BURSA MALAYSIA SECURITIES BERHAD

Date : 27 May 2011	R/R No.: 3 of 2011

AMENDMENTS TO THE RULES OF BURSA MALAYSIA SECURITIES BERHAD ("RULES OF BURSA SECURITIES") AND DIRECTIVES IN RELATION TO THE LIQUIDITY RISK MANAGEMENT FRAMEWORK ("LRM FRAMEWORK")

A) INTRODUCTION

1. Bursa Malaysia Securities Bhd (the "Exchange") is introducing a regulatory framework that requires Participating Organisations ("PO") to manage their liquidity risk by profiling their assets into maturity buckets. These maturity buckets will provide the Exchange and the POs greater visibility in respect of the time maturity of the assets that make up the Liquid Capital.

   An important step in managing liquidity risk effectively is to be able to identify the manner in which a firm's activities and external influences can affect its liquidity risk as it is directly related to the maturity of the components that make up a PO's Liquid Capital. This circular sets out the Exchange's LRM Framework for the supervision of POs which consists of the following parts:-

   (a) introduction of a new rule in the Rules of Bursa Securities requiring compliance with the Net Surplus Requirements ("NSR") as set out in **section B** below;

   (b) directives on liquidity reporting requirements (including a user guide) and the NSR as set out in **section C** below; and

   (c) LRM self-assessment questionnaire and best practice guidelines for POs set out in **section D** below.

2. This framework is **<u>only applicable to POs which are non-Investment Banks</u>**.

B) AMENDMENTS TO THE RULES OF BURSA SECURITIES

3. The new Rule 1107.1 introduces the requirement for the PO to maintain at all times, a cumulative net liquid asset surplus at least at the minimum level(s) as prescribed by the Exchange ("Net Surplus Requirements"). The NSR is designed to provide the Exchange with an early warning of a PO's liquidity risk. The early warning will enable the Exchange to initiate early engagement with the affected PO.

4. The NSR is computed using a set of liquidity reporting forms ("the Liquidity Reporting Forms") which will be explained in the following section C.

5. The amendments to the Rules of Bursa Securities are set out in **Annexure 1.**

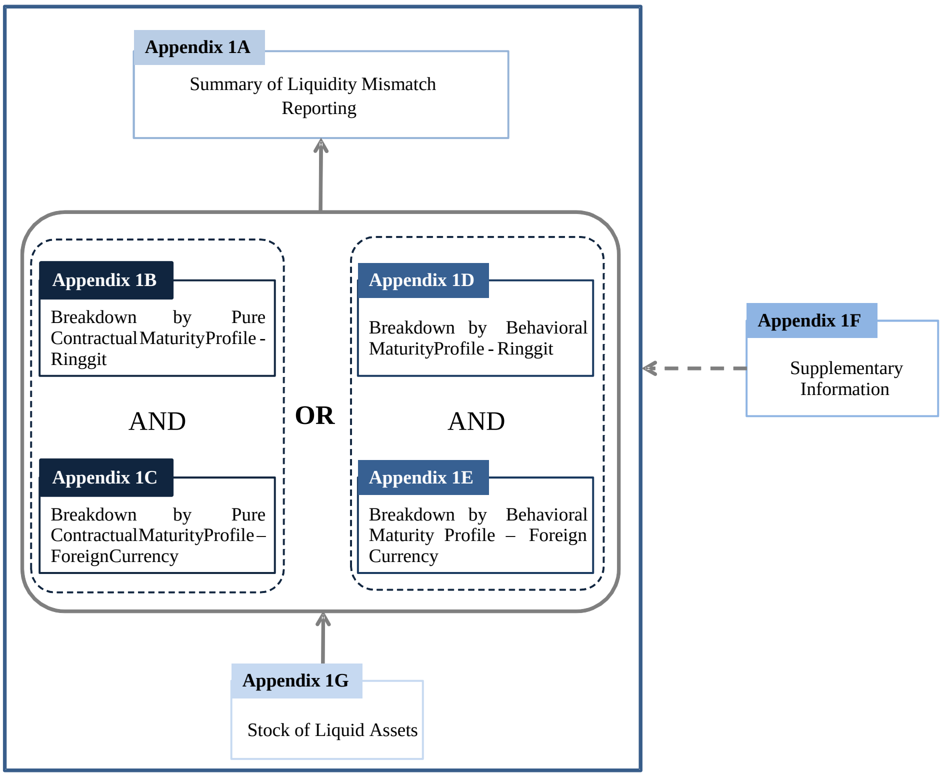
C) DIRECTIVES ON LIQUIDITY REPORTING REQUIREMENTS AND NET SURPLUS REQUIREMENTS

6. **Liquidity Reporting Requirements**

POs are required to submit to the Exchange, duly completed Liquidity Reporting Forms in the templates prescribed below. The templates and a user guide in completing the templates ("the User Guide") can be downloaded from the Exchange's website (as per the URL stated at the end of the circular) and are set out in **Attachment 1.**

Liquidity Reporting Forms	Details
Appendix 1A	Summary of Maturity Mismatch Reporting
Appendix 1B	Breakdown by Pure Contractual Maturity Profile – Ringgit
Appendix 1C	Breakdown by Pure Contractual Maturity Profile – Foreign Currency
Appendix 1D	Breakdown by Behavioural Maturity Profile – Ringgit
Appendix 1E	Breakdown by Behavioural Maturity Profile – Foreign Currency
Appendix 1F	Supplementary Information
Appendix 1G	Stock of Liquid Assets

7. The Liquidity Reporting Forms are to be completed in the manner described in the User Guide. The map below provides the user with an overview of the relationships between the Liquidity Reporting Forms.



8. Approach to Completing the Liquidity Reporting Forms

8.1 Firstly, POs are required to classify the components that make up their Liquid Capital according to the maturity buckets as stated in the table in item 9. POs may begin by using Form Appendix 1G to report its proprietary positions and available credit line.

8.2 Following from the above, POs are required to choose, in accordance with established internal policies, one of the following approaches:

(a) Forms Appendix 1B and 1C for the breakdown of the maturity profiles based on a contractual basis; or

(b) Forms Appendix 1D and 1E for the breakdown of the maturity profiles based on a behavioral basis.

When choosing to complete either Forms Appendix 1B and 1C, or Forms Appendix 1D and 1E, POs are advised to be guided by the Best Practice Guidelines in the manner referred to in section D below.

For the initial stage, POs ought to rely on categorizing maturity profiles based on contractual basis. When POs become proficient in understanding the behaviour of the maturity profile of the assets and liabilities, they may embark on the more sophisticated and refined approach to categorization. The Exchange has not prescribed any specific approaches to be chosen by the POs.

8.3 POs are required to complete Form Appendix 1F. POs must provide information that would enable the Exchange to assess the impact to the POs' overall funding structure and liquidity risk in the scenario of a market disruption, including the following information (not exhaustive):

(a) Large customer cash funding;

(b) Interbank market (if any); and

(c) Offshore market (if any).

If a PO does not have any relevant information, the PO is required to submit the report as 'NIL'.

8.4 All POs are required to submit the forms to the Exchange before the end of every Wednesday based on the previous business day's closing position or in any other reporting frequency as determined by the Exchange.

If the reporting day falls on a public holiday, POs are required to submit the said forms to the Exchange before the end of the following business day. For example, if the submission day (Wednesday) falls on a public holiday, POs are required to submit the said forms to the Exchange before the end of the following business day (Thursday).

If the day, in which the reporting of the closing position is required, (for example, Tuesday) falls on a public holiday, POs are required to report based on the previous business day's (Monday) closing position.

Kindly take note that the first reporting date shall be 28 June 2011 and submission is to be made before the end of 29 June 2011.

POs must ensure that the forms submitted to the Exchange are accurate and true. The Liquidity Reporting Forms must be submitted electronically using the prescribed templates and emailed to the Exchange at psd@bursamalaysia.com.

The Liquidity Reporting Forms received by the Exchange are deemed to have been duly signed off by the Head of Operations and Compliance Officer.

9. NSR Compliance

The table below stipulates the NSR minimum levels that the POs are required to comply with according to the maturity buckets:

BUCKET	MATURITY BUCKETS	NET SURPLUS REQUIREMENTS ("NSR") MINIMUM LEVELS
A	Up to three (3) market days	3%
B	Four (4) market days to seven (7) calendar days	5%
C	Eight (8) calendar days to 14 calendar days	7%
D	15 calendar days to 30 calendar days	9%

The NSR level for Bucket A has been prescribed at 3%. As the maturity progresses from Bucket A to D, the difference of NSR levels between buckets has been prescribed at +2% per bucket on cumulative basis. In this regard, the result for the cumulative NSR level for final Bucket D has been prescribed at 9% as stated in the table above.

The Exchange may adjust the NSR levels as it deems fit, according to prevailing market conditions. A new reporting template will be downloadable by the POs in the same manner described in item 6.

POs need to determine whether they are able to comply and maintain a minimum cumulative net liquid asset surplus according to the prescribed NSR levels. The cumulative net liquid asset surplus will be calculated automatically and will be reflected in Appendix 1A once the POs have completed Appendix 1B (or 1D), Appendix 1C (or 1E) and Appendix 1G.

The Exchange requires a PO's compliance with the NSR based on the average cumulative net liquid asset surplus reported to the Exchange over a period of 1 month. In this regard, the PO is considered to have complied with the NSR if on a daily basis the reported cumulative net liquid asset surplus does not fall more than 5% below the required NSR minimum level prescribed for each maturity bucket on any given day.

D) Best Practice Guidelines for POs and LRM Self-Assessment Questionnaire ("SAQ")

10. The Exchange has come up with 15 key principles that form the Exchange's best practice guidelines on managing liquidity risks ("the Best Practice Guidelines"). The Best Practice Guidelines are marked as **Annexure 2.**

11. Effective 31 March 2014, POs must comply with the Best Practice Guidelines. In the meantime, POs are encouraged to adopt the Best Practice Guidelines in implementing sound liquidity risk management practices.

12. POs are required to submit to the Exchange the duly completed SAQ in the form marked as **Annexure 3.**

    All POs are required to submit the SAQ to the Exchange on a yearly basis no later than 31 January of each calendar year for the reporting date as at 31 December of the previous year or as determined by the Exchange. The first submission of SAQ shall be made by 31 January 2012 for the reporting date of 31 December 2011.

    The SAQ is designed for the Exchange to determine a PO's position on its adoption of the principles set out in the Best Practice Guidelines when managing its liquidity risk.

E) EFFECTIVE DATE

13. The rule amendments, directives, Best Practice Guidelines and SAQ are effective from **28 June 2011**.

F) INVESTMENT BANKS

14. The rule amendments, directives, Best Practice Guidelines and SAQ shall not be applicable to an Investment Bank. An Investment Bank must instead comply with the relevant requirements in the Guidelines on Investment Banks and any other requirement specified by the Central Bank relating to the matter.

G) CONTACT PERSONS

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This Circular is available at

http://www.bursamalaysia.com/website/bm/regulation/rules/bursa_rules/

REGULATION

RULES OF BURSA MALAYSIA SECURITIES BHD
RULE AMENDMENTS IN RELATION TO LIQUIDITY RISK MANAGEMENT FRAMEWORK

	EXISTING PROVISIONS	AMENDED PROVISIONS
Rule 1107	**New Provision**	**LIQUIDITY RISK**
Rule 1107.1	**New Provision**	**1107.1 Compliance** A Participating Organisation must at all times maintain a cumulative net liquid asset surplus at least at the minimum level(s) as prescribed by the Exchange ("Net Surplus Requirements"). "liquid assets" has the same meaning assigned to that expression in Rule 1105.4(1).
Rule 1107.2	**New Provision**	**1107.2** The liquidity risk requirements in this Rule 1107 shall not be applicable to an Investment Bank. An Investment Bank must instead comply with the relevant requirements in the Guidelines on Investment Banks and any other requirement specified by the Central Bank relating to the matter.

[End of Rule Amendments]

BEST PRACTICE GUIDELINES

Table of Contents

1.0 Introduction to Best Practice Guidelines ("Best Practice Guidelines")

1.1 Introduction

An important step in managing liquidity risk effectively is to be able to identify manners in which a firm's activities and external influences can affect its liquidity risk profile. It is also essential to establish a common definition of "liquidity" and "liquidity risk."

