ISLE OF MAN
FINANCIAL SERVICES AUTHORITY

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# GUIDANCE NOTE FOR DEPOSIT TAKERS (Class 1(1) and Class 1(2))

## Liquidity Risk Management

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### STATUS OF GUIDANCE

*The Isle of Man Financial Services Authority ("the Authority") issues guidance for various purposes including to illustrate best practice, to assist licenceholders to comply with legislation and to provide examples or illustrations. Guidance is, by its nature, not law, however it is persuasive. Where a person follows guidance this would tend to indicate compliance with the legislative provisions, and vice versa.*

Version 1.1

## Contents

## Introduction

This guidance applies to deposit takers holding either a Class 1(1) or Class 1(2) licence, jointly referred to in this document as both ‘deposit takers’ and ‘banks’.

In recognition of the need for banks to improve their liquidity risk management and control liquidity risk exposures various bodies have been focusing on ways in which to develop an internationally consistent set of regulatory standards for liquidity risk supervision to include liquidity cushions, constraining weakening in maturity profiles, diversity of funding sources and stress testing practices. Following consultation internationally, the Basel Committee on Banking Supervision (“BCBS”) issued its final proposal paper in December 2010 titled “Basel III: International framework for liquidity risk measurement, standards and monitoring”. A further update to the framework was published in January 2013 (for revisions to the “liquidity coverage ratio”, known as the “LCR”), and final disclosure requirements agreed in January 2014. The earliest observation period for the LCR began in 2011 for large internationally active banks (at a consolidated level), for implementation with effect from 1 January 2015, phased in to 2019.

The Isle of Man Financial Services Authority (“the Authority”) is in the process of assessing what further changes will be required to liquidity rules and guidance in the Isle of Man based on supervisory developments as described above, and is working alongside its regulatory counterparts in the Channel Islands, as part of the wider work on Basel III. In the interim period the Authority continues to ensure its existing guidance provides a framework to supplement the regulatory requirements.

## Part 1 – Deposit takers incorporated in the Isle of Man

### 1. Rationale for Liquidity Risk Management

1.1 Central to liquidity in banking is the fact that most deposit takers (hereinafter referred to as bank or banks as applicable) are in the business of maturity transformation. They take in deposits that are often repayable on demand or at short notice and use these deposits to fund credit facilities to borrowers over longer periods. Banks are exposed to the risk that depositors’ demands for repayment outstrip their ability to realise longer-term assets in cash. For this reason liquidity is a key area for prudential supervision by banking regulators.

1.2 All banks need liquidity in order to meet their day-to-day obligations. For example:

- to meet depositors’ demands or withdrawals
- to settle wholesale commitments
- to provide funds when borrowers draw on committed credit facilities

1.3 Banks can manage their liquidity requirements in a number of ways, for example:

- appropriate matching of the maturities of assets and liabilities
- holding an adequate stock of liquid assets such as cash deposits or marketable securities
- having available borrowing facilities

1.4 There is a cost to holding liquidity. Cash deposits and marketable assets usually have a lower rate of return than longer term less liquid assets, and facilities and committed credit lines usually have a non-utilisation fee. Banks therefore have to manage the cost of liquidity.

1.5 It is important to distinguish between liquidity under normal conditions and liquidity under stressed and crisis conditions. In normal market conditions a bank that is perceived as financially healthy will have relatively easy access to funds from group or parent, or to wholesale funds on the interbank market, and customers will react in a normal rational manner. However, if the market is under stress, liquidity may dry up and be less readily available.

1.6 Apart from stress conditions in the liquidity market as a whole, an individual bank may itself come under pressure if there are doubts about its financial position, if for example there are concerns about asset quality, earnings, or as a result of the failure of a similar institution. A bank may find it more difficult to raise funds in the interbank market and depositors may withdraw their funds. It is therefore important for banks to consider liquidity management under stressed or crisis conditions. This is covered in more detail in sections 7 and 8.

## 2. Overview of the Authority's Approach to Liquidity Risk Management

2.1 The Authority requires a bank to have a prudent liquidity policy and appropriate systems in place to measure and monitor liquidity, and to ensure that the policy is adhered to. The Authority recognises that appropriate systems and controls for liquidity risk will vary with the scale, nature and complexity of a bank's activities. The policy should ensure compliance with the requirements of the Financial Services Rule Book ("the Rule Book") re hard limits in short-term maturity bands.

2.2 The Authority requires banks to monitor their liquidity profile using a mismatch approach, and in certain circumstances may require a bank to maintain a proportion of its assets in highly liquid securities such as government debt or certificates of deposit. In general, banks are required to report sterling positions and aggregate sterling equivalents of currency positions together on one return to the Authority (form SR-3A). However the Authority may require banks to report individual currencies separately when, for example, it can be demonstrated that a short maturity cumulative negative mismatch in a particular currency may be obscured by offsetting positive mismatches in other currencies.

2.3 It should be noted that neither the Isle of Man Government nor the Authority have historically undertaken, or will undertake, the role of 'lender of last resort' to the local banking market. A robust liquidity management policy that clearly states local responsibilities and limits, the level of group / parental support and involvement, and the recognition of the requirements and expectations of the group's consolidated regulator (where relevant) is therefore extremely important.

