stress, which is most critical to the Islamic bank's survival, taking into account the monetization or funding values of the assets included in the cushion under the relevant stressed conditions.

3.7.3. The liquidity cushion should be sized to enable an Islamic bank to continue to meet its daily payment and settlement obligations on a timely basis for the period of stress. In doing so, the Islamic bank should take into account other available tools and resources to manage intraday liquidity risks.

3.7.4. In addition, the liquidity cushion should at least be sufficient to enable an Islamic bank to reach its regulatory LCR[7].

COMPOSITION OF LIQUIDITY CUSHION

3.7.5. The liquidity cushion should be largely made up of high quality liquid assets (the most liquid, unencumbered and readily marketable assets such as cash, other high quality government debt securities, etc.) or similar instruments, that can be easily or immediately monetised with little or no loss of value at all times, irrespective of the Islamic bank's own condition.

3.7.6. To cater for any extension or deterioration of any stress situation, an Islamic bank may widen the composition of its liquidity cushion by holding other liquid and marketable assets which can be used to cater for the longer end of the stress period (e.g. 1 month or beyond) without resulting in excessive losses or discounts.

3.7.7. The marketability of individual assets may differ depending on the stress scenario and time-frame involved. Nevertheless, there are some general characteristics which tend to increase the liquidity of a given asset including:

(a) transparency of its structure and risk characteristics;
(b) ease and certainty of valuation;
(c) central bank eligibility (though that in and of itself does not confer ready market liquidity);
(d) depth of the market for the asset, including holdings of the Islamic bank relative to normal market turnover; and

[7] Of which BDBC will determine the requirements, and as revised from time to time

(e) the Islamic bank's presence in the relevant markets.

3.7.8. An Islamic bank should not assume that a liquid market will exist for a given asset in all stress scenarios simply because such a market exists in normal times. There should be no legal, regulatory, Syariah or operational impediment to the use of these assets to obtain funding, as these assets should be available at all times to meet liquidity needs as and when they arise. The Islamic bank should be ready and prepared to use these assets in the event of severe stress. The cushion should, however, provide a backstop rather than the first line of defence.

3.7.9. An Islamic bank should be realistic about how much cash it will be able to obtain from the relevant central bank against eligible assets. Moreover, an Islamic bank should not rely on the central bank altering the amount of or the terms on which it provides liquidity.

3.7.10. An Islamic bank should document its policies and criteria for defining the liquid assets to be included in its liquidity cushion and distinguishing their relative levels of quality in terms of their ability to generate liquidity swiftly, with little loss or discount. MIS reports should be in place to facilitate continuous management of an Islamic bank's liquidity cushion.

3.8. INTRAGROUP LIQUIDITY MANAGEMENT

3.8.1. An Islamic bank should actively monitor and control liquidity risk exposures and funding needs within and across legal entities, business lines and currencies, taking into account legal, regulatory, Syariah and operational limitations to the transferability of liquidity.

3.8.2. Where an Islamic bank is part of a banking group (local or foreign), the bank should be able to monitor and control liquidity risks arising from intragroup transactions (including cross-border transactions where applicable) with other legal entities in the group, taking into account any legal, regulatory, operational, Syariah or other constraints on the transferability of liquidity and collateral to and from those entities.

3.8.3. In managing intragroup liquidity risks, an Islamic bank should understand how their liquidity positions may be affected by liquidity problems faced by other group entities.

3.8.4. In the case of a domestic systemic stress event, an Islamic bank should have processes in place to allow for allocation of liquidity and collateral resources to affected entities, to the extent that transferability is permitted. An Islamic bank should also consider the possibility that a local event could lead to a liquidity strain across the whole group due to reputational contagion (i.e. when market counterparties assume that a problem at one entity implies a problem for the group as a whole). The group as a whole, and individual legal entities, should be resilient to such shocks to a degree consistent with the Board's defined risk tolerance.

