Liquidity Management
Prudential Statement D1

1. This statement outlines the Reserve Bank's approach to supervision of the liquidity of banks.

2. Banks are particularly vulnerable to sudden and unexpected demands on them for funds. Liquidity problems with an individual bank may have significant implications for the whole financial system.

3. It is the responsibility of a bank's board and management to ensure the bank has sufficient liquidity to meet its obligations as they fall due. A bank must inform the Reserve Bank of any concerns it has about its current or future liquidity profile, and of its plans to rectify any problems. In formulating liquidity management policies banks should not assume that the Reserve Bank would provide support if they faced problems.

4. The Reserve Bank will review with banks their policies, systems and controls for managing their *Australian and global* liquidity. Banks will be expected to have policies which limit liquidity risk to acceptable levels; appropriate liquidity measurement and information systems; and clearly defined managerial responsibilities for managing liquidity. These policies and systems are to be observed at all times and reviewed to take account of changing circumstances.

5. Banks should have plans for managing liquidity under different scenarios to ensure they can operate for a minimum time under adverse conditions.

6. The Reserve Bank recognises that, in assessing the adequacy of banks' liquidity management, it may need to distinguish between banks having regard to:

- the size and nature of a bank's operations;
- a bank's standing in markets. A bank's ability to raise funds, especially wholesale funds, and to deal in various markets depends critically on its standing in those markets;
- liability diversification and volatility. A bank with a widely diversified, stable funding base is less exposed to changes in the perceptions of a narrow group of depositors/investors;
- asset profile and quality. A bank with a greater proportion of high quality marketable assets has more prospect of generating funding when required;
- the availability and reliability of standby facilities and intra-group funding;
- activities across currencies; and
- the quality of a bank's policies and systems for managing liquidity and the expertise of relevant managers.

Policy Statement

7. Banks should have a comprehensive liquidity policy statement for both the bank and the group as a whole which takes account of all on- and off-balance sheet activities. It should set out policies and systems for managing domestic and foreign currency liquidity. The statement should be approved by the board of the bank (or an appropriate senior officer from outside Australia in the case of foreign bank branches).

8. Banks should provide a copy of their policy statements (and any amendments) to the Reserve Bank. These statements are covered by arrangements established in Prudential Statement H1 - "The Relationship Between Banks, Their External Auditors and the Reserve Bank" - for the provision of declarations by chief executives of banks.

9. Branches of foreign banks should describe in their policy statements who in head office is responsible for monitoring the liquidity of Australian operations and should include details of their reporting arrangements to head office. In order to assess the liquidity management of foreign bank branches, the Reserve Bank will also familiarise itself with the bank's management of the global liquidity of the group and with the supervision of global liquidity by the home country supervisor.

10. There are a number of approaches which banks may adopt to manage and measure their liquidity. As a starting point, all banks should undertake scenario analysis.

Scenario Analysis

11. Banks' liquidity management policies should cater for a range of specific events. The following scenarios provide useful benchmarks for assessing a bank's liquidity profile:

    - *going-concern*. This refers to the "normal" behaviour of cash flows in the ordinary course of business and would form the day-to-day focus of a bank's liquidity management. A bank should be able to demonstrate to the Reserve Bank how it manages its day-to-day liquidity to ensure that its obligations and commitments are met;

    - *bank-specific ("name") crisis*. This covers the behaviour of cash flows where there is some (real or perceived) problem with a bank, including operational problems, doubts about the solvency of a bank or adverse ratings changes. It would represent a "worst case" for a bank. A bank would need to detail the assumptions behind the behaviour of its assets and liabilities under such a scenario. For example, under this scenario it might be assumed that many of the bank's liabilities could not be rolled over or replaced.

12. The Reserve Bank will pay particular attention to a bank's policies to address a name crisis and would expect a bank to have sufficient liquidity to keep operating for at least 5 business days. This period should provide sufficient time to address underlying problems.

13. For foreign banks operating in Australia, a name crisis may take two forms - it could be restricted to local operations or affect the bank's global operations. The Reserve Bank will wish to review a foreign bank's liquidity policies under both these scenarios.

Maturity Profiles

14. A bank should construct maturity profiles of its cash flows to identify cumulative net funding positions at selected maturity dates under both the going-concern and name crisis scenarios.