Liquidity is the ability of an institution to fund increases in assets and meet obligations as they come due, without incurring unacceptable losses. Liquidity risk is inherent in the financial intermediation process that transforms short-term liabilities into long-term assets. Liquidity risk appears in two forms, namely:

I. Funding liquidity risk - the risk in which an institution will not be able to meet efficiently both expected and unexpected current and future cash flow and collateral needs without affecting either its daily operations or the financial condition; and

II. Market liquidity risk - the risk that an institution cannot easily offset or eliminate a position without significantly affecting the market price due to inadequate market depth or market disruption.

As the interaction between funding and market liquidity is more critical during stressed market conditions as they are intertwined, Non-IBs should manage both funding and market liquidity in a holistic way, through established and well-thought liquidity risk measurements that prompt Non-IBs of any impending liquidity crunch.

1.2 Summary of Key Principles

There are 15 key principles contained in the Best Practice Guidelines, which will serve as guidance to Non-IBs. Those key principles were developed based on Bursa's regulatory principles which are aimed at achieving their regulatory goals and ensuring a consistent and cohesive approach to their actions and decisions. The relevant Bursa's regulatory principles are:-

- Value-based approach
- Risk-based approach
- Outcome focused; and
- Transparency.

In implementing sound liquidity risk management practices, all Non-IBs should adopt the key principles which are grouped into seven (7) categories as below:

- Strategy and Policy
- Organisation and Structure
- Risk Tolerance, Ratios and Limits
- Stress Testing and Scenario Analysis
- Measurement
- Monitoring and Reporting
- Contingency Planning

1.2.1 Strategy and Policy

Principle 1 - Non-IBs shall develop strategies, policies and practices to manage liquidity risk in accordance with the risk tolerance and maintain sufficient liquidity. [1]

Principle 2 - Non-IBs shall establish and document liquidity risk management strategies and ensure that it is consistent with their funding strategy.

Principle 3 - Non-IBs shall establish and document funding strategy that contains the overall goals and objectives for short and long term funding.

1.2.2 Organisation and Structure

[1] Sufficient Liquidity means "adequate to meet current and planned business requirements (including known contingencies) while complying with Bursa's requirements".

Principle 4 - Non-IBs shall establish an appropriate organisational and management structure for liquidity risk. Both Non-IBs' Board of Directors ("Board") and Senior Management shall be responsible to ensure a robust and coherent oversight structure for liquidity risk management is established and communicated throughout the organisation.

Principle 5 - Non-IBs' Board shall have the ultimate responsibility for the risks and exposures incurred and for establishing a level of tolerance for risk, including liquidity risk, though it may delegate that task to certain committees.

Principle 6 - Non-IBs' Senior Management shall have primary responsibility to develop, establish and maintain policies and procedures that translate the goals, objectives and risk tolerances of Non-IBs into operating standards which are consistent with the liquidity risk strategy approved by the Board.

1.2.3 Risk tolerance, ratios, and limits

Principle 7 - Non-IBs shall clearly articulate liquidity risk tolerance that is suitable for the business strategy of the organisation and its role in the securities market.

Principle 8 - Non-IBs shall establish liquidity ratios and set limits to control the nature and level of liquidity risk that the entity is capable to undertake.

1.2.4 Stress Testing and Scenario Analysis

Principle 9 - Non-IBs shall conduct regular stress testing and scenario analysis to test the liquidity risk that they may be exposed to and also to ensure that they have adequate liquidity to cope with stressed conditions. Stress-tests results shall then be timely reported to the Non-IBs' Board, Senior Management and relevant business line managers periodically.

1.2.5 Measurement

Principle 10 - Non-IBs shall establish processes for measuring liquidity risk to which they are exposed to using a robust and consistent methodology.

1.2.6 Monitoring and Reporting

Principle 11 - Non-IBs shall establish and maintain appropriate monitoring systems to examine and manage the amount of liquidity risk to which they are exposed to, based on established strategies, policies and procedures defined by the entity.

Principle 12 - Non-IBs shall establish a proper management information system and reporting frequency in accordance with the business and the risks undertaken.

1.2.7 Contingency Planning

Principle 13 - Non-IBs shall have in place a contingency plan that will address the strategy for handling unexpected events that will severely impact the entity's liquidity, including specific procedures for raising cash in emergency situations. These "Funding Action Plans" or "Contingency Financing Plans" shall detail "key tasks" that need to be performed within certain timelines. The tasks may be dependent upon the severity of the crisis at hand as outlined in a variety of scenarios.

Principle 14 - Non-IBs shall identify and quantify funding sources and rank them by preference in its contingency funding strategies.

Principle 15 - Non-IBs' contingency plan shall contain the procedures which will enable the plan to be executed once a contingency arises.

2.0 Scope of Best Practice Guidelines

2.1 Strategy and Policy

2.1.1 Principle 1 - Non-IBs shall develop strategies, policies and practices to manage liquidity risk in accordance with the risk tolerance and maintain sufficient liquidity.

The Board and Senior Management of the Non-IB are responsible for developing and implementing a liquidity risk management strategy in accordance with the Non-IB's risk tolerance. The strategy should include specific policies on liquidity management, for example:

- The composition of assets and liabilities;
- The diversity and stability of funding sources;
- The approach to manage liquidity in different currencies, across borders, and across business lines and legal entities;
- The approach to intraday liquidity management; and
- The assumptions on the liquidity and marketability of assets.

The strategy should take into account liquidity needs under normal conditions as well as under periods of liquidity stress, the nature of which may be institution-specific or market-wide or a combination of the two. The strategy may include various high-level quantitative and qualitative targets. The targets that may be considered are as follows:

- Guidelines or limits on the composition of assets and liabilities;
- The relative reliance on certain funding sources, both on an ongoing basis and under contingent liquidity scenarios; and
- The marketability of assets to be used as contingent sources of liquidity.

As appropriate to the nature, scale and complexity of the Non-IB's activities, the strategy shall also:

- Set the objectives for the management of both short-term and long-term funding risk;
- Set the objectives for the management of contingent liquidity risk;

- Define the basis for managing liquidity (e.g. whether the liquidity is being managed on regional or central basis);
- Set the identification of appropriate or inappropriate risk management tools;
- Set the degree of concentrations that could potentially affecting liquidity risk, that are acceptable to the firm; and
- Define ways of managing its aggregate foreign currency liquidity needs and its needs in each individual currency.

The Board should approve the strategy and critical policies and practices and review them at least annually. The Board shall ensure that Senior Management translates the strategy into clear guidance and operating standards (e.g. in the form of operational policies, controls or procedures).

The liquidity strategy, key policies for implementing the strategy, and the liquidity risk management structure shall be communicated throughout the organisation by Senior Management. All business units conducting activities that have an impact on liquidity shall be fully aware of the liquidity strategy and operate under the approved policies, procedures, limits and controls. The Non-IB's personnel responsible for liquidity risk management shall maintain close links with those monitoring market conditions, as well as with other personnel with access to critical information.

2.1.2 Principle 2 - Non-IBs shall establish and document liquidity risk management strategies and ensure that it is consistent with the funding strategy.

The liquidity risk management strategies shall cover the overall appetite for liquidity risk, such as tolerance that is within compliance parameter of capital adequacy frameworks for concentration and the use of approved funding instruments and markets.

The liquidity risk management strategies must complement Non-IBs' business strategies and goals and should be appropriate to the nature, scale and complexity of the institutions' activities. Other than the liquidity strategy, their liquidity risk management policy statement should include the following areas:

- Governance and organisational structure for liquidity risk;
- Risk tolerance and limits;
- Liquidity risk measurement methodology;
- Stress testing and scenario analysis;
- Reporting and monitoring policies; and
- Liquidity risk contingency plan;

Details on the above areas are given in the following subsections.

2.1.3 Principle 3 - Non-IBs shall establish and document funding strategy that contains the overall goals and objectives for short and long term funding.

The funding strategy shall describe how funding should be maintained under various financial conditions, covering the use of liability diversification and asset realisation. Taking into considerations correlations between sources of funds and market conditions, it should contain the strategy for maintaining funding under adverse conditions, which is where contingency planning comes in. The funding strategy shall appropriately consider different currencies, sources, geographies and inter-company funding that may exist in the Non-IBs' operation.

Non-IBs must demonstrate that these strategies and policies have been established and represented in the form of operational procedures which is ready to promptly mitigate the identified risks. Hence it is not sufficient to just establish a strategy; it also has to be fortified with according policies and guidelines as well as procedure manuals where applicable.

2.2 Organisation and Structure

2.2.1 Principle 4 - Non-IBs shall establish an appropriate organisational and management structure for liquidity risk. Both Non-IBs' Board of Directors ("Board") and Senior Management shall be responsible to ensure a robust and coherent oversight structure for liquidity risk management is established and communicated throughout the organisation.

The organisational and management structure shall at least cover the following areas:

- Have clear lines of authority and proper delegation of -responsibilities;
- Have adequate resources skilled for liquidity risk decisions either via Finance unit of the Non-IBs, or some other suitable function depending on size and nature of the Non-IBs which other units could also be responsible;
- Should include function which responsible for the identification, measurement and monitoring of liquidity risk;
- Support communication network between the Non-IB’s personnel responsible for the identification, measurement and monitoring of liquidity risk;
- Prompt and flexible decision making and actions; and
- Clear segregation of functions in the management of liquidity risk.

2.2.2 **Principle 5 - Non-IBs' Board shall have the ultimate responsibility for the risks and exposures incurred and for establishing a level of tolerance for risk, including liquidity risk, though it may delegate that task to certain committees.**

The Board’s role shall include approving Non-IB's liquidity risk strategy in line with the expressed risk tolerance. The Board should establish a structure for the management of liquidity risk including the allocation of appropriate senior managers who have both the authority and responsibility to undertake the firm's day-to-day liquidity management.

The Board shall be ultimately responsible for:

- Approving the liquidity risk strategy, liquidity risk policy (including procedures) and risk appetite concerning liquidity risk;
- Implementing an appropriate organisation and management structure for liquidity risk;
- Monitoring the liquidity risk profile on a regular basis and at an appropriate frequency;
- Ensuring that liquidity risks are identified, measured, monitored and controlled;
- Ensuring that responsibilities are clearly and comprehensively defined;
- Ensuring that liquidity risk is managed and controlled by Senior Management within the established risk management framework;
- Reviewing contingency plans; and

- Reviewing liquidity decisions.

2.2.3 **Principle 6 - Non-IBs' Senior Management shall have primary responsibility to develop, establish and maintain policies and procedures that translate the goals, objectives and risk tolerances of Non-IBs into operating standards which are consistent with the liquidity risk strategy approved by the Board.**

The Senior Management of Non-IBs shall develop, establish and maintain policies and procedures to manage the liquidity risk. Their responsibilities shall include:

- Adhering to the lines of authority and responsibility defined by the Board;
- Implementing and maintaining appropriate policies and procedures that translate the Board's approved objectives and risk tolerances into operating standards;
- Directing the identification, measurement and monitoring of liquidity risk through the implementation of management information and other systems;
- Ensuring effective internal controls over the liquidity risk management processes are implemented; in doing so, the managers should request regular standardised reports concerning liquidity risk and conduct regular reviews of the methods and processes used; and
- Providing guidance on managing and aligning the whole organisation to be risk aware and etc (or risk management in general), as usually liquidity risk is an after-effect of other risk, i.e. market, credit or reputation risk.

2.3 Risk tolerance, ratios, and limits

2.3.1 **Principle 7 - Non-IBs shall clearly articulate liquidity risk tolerance that is suitable for the business strategy of the organisation and its role in the securities market.**

The liquidity risk tolerance shall be in line with its business objectives, strategic direction and overall risk appetite. In the earlier part of this document states the applicable definition of liquidity risk.