3.8.5. To mitigate the potential for reputational contagion, effective communication with counterparties, credit rating agencies and other stakeholders when liquidity problems arise is of vital importance. In addition, group-wide contingency funding plans, liquidity cushions and multiple sources of funding are mechanisms that may mitigate reputational contagion.

TREATMENT OF INTRAGROUP TRANSACTIONS

3.8.6. An Islamic bank should specify in their liquidity risk management strategy the treatment of intragroup liquidity, and assumptions on intragroup dependencies for the purposes of making cash flow projections.

3.8.7. In assessing funding needs (especially under stressed situations), an Islamic bank should account for any funding or liquidity commitment provided to group entities (e.g. in the form of explicit guarantees or funding lines to be drawn in times of need) and prepare for any withdrawal of funding provided by group entities.

3.8.8. An Islamic bank should also analyse how the liquidity positions of group entities may affect their own liquidity, either through direct financial impact or through contagion when those entities encounter liquidity strain. Where there is reliance on funding support from group entities, an Islamic bank should take steps to identify the existence of and take into account any legal, regulatory, Syariah or other limitations that may restrict their access to liquidity from those entities in case of need.

3.8.9. An Islamic bank that has entered into 'back-to-back' transactions[8] with its group entities should exclude such transactions from cash flow or liquidity calculations, as such transactions usually involve no actual movement of funds and, as such, cannot effectively improve the Islamic bank's liquidity.

INTRAGROUP LIQUIDITY LIMITS

3.8.10. An Islamic bank should establish internal limits on intragroup liquidity risk to mitigate the risk of contagion from other group entities when those entities are under liquidity stress. Moreover, an Islamic bank should consider setting stricter internal limits on intragroup funding denominated in foreign currencies where the convertibility and transferability of such funding is not certain, particularly in stressed situations.

CONSTRAINTS ON INTRAGROUP LIQUIDITY TRANSFERS

3.8.11. An Islamic bank should understand potential constraints that may affect intragroup liquidity movements, and specify their assumptions regarding the transferability of funds and collateral in liquidity risk management policies. These assumptions should fully consider regulatory, legal, accounting, credit, tax and internal constraints on the effective movement of liquidity and collateral. Assumptions regarding the transferability of funds and collateral should be transparent in liquidity risk management plans that are available for supervisory review.

3.8.12. An Islamic bank should also consider the operational arrangements needed to transfer funds and collateral across entities and the time required to complete such transfers under these arrangements.

3.8.13. For each country in which it is active, an Islamic bank should ensure that it has the necessary expertise about country-specific features of the legal and regulatory regime that influence liquidity risk management, including arrangements for dealing with failed banks, deposit insurance, and central bank operational frameworks and collateral policies. This knowledge should be reflected in liquidity risk management processes.

[8] An agreement to exchange profit rates between a fixed rate and a floating rate or vice versa through Syariah compliant contracts approved by the Syariah advisory body.

(a) It is important for the head office to have appropriate information flow from foreign subsidiaries to identify problem spots in order to mobilise injection of liquidity if a subsidiary is unable to manage by itself.

(b) It would be quite appropriate for the parent bank to have a formalised liquidity support arrangement with subsidiaries when the need arises. Such arrangements should take into account potential transferability constraints imposed by host regulators.

(c) The specific market characteristics and liquidity risks of positions in foreign currencies should be taken into account, particularly where fully developed foreign exchange markets do not exist. For currencies trading in well-developed foreign exchange markets, a more global approach to management of the currency may be taken, including the use of swaps. However, the Islamic bank should critically assess the risk that the ability to swap currencies may erode rapidly under stressed conditions.

3.9. STRESS TESTING AND SCENARIO ANALYSIS

3.9.1. In addition to conducting cash flow projections to monitor its liquidity positions under normal business conditions, an Islamic bank should conduct stress tests on a regular basis for a variety of short-term and prolonged bank-specific and market-wide stress scenarios (individually and in combination) to identify sources of potential liquidity strain and to ensure that current exposures remain in accordance with an Islamic bank**'s established liquidity risk tolerance.** An Islamic bank should use stress test outcomes to adjust its liquidity risk management strategies, policies and positions and to develop effective contingency plans.

