BERMUDA MONETARY AUTHORITY

BANKS AND DEPOSIT COMPANIES ACT 1999:

The Measurement and Monitoring of Liquidity

December 2010

Introduction

This paper, in conjunction with the Authority's paper "Principles for Sound Liquidity Risk Management and Supervision" published in December 2010, sets out the approach taken by the Bermuda Monetary Authority ('the Authority') to assessing the adequacy of liquidity and liquidity risk management in institutions licensed under the Banks And Deposit Companies Act 1999 ('the Act').

This paper specifically addresses minimum liquidity standards in the form of mismatch limits that institutions are required to observe and associated reporting to the Authority.

Background

1. The minimum licensing criteria provide, within the general requirement for licensed institutions to conduct their business prudently, a specific requirement for institutions to maintain adequate liquidity. The Statement of Principles published by the Authority pursuant to section 9 of the Act sets out the factors which the Authority takes into account in assessing the adequacy of an institution's liquidity.

Monitoring of Liquidity by the Authority

2. The statutory requirement contained in the minimum licensing criteria relates to the licensed entity as a whole; and this also forms the normal basis for the regular reporting of liquidity data to the Authority. However, liquidity is a very complex area; and in carrying out their responsibilities for the prudent conduct of the business, management must be fully alert to all factors which may be relevant to the institution's operations. Just as the policies and monitoring tools employed by management may on occasion have to go beyond the licensed entity – for example where there are funding links with other members of the group to which it belongs – so, too, the Authority may, in particular cases, agree with an institution that routine reporting of liquidity data should extend beyond the licensed entity. The precise scope of the policy and of the reporting framework is, therefore, agreed in each case between the institution and the Authority.

The Authority's Mismatch Approach

3. Institutions are required to provide to the Authority certain standard data on the maturity structure of their balance sheet and off-balance sheet items, normally on a quarterly basis, as part of the Prudential Information Return. Where particular issues or concerns arise, the Authority may require this information to be submitted

more frequently. As noted above, this prudential information normally relates to the licensed entity on a solo, rather than a consolidated basis. Exceptionally, a wider scope may be agreed.

4. In conducting its analysis of institutions' liquidity, the main statistical tool employed by the Authority is a mismatch ladder which monitors the overall extent of maturity transformation undertaken by institutions. Broadly, an institution's assets and liabilities are allocated to particular bands, based on their residual maturities, and taking a worst case view. The net mismatch between assets and liabilities, within each band and cumulatively across all bands is then assessed as a percentage of the institution's total deposit liabilities. Mismatches are monitored for all currencies taken together, as well as for individual currencies in which an institution has material asset and liability positions.

5. It is emphasised that this common framework of measurement does not imply a single common standard applying to all institutions. Based on both a quantitative and a qualitative assessment of the institution's business, the Authority sets individual guidelines as a percentage of total deposits applying to the overall mismatch in all currencies in the two shortest maturity bands. These comprise sight to 1 week, and 8 days to 1 month. (This reflects the particular importance of the short-term position in assessing the adequacy of liquidity.). The guidelines which are set reflect the particular characteristics of the institution and its business. The guidelines apply for monitoring purposes and not as limits; however, repeated difficulty on the part of an institution in keeping its mismatches below the guideline levels provides a trigger for discussions with the Authority on the development of the institution's overall business and the liquidity policy framework which it is applying.

Measurement Framework

6. As indicated above, it is important, when allocating assets and liabilities to maturity time-bands, to take a cautious approach, in order to cater for a situation when funding sources are unwilling to lend and depositors withdraw their funds. The Authority analyses institutions' assets and liabilities into 6 separate time-bands: sight - 8 days; over 8 days - 1 month; over 1 month - 3 months; over 3 months - 6 months; over 6 months - 1 year; and over 1 year.

Treatment of Liabilities

7. Liabilities should be included in the maturity ladder according to their earliest contractual maturity. Retail current account and other demand liabilities are reported in full in the first time-band. However, an agreed proportion of the total may normally be excluded (the so-called 'behavioural adjustment') in calculating the mismatch for the purpose of the guideline. Known firm commitments to make

funds available must be included at full value in the appropriate time band. In the case of commitments which are not due to be met in full on a particular date (e.g. undrawn overdraft and other facilities), the normal treatment is, again, for an agreed proportion to be included in the first time band, based on past and forecast draw-down trends, as agreed with the Authority. Contingent liabilities are ignored unless there is a reasonable likelihood of their being triggered.

Treatment of Assets

8. Assets are generally included in the maturity ladder according to their latest contractual maturity. Overdue and non-performing assets are excluded from the ladder. Assets are recorded net of any specific provisions made. Specific treatment again needs to be agreed with the Authority in the case of certain assets nominally payable on demand, e.g. overdrafts: only a small proportion of the total is generally to be included as a short-term asset. Undrawn committed standby facilities provided by other banks and deposit-takers may generally be treated as a sight asset; however, the Authority will wish to be satisfied that they are genuinely committed, and that institutions do not place undue weight on such facilities within their overall liquidity policies.

9. Most marketable assets are shown within the relevant time-band reflecting their residual maturity. However, in the case of particular highly liquid marketable securities, where the Authority is satisfied that they can be readily sold or repo'd in a deep and liquid market in any conditions (for cash settlement on the day of trade or the following business day), assets may be recorded in the shortest time-band, subject to a small discount factor to reflect any forced sale risk. Any assets which have been pledged as collateral are excluded from the ladder; similarly any assets held by institutions as collateral must be excluded. In the case of securities acquired or sold as part of a sale and repurchase or stock-lending arrangement, care must be taken to avoid double-counting. Similar considerations arise with forward sales and purchases. Swaps, forward rate agreements and futures should be reported according to the cash flows expected to arise.