The Board is ultimately responsible for the risks and exposures incurred by a Non-IB and for establishing a level of tolerance for risk, including liquidity risk. The tolerance shall be appropriate with the Non-IB's financial condition and funding capacity which defines the level of liquidity risk that the Non-IB is willing to assume. The tolerance shall ensure that the firm manages its liquidity appropriately at all times according to the stress levels imposed by the conditions of the overall financial environment. At the same time, it is essential that the approved risk tolerance must continue to ensure that compliance to the minimum financial requirements remains uncompromised. This is in addition to complying with the current Capital Adequacy Framework prescribed under the Rules of Bursa Securities. A Non-IB, may for example, expresses its risk tolerance by quantifying its liquidity risk tolerance in terms of the level of unmitigated funding liquidity risk the Non-IB decides to take under normal and stressed business conditions. It is the Board's responsibility to approve the Non-IB's liquidity risk strategy in line with the firm's expressed risk tolerance.

2.3.2 Principle 8 - Non-IBs shall establish liquidity ratios and set limits to control the nature and level of liquidity risk that they are capable to undertake.

The minimum limits shall be prescribed, but Non-IBs may set higher standards based on their own business strategies and activities, past performance, level of earnings and capital available to absorb potential losses, as well as its tolerance for risk. It should match the nature, scale and complexity of the Non-IB itself. Suggested funding liquidity ratios and limits used by Non-IBs for liquidity risk management include[2]:

- Target liquidity ratio;
- Maturity mismatch limits for local and foreign currencies; and
- Concentration limits and diversification.

Limits will vary depending on the nature of Non-IBs operations and circumstances. Limits can also be tied to balance sheet ratios. For example:

- Maximum projected cash flow shortfall tolerated for specified time period (for example, one week ahead, one month ahead, one quarter ahead);
- Minimum ratio of liquid assets to total assets;
- Maximum overnight borrowings to total assets; and

[2] Further clarifications in Appendix 1

- Maximum ratio of total wholesale borrowings to total assets.

Non-IBs shall also consider additional ratios or indicators to measure their ability to meet their liquidity needs, in particularly under stressful market conditions. These other indicators include amongst others, for example:

- A "barometer" that measures the number of days that the firm could survive with no new sources of funding;
- The "liquidation potential," measuring how a firm could meet its funding needs in the first 14 days of a stress scenario; and
- A "maximum cumulative outflow" ("MCO") standard that establishes the amount of short term unsecured funds required to fund cash outflows in a stress event.

As for market liquidity, Non-IBs should determine the level of liquidity of the market, based on certain instruments held within their portfolio. Traditional measures of market liquidity or high quality liquid assets may include trade volume (or the number of trades), market turnover, bid-ask spreads and trading velocity. Additionally, liquidity is also highly dependable on various macroeconomic and market fundamentals namely, fiscal policy, market sentiment, investor's confidence etc would be key factors in determining liquidity conditions or liquidity cost which in term translates into 'Force Sale' discount factor.

The Non-IBs shall leverage on the Volume Weighted Average Price ("VWAP") in measuring the liquidity of the securities as it measures the cost of executing a single trade of limited size as well as the price impact of a trade. Furthermore, this approach is simple to calculate with data that are widely available on a real time basis.

2.4 Stress Testing and Scenario Analysis

2.4.1 Principle 9 - Non-IBs shall conduct regular stress testing and scenario analysis to test the liquidity risk that they may be exposed to and also to ensure that they have adequate liquidity to cope with stressed conditions. Stress-tests results shall then be

timely reported to the Non-IBs' Board, Senior Management and relevant business line managers periodically.

Non-IBs shall simulate distress market / financial conditions and introduce hypothetical scenarios to their positions when conducting stress testing and scenario analysis, i.e., by applying various "what-ifs" scenarios on their liquidity position, in order to consider the effects both on and off balance sheet and on both assets and liabilities.

Scenario Analysis: Example of the Development of Hypothetical Scenarios

The scenarios shown in Figure 1 below shall be used as a guideline when developing hypothetical scenarios during stress testing and the spill over impact of other risk areas.

Description	Impact	Magnitude of Shocks
Scenario 1: Global Financial Crisis		
To simulate stress event where there is a local liquidity issue arising from regional / global shortage of credit, such as the 2008 / 09 global financial crisis, resulting in the increase in short-term interest rates.	Risk areas: ▪ Market risk, Liquidity risk.	▪ Based on the maturity buckets as stipulated in the Bursa's Net Surplus Requirements (NSR), increase of liquidity outflow: – Plausible scenario, 10%; and – Worst case scenario, 30% ▪ Based on the scenario above, determine the potential shortfall required as per the compliance requirement.
Scenario 2: Illiquid Instruments		
To simulate stress event where there are non-tradable / illiquid instruments / securities.	Risk areas: ▪ Market risk, Liquidity risk.	▪ Additional cost of executing the illiquid instruments.
Scenario 3: Money Market Crunch		
To simulate stress event	Risk areas:	▪ Imbalances between the

Description	Impact	Magnitude of Shocks
where there is a breakdown / crunch in the money market.	▪ Market risk, Liquidity risk.	maturity dates on assets and liabilities ▪ Lack of adequate funding liquidity.

Figure 1: Guidance to Hypothetical Scenarios

Non-IBs should construct appropriate adverse scenarios and examine the results on the liquidity needs, varying degrees of stress based on among others firm-specific elements and market wide crisis. Historical market events may provide a basis for choosing appropriate scenarios but it is unlikely that such historical event will repeat again. Hence, Non-IBs are encouraged to break away from historical trends, spreads and normal market conditions when deciding on the appropriate scenarios.

Non-IBs should also consider possible changes such as effect of market's perception of the firm on its access to the markets and also market turbulence which may trigger substantial increase in the drawdown of contingent commitments.

Non-IBs should perform the following, at the minimum, to ensure that stress testing technique applied is reflective of its risk appetite and possible risk exposures:

- Verify all relevant assumptions and model parameters periodically taking into considerations their experience in any crisis;
- Review and modify existing stress scenarios and parameters periodically, if necessary reflecting the current market conditions or new experiences; and
- Review entire business profile periodically to assess the need of additional stress scenarios.

Non-IBs should be guided by a clear set of internal principles in determining whether remedial actions should be taken in response to stress-testing results. The level of authority for determining remedial actions to be taken should also be clearly designated. Remedial actions recommended should be properly documented and implemented.

2.5 Measurement

2.5.1 Principle 10 - Non-IBs shall establish processes for measuring liquidity risk to which they are exposed to using a robust and consistent methodology.

In terms of funding liquidity, Non-IBs shall have in place a methodology for the comparison of cash inflows and outflows over future timeframes to calculate the cumulative net excess or deficit of funds at selected maturity dates (referred to as a maturity ladder or cash flow gap analysis). This should:

- Robustly measure the extent of liquidity risk;
- Be forward looking;
- Be responsive to the dynamic nature of the institution's liquidity profile, economic and market conditions;
- Appropriate level of sophistication for the nature, size and complexity according to the Non-IB's activities;
- Be able to accommodate stress and scenario analysis; and
- Be applied consistently and based on accurate data.

The maturity time bands prescribed should be reflective of the short term nature of the equity business, where the maturity time bucket is categorised as stipulated by Bursa's NSR.

The bucketing days are made up of market / trading days and calendar days.

The basis for determining the appropriate time bands for both assets and liabilities is to reference it against the contractual cash and security flows of their residual contractual maturity or when the cash flow materialises. However, adjustments are permitted for those assets and liabilities that have distinct characteristics such as roll-in and roll-out, embedded options etc in the contracts in order to indicate those said contracts as 'behavioural maturity' instead of contractual maturity. Non-IBs shall then adjust the cash flows on a behavioural basis, as the contractual maturities pertaining to some assets and liabilities do not bear close relation to their actual behavioural characteristics.

The assumptions to design the behavioural maturity profile should be reflective of the equity business and demonstrate consistency and reasonableness for each scenario / portfolio. The assumptions selected should be verified and supported by sufficient evidence, experience and performance rather than arbitrarily selected. As such, it is encouraged that the Non-IBs utilise at least one (1) year historical observation period to be used as the basis of the assumptions.

Non-IBs liquidity measurement methods shall consider:

- Assessing Cash Inflows against Cash Outflows;
- Determining the Liquid Value of its assets (securities or other current assets which have a ready market, or which are capable of realisation within one (1) week in relation to the Non-IBs' portfolio);
- Measuring and forecasting cash flows for:
  - Assets;
  - Liabilities;
  - Off-balance sheet commitments; and
  - Derivatives; and

In terms of market liquidity, among the factors considered to measure[3] liquidity include:

- Bid / ask spread;
- Quote size;
- Volume of trade in an instrument / number of trades in that instrument;
- Days of no price quotation, particularly bid price; and
- Days of no transaction.

2.6 Monitoring and Reporting

2.6.1 Principle 11 - Non-IBs shall establish and maintain appropriate monitoring systems to examine and manage the amount of liquidity risk to which they are exposed to, based on established strategies, policies and procedures defined by the entity.

[3] More explanation in Appendix 1

Non-IBs shall have a framework of policies containing specific and detailed guidelines for day-to-day monitoring of their liquidity risk, with proper communication processes in place throughout the organisation.

Non-IBs shall use appropriate reporting measures that would include documentations, approvals, internal transfer pricing and compliance. Non-IBs should document the assumptions following the maturity buckets in measuring liquidity risk and the plan in place to mitigate any identified gaps (if any) in the internally generated behavioural maturity mismatches in the relevant policy such as liquidity management policy. This is to ensure its relevancy and applicability to the Non-IBs and their business activities. All of these should be approved by Senior Management and should be reviewed regularly.

Consistent with Rule 510.3 of the Rules of Bursa Securities, Non-IBs' internal audit should present any audit findings in this regards to the Board, including any course action and / or with any corrective measures taken in order to address any non compliance or irregularities stated in the audit report. The Board shall be responsible for the submission of all documents referred to in Rule 510.3(2).

2.6.2 Principle 12 - Non-IBs shall establish a proper management information system and reporting frequency in accordance with the business and the risks undertaken.

Non-IBs shall have reporting lines and responsibilities that are clearly established and followed. Weekly reports are provided to key personnel and monthly reports are provided to the Board. Non-IBs should assign relevant personnel to hold the responsibility of compiling the relevant reports.

Non-IBs shall have a comprehensive review process including daily monitoring of funding capacity and capacity utilisation, weekly reports of the firm's balance sheet usage, and a formal quarterly review of the system conducted by an appropriate committee.

Non-IBs shall monitor their liquidity positions daily, using for example, ledger balances (supplemented with spread sheet analysis), loans and placement systems, trading systems, Cash Capital models, daily liquidity positions, and reconciliation of data and aggregate balances to the firm's financial accounting and / or regulatory reports. These are done while taking into account of the ratios being set as mentioned in the strategy section earlier.

2.7 Contingency Planning

2.7.1 Principle 13 - Non-IBs shall have in place a contingency plan that will address the strategy for handling unexpected events that will severely impact the entity's liquidity, including specific procedures for raising cash in emergency situations. These "Funding Action Plans" or "Contingency Financing Plans" shall detail "key tasks" that need to be performed within certain timelines. The tasks may be dependent upon the severity of the crisis at hand as outlined in a variety of scenarios.

The plans should generally focus on conserving or creating liquidity, by specifying the order in which liquidity reserves are to be accessed and any limitation or modification of trading activity. Key components of these plans include:

- Estimating the funding requirements or potential fund erosion for material legal entities;
- Determining the pledge value of firm collaterals; and
- Preparing cash projections for the company's funding chain.

Non-IBs should also include estimates of additional needs for liquidity in a crisis, such as limited repurchase of long-term debt to demonstrate that the Non-IB has sufficient liquidity sources.

The contingency plan should be documented, approved and reviewed regularly. Considerations in formulating the contingency plan include:

- Early warning indicators;
- Contingency scenarios;
- Triggers;
- Contingency funding strategies; and
- Contingency procedures.

Examples of key considerations to be used as a guideline when formulating contingency plans or identifying opportunities are:

- Revisit business strategy;
- Allocate and plan capital and liquid assets, including re-allocation and sourcing of alternative funding;
- Review of trading limits or introduction of new limits (i.e. stop-loss limits, sensitivity limits);
- Conduct supplementary stress testing;
- Closely monitor exposures in negative outlook / vulnerable risk areas;
- Source additional liquid assets to cope with potential negative impact arising from stressed conditions; and
- Conduct portfolio re-balancing to avoid concentration and diversifying exposures, while also looking identifying opportunities.