3.9.2. An Islamic bank should conduct stress tests based on sufficiently severe, but plausible scenarios and assumptions that are commensurate with the Islamic bank's business nature, size and complexity. The stress testing scenarios and assumptions adopted by an Islamic bank should reflect the current market conditions and address the Islamic bank's actual experiences in stressed situations.

3.9.3. The active involvement of senior management is vital to the stress testing process. The scenarios and assumptions should be reviewed regularly by the senior management, with any major changes endorsed by the Islamic bank's Board or its relevant delegated committee(s). Senior management should sufficiently review the severity of the stress scenarios.

3.9.4. Stress tests should enable an Islamic bank to analyse the impact of stress scenarios on its consolidated group-wide liquidity position, as well as on the liquidity position of individual entities and business lines in order to understand where risks could arise. For the purposes of consolidated liquidity positions, the Islamic banks may use a proportionate or component approach.

3.9.5. Stress tests should be performed for all significant currencies individually and on an aggregate basis.

3.9.6. The design and frequency of stress testing should be commensurate with the size and complexity of an Islamic bank and its liquidity risk exposures.

3.9.7. When conducting stress tests on their liquidity position, an Islamic bank should also consider the insights and results of stress tests performed for other risks, including possible interaction with these other risks.

SCENARIOS AND ASSUMPTIONS

3.9.8. It is important for Islamic banks to construct sufficiently severe, but plausible stress scenarios and examine the resultant cash flow needs. While an Islamic bank should aim to cover different stress events and levels of adversity, they should, at a minimum, include the following types of scenarios in their stress testing exercise:

(a) An Islamic bank-specific stress scenario;
(b) A general market stress scenario; and
(c) A combination of both, including possible interaction with other risks.

3.9.9. An Islamic bank will need to assign the timing of cash flows for each type of asset and liability, as well as off-balance sheet and contingent items, by assessing the probability of the behaviour of those cash flows under the scenario being examined. The timing of cash inflows and outflows on the maturity ladder can vary among scenarios and the assumptions may differ quite sharply. In estimating liquidity needs, both contractual and non-contractual cash flows should be considered.

3.9.10. In designing stress scenarios, an Islamic bank should take into account, specific risks associated with its business activities, products or funding sources. These include, for example, heavy reliance on specific funding markets or significant exposures to complex financial instruments. The stress scenarios should be able to evaluate the potential adverse impact of these factors on the Islamic bank's liquidity position.

3.9.11. An Islamic bank should take a reasonably conservative approach when setting stress assumptions. There are a number of possible areas that the assumptions should cover. For illustrative purposes, these areas include, but are not limited to, the following:

(a) The run-off for retail funding;
(b) Asset market illiquidity and erosion in the value of liquid assets;
(c) The loss or impairment of secured and unsecured wholesale funding sources;
(d) The correlation between funding markets and effectiveness of diversification across available sources of funding;
(e) The availability of contingent lines extended to the Islamic banks;
(f) The availability of funding in different tenors;
(g) Contingent claims, including potential draws on committed lines extended to third parties or the Islamic bank's connected parties (such as its overseas branches, head office or associates in its consolidated group);
(h) Liquidity drains associated with contractual obligations or non-contractual obligations involving off-balance sheet vehicles and activities, as well as complex products or transactions;
(i) Additional margin calls and collateral requirements (e.g. in derivative or other contracts with embedded trigger clauses);
(j) Estimates of future balance sheet growth;
(k) Currency convertibility and access to foreign exchange markets;
(l) The transferability of liquidity across entities, sectors and jurisdictions, taking into account legal, regulatory, operational and time zone restrictions and constraints;
(m) Access to the payment and settlement systems which are imperative to an Islamic bank;

(n) The impact of credit rating triggers;

(o) The access to central bank facilities;

(p) The operational ability of the Islamic bank to monetise assets; and

(q) The Islamic bank's remedial actions and the availability of the necessary documentation and operational expertise and experience to execute them, taking into account the potential reputational impact when executing these actions.

