

Following extensive consultation with the banking industry, the HKMA introduced on 1 August 1994 the new regime for the supervision of authorised institutions' liquidity. The objectives of the new approach are to ensure, as far as possible, that authorised institutions can meet their obligations when they fall due under normal circumstances; and maintain an adequate stock of high quality liquid assets to provide them with a breathing space in the event of a liquidity crisis. To achieve these objectives, the HKMA will assess a variety of quantitative and qualitative factors such as the liquidity ratio, maturity mismatch, stability of the deposit base and loan to deposit ratio.

Introduction

On 1 August 1994, the HKMA implemented a revised supervisory framework for liquidity management. The new approach takes a broader view of what constitutes "adequate" liquidity, reflecting the complexity of measuring liquidity risk. The regime applies to all authorised institutions including branches of banks incorporated outside Hong Kong.

In addition to the statutory liquidity ratio requirement, the HKMA will also have regard to a variety of other factors in assessing the adequacy of an institution's liquidity. These factors include maturity mismatch profile, ability to borrow in the interbank market, stability of deposit base, loan to deposit ratio and size of intra-group transactions.

Despite the broader approach, the statutory liquidity ratio requirement remains at the heart of the liquidity regime. The regulatory framework has been strengthened by only allowing the inclusion of assets which can reasonably be expected to generate genuine liquidity in a crisis.

Policy development

The liquidity ratio requirement specified in the Banking Ordinance was last amended in 1986. Following that, much of the supervisory attention has been on capital adequacy. Capital adequacy and liquidity adequacy are in fact closely interrelated. While ultimately the capacity of banks to withstand losses will be determined by their capital strength, insufficient liquidity will trigger an immediate crisis. The bank runs which happened in the summer of 1991 after the collapse of the Bank of Credit and Commerce Hong Kong Ltd. demonstrated the

importance of being able to generate sufficient cash to meet withdrawals of deposits in the first few days of a run. This enables alternative sources of liquidity or assistance to be obtained. Moreover, if depositors realise that the bank in question can readily meet their demand for cash, this will help to restore confidence and bring the run to an end – unless it is clear that the bank is in a terminal condition.

There are other factors which prompted the HKMA to review its approach towards supervising institutions' liquidity. Firstly, the introduction of a maturity profile return in March 1992 has provided additional information on the maturity mismatch structure of institutions' assets and liabilities and a basis for reviewing and monitoring their ability to manage their cash flows. Secondly, the Basle Committee produced a paper on the measurement and management of liquidity in 1992 which provided a good basis against which to conduct a review of the liquidity regime in Hong Kong. All these developments supported the use of a more comprehensive approach in the supervision of liquidity.

One of the main issues in the policy changes has been the need to try to achieve a balanced approach towards both locally incorporated and foreign institutions. The HKMA believes that, as host supervisor, it has responsibility for monitoring the liquidity of foreign banks' establishments in Hong Kong. However, it also recognises that the supervision of liquidity is a joint responsibility between the host and the home supervisors. The HKMA is prepared to adopt a more flexible approach to the supervision of the liquidity of overseas incorporated institutions, particularly

branches of international banks, provided that the home supervisor is aware of what is going on within the Hong Kong operation and is able to take the implications of this into account in monitoring the liquidity of the bank as a whole. The concession given to "back-to-back" transactions¹, as mentioned below, is a good example of this flexible approach.

During the process of policy development, the HKMA has been conscious of the need to avoid over-regulation while ensuring that effective prudential requirements are in place to prevent excessive risk-taking. The aim is to construct a supervisory framework which achieves this objective, but within which institutions are free to do business and take commercial decisions.

Overview of the revised approach

The new regime aims to ensure, as far as possible, that authorised institutions –

- (a) can meet their obligations when they fall due in normal circumstances; and
- (b) maintain an adequate stock of high quality liquid assets to provide them with a breathing space in the event of a liquidity crisis.

In assessing the adequacy of liquidity of an institution, the HKMA has regard to six factors. They are:

- (a) an institution's liquidity ratio;
- (b) its maturity mismatch profile;
- (c) its ability to borrow in the interbank market;
- (d) the diversity and stability of its deposit base;
- (e) its loan to deposit ratio; and
- (f) the size of its intra-group transactions.