## 3. Liquidity Management Policy

3.1 The Authority requires banks to take reasonable steps to maintain appropriate systems for the management of liquidity risk and requires banks to provide the Authority with a copy of their liquidity management policy ("LMP"). It is the responsibility of senior management to draw up the appropriate policy in the light of the particular circumstances of the bank. The LMP should be approved by the Board. It is important that the Board understands the liquidity and funding needs of the bank and ensures that an appropriate and prudent liquidity and funding management policy is established.

3.2 The LMP should take into account the bank's significant operations and determine the sources, type and levels of liquidity that are to be maintained by the bank and should ideally be designed to prevent the bank's funding from becoming unduly concentrated with respect to source, type, and term to maturity or currency of denomination. Where concentrations do exist, the bank will need to manage its assets and its liquidity profile to mitigate the risks caused by the concentration. The Board or senior management should obtain, on a regular basis, reasonable assurance that the bank has ongoing, appropriate and effective liquidity and funding management processes and that the bank's liquidity and funding management policies are being adhered to.

3.3 The LMP should be regularly reviewed, (annually or more frequently as necessary) to reflect changing circumstances and to ensure that it remains appropriate and prudent. If the bank is part of a banking group the liquidity policy should be part of or complement, the group liquidity policy and any interdependencies should be explicitly communicated to the Authority.

3.4 The main points that need to be considered when drawing up a liquidity management policy are given below:

3.4.1 *Nature of business & asset types*

The LMP needs to reflect the nature of the bank's business and the type of assets it is funding. If, for example, a bank is making long-term loans the impact of this on liquidity needs to be addressed. It also needs to take into account on-balance sheet and off-balance sheet commitments.

3.4.2 *Funding strategy*

The LMP is tied into the bank's funding strategy. For example, does the bank aim to fund itself through retail deposits (Class 1(1)) or wholesale funds (Class 1(1) and Class 1(2))? If a bank uses wholesale funds the diversity of its sources of funding is important. Relying on just a few lines of credit is obviously less robust than having access to a range of funding sources such as certificates of deposit or medium term notes. A further consideration is the maturity of wholesale funds. It is generally desirable to maintain a balance between short-term funds and medium term funds.

3.4.3 *Customer base*

When applicable in Class 1(1), the nature of a bank's retail deposit base needs to be considered. Some banks have established relatively stable customer bases while others attract deposits by offering higher rates of interest that regularly place them in the "best buy" tables. Depositors who look for the best interest rates are likely to move their deposits to another bank if it is offering better rates and therefore provide a less stable deposit base. *Refer **appendix 2, section 3**, in relation to behavioural adjustments to retail deposits.*

3.4.4 *Authority requirements*

The LMP should reflect the Authority's requirements of the bank, and the bank's obligation to report its liquidity position to the regulator and to its group or parent. The most obvious instances of this are hard limit mismatch guidelines set by the Authority for the banking industry as a whole and the procedures for reporting any breaches to the Authority.

3.4.5 *Measuring & reporting*

The LMP needs to identify who is responsible for measuring and reporting liquidity internally within the bank, the frequency of internal reporting (usually daily) and how senior management monitors liquidity.

3.4.6 *Relationships between group entities*

The LMP should describe interrelationships between group entities in respect of liquidity risk management and clearly define procedures and responsibilities. On the basis that many banks provide funding to group or parent companies, it is particularly important that the effect of maturity transformation is recognised in their LMP.

3.4.7 *Independence*

The Authority looks for an appropriate degree of independence for the local entity in managing and maintaining its own liquidity position, as a first line of defence in the event that external developments make group assistance temporarily unavailable.

3.4.8 *Marketable assets*

The LMP should identify classes of marketable assets that may be purchased, and detail how these should be reported for liquidity purposes. The LMP should also detail any discounts that the assets should be subject to. The LMP should also outline how frequently the bank should assess its capacity to sell such assets.

3.4.9 *Behavioural adjustments*

The LMP should include details of any specific assets or deposit liabilities that may be subject to behavioural adjustments for liquidity purposes. (See ***Appendix 2*** – Behavioural Adjustments)

## 4. Procedures and Systems

4.1 The Authority requires banks to measure and monitor their liquidity on a daily basis. In practice most major banks are able to measure and monitor their liquidity continuously. It follows from this that a bank must have adequate procedures and systems for monitoring liquidity. This means:

- a clear allocation of the responsibility for measuring and reporting liquidity
- the maintenance of reliable systems that can produce accurate liquidity reports promptly
- active senior management involvement in, and clearly allocated responsibility for liquidity reporting and monitoring
- regular reporting to group or parent companies

4.2 The system that produces the liquidity reports should be linked to the bank's core systems and the data used in the liquidity reports should be capable of being reconciled back to base financial data. Such reconciliations should be a regular part of the bank's quality control procedures over the accuracy of its liquidity reports.

4.3 Liquidity reports should follow the principles of good management information, for example:

- clarity
- highlight key information, in particular breaches or exceptions
- explicitly highlight trends and anomalies

- use an exception based commentary

## 5. Quantitative Requirements

For all banks a mismatch calculation should be used. The Authority in certain circumstances may require individual banks to hold a defined quantity of marketable assets in addition to adhering to the hard mismatch limits as defined in the Rule Book.