3.9.12. All stress scenarios and their underlying assumptions should be properly defined and documented.

BANK-SPECIFIC STRESS SCENARIOS

3.9.13. An Islamic bank-specific stress scenario should cover situations that could arise from an Islamic bank experiencing either real or perceived problems (e.g. Syariah non-compliant incidents and governance failure, asset quality problems, solvency concerns, credit rating downgrade, rumours relating to the Islamic bank's credibility or management fraud, etc.) which affect public confidence in the bank and its group-wide operations. It should represent the Islamic bank's view of the behaviour of its cash flows in a sufficiently severe stress scenario. A key assumption is that many of the Islamic bank's liabilities cannot be rolled-over or replaced, resulting in the need to utilise its liquidity cushion.

3.9.14. This scenario will likely entail an acute deposit run. Such a scenario would typically include the following characteristics:

(a) Significant daily run-off rates for deposits particularly at the initial stage of the stress scenario, with increasing requests from customers to redeem their time deposits before maturity;

(b) Interbank deposits repaid at maturity;

(c) No new unsecured or secured funding obtainable from the market; and

(d) Forced sale of marketable securities at discounted prices.

GENERAL MARKET STRESS SCENARIOS

3.9.15. A general market stress scenario is one where liquidity, at a large number of banks in one or more markets, is affected. Characteristics of this scenario may include:

(a) A market-wide liquidity squeeze, with severe contraction in the availability of secured and unsecured funding sources, and a simultaneous drying up of market liquidity in some previously high liquidity markets;
(b) Substantial discounts needed to sell or repo assets and wide differences in funding access among banks, due to the occurrence of a severe worsening of their perceived credit quality (i.e. flight to quality);
(c) Restrictions on currency convertibility; and
(d) Severe operational or settlement disruptions affecting one or more payment or settlement systems.

COMBINED STRESS SCENARIOS

3.9.16. An Islamic bank should incorporate a stress scenario into their stress test framework that has the key characteristics of both an Islamic bank-specific stress scenario and a general market stress scenario combined ('combined stress scenario'), with appropriate modification of the underlying assumptions, as necessary, to reflect a set of adverse circumstances that could plausibly happen.

3.9.17. The following are some relevant factors that could be considered in formulating an Islamic bank's 'combined stress scenario':

(a) As a greater number of banks in the market will be affected under a combined stress scenario, this may change the way in which some bank-specific stress elements are to be structured. For example, instead of a quick but severe bank run, there may be a less acute, but more persistent and prolonged run-off of customer deposits; and

(b) Even lower realizable values of assets may result as the Islamic bank concerned seeks to sell or repo large quantities of assets when the relevant asset markets become less liquid and market participants are generally in need of liquidity.

MINIMUM STRESS PERIOD

3.9.18. An Islamic bank should assume the minimum stress period for an Islamic bank-specific stress scenario to last for no less than 5 working days, and that for a general market stress scenario and a combined stress scenario to last for no less than one calendar month. However, an Islamic bank should adopt a longer minimum stress period for the purposes of liquidity stress-testing if its liquidity risk profile warrants this. To gauge an Islamic bank's survival period under stress, it is also generally expected that, in addition to the minimum stress period, the Islamic bank's stress test should also include sufficiently granular time-bands to assess the Islamic bank's ability to meet its obligations in the near to medium-term.

UTILISATION OF STRESS TEST RESULTS

3.9.19. The stress testing results should be linked to the overall liquidity risk management process of an Islamic bank, including the setting of the liquidity risk tolerance and the internal liquidity risk limits. To this end, senior management should:

(a) Ensure proper documentation of the stress scenarios and related assumptions, and review the scenarios and assumptions periodically;

(b) Evaluate the stress testing results and consider any possible need for remedial or mitigating actions. Remedial or mitigating actions may include actions such as:

- limiting the Islamic bank's liquidity risk exposures,
- obtaining more long-term funding;
- restructuring the composition of assets;
- increasing the size of the Islamic bank's liquidity cushion; or
- adopting of any other measures to adjust the Islamic bank's liquidity profile to fit its risk tolerance.