Internal indicators and market indicators as warning signs

Internal indicators are Non-IB specific, such as its assets, funding costs, concentration, and cash flows. Non-IBs should identify internal indicators that can be used to warn of a potential liquidity crisis which may be driven by internal actions. Market indicators refer to warning signals picked out from the Non-IBs interaction with the market such as the clients, credit providers or counterparties.

In either case, whether through its internal indicators or market indicators, Non-IBs should establish a system for identifying and tracking such indicators to spot potential problems even at an early stage.

Observable and measurable characteristics trigger

The contingency plan should define the circumstances and specific triggers will lead the institution to put any part of its contingency plan into action. Breaches of limits for the cumulative cash flow gaps are an example of a possible trigger.

2.7.2 Principle 14 - A Non-IB shall identify and quantify funding sources and rank them by preference in its contingency funding strategies

The contingency plan should consider funding strategies and action plans relating to the Non-IB's assets as well as liabilities.

Non-IB's shall consider the following:

- In times of liquidity crisis, even committed lines of credit may not be honoured;
- Although "excess" capital may be available to the Non-IB, the amount of the cushion may diminish substantially in a time of crisis, as the firm may have higher liquidity needs and little ability to secure new funds;
- "Downsizing the balance sheet" through the selling of assets to raise money could accelerate a Non-IB's financial deterioration by forcing sales in a weak market, thus substantially reducing proceeds; and
- The potential impacts of the scenarios arising from the institution's secondary market credit activities such as providing underwriting facilities for the issuance of bonds.

The established contingency plans should be reviewed periodically, at least yearly, in light of market events and their impact on the firm's liquidity.

2.7.3 Principle 15 – A Non-IB's contingency plan shall contain the procedures which will enable the plan to be executed once a contingency arises.

The corrective action plans shall include the following:

- Allocation of responsibilities during a funding crisis – reporting paths and responsibilities not only by function but also for each of Non-IBs' personnel needs to be defined;
- Procedures for internal reporting and communication to enable timely decision making and monitoring;
- Timeframes within which each action should be taken;
- Procedures for communication with external stakeholders such as customers, analysts, shareholders and regulators;
- Dealing with the press and the wider public – public disclosure is a crucial part of liquidity management, as market perceptions need to be managed especially during crisis situations; and

- Before implementing any of the contingency funding procedures, the Non-IB should assess the likely impact of particular courses of action on the market's perception of the Non-IB.

Once established, the contingency plan should also be subjected to regular review and revision to ensure it remains robust over time and continues to reflect the Non-IB's changing operating circumstances.

APPENDIX 1

Further Clarification on Funding Liquidity Ratios, Limits, and Measurements.

Target liquidity ratio – Based on various liquidity ratios that have been established as a liquidity monitoring tool, Non-IBs should set a target for these ratios. The actual position of liquidity ratios should be compared with the targets and any breaches and follow-up action taken by management to restore the ratios should be properly documented.

Maturity mismatch limits – Will control the size of the cumulative net mismatch position (i.e. cumulative cash outflows exceeding cumulative cash inflows), and are usually set for short term time bands up to one month, i.e. next day, 7 days and 1 month.

Concentration limits and diversification – Diversification is a tool to spread risk such that the impact of the materialisation of the risk factor in one area is contained within reasonable limits or the damage in one area is offset by a positive effect in another area. Similarly, concentration is one area would normally be subjected to limits and controls to ensure the materialisation of the risk are contained. Among the diversification that can undertaken by Non-IBs include:

- Creditor diversification - such as limiting the amount or percentage of holding of commercial paper by one investor / issuer.
- Spreading debt maturities.
- Diversify debt instruments – secured and unsecured.
- Diversify markets or country of issuance.

Bid / ask spread – The difference between the bid price and the asking price of the instrument. The measurement can be based on the width of the bid / ask spread, which will indicate the likelihood of a successful transaction in the market. In addition, if this factor is monitored together with the Days of no transaction, it will provide a better definitive of the illiquidity status of the instrument.

Quote size –In the eyes of the public, quote size of the best bid and ask prices are visible, leaving the rest of the order book invisible to market participants. However, Bursa should be able to observe the quote size, not only at the best bid and ask prices. The quantity that can be traded at the bid and ask prices helps account for the depth of the market and complements the bid / ask spread as a measure of market liquidity

Volume of trade in an instrument / number of trades in an instrument – These two factors may seem similar but further analysis would demonstrate that one factor highlights a better liquidity position as compared to the other. Number of trades in an instrument demonstrates better liquidity as there is more demand in comparison to a single large transaction performed on an instrument.

Days of no price quotation – Measures the number of days in which a certain instrument has no demand or supply, but for the purpose of measuring illiquidity, the focus would be on bid price as it constitutes the demand for the instrument.

SELF ASSESSMENT QUESTIONAIRES

Self Assessment Questionnaires

Liquidity Risk Management Governance Framework – Self Assessment Questionnaires

Bursa will engage Non-IBs from time to time to establish the Non-IBs' position in adopting the leading business practices in managing the liquidity risk. Bursa will use the results of the Self Assessment Questionnaires in order to evaluate the Non-IBs' governance position in managing their liquidity risk. Further to this, the Non-IBs will be required to perform a self-assessment and submit it to Bursa on a yearly basis no later than 31 January of each calendar year for the reporting date as at 31 December of the previous year.

	Categories	Yes	No
Strategy and Policy			
1	Do you have a formal liquidity risk policy, i.e., strategies, policies and practices, in place to manage liquidity risk in accordance with the risk tolerance? Do you maintain sufficient liquidity[1]?		
2	Have you adequately defined the following in the strategy and policy: ▪ Composition of assets & liabilities ▪ Diversity & stability of funding sources ▪ Approach to managing liquidity in different currencies, across borders and across business lines and legal entities; ▪ Approach to intraday liquidity management ▪ Assumptions on asset liquidity		
3	Did your strategy include various high-level quantitative and qualitative targets such as: ▪ Guidelines or limits on the composition of assets and liabilities; ▪ The relative reliance on certain funding sources, both on an ongoing basis and under contingent liquidity scenarios; and ▪ The marketability of assets to be used as contingent sources of liquidity.		

[1] Sufficient Liquidity means "adequate to meet current and planned business requirements (including known contingencies) while complying with Bursa's requirements".

4	Did your strategy consider the appropriate nature, scale and complexity of your activities, in addition to the followings: ▪ Set the objectives for the management of both short-term and long-term funding risk; ▪ Set the objectives for the management of contingent liquidity risk; ▪ Define the basis for managing liquidity (e.g. whether the liquidity is being managed on regional or central basis); ▪ Set the identification of appropriate or inappropriate risk management tools; ▪ Set the degree of concentrations, potentially affecting liquidity risk, that are acceptable to the firm; and ▪ Define ways of managing its aggregate foreign currency liquidity needs and its needs in each individual currency.		
5	Did your Board approve your strategies and policies and review them at least annually thereafter?		
6	Have you established and document your liquidity risk management strategies and do you ensure that it is consistent with your funding strategy?		
7	Did your liquidity risk management strategies cover the overall appetite for liquidity risk, such as tolerance that is within compliance parameter of capital adequacy frameworks for concentration and the use of approved funding instruments and markets?		
8	Did your liquidity risk management policy statement include the following areas:- ▪ Governance and organisational structure for liquidity risk; ▪ Risk tolerance and limits; ▪ Liquidity risk measurement methodology; ▪ Stress testing and scenario analysis; ▪ Reporting and monitoring policies; and ▪ Liquidity risk contingency plan;		
9	Have you established and documented your funding strategy that contains overall goals and objectives for short and long term funding? Did it consider correlations between sources of funds and market conditions, strategy for maintaining funding under adverse conditions, different currencies, sources, geographies and inter-company funding that may exist in your operations?		
10	Are the strategies and policies demonstrated and represented in the form of operational procedures?		

Organisation & Structure			
1	Have you established appropriate organisational and management structure for liquidity risk and does it at least cover the following areas: ▪ Have clear lines of authority and proper delegation of responsibilities; ▪ Have adequate resources skilled for liquidity risk decisions either via Finance unit of the Non-IBs, or some other suitable function depending on size and nature of the organisation which other units could also be responsible; ▪ Should include function which responsible for the identification, measurement and monitoring of liquidity risk; ▪ Support communication network between the Non-IB's personnel responsible for the identification, measurement and monitoring of liquidity risk; ▪ Prompt and flexible decision making and actions; and ▪ Clear segregation of functions in the management of liquidity risk.		
2	Did your Board approve & monitor liquidity risk strategy & policy, and risk appetite? If yes, is the Board ultimately responsible for: ▪ Approving the liquidity risk strategy, liquidity risk policy (including procedures) and risk appetite concerning liquidity risk; ▪ Implementing an appropriate organisation and management structure for liquidity risk; ▪ Monitoring the liquidity risk profile on a regular basis and at an appropriate frequency; ▪ Ensuring that liquidity risks are identified, measured, monitored and controlled; ▪ Ensuring that responsibilities are clearly and comprehensively defined; ▪ Ensuring that liquidity risk is managed and controlled by Senior Management within the established risk management framework; ▪ Reviewing contingency plans; and ▪ Reviewing liquidity decisions.		
3	Did your Senior management manage risk within established framework? For example, does Senior Management hold responsibilities which include: ▪ Adhering to the lines of authority and responsibility defined by the Board; ▪ Implementing and maintaining appropriate policies and procedures that translate the Board's approved objectives and risk tolerances into operating standards; ▪ Directing the identification, measurement and monitoring of liquidity		

	risk through the implementation of management information and other systems; ▪ Ensuring effective internal controls over the liquidity risk management processes are implemented; in doing so, the managers should request regular standardised reports concerning liquidity risk and conduct regular reviews of the methods and processes used; and ▪ Providing guidance on managing and aligning the whole organisation to be risk aware and etc (or risk management in general), as usually liquidity risk is an after-effect of other risk, i.e. market, credit or reputation risk.		

Risk Tolerance, Ratios and Limits			
1	Do you have an established tolerance, ratios and limits **which are in line** with business objectives, strategy, and overall risk appetite?		
2	Do you ensure the risk tolerance, ratios, and limits **comply** with minimum financial requirements? Limits will vary depending on the nature of operations and circumstances. However, limits can also be tied to balance sheet ratios. Do you have the following in practice: ▪ Maximum projected cash flow shortfall tolerated for specified time period (for example, one week ahead, one month ahead, one quarter ahead); ▪ Minimum ratio of liquid assets to total assets; ▪ Maximum overnight borrowings to total assets; and ▪ Maximum ratio of total wholesale borrowings to total assets.		
3	Do you establish target liquidity ratio, maturity mismatch limits, concentration, and diversification? Did your funding liquidity ratios and limits used for liquidity risk management include: ▪ Target liquidity ratio; ▪ Maturity mismatch limits for local and foreign currencies; and ▪ Concentration limits and diversification.		
4	Do you also consider additional ratios or indicators to measure your ability to meet the liquidity needs, in particularly under stressful market conditions? For example: ▪ A "barometer" that measures the number of days that the firm could survive with no new sources of funding; ▪ The "liquidation potential," measuring how a firm could meet its funding needs in the first 14 days of a stress scenario; and ▪ A "maximum cumulative outflow" ("MCO") standard that establishes the amount of short term unsecured funds required to fund cash outflows in a stress event.		

Stress Testing and Scenario Analysis

1 Do you conduct regular stress testing and scenario analysis periodically and on timely basis? Do you have in place hypothetical scenarios & impacts that reflect risk appetite and possible risk exposures? For example:

Description	Impact	Magnitude of Shocks
Scenario 1: Global Financial Crisis		
To simulate stress event where there is a local liquidity issue arising from regional / global shortage of credit, such as the 2008 / 09 global financial crisis, resulting in the increase in short-term interest rates.	Risk areas: ▪ Market risk, Liquidity risk.	▪ Based on the maturity buckets as stipulated in the Bursa's Net Surplus Requirements (NSR), increase of liquidity outflow: – Plausible scenario, 10%; and – Worst case scenario, 30% ▪ Based on the scenario above, determine the potential shortfall required as per the compliance requirement.
Scenario 2: Illiquid Instruments		
To simulate stress event where there are non-tradable / illiquid instruments / securities.	Risk areas: ▪ Market risk, Liquidity risk.	▪ Additional cost of executing the illiquid instruments.
Scenario 3: Money Market Crunch		
To simulate stress event where there is a breakdown / crunch in the money market.	Risk areas: ▪ Market risk, Liquidity risk.	▪ Imbalances between the maturity dates on assets and liabilities ▪ Lack of adequate funding liquidity.