## 6. The Maturity Mismatch Approach

6.1 The mismatch approach measures liquidity through the difference or mismatch between inflows and outflows in various maturity bands. A mismatch figure is obtained by deducting the outflows from inflows, the net mismatch. Mismatches are measured on a net cumulative basis by accumulating the net mismatches in each successive maturity band and are evaluated in the cumulative maturity bands of sight to eight days, sight to one month, sight to three months, sight to six months and so on.

6.2 A worst-case basis is used to determine the timing of flows, with inflows being recorded at the latest maturity and outflows at the earliest. This approach allows a bank's liquidity to be assessed in the circumstances of depositors withdrawing their funds and lenders being unwilling to renew their facilities.

6.3 The Authority assesses a bank's liquidity by expressing the net cumulative mismatches as percentages of total deposit liabilities and compares these to the hard limits (after agreed behavioural adjustments if applicable). Any breaches of the mismatch guidelines should be reported immediately with an explanation of the reason for the breach (referred to Rule 8.44 (3) of the Rule Book). A bank is expected to remedy the breach promptly and to take action to prevent future breaches.

6.4 The Authority requires maximum mismatch limits for the time periods of sight to eight days and sight to one month (at least 0% for each). This is because mismatches are usually only a concern over shorter time horizons. Over longer time horizons the bank should identify and correct large mismatches by adjusting the mix of assets and liabilities. The Authority may specify tighter limits than those specified above.

6.5 If a bank experiences liquidity difficulties it may be the qualitative factors that weaken first. Qualitative factors that are relevant are:

- the asset profile

- the quality of management information

- the standing and reputation in the market of an individual bank including any branches or subsidiaries and also that of its parent or fellow group companies

- management ability and skills in the treasury area

- access to funds from a parent or head office

- political, economic or geographic factors in relation to the group or parent and the bank's primary customer base

## 7. Contingency Plans

7.1 A bank must have an appropriate liquidity contingency plan to deal with liquidity crises and provide a copy to the Authority (referred to in Rule 8.43 (4) of the Rule Book). The Authority recognises that a bank may achieve compliance with the rules in force by its parent / group preparing a group wide liquidity contingency plan which gives adequate recognition to the position of the bank itself.

7.2 The liquidity contingency plan should set out a bank's strategies for addressing liquidity shortfalls in emergency situations with its aim being to ensure that it would have sufficient liquidity resources to ensure it can meet its liabilities as they fall due under stressed conditions. The liquidity contingency plan should:

- consider alternative sources of funding

- outline strategies, policies and plans to manage a range of stresses

- establish a clear allocation of roles and responsibilities

- include details of management coordination and escalation procedures

- outline operational arrangements for managing a (retail) run

- outline how the bank will manage communications with external stakeholders, including the Authority

- be regularly tested and updated to ensure it remains robust

7.3 Liquidity contingency plans will vary considerably depending on the nature and size of the bank. A major bank that experiences liquidity problems may require widespread support from the market and its plan should address this possibility. The plan should also clearly state the level of parental support that is available to the bank and the role of the parental supervisor in such a situation.

7.4 A liquidity contingency plan needs to identify what sources of funding are likely to be available for use in the event of a liquidity crisis and which sources will prove most reliable. For the sources identified the bank should take into account:

- the amount of funding that can be raised, or is available from, that source, and

- the time needed to raise funding from that source

7.5 A liquidity contingency plan, where relevant, should also take into the account:

- the impact of stressed market conditions on the ability to sell or securitise assets (banks are required to regularly assess their capacity to sell assets)

- the impact of extensive or complete loss of normally available funding options

- the ability to transfer liquid assets taking into account any legal, regulatory or operational constraints

- the ability to raise funding from central bank operations and other liquidity facilities

## 8. Stress Testing

8.1 A bank must conduct appropriate stress tests in order to identify sources of potential liquidity strain, and to assess the impact on its liquidity profile and limits )referred to in Rule 8.44 (1) (c) of the Rule Book). A bank should analyse the impact of possible future liquidity stresses on its cash flows, liquidity position, profitability and solvency. The Authority recognises that a bank may achieve compliance with the Rule Book requirement and guidance by its parent / group conducting group wide stress testing which gives adequate recognition to the position of the bank itself.

8.2 The Board should review regularly the stresses and scenarios tested to ensure that their nature and type remain appropriate and relevant to the bank. This may take into account changes in market conditions, changes in a bank's business model and activities and any practical experiences in periods of stress.

8.3 The extent and frequency of stress and scenario testing and regularity of Board review should be proportionate to the nature, scale and complexity of a bank's business but must be conducted at least annually. Banks should be able to undertake stress testing more frequently in order to be able to produce relevant data in volatile conditions or where requested to do so by the Authority.

8.4 In designing stress tests a bank should normally ensure that it considers short term (for example 2 weeks) and more protracted stress scenarios (for example 3 months), bank specific and market wide stress scenarios and combinations thereof.

One example of a stress on short term liquidity could be a daily drawdown of liabilities on demand (including fiduciary deposits) and due within one month by 30%, where additional interbank market and intra-group funding is unavailable.