(c) Where such actions are not considered necessary to address stress test results indicating potential liquidity strains or shortfalls, senior management should document the justifications for their view.

(d) Report the stress testing results and vulnerabilities identified to the Board (or its relevant delegated committee(s)), with recommendations for any resulting actions. Where appropriate BDCB should be informed of the results and anticipated actions if they are material to the Islamic bank (i.e. in addition to normal stress testing reporting arrangements); and

(e) Integrate the stress-testing results into the Islamic bank's strategic business planning and Contingency Funding Plan ('CFP').

3.10. CONTINGENCY FUNDING PLAN

3.10.1. An Islamic bank should have a formal contingency funding plan (CFP) that clearly sets out the strategies for addressing liquidity shortfalls in emergency situations. A CFP should outline policies to manage a range of stress environments, establish clear lines of responsibility, include clear invocation and escalation procedures and be regularly tested and updated to ensure that it is operationally robust.

3.10.2. An Islamic bank should have a CFP that clearly sets out its strategies for addressing liquidity and funding shortfalls to the extent beyond the level estimated from the stress tests performed by the Islamic bank under bank-specific, market-wide and combined stress scenarios and beyond the level covered by the Islamic bank's liquidity cushion.

3.10.3. The CFP should be approved by the Board and regularly tested and updated to ensure that it is operationally robust.

3.10.4. The CFP should be commensurate with the Islamic bank's complexity, risk profile, scope of operations and role in the financial system. The design of a CFP, including its action plans and procedures, should be closely integrated with the Islamic bank's ongoing analysis of liquidity risk. The CFP should address liquidity issues over a range of different time horizons.

ROLES AND RESPONSIBILITIES

3.10.5. The CFP should contain clear policies and procedures enabling an Islamic bank's management to make timely and well-informed decisions, communicate the decisions effectively, and execute contingency measures swiftly and proficiently. To achieve this, the roles and responsibilities, and internal procedures for liquidity stress management should be clearly established. These should cover:

(a) The authority to invoke the CFP and the establishment of a formal 'crisis management team' to facilitate internal coordination and communication across different business lines and locations and decision-making by senior management in a stress situation;

(b) Clear escalation and prioritisation procedures detailing what actions to take, who can take them, and when and how each of the actions can and should be activated;

(c) Names and contact details of members of the team responsible for implementing the CFP and the locations of team members; and

(d) The designation of alternates for key roles.

CONTINGENCY FUNDING MEASURES AND SOURCES

3.10.6. The CFP should provide an Islamic bank's management with a diversified set of viable, readily deployable potential contingency funding measures for preserving and making up liquidity shortfalls in emergency situations. All available potential sources of funding should be outlined, along with the estimated amount of funds that can be derived from these sources, their expected degree of reliability, under what conditions these sources should be used, and the lead time needed to access additional funds from each of the sources.

3.10.7. An Islamic bank should analyse the viability and likely impact on market perception of adopting different contingency funding measures. Some of the factors that should be considered include:

(a) The impact of stressed market conditions on an Islamic bank's ability to raise funding through different sources;

(b) The interaction between asset markets and funding liquidity, especially in situations where there is an extensive or complete loss of typically available market funding options;

(c) Any second-round effects, as well as reputation, legal, regulatory and operational constraints, related to the execution of such measures;

(d) Any peculiarities (including special terms and conditions) associated with particular funding sources; and

(e) For example, an Islamic bank should generally refrain from excessive reliance on back-up credit lines (even if committed) and need to understand various conditions, such as notice periods, that could affect an Islamic bank's ability to access such lines quickly.

3.10.8. In developing contingency funding measures, an Islamic bank should also be aware of the operational procedures needed to transfer liquidity and collateral across group entities, borders and business lines, taking into account legal, regulatory, operational, Syariah and time zone restrictions and controls governing such transfers. The CFP should incorporate relevant operational and Syariah procedures and realistic timelines for such transfers. Assets intended to be pledged as collateral in the event that backup funding sources are utilised, should be held by a legal entity and in a location consistent with management's funding plans.