15. Maturity profiles will depend heavily on assumptions regarding future cash flows associated with assets, liabilities and off-balance sheet business. Banks' liquidity policy statements should document in detail the underlying assumptions and the reasoning behind them. Banks should regularly review these assumptions. These assumptions should include:

- the proportion of maturing liabilities a bank will be able to rollover or renew, as well as the behaviour of liabilities with no clearly specified maturity date (eg at call deposits and those with early withdrawal options);

- the effect of pressure on a bank to support its paper in the market and to redeem term liabilities before their due date;

- the marketability of assets, timing of receipt of proceeds of asset sales, and the likely values generated by asset sales;

- potential cash flows from off-balance sheet activities, including draw downs under loan commitments, contingent liabilities and market-related transactions. This includes, in particular, the impact of liquidity and other facilities provided to securitisation and funds management schemes (refer Prudential Statement C2 - "Funds Management and Securitisation");

- the ability to access various markets for funds and to undertake transactions in different markets;

- the convertibility of foreign currencies; and

- access to standby facilities and intra-group funding.

16. Considerable judgement is involved in making assumptions. They will necessarily vary under different scenarios and according to the business profile of a bank. Banks will be expected, however, to take a conservative approach in assessing the future behaviour of cash flows. The Reserve Bank will assess the suitability of the assumptions made.

Strategies for Liquidity Management

17. There are a number of strategies which banks may adopt to manage their liquidity.

(a) Limits on Maturity Mismatches

18. Banks may place limits on the cumulative funding position identified by maturity profiles constructed under the assumptions and scenarios discussed above. Control over maturity mismatches for the next five business days should receive particular attention (see Paragraph 12 above).

(b) Stock of Liquid Assets

19. An adequate stock of high quality liquid assets can provide a bank with the capacity to meet its obligations while any underlying problems affecting liquidity are addressed. A bank's liquidity policy should clearly identify such assets, define their role and establish minimum holdings. The Reserve Bank may require a bank to hold a specified amount of high quality liquid assets.

20. Maintaining a stock of high quality liquid assets lowers the likelihood of a bank needing to undertake an urgent sale of illiquid assets. It also reduces a bank's reliance on liability management which can result in the purchase of liabilities at a higher cost than is sustainable over the medium term.

21. The introduction of Real-Time Gross Settlement (RTGS) arrangements will increase demands on banks' liquidity management, particularly on an intra-day basis. The RTGS system includes a number of features to assist banks in managing intra-day liquidity, such as intra-day repurchase transactions with the Reserve Bank in eligible securities. Banks will need to have sufficient holdings of these assets to generate intra-day liquidity, including funding for any unexpected demands which might arise.

(c) Diversification of Liabilities

22. As part of its liquidity management strategies, a bank should seek to:

- maintain a diversified and stable funding base; and
- establish strong and lasting relationships with depositors and other liability holders.

23. A bank should establish a policy regarding concentration of sources of funding so as to avoid an excessive reliance on any one counterparty (including relateds) or any one product or funding market. It should also undertake regular statistical and behavioural analysis of its liabilities (eg to detect any signs that the bank's deposit base was becoming more volatile).

(d) Access to Wholesale Markets

24. The ability to obtain funds in the interbank and other wholesale markets is an important source of liquidity. However, in formulating their liquidity management strategies, banks should recognise that their ability to access funds from these markets may be radically reduced or delayed in crisis conditions. There might also be calls for early repayment of drawings under standby facilities (which may result from breaches of material adverse change clauses).

25. Banks should be able to estimate their "normal" borrowing capacity in wholesale markets and to establish a policy regarding dealing in markets against that capacity. A bank making unusual demands on the wholesale markets may face difficulties due to the exposure limits set by counterparties.

(e) Foreign Currency and Other Markets

26. Where a bank is actively involved in multiple currencies and/or where positions in specific foreign currencies are significant to its business, its liquidity policy should address the measurement and management of liquidity in these individual currencies. For example, a bank needs to assess the convertibility of individual currencies, the timing of access to funds, the impact of potential disruptions to foreign exchange markets, and exchange risks before presuming that surplus liquidity in one currency can be used to meet a shortfall in another currency. A bank's liquidity policy statement should include a back-up liquidity strategy for circumstances in which its normal access to funding in individual foreign currencies is disrupted.

27. Similarly, where a bank is active in securities and other markets it needs to have regard to the impact on its liquidity management of disruptions in those markets.

(f) Intra-Group Liquidity

28. A bank's liquidity management strategies should address any regulatory or legal impediments to accessing liquidity on a group basis. Excess liquidity in subsidiaries and overseas branches may not be readily available to the bank or other subsidiaries when needed.