Where relevant a bank should also consider the impact of its chosen stresses on the appropriateness of its assumptions relating to:

- the effectiveness of diversification across sources of funding
- additional margin calls and collateral requirements
- contingent claims including potential draws on committed lines extended
- the transferability of liquidity resources
- access to central bank operations and liquidity facilities
- estimates of future balance sheet growth
- the continued availability of market liquidity in highly liquid markets
- ability to access secured and unsecured funding including, for Class 1(1), retail deposits
- currency convertibility
- access to payment or settlement systems on which the bank relies

8.5 The results of stress tests should be:

- reviewed by senior management and reported to the Board, highlighting any vulnerabilities and proposing appropriate remedial action
- reflected in the overarching liquidity strategy, policy, processes and systems, including the setting of internal limits for the management of liquidity
- used to develop effective liquidity contingency plans
- integrated into a bank's business planning process and risk management framework

## Part 2 – Deposit takers operating in or from the Isle of Man which are incorporated outside the Isle of Man ("branches")

### 1 Rationale for Liquidity Risk Management

1.1 Central to liquidity in banking is the fact that most banks are in the business of maturity transformation. They take in deposits that are often repayable on demand or at short notice and use these deposits to fund credit facilities to borrowers over longer periods. Banks are exposed to the risk that depositors' demands for repayment outstrip their ability to realise longer-term assets in cash. For this reason liquidity is a key area for prudential supervision by banking regulators.

1.2 All branches need liquidity in order to meet their day-to-day obligations. For example:

- to meet depositors' demands or withdrawals
- to settle wholesale commitments
- to provide funds when borrowers draw on committed credit facilities

1.3 Regulators are required to monitor the liquidity of branches by the Basel Concordat. Although no hard limits will be applied to branches, form SR-3A should be completed.

1.4 Banks can manage their liquidity requirements in a number of ways, for example:

- appropriate matching of the maturities of assets and liabilities
- holding an adequate stock of liquid assets such as cash deposits or marketable securities
- having available borrowing facilities

1.5 Apart from stress conditions in the liquidity market as a whole, an individual bank (which has a branch in the Isle of Man) may itself come under pressure if there are doubts about its financial position, if for example there are concerns about asset quality, earnings, or as a result of the failure of a similar institution. A bank may find it more difficult to raise funds in the interbank market and depositors may withdraw their funds. It is therefore important for branches (as part of the bank) to consider liquidity management under stressed or crisis conditions. This is covered in more detail in sections 7 and 8.

*The Authority does however note that the level of detail applied to the branch in respect of contingency plans and stress testing will vary according to the nature of the branch in the Isle of Man. For example, a direct branch of the main operating* *bank in a group, where there is no intermediate ownership and regulatory chain (and taking into account the size and nature of the branch in the Isle of Man compared to the bank as a whole), may not be subject to the same expectations compared to a branch of a foreign subsidiary, which itself is part of a wider group, where there is a multiple regulatory chain in place, and where the size and nature of the branch in the Isle of Man is significant compared to the bank as a whole.*

## 2. Overview of the Authority's Approach to Liquidity Risk Management

2.1 The Authority requires a branch to be subject to a prudent liquidity policy and have appropriate systems in place to measure and monitor liquidity (on a daily basis). The Authority recognises that appropriate systems and controls for liquidity risk will vary with the scale, nature and complexity of a branch's activities, and that the branch is likely to be part of the wider policies and procedures of the bank.

2.2 The Authority requires branches to report their liquidity profile using a mismatch approach, but recognises that monitoring is likely to be performed by the bank, of which the branch is a part. In general, branches are required to report sterling positions and aggregate sterling equivalents of currency positions together on one return to the Authority. However the Authority may require banks to report individual currencies separately when for example, it can be demonstrated that a short maturity cumulative negative mismatch in a particular currency may be obscured by offsetting positive mismatches in other currencies.

2.3 It should be noted that neither the Isle of Man Government nor the Authority have historically undertaken, or will undertake, the role of 'lender of last resort' to the local banking market. A robust liquidity management policy that clearly states local responsibilities and limits, the level of group / parental support and involvement, and the recognition of the requirements and expectations of the group's consolidated regulator is therefore extremely important.

## 3. Liquidity Management Policy

3.1 The Authority requires branches to take reasonable steps to maintain appropriate systems for the management of liquidity risk and requires branches to provide the Authority with a copy of the liquidity management policy ("LMP"). The LMP will often be drawn up by the bank but should include reference to the branch. The LMP should be reviewed by local senior management. It is important that senior management understand the liquidity and funding needs of the bank and ensure that an appropriate and prudent liquidity and funding management policy is established in relation to the branch. The LMP also needs to take into account on-balance sheet and off-balance sheet commitments.

3.2 The LMP should be regularly reviewed, (annually or more frequently as necessary) to reflect changing circumstances and to ensure that it remains appropriate and prudent.

## 4. Procedures and Systems

4.1 The Authority requires branches to measure and monitor their liquidity on a daily basis. In practice most major banks are able to measure and monitor their liquidity continuously. It follows from this that a branch must have adequate procedures and systems for monitoring liquidity. This means:

- a clear allocation of the responsibility for measuring and reporting liquidity

- the maintenance of reliable systems that can produce accurate liquidity reports promptly

- active senior management involvement in, and clearly allocated responsibility for liquidity reporting and monitoring

- regular reporting to group or parent companies

The Authority recognises that the above will most likely be performed by the bank, rather than at branch level, but expects senior management of the branch to understand the procedures and systems in place.