Stress Testing and Scenario Analysis

2	Are the tests conducted regularly according to scenarios identified and do you report the stress-tests results to your Board, Senior Management and relevant business line managers? If yes, do you perform the following, at the minimum, to ensure that stress testing technique applied is reflective of your risk appetite and possible risk exposures: ▪ Verify all relevant assumptions and model parameters periodically taking into considerations their experience in any crisis; ▪ Review and modify existing stress scenarios and parameters periodically, if necessary reflecting the current market conditions or new experiences; and ▪ Review entire business profile periodically to assess the need of additional stress scenarios.		
3	Do you review & modify existing stress scenarios and parameters_periodically, reflecting the current market conditions or new experiences?		

Measurement			
1	Have you established the processes for measuring the liquidity risk to which you are exposed to by using a robust and consistent methodology? If yes, is the measurement method responsive to dynamic nature of your liquidity profile, economic, and market conditions?		
2	Do you have in place a methodology for comparing cash inflows and outflows over future timeframes to calculate the cumulative net excess or deficit of funds at selected maturity dates? Did your methodology consider the following:- ▪ Robustly measure the extent of liquidity risk; ▪ Be forward looking; ▪ Be responsive to the dynamic nature of the institution's liquidity profile, economic and market conditions; ▪ Appropriate level of sophistication for the nature, size and complexity according to the Non-IB's activities; ▪ Be able to accommodate stress and scenario analysis; and ▪ Be applied consistently and based on accurate data.		
3	Have you ensured the measurement / method is able to accommodate stress & scenario analysis, applied consistently based on accurate data? Did the liquidity measurement method consider: ▪ Assessing Cash Inflows against Cash Outflows; ▪ Determining the Liquid Value of its assets (securities or other current assets which have a ready market, or which are capable of realisation within one (1) week in relation to the portfolio); ▪ Measuring and forecasting cash flows for: ➢ Assets; ➢ Liabilities; ➢ Off-balance sheet commitments; and ➢ Derivatives; and In terms of market liquidity, do you consider factors such as: ▪ Bid / ask spread; ▪ Quote size; ▪ Volume of trade in an instrument / number of trades in that instrument; ▪ Days of no price quotation, particularly bid price; and ▪ Days of no transaction.		

Monitoring & Reporting			
1	Have you established and maintained appropriate monitoring systems to examine and manage the amount of liquidity risk to which you are exposed to, based on established strategies, policies and procedures defined by the entity? If yes, do you have a framework of policies containing specific and detailed guidelines for the day-to-day monitoring of your liquidity risk, with proper communication processes in place throughout the organisation?		
2	Do you use appropriate reporting measures that would include documentations, approvals, internal transfer pricing and compliance? If yes, do you document the assumptions following the maturity buckets in measuring liquidity risk and the plan in place to mitigate any identified gaps (if any) in the internally generated behavioural maturity mismatches in the relevant policy such as liquidity management policy? Are the guidelines mentioned above properly documented and approved by Senior Management?		
3	Did your Internal Audit report any audit findings to the Board incorporating corrective & preventive measures?		
4	Do you have a proper management information system and reporting frequency which is in accordance with the business and the risks undertaken? Is your reporting on the funding capacity, capital utilisation etc. being carried out according to appropriate frequency? If yes, do you have reporting lines and responsibilities that are clearly established and followed? Do you provide the weekly reports and monthly reports to the Board?		
5	Do you have a comprehensive review process including daily monitoring of funding capacity and capacity utilisation, weekly reports of the firm's balance sheet usage, and a formal quarterly review of the system conducted by an appropriate committee? Do you monitor your liquidity positions daily using, for example, ledger balances (supplemented with spread sheet analysis), loans and placement systems, trading systems, Cash Capital models, daily liquidity positions, and reconciliation of data and aggregate balances to the firm's financial accounting and / or regulatory reports?		

Contingency Planning			
1	Do you have in place a contingency plan that addresses the strategy for handling unexpected events that will severely impact the entity's liquidity, including specific procedures for raising cash in emergency situations?		
2	Do your contingency plans generally focus on conserving and/or creating liquidity, by specifying the order in which liquidity reserves are to be accessed and any limitation or modification of trading activity? For example, do the key components of the contingency plans include: ▪ Estimating the funding requirements or potential fund erosion for material legal entities; ▪ Determining the pledge value of firm collaterals; and ▪ Preparing cash projections for the company's funding chain.		
3	Is your estimation of funding requirements documented, approved and reviewed regularly? If yes, have you considered the following during the formulation of contingency plan: ▪ Early warning indicators; ▪ Contingency scenarios; ▪ Triggers; ▪ Contingency funding strategies; and ▪ Contingency procedures.		
4	Have you considered the following when formulating contingency plans or identifying opportunities: ▪ Revisit business strategy; ▪ Allocate and plan capital and liquid assets, including re-allocation and sourcing of alternative funding; ▪ Review of trading limits or introduction of new limits (i.e. stop-loss limits, sensitivity limits); ▪ Conduct supplementary stress testing; ▪ Closely monitor exposures in negative outlook / vulnerable risk areas; ▪ Source additional liquid assets to cope with potential negative impact arising from stressed conditions; and ▪ Conduct portfolio re-balancing to avoid concentration and diversifying exposures, while also looking identifying opportunities.		
5	Have you established key considerations e.g. early warning signs and measurable characteristics trigger? For example, internal indicators are specific, such as assets, funding costs, concentration, and cash flows. Market indicators refer to warning signals		

	picked out from interaction with the market such as the clients, credit providers or counterparties. Breaches of the limits for the cumulative cash flow gaps are an example of a possible trigger.		
6	Do you identify and quantify funding sources and rank them by preference in the contingency funding strategies? If yes, have you considered the following: ▪ In times of liquidity crisis, even committed lines of credit may not be honoured; ▪ Although "excess" capital may be available to the Non-IB, the amount of the cushion may diminish substantially in a time of crisis, as the firm may have higher liquidity needs and little ability to secure new funds; ▪ "Downsizing the balance sheet" through the selling of assets to raise money could accelerate a Non-IB's financial deterioration by forcing sales in a weak market, thus substantially reducing proceeds; and ▪ The potential impacts of the scenarios arising from the institution's secondary market credit activities such as providing underwriting facilities for the issuance of bonds.		
6	Are the established contingency plans reviewed periodically, at least yearly, in light of market events and their impact on the firm's liquidity?		
7	Did the contingency plan contain the procedures which enable the plan to be executed once a contingency arises? Did the corrective action plans include the following: ▪ Allocating responsibilities during a funding crisis – reporting paths and responsibilities not only by function but also for each of Non-IBs' personnel needs to be defined; ▪ Having procedures for internal reporting and communication to enable timely decision making and monitoring; ▪ Establishing timeframes within which each action should be taken; ▪ Having procedures for communication with external stakeholders such as customers, analysts, shareholders and regulators; ▪ Dealing with the press and the wider public – public disclosure is a crucial part of liquidity management, as market perceptions need to be managed especially during crisis situations; and ▪ Before implementing any of the contingency funding procedures, assessing the likely impact of particular courses of action on the market's perception of the Non-IB.		

ATTACHMENT 1

User Guide and Reporting Forms

1 - INTRODUCTION

This Funding Liquidity reporting template is designed to be used in assessing and monitoring of the liquidity risk/ position of the Non-Investment Banks ("Non-IB").

Liquidity risk is inherent in the financial intermediation process that transforms short-term liabilities into long-term assets, which appears in two forms, namely funding liquidity risk and market liquidity risk as defined as follows:

Funding liquidity risk
The risk in which an institution will not be able to meet efficiently both expected and unexpected current and future cash flow and collateral needs without affecting either its daily operations or the financial condition; and

Market liquidity risk
The risk that an institution cannot easily offset or eliminate a position without significantly affecting the market price because of inadequate market depth or market disruption.

This document is developed based on a comprehensive approach by incorporating the above with the main objective in monitoring the financial activity of the Non-IBs as well as evaluating the Non-IB's liquidity position in maintaining sufficient liquidity/ capital to absorb any potential and unexpected losses to support the Non-IB's operations at all times.

2 - THIS WORKBOOK

This workbook have nine (9) worksheets and briefly explained below:

"User Guide1": Introduction and the descriptions for the usage of this Funding Liquidity reporting template
"User Guide2": Guide on mapping with Schedule 8A
"Appendix 1A": Summary of Maturity Mismatch Reporting
"Appendix 1B": Breakdown by Pure Contractual Maturity Profile in Ringgit Malaysia
"Appendix 1C": Breakdown by Pure Contractual Maturity Profile in Foreign Currency
"Appendix 1D": Breakdown by Behavioral Maturity Profile in Ringgit Malaysia
"Appendix 1E": Breakdown by Behavioral Maturity Profile in Foreign Currency
"Appendix 1F": Supplementary Information which reports the concentration of funding sources (This is not applicable to the Non-IBs)
"Appendix 1G": Stock of Liquid Assets which reports the equities, debt instruments, derivatives and available credit lines

The user of this template shall firstly key in the required values or text wherever applicable/specified in Appendix 1B to Appendix 1G worksheets. Once the information provided are finalized and complete, the template is designed where it automatically captures the key values from the respective components (i.e. Appendix 1B to Appendix 1E and Appendix 1G) and reflected in Appendix 1A.

3 - INPUT SHEET, INPUT CELLS AND AUTOMATICALLY CALCULATED CELLS

The worksheets which requires user's input are Appendix1A to Appendix1G.
There are only 3 types of cells with values throughout the whole workbook and 1 type of cell that requires input in text form:

(a) The Pale Yellow cells with Black fonts indicate manual input as shown in Figure 1 indicated in Column 1. These cells require the user to input values into them (either in Ringgit Malaysia or percentage values). The cells are automated to indicate between an inflow (positive value) which is black font and outflow (negative value) which is red font as illustrated in Figure 1 Column 1 Row 1 and 2 respectively.

(b) The White cells with Black fonts indicate automatically computed values, which does not require any input, as illustrated in Figure 1, Column 2. These values will be generated automatically using the pre-programmed formulas where black fonts represents inflow (positive value) and red fonts represents outflow (negative value).

(c) The Pale Green cells with Black fonts indicate manual input as illustrated in Figure 1, Column 3. These input cells are entered as text .

The worksheet that do not require input which are automatically calculated:
- Appendix1A which is Summary of Maturity Mismatch Reporting

Bucket A is made up of market days. As for Bucket B which is made up of four (4) days to seven (7) days, where four (4) days are of market days whereas seven (7) days are of calendar days. For Bucket C and D, the days referred are calendar days.

Note: - All table of Figures in this Documentation worksheet are created for illustration purposes only, which does not represents the actual layout of this workbook.

FIGURE 1

	Column 1	Column 2	Column 3
Row 1	154.30	154.30	Bank A Berhad
Row 2	153.40	153.40	
Row 3	15%		

4 - OUTPUT SHEETS

Once all the required input has been entered in all the required fields, the automatically calculated sheets will generate the following key ratios in worksheet Appendix1A as illustrated in Figure 2.

The ratios are generated by the 'Available Cumulative to Accommodate liquidity Shocks (Inflow - Assets)' over the 'Available Cumulative to Accommodate Liquidity Shocks (Outflow - Liabilities)'. For example, for Bucket 'Up to 3 Days':

[(556.50 / 545.90) / 545.90] = 1.94%

The computation are replicated in a similar approach across the rest of the ratios as illustrated in Figure 2 .