While the minimum liquidity ratio remains a statutory requirement under section 102(1) of the Banking Ordinance, the HKMA has not imposed any across-the-board guidelines in respect of the

other quantitative factors mentioned above. The HKMA believes that these factors should be considered on a case by case basis having regard to the type of institution being considered, its expertise and the nature of its business.

The new policy also aims to reinforce the fact that it is the responsibility of institutions' management to ensure that their arrangements and internal controls for managing liquidity are adequate to generate sufficient resources to cover a potential outflow of funds both in normal circumstances and in times of market stringency and other adverse conditions peculiar to a particular institution.

In the light of this, each institution has been asked to draw up a policy statement setting out its approach to the management of liquidity, including the internal guidelines for liquidity ratio, maturity mismatches, loan to deposit ratios and liquidity in individual currencies. The statement should be approved by the board of directors (or head office in the case of a branch of a foreign bank) of the institution and submitted to the HKMA. The role of the HKMA in this process is to ensure that institutions' liquidity policies meet minimum prudent standards, taking account of the nature of their business. The HKMA will then monitor institutions' adherence to the agreed policy.

Main Features of the New Regime

(a) Liquidity ratio

Institutions are required to maintain, under section 102(1) of the Banking Ordinance, a minimum liquidity ratio of at least 25% on average during each calendar month. The liquidity ratio is expressed in terms of each institution's liquefiable assets which can be realised within one month as a percentage of its qualifying liabilities which are maturing within one month. Liquefiable assets include cash, gold, net interbank placements, marketable debt securities, export bills and loan repayments. Qualifying liabilities include customer deposits, net interbank liabilities and other liabilities.

¹ Back-to-back transactions consist of short-term claims on head office by the branch in Hong Kong matched by longer-term liabilities owed to head office by the branch.

The purpose of the liquidity ratio requirement is to ensure that institutions have a pool of high quality liquefiable assets which can easily be turned into cash to meet a funding crisis. In other words, the role of the ratio is to provide a "breathing space" in the event of a funding crisis. To secure greater assurance on this effect, the HKMA has tightened the definitions of liquefiable assets under the new regime. The changes include:

- (i) each item of liquefiable assets is assigned a Liquidity Conversion Factor ranging from 80% to 100% to reflect its credit risk, market risks and convertibility into cash;
- (ii) marketable debt securities, other than those issued or guaranteed by specified bodies or authorised institutions or those maturing in one month or approved by the HKMA, will be accepted as liquefiable assets only if they can pass a qualifying credit rating test; and
- (iii) export bills which are not payable within one month or accepted and payable by relevant banks will be excluded.

The method of calculating the ratio has also been tightened. Debt instruments issued by the reporting institution with a residual maturity of 1 month or less are to be deducted from liquefiable assets under normal circumstances.

The HKMA believes that the principal focus of liquidity should be on the short term. According to past experience, an institution's ability to survive a liquidity crisis depends to a great extent on its capacity to generate sufficient cash quickly to meet depositors' withdrawals in the first few days. This would give the institution time to obtain liquidity support from other sources. To monitor the ability of institutions to generate cash quickly from liquefiable assets, institutions are required to provide additional information in the liquidity return to enable the calculation of a Tier I ratio, i.e. the extent to which an institution's one month liabilities are covered

by its assets which are convertible into cash within 7 days.

To enable the HKMA to monitor compliance with the statutory liquidity ratio, institutions are required to submit a regular return on their liquidity position. This return has been expanded to include information such as an institution's lowest daily liquidity ratio during the month, information that enables the HKMA to calculate an institution's Tier I liquidity ratio and intra-group transactions including those of a back-to-back nature. To enhance monitoring, the reporting frequency of the return has been increased from quarterly to monthly. If necessary, the HKMA will also obtain from institutions their management accounts to monitor compliance with the agreed internal guidelines.