4.2 The system that produces the liquidity reports should be linked to the branch's/bank's core systems and the data used in the liquidity reports should be capable of being reconciled back to base financial data. Such reconciliations should be a regular part of the branch's/bank's quality control procedures over the accuracy of its liquidity reports.

4.3 Liquidity reports should follow the principles of good management information, for example:

- clarity
- highlight key information, in particular breaches or exceptions
- explicitly highlight trends and anomalies
- use an exception based commentary

## 5. Quantitative Requirements

For all branches a mismatch calculation should be used.

## 6. The Maturity Mismatch Approach

6.1 The mismatch approach measures liquidity through the difference or mismatch between inflows and outflows in various maturity bands. A mismatch figure is obtained by deducting the outflows from inflows, the net mismatch. Mismatches are measured on a net cumulative basis by accumulating the net mismatches in each successive maturity band and are evaluated in the cumulative maturity bands of sight to eight days, sight to one month, sight to three months, sight to six months and so on.

6.2 A worst-case basis is used to determine the timing of flows, with inflows being recorded at the latest maturity and outflows at the earliest. This approach allows a branch's liquidity to be assessed in the circumstances of depositors withdrawing their funds and lenders being unwilling to renew their facilities. The Authority recognises that this does not take into account the bank as a whole.

6.3 If a branch experiences liquidity difficulties (usually because of the bank) it may be the qualitative factors that weaken first. Qualitative factors that are relevant are:

- the asset profile
- the quality of management information
- the standing and reputation in the market of an individual bank including any branches or subsidiaries of other group banks, and also that of its parent or fellow group companies
- management ability and skills in the treasury area
- access to funds from a parent or head office
- political, economic or geographic factors in relation to the group or parent and the bank's primary customer base

## 7. Contingency Plans

7.1 A bank must have an appropriate liquidity contingency plan that covers the branch to deal with liquidity crises and provide a copy to the Authority, taking into account the broader principle referred to in section 1.5. The Authority recognises that a bank may achieve compliance with the rules in force by its parent / group preparing a group wide liquidity contingency plan which gives adequate recognition to the position of the bank itself.

7.2 The liquidity contingency plan should set out a bank's strategies for addressing liquidity shortfalls in emergency situations with its aim being to ensure that it would have sufficient liquidity resources to ensure it can meet its liabilities as they fall due under stressed conditions. The liquidity contingency plan should:

- consider alternative sources of funding
- outline strategies, policies and plans to manage a range of stresses
- establish a clear allocation of roles and responsibilities
- include details of management coordination and escalation procedures
- outline operational arrangements for managing a (retail) run
- outline how the bank will manage communications with external stakeholders, including the Authority
- be regularly tested and updated to ensure it remains robust (this will not necessarily have to be at branch level, however)

7.3 Liquidity contingency plans will vary considerably depending on the nature and size of the bank. A major bank that experiences liquidity problems may require widespread support from the market whereas a branch may be able to rely solely on support from its head office. The plan should also clearly state the level of parental support that is available to the branch and the role of the parental supervisor in such a situation.

7.4 A liquidity contingency plan needs to identify what sources of funding are likely to be available for use in the event of a liquidity crisis and which sources will prove most reliable. For the sources identified the bank should take into account:

- the amount of funding that can be raised, or is available from, that source
- the time needed to raise funding from that source

7.5 A liquidity contingency plan, where relevant, should also take into the account:

- the impact of stressed market conditions on the ability to sell or securitise assets (banks are required to regularly assess their capacity to sell assets)
- the impact of extensive or complete loss of normally available funding options

- the ability to transfer liquid assets taking into account any legal, regulatory or operational constraints
- the ability to raise funding from central bank operations and other liquidity facilities

## 8. Stress Testing

8.1 A bank must conduct appropriate stress tests that cover the branch in order to identify sources of potential liquidity strain, and to assess the impact on its liquidity profile and limits, taking into account the broader principle referred to in section 1.5. A bank should analyse the impact of possible future liquidity stresses on its cash flows, liquidity position, profitability and solvency. The Authority recognises that a bank may achieve compliance with the guidance by its parent / group conducting group wide stress testing which gives adequate recognition to the position of the bank itself.

8.2 The Board (and if appropriate the branch's senior management) should review regularly the stresses and scenarios tested to ensure that their nature and type remain appropriate and relevant to the bank (and branch). This may take into account changes in market conditions, changes in the bank's business model and activities and any practical experiences in periods of stress.

8.3 The extent and frequency of stress and scenario testing and regularity of Board / senior management review should be proportionate to the nature, scale and complexity of a bank's business but must be conducted at least annually. Banks should be able to undertake stress testing more frequently in order to be able to produce relevant data in volatile conditions or where requested to do so by the Authority.

8.4 In designing stress tests a bank should normally ensure that it considers short term (for example 2 weeks) and more protracted stress scenarios (for example 3 months), bank specific and market wide stress scenarios and combinations thereof.

One example of a stress on short term liquidity could be a daily drawdown of liabilities on demand (including fiduciary deposits) and due within one month by 30%, where additional interbank market and intra-group funding is unavailable.