FIGURE 2

Maturity Time Buckets	up to 3 days	4 days to 7 days	8 days to 14 days	15 days to 1 month	Total
Convert to Cumulative Profile					
Available Cumulative to Accommodate Liquidity Shocks (Inflow-Assets)	556.50	844.40	1,410.61	2,650.82	NA
Available Cumulative to Accommodate Liquidity Shocks (Outflow - Liabilities)	545.90	792.02	1,314.00	2,459.90	NA
Net Funding Requirement	Note 1	Note 2	Note 3	Note 4	
Computed NSR	1.94%	6.61%	7.35%	7.76%	NA

Note 1 : Report 3% of total cash funding as at reporting date
Note 2 : Report 5% of total cash funding as at reporting date
Note 3 : Report 7% of total cash funding as at reporting date
Note 4 : Report 9% of total cash funding as at reporting date

5 - FUNDLING LIQUIDITY REPORTING TEMPLATE NAVIGATION GUIDE

Navigating through the Funding Liquidity reporting templates are relatively easy which is designed with a 'point-click-input' approach. Certain cells are password protected to prevent interference with the overall calculation engine as well as ensuring consistency in computing the Net Surplus Requirements ("NSR"). In order to fully comply with the input of this template, it is imperative that the user to provide the complete input where necessary i.e. cells colors with pale yellow and pale green where applicable. The following describes the general steps required in operating the Funding Liquidity reporting template:

Step 1:
Generate Inputs in Appendix1G, PART A in Column highlighted 1 and/or 2 as illustrated in Figure 3, marked with dotted red line. Once completed, user shall manually transport the figures that are automatically generated (Column 4, PART A) based on the figures provided by the user to PART B of the same template to the applicable buckets as highlighted with dotted blue line. Follow on, user shall provide input on credit line(s) available for drawdown as illustrated in Figure 4. The total value in PART B of each respective buckets shall be automatically captured in Appendix 1B row A2.3.

Step 2:
Generate Inputs in Appendix 1F in respective cells highlighted in pale yellow as illustrated in Figure 6. The information and values in Appendix1F shall not contribute to the NSR computation where it is only for Bursa's monitoring and analysis purpose only. Please note that Appendix 1F is not applicable to Non-IBs.

Step 3:
Generate input on the Appendix 1B-1E whichever applicable in the designated pale yellow cells. User shall key in the figures according to the following condition as explained in Figure 1 above.

Step 4:
Review the results/ output of the computed NSR as illustrated in Figure 2.

Step 5:
Report the NSR results and Rating (Figure 5) obtained according to the required specific reporting frequency determined by the Exchange.

Please refer to Figure 7 on the illustrative a detailed process flow from origination to the submission to Bursa on the Liquidity Reporting template.

FIGURE 3

	PART A	1	2	3	4	PART B			
	Liquid Securities	Market value of securities reported in books (excl. securities repoed out) (RM m)	Market value of securities received under reverse repo (excl. securities re-repoed out) (RM m)	"Forced Sale" Discount to be Applied Based on Yied Slippage (%)	Total Value of Securities After Discount (RM m) (1+2) - 3 = 4	MATURITY BUCKETS			
						up to 3 days	4 days to 7 days	8 days to 14 days	15 days to 1 month
	Class 1 - liquid assets								
A1	FTSE Bursa Malaysia KLCI	25.00	26.00	3.60%	49.16	49.16			
A2	FTSE Bursa Main Market (Non KLCI)								
a.	Average 1 month trade volume > = 50 m shares	24.00	23.00	4.00%	45.12		45.12		
b.	Average 1 month trade volume > =10 m < 50 m shares	56.00		4.50%	53.48		53.48		
c.	Average 1 month trade volume >= 5 m < 10 m shares	123.00	24.00	4.90%	139.80	139.80			
d.	Average 1 month trade volume > = 1 m < 5 m shares	145.00	30.00	5.40%	165.55		165.55		
e.	Average 1 month trade volume >= 500k < 1 m shares	231.00		5.90%	217.37			217.37	
f.	Average 1 month trade volume < 500k shares	245.00	12.00	6.40%	240.55		240.55		

FIGURE 4

	PART A	1	2	3	4	PART B			
	Liquid Securities	Market value of securities reported in books (excl. securities repoed out) (RM m)	Market value of securities received under reverse repo (excl. securities re-repoed out) (RM m)	"Forced Sale" Discount to be Applied Based on Yied Slippage (%)	Total Value of Securities After Discount (RM m) (1+2) - 3 = 4	MATURITY BUCKETS			
						up to 3 days	4 days to 7 days	8 days to 14 days	15 days to 1 month
	Class 2 - liquid assets & available credit lines								
B5	Undrawn portion of formally available commited credit lines (please provide detailed breakdown in C1 below)	36.00		0.00%	36.00	36.00			
	Subtotal Class 2 liquid assets & available credit lines (restricted to 50% of Class 1 liquefiable assets)				36.00				
B6	Total				36.00				
						36.00	0.00	0.00	0.00

C1	Formally Available Commited Credit Lines Name of Providers	Undrawn Portion (RM M)	Drawn Portion (RM M)
	Bank A Berhad	25.00	12.00
	Bank B Berhad	2.00	14.00
	Bank C Berhad	5.00	4.00
	Bank D Berhad	4.00	5.00
	Total	36.00	35.00

FIGURE 5

Maturity Time Buckets	up to 3 days	4 days to 7 days	8 days to 14 days	15 days to 1 month	Total
Convert to Cumulative Profile					
Available Cumulative to Accommodate Liquidity Shocks (Inflow-Assets)	556.50	844.40	1,410.61	2,650.82	NA
Available Cumulative to Accommodate Liquidity Shocks (Outflow - Liabilities)	545.90	792.02	1,314.00	2,459.90	NA
	Note 1	Note 2	Note 3	Note 4	
Computed NSR	1.94%	6.61%	7.35%	7.76%	NA

Note 1 : Report 3% of total cash funding as at reporting date
Note 2 : Report 5% of total cash funding as at reporting date
Note 3 : Report 7% of total cash funding as at reporting date
Note 4 : Report 9% of total cash funding as at reporting date

RATING:

ML

FIGURE 6

I.	Distribution profile of customer (or group of related customers) deposits/repos/NIDs which accounts for 1% or more of total deposit				
	1-2% of TD	2-3% of TD	3-5% of TD	5-10% of TD	>10% of TD
Number of customer (Groups of customers)	2	3	2	5	1

Note 1 : TD represents Total Deposit

Not Applicable to Non-IB.

II.	Concentration of Funding Sources	Weekend Average for the month (%)
A.	Adjusted loan / deposit ratio	5
B.	Net offshore borrowing / Total domestic deposit liabilities	0
C.	Net domestic interbank borrowing / Total domestic deposit liabilities	15
D.	Total net domestic overnight interbank borrowing / Total gross domestic interbank borrowing LESS overnight domestic interbank lending	0
E.	Short term gross domestic interbank borrowing / Short term domestic total funding	14

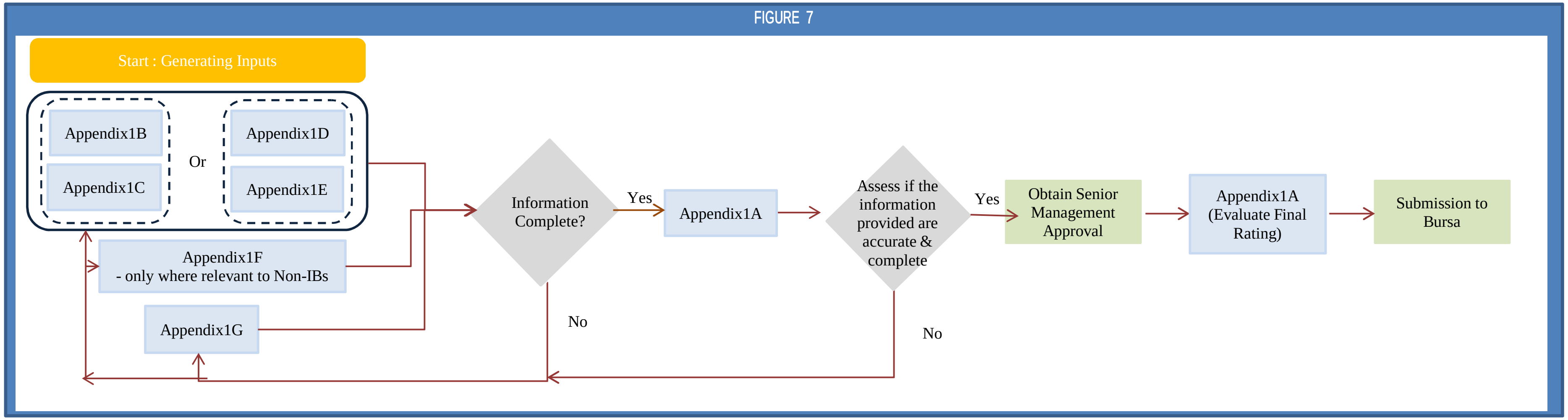
FIGURE 7
Start : Generating Inputs
Appendix1B
Appendix1C
Or
Appendix1D
Appendix1E
Appendix1F
- only where relevant to Non-IBs
Appendix1G
Information Complete?
Yes
No
Appendix1A
Assess if the information provided are accurate & complete
Yes
No
Obtain Senior Management Approval
Appendix1A (Evaluate Final Rating)
Submission to Bursa

Abbrevations on the Rating:

Appendix

Rating	Description
NR	No Action Required
L	Low
ML	Medium Low
M	Medium
MH	Medium High
IR	Immediate Action Required

Reference which assist users in filling up the required templates

Ref:	I. Core Activities		up to 3 days	4 days to 7 days	8 days to 14 days	15 days to 1 month	Remarks
	INFLOWS (Assets)						
A1.1	Amount Due From:	Margin Clients	*-Sales contract of margin clients* *-Monies due by Clients due to margin calls under Margin basis*				*-Client Margin Accounts* *Less : Specific Provisio for Bad & Doubtful Debts* *: Provision for Interest in Suspense*
A1.2		Non Margin Clients	*-Outstanding contracts <T+4 and above*	*-Trade Debtors: Dealers (Gross)* *-Trade Debtors: Clients*			*-Outstanding contracts <T+4 and* *-Including married deals pertaining to trades* *-Trade Debtors: Dealers (Gross)* *-Trade Debtors: Clients*
	<u>Miscellanaous</u>						
A1.3	Cash and Deposits		*-Cash and deposits in hands by the Non-Ibs* *- Remisiers deposits*	*Clearing Guaranteed Fund*			*<u>As per Schedule 8A:</u>* *-Cash & Bank Balances (Non Trust)* *-Deposits (Approved Banks & Fin. Inst. - Non Trust)* *-Cash & Bank Balances (Trust)* *-Deposits (Approved Banks & Fin. Inst. - Trust)* *Clearing Guarenteed Fund*
A1.4	Total Infows (Assets) Core Activities		0.00	0.00	0.00	0.00	0.00
	OUTFLOWS (Liabilities) **<u>On-Balance Sheet</u>**						
A1.5	Amount Due To:	Margin Clients	*-Purchase contract of margin clients* *-Monies owing to Clients that sell equities from in house stock broker/ remisier under Margin basis*				*-Client Margin Accounts*
A1.6		Non Margin Clients	*-Outstanding contracts <T+4 and above*	*-Trade Creditors: Dealers (Gross)* *-Trade Creditors: Clients*			*-Outstanding contracts <T+4 and above* *-Trade Creditors- Dealers (Gross)* *-Trade Creditors- Clients*
A1.7		Other Creditors		*Others Creditors besides clients*			*-Including underwriting of underscript shares (report in Bucket D)* *-Other Credtiros & Accruals*
A1.8		Others	*N/A*	*-Stamp duty, SCANS Clearing Fee, SC Levy, SCORE Levy to be reported in Bucket B*	*N/A*	*N/A*	*As per description*