EARLY WARNING SIGNALS AND TRIGGERING EVENTS

3.10.9. The CFP should clearly mention a set of triggering events that will activate the plan, as well as the mechanisms for identification, monitoring and reporting of such events at an early stage. An Islamic bank may consider the various early warning indicators highlighted in paragraph 3.2.10. in relation to this.

INTRADAY LIQUIDITY CONSIDERATIONS

3.10.10. The CFP should include potential steps to meet intraday critical payments. In situations where intraday liquidity resources become scarce, an Islamic bank should have the ability to identify critical payments and to sequence or schedule payments based on priority.

COMMUNICATIONS AND PUBLIC DISCLOSURE

3.10.11. As part of the CFP, an Islamic bank should develop a communication plan to deliver, on a timely basis, clear and consistent communication to internal and external parties, in a time of stress, to support general confidence in the Islamic bank. Internal communication should cover employees and encompass different business lines and locations of the Islamic bank. External parties should include the BDCB, other relevant local or overseas public authorities, clients and creditors.

3.10.12. The plan should, in particular, address communication with shareholders and other external stakeholders, such as market participants, correspondents, custodians and major counterparties and customers to whom assurance about the Islamic bank is extremely important, as their actions could significantly affect the Islamic bank's reputation and liquidity position.

TESTING, UPDATE AND MAINTENANCE

3.10.13. The CFP should be subject to regular testing to ensure its effectiveness and operational feasibility, particularly in respect of the availability of the contingency sources of funding listed in it.

3.10.14. The testing of the CFP should cover:

(a) Verifying key assumptions, such as the ability to sell or repo certain assets or periodically draw down credit lines;

(b) Ensuring that roles and responsibilities are appropriate and understood;

(c) Confirming that contact information is up-to-date, with reporting lines clearly stated and synchronized with the latest organisation chart;

(d) Proving the transferability of cash and collateral (especially across borders and entities); and

(e) Reviewing that the necessary legal and operational documentation is in place to execute the plan at short notice.

3.10.15. The ALCO should review all aspects of the CFP following each testing exercise and ensure that follow-up actions are delivered.

3.10.16. The ALCO should review and update the CFP on a periodic basis, as warranted by changes in business or market circumstances, to ensure that the CFP remains robust over time. Any changes to the CFP should be properly documented and approved by the Board (or its relevant delegated committee).

3.10.17. The CFP should be consistent with the Islamic bank's business continuity plans and should be operational under situations where business continuity arrangements have been invoked. As such, an Islamic bank should ensure effective coordination between teams managing issues surrounding liquidity crisis and business continuity.

3.11. COLLABORATION BETWEEN ISLAMIC BANKS

3.11.1. With due attention to the lack of well-developed Islamic interbank markets for effective liquidity risk management in a number of jurisdictions, Islamic banks should closely cooperate among themselves in order to develop Syariah-compliant arrangements, solutions and trading mechanisms for liquidity management purposes. Such collaboration may involve Islamic banking industry associations in the jurisdiction.

3.11.2. A major constraint on the effective management of liquidity risk by Islamic banks in many jurisdictions is the fact that less-developed Islamic interbank markets consist of few players, little volume and a small number of mechanisms for investing and financing funds, especially in the short term. These constraints make it difficult for Islamic banks in these jurisdictions to effectively manage their liquidity, which impacts their competitiveness and resilience, as well as their ability to face any liquidity and market stress situation. Despite these limitations, Islamic banks cannot absolve themselves from their responsibility to effectively manage their funds, and be competitive and profitable as fiduciary agents of their fund providers.

3.11.3. In view of the above, Islamic banks should be working closely with other Islamic banks, especially within the same jurisdiction, and preferably at the platform of Islamic banking industry associations, if any.