Where relevant a bank should also consider the impact of its chosen stresses on the appropriateness of its assumptions relating to:

- the effectiveness of diversification across sources of funding
- additional margin calls and collateral requirements
- contingent claims including potential draws on committed lines extended

- the transferability of liquidity resources
- access to central bank operations and liquidity facilities
- estimates of future balance sheet growth
- the continued availability of market liquidity in highly liquid markets
- ability to access secured and unsecured funding, including, for Class 1(1), retail deposits
- currency convertibility
- access to payment or settlement systems on which the bank relies

8.5 The results of stress tests should be:

- reviewed by senior management and reported to the Board, highlighting any vulnerabilities and proposing appropriate remedial action
- reflected in the overarching liquidity strategy, policy, processes and systems, including the setting of internal limits for the management of liquidity
- used to develop effective liquidity contingency plans
- integrated into a bank's business planning process and risk management framework

## Appendix 1 - Maturity Treatment of Specific Assets and Liabilities (aspects of this may not apply to a branch)

This list is not exhaustive and banks should contact their relationship manager with specific questions:

- Banks will be required to report on a residual maturity basis. Additional cash flows, from assets and liabilities, such as interest payable and receivable, may be entered in the line provided on form SR-3A if desired.

- Commitments to lend that are not due to be met on a particular date; for example, undrawn overdraft facilities cannot be treated precisely. It is recognised that such facilities are unlikely to be withdrawn in full and that only a proportion of them needs to be included in the sight to eight days maturity band. Where this cannot be based on an analysis of past or forecast trends 35% of outstanding commitments should be included.

- In adverse conditions fiduciary deposits and client money accounts may be withdrawn at short notice. Their treatment for liquidity purposes needs to take account of this. Also refer ***appendix 2, section 3*** in relation to behavioural adjustments for these accounts.

- Contingent liabilities normally do not have cash flow implications and are therefore excluded from the maturity ladder unless the occurrence of trigger events is likely. For example, if a bank has given a guarantee on behalf of a customer and it is known that the customer is likely to default, then the guarantee should be included in the maturity ladder as an outflow.

- Undrawn committed standby facilities from other banks are treated as sight assets. As with commitments to lend, a percentage of the undrawn committed standby facilities are included. This percentage can be up to 100%, with the prior agreement of the Authority, dependent on such factors as the absence of material adverse event clauses in the facility agreement, the frequency with which the facility is used or tested and the strength of the relationship with the facility provider.

- Assets pledged as collateral are excluded from the maturity ladder, as they are no longer available to the bank to meet obligations.

## Appendix 2 - Behavioural Adjustments (this does not apply to branches)

### 1. Rationale for Behavioural Adjustments

1.1 The behaviour of a bank’s deposit base is central to their liquidity management policy. It has long been accepted that actual cash flows from a bank’s deposit liabilities bear little resemblance to their contractual maturity. In particular, only a small percentage of demand deposits are likely to be withdrawn on any one day, and fixed term deposits are often renewed automatically on each maturity date. This behaviour reflects customers’ desire to keep their savings readily available in case of any emergency or unforeseen event, rather than an intention to withdraw their funds.

1.2 Additionally some assets, such as certificates of deposit, bills of exchange and bonds can be highly liquid, and may be sold at short notice in order to provide liquidity. Full details of the reporting requirements may be found in chapter 9 of the Authority’s guidance note on quarterly prudential returns, and more general guidance in section 4 below.

1.3 The Rule Book (Rule 8.44) includes a measure to impose maximum liquidity mismatch limits in the sight to eight days and sight to 1 month maturity bands (normally 0% of total deposit liabilities for each maturity band). However, in order to recognise the behaviour of some deposit liabilities, the Authority allows banks the opportunity to apply to report its cash flows on a behaviourally adjusted basis.

1.4 The levels of behavioural adjustments will be agreed with banks on a case by case basis, taking into account a number of factors outlined in sections 3, 4 and 5 below.

### 2. Overview of the Authority’s Approach to Behavioural Adjustments

2.1 The Authority requires a bank to have a prudent liquidity policy and appropriate systems in place to measure and monitor liquidity, and to ensure that the policy is adhered to. The policy should reflect the Authority’s requirements and may take into account any prudent level of behavioural adjustments agreed between the Authority and the bank.

2.2 When establishing what is a “prudent level” it is important to take into account the fact that liquidity limits exist to ensure that a bank has a sufficient pool of available funds or liquid assets to enable it to meet its obligations in times of liquidity stress or disruption. As banks’ business and risk profiles differ enormously, it is necessary to examine a number of different issues as they may relate to individual banks during a period of liquidity distress before agreeing a prudential level of behavioural adjustment.

2.3 It should also be noted that the Authority analyses banks on an ongoing basis and that they might not always consider it appropriate for behavioural adjustments to be granted to a bank. Additionally, in some instances, the Authority may issue directions requiring a bank to maintain a stock of liquidity with, or issued by, third party banks.