Ref:	I. Core Activities	up to 3 days	4 days to 7 days	8 days to 14 days	15 days to 1 month	Remarks
A1.9	Client Trusts and Refund Money	*Account set up by a broker to keep a client's monies segregated from the broker's general funds and money that is needed to refund to client*	*Refund of remisiers' deposits*			*As per Schedule 8A:* *-Trust Account - Clients/ Others*
	Miscellanaous					
A1.10	Current Liabilities	*Any form of short term loans and liabilitie.*				*As per Schedule 8A:* *Bank Overdraft/ Revolving Credits* *Short-term Loans/ Borrowings* *Director's Account* *Amount due to Holding Company* *Amout due to Subsidiary/ Related Companies* *Remisier A/C* *HP Creditors* *Provision for Taxation* *Proposed Dividend*
	Off-Balance Sheet					
	Credit and other commitments-with uncertain cash flows					
A1.11	Contingent Liability	*N/A*	*N/A*	*N/A*	*Potential future liabilities based on conditions that were unresolved as of the trades were carried forward over the next trading day(s)*	*As per Schedule 8A:* *-Contingent Liabilities*
A1.12	Total Outflows (Liabilities) Core Activities	0.00	0.00	0.00	0.00	0.00
A1.13	**Net Maturity Mismatch**	0.00	0.00	0.00	0.00	0.00

Ref:	II. Treasury & Capital Market Activities	up to 3 days	4 days to 7 days	8 days to 14 days	15 days to 1 month	Total
	INFLOWS (Assets)					
	On Balance Sheet					
A2.1	Repo	*A Repurchase agreement allows a borrower to use a financial security as collateral for a cash loan at a fixed rate of interest*				*An agreement under which a holder of cash who wishes to earn interest or "borrow" securities agrees to lend that cash against the purchase of securities, and simultaneously agrees to resell the securities for an agreed price on demand, or after a stated time*
A2.2	Stock of Liquefiable Assets (D1.Total) Appendix 1G	*As per Appendix 1 G- Available Credit Line*	*As per Appendix 1 G- Total of Class 1 and Class 2 liquid assets*			*Marketable Securities- Listed Equities* *Marketable Sec - FI Securities (corporate)* *Marketable Sec - FI Securities (govt)* *Marketable Sec - Unit Trusts* *Marketable Sec- Others* *Less : Provision for dimunition in value*
	Off-Balance Sheet					

Ref:	I. Core Activities	up to 3 days	4 days to 7 days	8 days to 14 days	15 days to 1 month	Remarks
	Derivatives (Long RM Positions) - with certain cash flows					
A2.3	Foreign exchange contracts receiveable (spot/forward/swap)	Receiveable - for Foreign exchange contracts which involve derivative such as spot, forward and swap 1) spot - is buying one currency with a different currency for immediate delivery, rather than for future delivery 2) forward - a non-standardized contract between two parties to buy or sell an asset at a specified future time at a price agreed today 3)swap - a derivative in which counterparties exchange certain benefits of one party's financial instrument for those of the other party's financial instrument)				N/A
A2.4	Equity-linked derivative contracts receiveable	Receivable - Derivative that give the rights to the owner of the derivative to exchange for equity on a pre agreed price				N/A
	Derivatives (Long RM Positions) - with uncertain cash flows					
A2.5	Derivatives (Delta Equivalent) : Written (Sold) Receivable	A derivative financial instrument where the owner has the right but not the obligation to exchange money denominated in one currency into another currency at a pre-agreed exchange rate on a specified date				N/A
A2.6	Total Inflow (Assets) Treasury & Capital Markets Activities	0.00	0.00	0.00	0.00	0.00
	OUTFLOWS (Liabilities)					
	On Balance Sheet					
A2.7	Interbank Repos	A spot sale of a security combined with its repurchase at a later date and pre-agreed price between bank				N/A
A2.8	Non-interbank Repos	A spot sale of a security combined with its repurchase at a later date and pre-agreed price other than bank				N/A
A2.9	NIDs issued	Negotiable Instrument of Deposit - a document guaranteeing the payment of a specific amount of money				N/A
A2.10	Banker Acceptance Payable	Negotiable instrument or time draft drawn on and accepted by a bank				N/A
	Off-Balance Sheet					
	Derivatives (Short RM Positions) with certain cash flows					
A2.11	Foreign exchange contracts payable (spot/forward/swap)	Payable - for Foreign exchange contracts which involve derivative such as spot, forward and swap 1) spot - is buying one currency with a different currency for immediate delivery, rather than for future delivery 2) forward - a non-standardized contract between two parties to buy or sell an asset at a specified future time at a price agreed today 3)swap - a derivative in which counterparties exchange certain benefits of one party's financial instrument for those of the other party's financial instrument)				N/A
A2.12	Equity-linked derivative contracts payable	Payable - Derivative that give the rights to the owner of the derivative to exchange for equity on a pre agreed price				N/A
	Derivatives (Short RM Positions) with uncertain cash flows					
A2.13	Derivatives (Delta Equivalent) : Purchase (Bought) Payable	A derivative financial instrument where the owner has the right but not the obligation to exchange money denominated in one currency into another currency at a pre-agreed exchange rate on a specified date				N/A
A2.14	Total Outflow (Liabilities) Treasury & Capital Markets Activities	0.00	0.00	0.00	0.00	0.00
A2.15	**Net Maturity Mismatch**	0.00	0.00	0.00	0.00	0.00

	Net Total Maturity Mismatch (A1.13 + A2.15)	0.00	0.00	0.00	0.00	0.00

Note 1 : Round all figures to the nearest RM Million

Name of Institution :	XXX
Reporting Date :	DD/MM/YY

Maturity Time Buckets	up to 3 days	4 days to 7 days	8 days to 14 days	15 days to 1 month	Total
Core Activities					
Total Inflow (Assets) A 1.4 Appendix 1B	0.00	0.00	0.00	0.00	0.00
Total Inflow (Assets) A 1.4 Appendix 1C	0.00	0.00	0.00	0.00	0.00
ADD					
Treasury & Capital Market Activities					
Total Inflow (Assets) A 2.6 Appendix 1B	0.00	0.00	0.00	0.00	0.00
Total Inflow (Assets) A 2.6 Appendix 1C	0.00	0.00	0.00	0.00	0.00
EQUALS					
Total Inflow (Assets) Under Normal Circumstances	0.00	0.00	0.00	0.00	0.00

Core Activities					
Total Outflow (Liabilities) A 1.12 Appendix 1B	0.00	0.00	0.00	0.00	0.00
Total Outflow (Liabilities) A 1.12 Appendix 1C	0.00	0.00	0.00	0.00	0.00
ADD					
Treasury & Capital Market Activities					
Total Outflow (Liabilities) A 2.14 Appendix 1B	0.00	0.00	0.00	0.00	0.00
Total Outflow (Liabilities) A 2.14 Appendix 1C	0.00	0.00	0.00	0.00	0.00
EQUALS					
Total Outflow (Liabilities) Under Normal Circumstances	0.00	0.00	0.00	0.00	0.00

Convert to Cumulative Profile					
Available Cumulative to Accommodate Liquidity Shocks (Inflow-Assets)	0.00	0.00	0.00	0.00	NA
Available Cumulative to Accommodate Liquidity Shocks (Outflow - Liabilities)	0.00	0.00	0.00	0.00	NA
	Note 1	Note 2	Note 3	Note 4	
Computed NSR	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	NA

Note 1 : Report 3% of total cash funding as at reporting date
Note 2 : Report 5% of total cash funding as at reporting date
Note 3 : Report 7% of total cash funding as at reporting date
Note 4 : Report 9% of total cash funding as at reporting date

RATING:

#DIV/0!

Signature : ______________________________

Note : Red fonts represents outflows

Appendix 1B]

Breakdown by Pure Contractual Maturity Profile - Ringgit

Ref:	I. Core Activities		up to 3 days	4 days to 7 days	8 days to 14 days	15 days to 1 month	Total
	INFLOWS (Assets)						
A1.1	Amount Due From:	Margin Clients					0.00
A1.2		Non Margin Clients					0.00
	Miscellaneous						
A1.3	Cash and Deposits						0.00
A1.4	Total Inflows (Assets) Core Activities		0.00	0.00	0.00	0.00	0.00
	OUTFLOWS (Liabilities)						
	On-Balance Sheet						
A1.5	Amount Due To:	Margin Clients					0.00
A1.6		Non Margin Clients					0.00
A1.7		Other Creditors					0.00
A1.8		Others					0.00
A1.9	Client Trusts and Refund Money						0.00
	Miscellaneous						
A1.10	Short-Term Loans Liabilities						0.00
	Off-Balance Sheet						
	Credit and other commitments-with uncertain cash flows						
A1.11	Contingent Liability						0.00
A1.12	Total Outflows (Liabilities) Core Activities		0.00	0.00	0.00	0.00	0.00
A1.13	**Net Maturity Mismatch**		0.00	0.00	0.00	0.00	0.00

Ref:	II. Treasury & Capital Market Activities	up to 3 days	4 days to 7 days	8 days to 14 days	15 days to 1 month	Total
	INFLOWS (Assets)					
	On Balance Sheet					
A2.1	Repo					0.00
A2.2	Stock of Liquefiable Assets (D1.Total) Appendix 1G	0.00	0.00	0.00	0.00	0.00
	Off-Balance Sheet					
	Derivatives (Long RM Positions) - with certain cash flows					
A2.3	Foreign exchange contracts receivable (spot/forward/swap)					0.00
A2.4	Equity-linked derivative contracts receivable					0.00
	Derivatives (Long RM Positions) - with uncertain cash flows					
A2.5	Derivatives (Delta Equivalent) : Written (Sold) Receivable					0.00
A2.6	Total Inflow (Assets) Treasury & Capital Markets Activities	0.00	0.00	0.00	0.00	0.00
	OUTFLOWS (Liabilities)					
	On Balance Sheet					
A2.7	Interbank Repos					0.00
A2.8	Non-interbank Repos					0.00
A2.9	NIDs issued					0.00
A2.10	Banker Acceptance Payable					0.00
	Off-Balance Sheet					
	Derivatives (Short RM Positions) with certain cash flows					
A2.11	Foreign exchange contracts payable (spot/forward/swap)					0.00
A2.12	Equity-linked derivative contracts payable					0.00
	Derivatives (Short RM Positions) with uncertain cash flows					
A2.13	Derivatives (Delta Equivalent) : Purchase (Bought) Payable					0.00
A2.14	Total Outflow (Liabilities) Treasury & Capital Markets Activities	0.00	0.00	0.00	0.00	0.00
A2.15	**Net Maturity Mismatch**	0.00	0.00	0.00	0.00	0.00
	Net Total Maturity Mismatch (A1.13 + A2.15)	0.00	0.00	0.00	0.00	0.00

Breakdown by Pure Contractual Maturity Profile - Non Ringgit

Ref:	I. Core Activities		up to 3 days	4 days to 7 days	8 days to 14 days	15 days to 1 month	Total
	INFLOWS (Assets)						
A1.1	Amount Due From:	Margin Clients					0.00
A1.2		Non Margin Clients					0.00
	Miscellaneous						
A1.3	Cash and Deposits						0.00
A1.4	Total Inflows (Assets) Core Activities		0.00	0.00	0.00	0.00	0.00
	OUTFLOWS (Liabilities)						
	On-Balance Sheet						
A1.5	Amount Due To:	Margin Clients					0.00
A1.6		Non Margin Clients					0.00
A1.7		Other Creditors					0.00
A1.8		Others					0.00
A1.9	Client Trusts and Refund Money						0.00
	Miscellaneous						
A1.10	Short-Term Loans Liabilities						0.00
	Off-Balance Sheet						
	Credit and other commitments-with uncertain cash flows						
A1.11	Contingent Liability						0.00
A1.12	Total Outflows (Liabilities) Core Activities		0.00	0.00	0.00	0.00	0.00
A1.13	**Net Maturity Mismatch**		0.00	0.00	0.00	0.00	0.00