3.11.4. Islamic banks should also work collectively to secure agreements on standardised contracts[9] for various kinds of Syariah-compliant transactions between themselves in order to reduce documentation risk, the time involved and the cost of transactions. Islamic banks should also explore the possibility of expanding the range and types of collateral that are acceptable in their jurisdiction.[10] If not present currently, Islamic banks may consider the establishment of an association of the Islamic banks in their jurisdiction, which can play an important role in improving coordination between the industry players and become a catalyst for various collaborative measures.

3.11.5. A number of proposals have been put forward by academics, industry practitioners and other stakeholders for managing liquidity risk by the Islamic banks at the interbank level. Some of these proposals have already been implemented/tested in various jurisdictions.[11] The alternatives include

(a) mutual financing facilities under profit-sharing (Mudharabah or Musyarakah) arrangements;

(b) reciprocal accommodation arrangements with net use of zero over the given period[12];

(c) a common pool of funds at the supervisor level to provide mutual accommodation[13];

(d) investment of clearing accounts in shares with daily valuation on a net asset value (NAV) basis[14];

(e) purchasing units of real estate assets for a specified period[15];

9 In addition to efforts to standardise contracts at the jurisdiction level, coordinated efforts at the international level are being made by standard-setting bodies such as the International Islamic Financial Market.

10 Such collateral will help facilitate secured funding transactions between the Islamic banks, which is normally provided on the basis of some Syariah-compliant alternative to a repurchase (repo) transaction.

11 Some of these arrangements and proposals, however, may have been put forward by Islamic banks and other industry players that have a commercial interest attached to them. Reference to these arrangements has been made only to enlighten the reader about some industry initiatives for overcoming liquidity problems in the Islamic financial services industry.

12 In this mechanism, the Islamic banks can make an interbank cooperative arrangement to extend reciprocal accommodation to each other on the condition that the net use of this facility is zero over a given period. In this way, mutual ~~borrowing~~ funding will cancel out mutual financing over an agreed time period.

13 Under this arrangement, the Islamic banks in a jurisdiction can contribute to a common pool of funds that is managed by the supervisory authority. The Islamic banks can seek funding from this pool in case of need, with agreed-upon controls on the amount and tenor of such accommodation.

14 This structured vehicle product receives credit balances of the client clearing account on a daily basis and purchases blocks of participation shares in a clearing company. The shares are valued on a daily basis by reference to the NAV. If the customer's shares in the company fall in value, the parent Islamic banks provides irrevocable and unconditional guarantees, as a third party, that on redemption of the shares, the customer will receive an amount equal to the price paid for them. Thus, customers' shares are hedged against a fall in value of the clearing company's shares.

15 Under this procedure, the mechanism of a *Syariah*-compliant overnight fund is used, which is established on the back of an underlying real estate fund.

(f) time multiple counter financings[16] (al-qurudh al-mutabadalah); etc.

Depending upon the number and size of the Islamic banks, as well as the applicable Syariah requirements, Islamic banks should explore the possibility of mutual cooperation and accommodation to apply the aforementioned and other innovative Syariah-compliant solutions and arrangements for increasing the volume, size and depth of their Islamic interbank markets and the availability of market makers in various trading instruments and mechanisms.

4. PUBLIC DISCLOSURE

4.1. An Islamic bank should publicly disclose information on a periodic basis that enables market participants to make an informed judgement about the soundness of its LRMF and liquidity position.

4.2. Public disclosure improves transparency, facilitates valuation, reduces uncertainty in the markets and strengthens market discipline. An Islamic bank should disclose sufficient information regarding its liquidity risk management to enable relevant stakeholders to make an informed judgement about the ability of the Islamic bank to meet its liquidity needs.

4.3. An Islamic bank should disclose its organisational structure and framework for the management of liquidity risk. In particular, the disclosure should explain the roles and responsibilities of the relevant committees, as well as those of different functional and business units. An Islamic bank's description of its LRMF should indicate the degree to which the treasury function and liquidity risk management is centralised or decentralised. An Islamic bank should describe this structure with regard to its funding activities, to its limit setting systems, and to its intra-group lending strategies. Where centralised treasury and risk management functions are in place, the interaction between the group's units should be described. The objective for the business units in the organisation should also be indicated, for instance, the extent to which they are expected to manage their own liquidity risk.