## 3. Deposit Liabilities - The Authority's Requirements

3.1 Banks applying for behavioural adjustments are required to analyse their deposit base into the following broad classifications:

***Wholesale***

Incorporating deposits from banks and building societies (including non-committed funding from other group companies), and "commercial" deposits from international life companies, central and national governments and their agencies (or equivalent bodies). Money market interest rates are likely to be paid on these deposits, and they are likely to be the first to be subject to repayment in the event of liquidity disruption. The Authority will not normally consider behavioural adjustments on wholesale deposits.

The Authority does however note that some deposits received from life companies (in relation to the policies for retail investors) and other banks on a fiduciary basis (as part of a client's cash management portfolio) may demonstrate a different behaviour than pure wholesale deposits. The Authority may therefore consider behavioural adjustments to such deposits on a case by case basis, taking into account the broad limits defined for non-wholesale deposits below.

***Corporate / Trust / Fiduciary***

Including deposits from, or introduced by, small and medium sized enterprises, trust companies, corporate service providers, collective investment schemes, investment managers, accountants and lawyers etc. This represents the large "grey area" between wholesale and retail deposits. Typically, these deposits will be substantially "stickier" and less price sensitive than wholesale, but as the business is directed through a fiduciary intermediary, the deposits cannot be regarded as stable as retail deposits.

The normal maximum behavioural adjustment allowed for corporate / trust / fiduciary deposits as defined will be 50%. The exceptions to this are as follows:

- There may be certain circumstances where deposits received from small business customers may have characteristics equivalent to retail deposits (see below) and therefore a more favourable adjustment may be allowed.

- Normally, an adjustment of only up to 25% will be allowed for corporate deposits in cases where the accounts are not held for operational purposes[1].

***Retail***

Deposits placed by individuals in their own name. Deposits from investment companies and other incorporated bodies that have been established as a SPV should normally be regarded as "Corporate" deposits. Retail deposits tend to be most stable and therefore may attract a higher behavioural adjustment.

In order to apply adjustments retail deposits should (where possible) be split into two categories: stable and less stable. Characteristics of "stable" and "less stable" are described below.

*Stable retail (not relevant to class 1(2) banks)*

Those deposits where:

- the depositors have other established relationships with the bank (or group) which make deposit withdrawals more unlikely

- the deposits are in transactional accounts (for example current accounts where salaries are automatically credited).

When assessing stability, banks should also take into account the impact that an effective deposit insurance scheme could have on retail customers' behaviour.

In some circumstances stable retail deposits may also include some deposits made by non-financial small business customers where such deposits have the same characteristics to those retail accounts above (provided funding from the small business customer is less than £1m).

The behavioural adjustment that may be applied to such deposits could be up to 85% (i.e. 15% retained as outflows).

*Less stable retail*

- those deposits that exceed to a significant extent the amount covered by an effective deposit insurance scheme

- high value deposits

[1] For this purpose an account held for operational purposes is one where the customer is reliant on the bank for cash management services, provision of information or systems to manage transactions, payment remittance and deposit collection, investment of excess funds, payroll admin, control over disbursement of funds, automated payments and other transactions that facilitate operations.

- deposits of sophisticated or high net worth individuals
- deposits which can be withdrawn quickly (e.g. internet deposits)
- deposits that can reasonably be attributed to the use of price focused advertising by the bank
- deposits from individuals with whom the bank has not had a long established relationship
- deposits in accounts which are not of a transactional nature

In some circumstances less stable retail deposits may also include some deposits made by non-financial small business customers where such deposits have the same characteristics to those retail accounts above (provided funding from the small business customer is less than £1m).

The behavioural adjustment that may be applied to such deposits could be up to, but is likely to be less than, 70% (i.e. 30% retained as outflows).

3.2 Further analysis of deposit books should be undertaken in order to provide supporting evidence to the Authority. Ideally this should cover a period of at least two years.

In particular, the following areas should be examined and details presented:

a) ***Deposit Profile***

- Deposit mix – retail/corporate/wholesale as percentages of total deposits (see above for definitions)
- Deposit concentration by depositor and connected parties, sector, industry, or geographic classification. *The Authority may not allow behavioural adjustments to large deposits from a single customer or group of connected customers that would otherwise fall into the definition of retail or corporate / trust / fiduciary. For this purpose a large deposit may be considered as one that equates to more than 1% of the total deposit base.*

b) ***Product Profile***

Identifying the bank’s core products and their contractual liquidity profiles.

c) ***Deposit analysis***

The analysis should evidence:

- the "stickiness" of deposits by product
- numbers and values of new and closed accounts
- intra-day liquidity positions
- the actual flows at the greatest time of liquidity stress in the market (where such evidence is available)

d) ***Other information***

- Where possible the results of any sensitivity test and future events on the deposit / liquidity profile of the bank (e.g. a ratings downgrade of the bank / group by 2 notches).
- If models are used the confidence level should ideally be at least 99% and the bank should be able to demonstrate that:
    - the model is suitable for the environment and client segments (models are normally designed for large populations and therefore it is important that each client segment contains enough granularity for an applied model to be meaningful and appropriately sensitive)
    - local management / Board are able to understand the models and embed the use of these within liquidity management for them to be meaningful

## 4. Behavioural Adjustments to Assets

4.1 Full details of the reporting requirements may be found in chapter 9 of the Authority's guidance note on quarterly prudential returns.

4.2 Behavioural adjustments to the following assets do not require the prior approval of the Authority.

- Overdrafts

  Although technically available on demand, overdrafts should be reported in the one to three month maturity band.