Ref:	II. Treasury & Capital Market Activities	up to 3 days	4 days to 7 days	8 days to 14 days	15 days to 1 month	Total
	INFLOWS (Assets)					
	On Balance Sheet					
A2.1	Repo					0.00
A2.2	Stock of Liquefiable Assets (Foreign Liquefiable Assets)					0.00
	Off-Balance Sheet					
	Derivatives (Long F Positions) - with certain cash flows					
A2.3	Foreign exchange contracts receivable (spot/forward/swap)					0.00
A2.4	Equity-linked derivative contracts receivable					0.00
	Derivatives (Long FC Positions) - with uncertain cash flows					
A2.5	Derivatives (Delta Equivalent) : Written (Sold) Receivable					0.00
A2.6	Total Inflow (Assets) Treasury & Capital Markets Activities	0.00	0.00	0.00	0.00	0.00
	OUTFLOWS (Liabilities)					
	On Balance Sheet					
A2.7	Interbank Repos					0.00
A2.8	Non-interbank Repos					0.00
A2.9	NIDs issued					0.00
A2.10	Banker Acceptance Payable					0.00
	Off-Balance Sheet					
	Derivatives (Short FC Positions) with certain cash flows					
A2.11	Foreign exchange contracts payable (spot/forward/swap)					0.00
A2.12	Equity-linked derivative contracts payable					0.00
	Derivatives (Short FC Positions) with uncertain cash flows					
A2.13	Derivatives (Delta Equivalent) : Purchase (Bought) Payable					0.00
A2.14	Total Outflow (Liabilities) Treasury & Capital Markets Activities	0.00	0.00	0.00	0.00	0.00
A2.15	**Net Maturity Mismatch**	0.00	0.00	0.00	0.00	0.00
	Net Total Maturity Mismatch (A1.13 + A2.15)	0.00	0.00	0.00	0.00	0.00

Breakdown by Behavioral Maturity Profile - Ringgit

Ref:	I. Core Activities		up to 3 days	4 days to 7 days	8 days to 14 days	15 days to 1 month	Total
	INFLOWS (Assets)						
A1.1	Amount Due From:	Margin Clients					0.00
A1.2		Non Margin Clients					0.00
	Miscellaneous						
A1.3	Cash and Deposits						0.00
A1.4	Total Inflows (Assets) Core Activities		0.00	0.00	0.00	0.00	0.00
	OUTFLOWS (Liabilities)						
	On-Balance Sheet						
A1.5	Amount Due To:	Margin Clients					0.00
A1.6		Non Margin Clients					0.00
A1.7		Other Creditors					0.00
A1.8		Others					0.00
A1.9	Client Trusts and Refund Money						0.00
	Miscellaneous						
A1.10	Short-Term Loans Liabilities						0.00
	Off-Balance Sheet						
	Credit and other commitments-with uncertain cash flows						
A1.11	Contingent Liability						0.00
A1.12	Total Outflows (Liabilities) Core Activities		0.00	0.00	0.00	0.00	0.00
A1.13	**Net Maturity Mismatch**		0.00	0.00	0.00	0.00	0.00

Ref:	II. Treasury & Capital Market Activities	up to 3 days	4 days to 7 days	8 days to 14 days	15 days to 1 month	Total
	INFLOWS (Assets)					
	On Balance Sheet					
A2.1	Repo					0.00
A2.2	Stock of Liquefiable Assets (D1.Total) Appendix 1G	#REF!	#REF!	#REF!	#REF!	#REF!
	Off-Balance Sheet					
	Derivatives (Long RM Positions) - with certain cash flows					
A2.3	Foreign exchange contracts receivable (spot/forward/swap)					0.00
A2.4	Equity-linked derivative contracts receivable					0.00
	Derivatives (Long RM Positions) - with uncertain cash flows					
A2.5	Derivatives (Delta Equivalent) : Written (Sold) Receivable					0.00
A2.6	Total Inflow (Assets) Treasury & Capital Markets Activities	#REF!	#REF!	#REF!	#REF!	#REF!
	OUTFLOWS (Liabilities)					
	On Balance Sheet					
A2.7	Interbank Repos					0.00
A2.8	Non-interbank Repos					0.00
A2.9	NIDs issued					0.00
A2.10	Banker Acceptance Payable					0.00
	Off-Balance Sheet					
	Derivatives (Short RM Positions) with certain cash flows					
A2.11	Foreign exchange contracts payable (spot/forward/swap)					0.00
A2.12	Equity-linked derivative contracts payable					0.00
	Derivatives (Short RM Positions) with uncertain cash flows					
A2.13	Derivatives (Delta Equivalent) : Purchase (Bought) Payable					0.00
A2.14	Total Outflow (Liabilities) Treasury & Capital Markets Activities	0.00	0.00	0.00	0.00	0.00
A2.15	**Net Maturity Mismatch**	#REF!	#REF!	#REF!	#REF!	#REF!

		up to 3 days	4 days to 7 days	8 days to 14 days	15 days to 1 month	Total
	Net Total Maturity Mismatch (A1.13 + A2.15)	#REF!	#REF!	#REF!	#REF!	#REF!

Breakdown by Behavioral Maturity Profile - Non Ringgit

Ref:	I. Core Activities		up to 3 days	4 days to 7 days	8 days to 14 days	15 days to 1 month	Total
	INFLOWS (Assets)						
A1.1	Amount Due From:	Margin Clients					0.00
A1.2		Non Margin Clients					0.00
	Miscellaneous						
A1.3	Cash and Deposits						0.00
A1.4	Total Inflows (Assets) Core Activities		0.00	0.00	0.00	0.00	0.00
	OUTFLOWS (Liabilities)						
	On-Balance Sheet						
A1.5	Amount Due To:	Margin Clients					0.00
A1.6		Non Margin Clients					0.00
A1.7		Other Creditors					0.00
A1.8		Others					0.00
A1.9	Client Trusts and Refund Money						0.00
	Miscellaneous						
A1.10	Short-Term Loans Liabilities						0.00
	Off-Balance Sheet						
	Credit and other commitments-with uncertain cash flows						
A1.11	Contingent Liability						0.00
A1.12	Total Outflows (Liabilities) Core Activities		0.00	0.00	0.00	0.00	0.00
A1.13	**Net Maturity Mismatch**		0.00	0.00	0.00	0.00	0.00

Ref:	II. Treasury & Capital Market Activities	up to 3 days	4 days to 7 days	8 days to 14 days	15 days to 1 month	Total
	INFLOWS (Assets)					
	On Balance Sheet					
A2.1	Repo					0.00
A2.2	Stock of Liquefiable Assets (D1.Total) Appendix 1G					0.00
	Off-Balance Sheet					
	Derivatives (Long RM Positions) - with certain cash flows					
A2.3	Foreign exchange contracts receivable (spot/forward/swap)					0.00
A2.4	Equity-linked derivative contracts receivable					0.00
	Derivatives (Long RM Positions) - with uncertain cash flows					
A2.5	Derivatives (Delta Equivalent) : Written (Sold) Receivable					0.00
A2.6	Total Inflow (Assets) Treasury & Capital Markets Activities	0.00	0.00	0.00	0.00	0.00
	OUTFLOWS (Liabilities)					
	On Balance Sheet					
A2.7	Interbank Repos					0.00
A2.8	Non-interbank Repos					0.00
A2.9	NIDs issued					0.00
A2.10	Banker Acceptance Payable					0.00
	Off-Balance Sheet					
	Derivatives (Short RM Positions) with certain cash flows					
A2.11	Foreign exchange contracts payable (spot/forward/swap)					0.00
A2.12	Equity-linked derivative contracts payable					0.00
	Derivatives (Short RM Positions) with uncertain cash flows					
A2.13	Derivatives (Delta Equivalent) : Purchase (Bought) Payable					0.00
A2.14	Total Outflow (Liabilities) Treasury & Capital Markets Activities	0.00	0.00	0.00	0.00	0.00
A2.15	**Net Maturity Mismatch**	0.00	0.00	0.00	0.00	0.00

		up to 3 days	4 days to 7 days	8 days to 14 days	15 days to 1 month	Total
	Net Total Maturity Mismatch (A1.13 + A2.15)	0.00	0.00	0.00	0.00	0.00

I.	Distribution profile of customer (or group of related customers) deposits/repos/NIDs which accounts for 1% or more of total deposit				
	1-2% of TD	2-3% of TD	3-5% of TD	5-10% of TD	>10% of TD
Number of customer (Groups of customers)					

Note 1 : TD represents Total Deposit

II.	Concentration of Funding Sources	Weekend Average for the month (%)
A.	Adjusted loan / deposit ratio	
B.	Net offshore borrowing / Total domestic deposit liabilities	
C.	Net domestic interbank borrowing / Total domestic deposit liabilities	
D.	Total net domestic overnight interbank borrowing / Total gross domestic interbank borrowing LESS overnight domestic interbank lending	
E.	Short term gross domestic interbank borrowing / Short term domestic total funding	

Note: Non-IBs are only required to complete Appendix 1F where it is relevant. Otherwise, "NIL" report must be submitted.

Stock of Liquid Assets

		PART A			
		1	2	3	4
	Liquid Securities	Market value of securities reported in books (excl. securities repoed out) (RM m)	Market value of securities received under reverse repo (excl. securities re-repoed out) (RM m)	"Forced Sale" Discount to be Applied Based on Yied Slippage (%)	Total Value of Securities After Discount (RM m) (1+2) - 3 = 4
	Class 1 - Liquid assets				
A1	**FTSE Bursa Malaysia KLCI**			3.60%	0.00
A2	**FTSE Bursa Main Market (Non KLCI)**			5.20%	0.00
A3	**FTSE Bursa Malaysia ACE Index**			7.30%	0.00
A4	RM Marketeable securities/papers issued by Federal Government or BNM (including papers issued by Khazanah Malaysia)			2.00%	0.00
A5	Danaharta bonds			3.00%	0.00
A6	Danamodal bonds			3.00%	0.00
A7	Cagamas bonds & notes (both conventional and Islamic) issued before 4 September 2004			4.00%	0.00
A8	RM-denominated bonds issued by Multilateral Development Banks or Multilateral Financial Institutions			6.00%	0.00
A9	ABF Malaysia Bond Index Fund			3.00%	0.00
	Subtotal Class 1 liquid assets				0.00

PART B			
MATURITY BUCKETS			
up to 3 days	**4 days to 7 days**	**8 days to 14 days**	**15 days to 1 month**

Stock of Liquid Assets

		PART A					PART B			
		1	2	3	4					
	Liquid Securities	Market value of securities reported in books (excl. securities repoed out) (RM m)	Market value of securities received under reverse repo (excl. securities re-repoed out) (RM m)	"Forced Sale" Discount to be Applied Based on Yied Slippage (%)	Total Value of Securities After Discount (RM m) (1+2) - 3 = 4		MATURITY BUCKETS			
							up to 3 days	**4 days to 7 days**	**8 days to 14 days**	**15 days to 1 month**
	Class 2 - liquid assets & available credit lines									
B1	Banker's Acceptances (excluding own I by non AA/P2/MARC2 reated institutio			4.00%	0.00					
B2	Bankers' Acceptances (excluding own BAs) issued at least AA/P2/MARC2 rated institutions			6.00%	0.00					
B2	NIDs (excluding own-issued NIDs) issued by at least AA/P2/MARC2 rated institutions			6.00%	0.00					
B3	Cagamas bonds & notes (both conventional and Islamic) issued after 4 September 2004			6.00%	0.00					
B4	RM Corporate bonds and papers with at least AAA/P1/MARC1 rating or equivalent			10.00%	0.00					
B5	RM Corporate bonds and papers with at least AAA/P1/MARC1 rating or equivalent			10.00%	0.00					
B6	RM Marketable Securities - Unit Trusts issued by Malaysian Financial Institutions			10.00%	0.00					
B7	RM Marketable Securities - Others / Over-the-Counter (OTC)			15.00%	0.00					
B8	Undrawn portion of formally available commited credit lines (please provide detailed breakdown in C1 below)	0.00		0.00%	0.00					
	Subtotal Class 2 liquid assets & available credit lines (restricted to 50% of Class 1 liquid assets)				0.00					
B9	**Total**				0.00					
						D1. Total	0.00	0.00	0.00	0.00

C1	**Formally Available Commited Credit Lines** Name of Providers	Undrawn Portion (RM M)	Drawn Portion (RM M)
	XXX		
	XXX		
	XXX		
	XXX		
Total		0.00	0.00

Note 1: All equities with PN4s, PN17s, suspended companies, companies rated as high risks status shall be excluded from the above computation

Note 2: All foreign currency Equities/ Debt Securities shall be reported seperately from this Appendix and incorporated into Appendix 1C or 1E whichever applicable.
Non-IB shall be required to provide a template which captures and foreign curreny Equities/Debt Securities and the values shall be reported in Appendix 1C or 1E A2.2