[16] A time multiple counter financing transaction between two parties comprises two simultaneously exchanged interest-free financings such that the multiple of the amount and period of one financing equals the multiple of the amount and period of the other financing. This mechanism facilitates interest-free lending of large sums against counter-financings of smaller sums advanced for proportionately longer periods. For example, an entrepreneur requiring a financing of USD10 million for one year can get an interest-free financing of USD10 million (against collateral, as usual) for one year by advancing an interest-free counter-financing of USD1 million to the Islamic banks for ten years. Thus, such a transaction fulfils the client's need for funds for the required period and also enables the Islamic banks to earn a profit from the long-term investment of the counter-finance money.

4.4. As part of its periodic financial reporting, an Islamic bank should provide quantitative and qualitative information about its liquidity position that enables market participants to form a view of its liquidity risk.

Examples of quantitative disclosures include:

(a) the size and composition of the Islamic bank's liquidity cushion,

(b) additional collateral requirements as the result of a credit rating downgrade,

(c) the values of internal ratios and other key metrics that management monitors (including regulatory metrics that may exist in the Islamic bank's jurisdiction],

(d) the limits placed on the values of those metrics, and

(e) balance sheet and off-balance sheet items broken down into a number of short-term maturity bands and the resultant cumulative liquidity gaps.

Examples of qualitative disclosures include:

(a) The aspects of liquidity risk to which the Islamic bank is exposed and that it monitors,

(b) The diversification of the Islamic bank's funding sources,

(c) Other techniques used to mitigate liquidity risk,

(d) The concepts utilised in measuring its liquidity position and liquidity risk, including additional metrics for which the Islamic bank is not disclosing data,

(e) An explanation of how asset market liquidity risk is reflected in the Islamic bank's framework for managing funding liquidity,

(f) An explanation of how stress testing is used,

(g) A description of the stress testing scenarios modelled,

(h) An outline of the Islamic bank's contingency funding plans and an indication of how the plan relates to stress testing,

(i) The Islamic bank's policy on maintaining liquidity reserves,

(j) Regulatory restrictions on the transfer of liquidity among group entities,

(k) The frequency and type of internal liquidity reporting, and

(l) The organisational level to which the metric applies (group, bank or non-bank subsidiary).

GLOSSARY

For the purpose of this Guideline, the following terms, unless the context require otherwise, have the following meanings:

Term		Meaning
“board”	:	board of directors (for Islamic banks incorporated in Brunei Darussalam) or by its group/regional office or equivalent oversight function for the operations in Brunei Darussalam (for Islamic banks registered in Brunei Darussalam)
“group”	:	includes the Islamic bank’s Head Office or parent company, subsidiaries[17], affiliates[18], and any entity (including their subsidiaries, affiliates and special purpose entities[19]) that the Islamic bank exerts control over or that exerts control over the Islamic bank.
“Hukum Syara”	:	Hukum *Syara’* has the same meaning assigned to it under section 2 of the Syariah Financial Supervisory Board Order, 2006.
“Islamic bank”		Means an Islamic bank licensed under section 4 of Islamic Banking Order.
“risk appetite”	:	The aggregate level and types of risk an Islamic bank is willing to assume, decided in advance and within its risk capacity, to achieve its strategic objectives and business plan.
“risk tolerance”	:	The variation around the prescribed risk appetite that the Islamic bank is willing to tolerate.

[17] As defined in the Notice on Islamic Bank’s Recovery plan
[18]As defined in the Notice on Islamic Bank’s Recovery plan
[19] As defined in the Notice on Pillar 3 - Public Disclosure Requirements, as may be revised from time to time

"senior management"	:	The CEO and other persons having authority and responsibility for planning, directing and controlling the activities of the Islamic bank.
"Syariah Advisory Body"	:	A body established pursuant to section 8(2)(g) of the Islamic Banking Order, 2008

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