- Certificates of Deposit and Floating Rate Notes issued by, and Bills of Exchange accepted by third party banks.

  These instruments qualify for behavioural adjustment to the sight to less than 8 days maturity band subject to the following discounts:

  Under 1 year to maturity: 5%

| | |
|---|---|
| 1 to 5 years to maturity or floating rate: | 10% |

Where an active secondary market does not exist for an issue or issuer, the Authority may either disallow or reduce the behavioural adjustment pertaining to the asset.

4.3 Prior approval of the Authority is required before applying behavioural adjustments to the following assets:

- Certificates of Deposit and Floating Rate Notes issued by, and Bills of Exchange accepted by other group entities.

  Behavioural adjustments will not normally be considered unless the assets are highly liquid and capable of being independently sold in the secondary market. Banks should obtain the prior agreement from the Authority before applying behavioural adjustments to such assets.

- Deposit Bonds Incorporating Embedded Options

  To qualify for any behavioural adjustment, a bank must have the sole right to exercise an option for repayment prior to final maturity, or a liquid secondary market for the instrument must exist. The prior agreement of the Authority must be sought before making such adjustments.

- Government Bonds / Securities Purchased

  Bonds / securities issued by central governments / central banks, and multilateral development banks which would receive (unsecured) a 0% risk weighting under the standardised approach may be subject to a behavioural adjustment to the sight to less than 8 days maturity band subject to the following discounts:

| | |
|---|---|
| Under 1 year to maturity or floating rate | 3% |
| 1 to 5 years to maturity | 7% |
| Over 5 years to maturity | 16% |

  The prior agreement of the Authority must be sought before making such adjustments.

  Bonds / securities issued by other governments and central banks should normally be reported according to contractual maturity unless otherwise agreed with the Authority.

- Syndicated Loans

  Syndicated loans should generally be reported by contractual maturity. However, where it can be shown that an active secondary market exists for the issuer's debt, a behavioural adjustment to the maturity profile may be appropriate, and will be considered by the Authority on a case by case basis.

- Designated Money Market Funds

  Investments in collective investment schemes (CIS) which would attract a 20% risk weighting under the standardised approach may be treated as liquid. Conditions which must be met include:

  - The primary investment objective of the CIS is to maintain the net asset value either constant at par (net of earnings) or at the value of the investors' initial capital plus earnings
  - It must, with a view to achieving the primary investment objective, invest exclusively in high quality money market instruments with a maturity or residual maturity of no more than 397 days, or regular yield adjustments consistent with such a maturity, and with a weighted average maturity of no more than 60 days
  - It must provide liquidity through same day or next day settlement

- Other Investments

  All other investments should be reported by contractual maturity date. In some cases, such as corporate bonds and commercial paper, behavioural adjustments may be appropriate, and will be considered by the Authority on a case by case basis.

## 5. Methodology

5.1 The Authority will assess banks' applications for behavioural adjustments on a case by case basis.

5.2 When determining the level of adjustment, the Authority will, in addition to the above, examine a number of areas, including, but not limited to the following:

a) Ownership:

- degree of likely parental support in a liquidity disruption
- parent's standing
- parent's country of domicile

b) Independent liquidity:

- level and quality of independent liquidity held.

c) Business rationale:

- nature of business

- business strategy
- asset mix

d) Pricing policy – how aggressive is the bank's pricing strategy?

5.3 The Authority will then meet with the bank to discuss the analyses and to ascertain the level of adjustment sought by the bank.

5.4 A recommendation will then be made to the Chief Executive, and a Direction will be issued to the bank detailing the levels of adjustments that may be made to deposit liabilities.

5.5 The agreed levels will represent the percentage of the amount maturing in the sight to eight days, and eight days to one month maturity bands that should be factored out of the contractual maturity bands, and be placed in an alternative maturity band or bands. It should be noted that, in most circumstances, different levels of adjustment will be allocated to different classes of deposits.

5.6 In certain circumstances, e.g. during a period of liquidity disruption, the Authority reserves the right to vary levels of behavioural adjustments, and in some cases remove them.

## 6. Procedures and Systems

6.1 The levels of behavioural adjustments agreed with the Authority should eventually be reflected in the bank's LMP.

6.2 The bank should maintain ongoing analysis of the deposit base to support their case for behavioural adjustments to their deposit liabilities. Such analysis, should, on request, be made available to the Authority.

6.3 Should the analysis show that the bank's deposit profile has undergone material change, the bank should notify the Authority immediately, giving full details of the change.

6.4 Banks may, at any time, apply to the Authority to alter the levels of behavioural adjustments previously agreed. Any request for an increase in the levels should be supported by empirical evidence.

**Liquidity mismatch positions should be reported on Form SR-3A on a contractual basis, and then allowance made for behavioural adjustments. Please refer to chapter 9 of the Authority's guidance note on quarterly prudential returns.**

## Appendix 3 – Glossary

***"bank"*** is the Isle of Man incorporated deposit taker (part 1), or the head office, or otherwise as applicable, of the branch (part 2).

***"branch"*** means a branch in the Isle of Man of a deposit taker incorporated outside the Isle of Man.

***"Rule Book"*** means the Financial Services Rulebook 2016.