29. Where a bank decentralises or partially delegates liquidity management amongst operating units, it should clearly document the policies and limits established for those units as well as any internal liquidity support arrangements provided to those units. It should address how the liquidity of these units is monitored and controlled by head office management in Australia.

30. Where a locally-incorporated bank provides significant funding and other liquidity support to subsidiaries and associates, the Reserve Bank will wish to be satisfied that such support is appropriately captured in the measurement of its liquidity position and may require a bank to place limits on such support.

31. Branches and subsidiaries of foreign banks may have lines of liquidity support available to them from an overseas parent (or associates). This support would be of particular value in the event of a crisis affecting only local operations, but could prove ineffective in the event of a crisis impinging upon the group as a whole.

32. Foreign bank subsidiaries are expected to manage their liquidity in their own right. It may, however, be appropriate to look at the liquidity of foreign bank branches in a global context. In this situation, the Reserve Bank will have regard to:

- the extent to which liquidity of the bank is managed, and supervised, on an integrated global basis;
- the reliance placed on funding from head office and other branches;
- the ability and willingness of head office to provide liquidity at all times as required. The Reserve Bank may seek an assurance from the head office regarding the provision of liquidity to the branch;
- whether the home country supervisor of the bank is aware of, and has no objections to, any dependence by the branch on head office for liquidity support and any assurance provided by head office regarding provision of support. The Reserve Bank may require confirmation to this effect from the home country supervisor; and
- the particular policies governing management of the branch's Australian dollar liquidity.

(g) Use of Assets

33. A policy regarding the use of assets to generate additional funding can be an important part of a bank's liquidity strategy. A bank's ability to use assets (eg through sales, repurchase agreements or securitisation structures) may provide much needed liquidity support in adverse scenarios. A bank which is routinely active in these areas will be better placed to use assets when required.

Controls and Systems

34. Banks are expected to have in place internal limits and other control mechanisms consistent with their strategies for managing liquidity.

35. A bank should have comprehensive information systems and a well-defined reporting structure to ensure management is provided with all the information

necessary to manage the liquidity of the bank in all circumstances. At the core of a bank's liquidity management systems there should be a monitoring of:

- the maturity profile of cash flows under varying scenarios;
- the stock of liquid assets available to the bank and their market values;
- the ability of the bank to execute assets sales in various markets (notably under adverse conditions) and to borrow in markets;
- potential sources of volatility in assets and liabilities (and claims and obligations arising from off-balance sheet business);
- the impact of adverse trends in asset quality on future cash flows and market confidence in the bank;
- credit standing and capacity of providers of standby facilities to meet their obligations;
- the impact of market disruptions on cash flows and on customers;
- intra-group cash flows and the accessibility of intra-group funding; and
- concentration in sources and applications of funds.

36. Banks will supply the Reserve Bank each quarter (and more frequently if required) with reports of their scenario analyses under both the "going-concern" and "bank-specific crisis" scenarios. The latter would take the form of maturity profiles out to 5 business days based on assumptions agreed with the Reserve Bank. Banks should also consult with the Reserve Bank before making any significant changes to the assumptions underlying these reports.

Contingency Planning

37. A bank should establish formal contingency plans approved by its board (or an appropriate senior officer from outside Australia in the case of foreign bank branches) for dealing with major liquidity problems, including a name crisis.

38. Plans should:

- name who would assume responsibility for identifying crises and crisis management. This should include provision for speedy notification of problems to the Reserve Bank. A clear division of responsibility must be set out so that all personnel (including "front-line" staff) understand what is expected of them during a crisis;
- provide procedures to ensure that all necessary information is available to enable senior management to make quick decisions;

- specify what early warning signals might be used as signs of an approaching crisis and the steps to be taken at that point. There should be mechanisms to facilitate constant monitoring and reporting of signals;

- set out procedures for making up cash flow shortfalls in crisis situations, including action trigger points and time-frames within which each action should be taken. They should spell out clearly sources of funds; their expected reliability and the priority in which those funds would be accessed. Such plans would include an assessment of the cost of alternative funding strategies and the impact on the bank's capital;

- outline courses of action for altering asset and liability behaviour - eg plans to market assets more aggressively, raise deposits etc;

- assess the likely impact of particular courses of action on the market's perception of the bank;

- provide procedures to determine priority of customer relationships in the event of liquidity problems - eg the order in which lines of credit would be withdrawn from specific customers;

- detail plans for dealing with staff and the public, including customers, key market participants, and the media. Astute public relations management can help a bank to avoid the spread of rumours that could result in a significant run-off of funds.