(b) Maturity mismatch positions

Maturity mismatch analysis is a tool for monitoring an institution's capability in managing its day-to-day liquidity needs under normal circumstances. It determines whether an institution is running excessively large negative mismatches which could put an undue strain on its borrowing capacity. It is particularly suitable for monitoring the liquidity of institutions engaged in wholesale business. In looking at institutions' maturity profile, the HKMA will concentrate on the net cumulative mismatches in the shorter timebands, i.e. those for up to 7 days and 1 month. The HKMA is conscious that institutions with different types of business may have different sizes of mismatches. Such mismatches will therefore be assessed in conjunction with other factors relating to the institution itself e.g. the availability and reliability of undrawn standby facilities, the extent to which liquidity is managed, and supervised, on an integrated global basis and, behavioural factors. Peer group comparison will also be made to identify those institutions which are running mismatches that are out of line with similar institutions carrying on a similar type of business.

(c) Ability to borrow in the interbank market

An institution's ability to obtain residual funds in the interbank market is an important source of liquidity in both normal and crisis conditions. The HKMA expects institutions to be in a position to estimate their normal borrowing capacity and aim to avoid borrowing in excess of that capacity. To reduce the funding risk in crisis conditions, institutions should build up relationships with the main providers of funds and try to arrange, as far as possible, confirmed standby lines with them. In addition, head office support will also be vital in a crisis specific to an institution's operation in Hong Kong.

(d) Diversity and stability of deposit base

A diversified and stable deposit base helps to protect an institution against the risk of a sudden withdrawal of a significant amount of funds by a single depositor or group of depositors. The general objective of institutions should therefore be to identify and build up these sources of funds which are likely to stay with an institution under almost any circumstances and to avoid over-reliance on "lumpy" deposits. They should also be cautious about attracting deposits by paying above market rates of interest or through special offers.

(e) Loan to deposit ratio

Relatively illiquid assets such as loans and advances should, as a general rule, be funded by relatively stable liabilities such as customer deposits. The loan to deposit ratio therefore provides a simple measure of the extent to which an institution is fulfilling this objective. This ratio also provides an indication of over-expansion in the loan book and of the extent to which an institution's liquidity is vulnerable to an impairment in asset quality.

The simple loan to deposit ratio is however somewhat crude as it does not take account of institutions' other stable funding sources such as shareholders' equity and long-term

debt capital. Moreover, the ratio will vary according to an institution's access to retail funding. As a result, the HKMA recognises that it is not appropriate to publish its own guidelines for the loan to deposit ratio. Rather, it will expect institutions to establish their own guidelines and will assess such guidelines in the light of other indicators of an institution's liquidity and peer group comparisons. As a general policy, however, the HKMA does not expect a retail bank to have a loan to deposit ratio exceeding 100%, after taking into account factors such as free capital and funding from the issue of medium and long term debt.

(f) Intra-group transactions

It is a general policy of the HKMA not to set limits for intra-group transactions unless there is a reason to doubt the financial position of the rest of the group. In such cases, the HKMA may wish to "ring-fence" the operations in Hong Kong by restricting intra-group transactions. In the case of a locally incorporated institution, the HKMA may ask it to observe the liquidity ratio requirement on a consolidated basis if such an institution deploys a significant part of its surplus liquidity through a deposit-taking subsidiary or an overseas branch.

The HKMA has tried to strike a balance between host and home supervision of liquidity in a sensible and pragmatic way. In this context, the HKMA has agreed that back-to-back transactions between a branch and its head office are eligible for inclusion as liquefiable assets – but only in the case of institutions whose liquidity is managed and supervised on a global basis. This is also subject to assurances from head office that no attempt will be made to repudiate the transactions on grounds of artificiality, even in the event of problems affecting the bank as a whole. In the case of transactions of material size, the HKMA will ask the relevant home supervisor to confirm its awareness of the arrangements.

Liquidity policy statements of institutions

Since the issue of its Policy Paper on Supervision of Liquidity in January 1994, the HKMA has been holding discussions with institutions on their liquidity policy statements. At the time of writing, the review is still in progress. The exercise is expected to be a long term one and will be conducted on an on-going basis.

The review of institutions' policies so far has revealed that some institutions have only established informal policies on liquidity management. The new requirement has thus provided an impetus for these institutions to strengthen their liquidity management control systems by formalising their liquidity policies. Whilst some institutions had formal policies, the review has identified areas for improvement e.g. to devise a contingency plan to deal with unforeseen events. Some branches of foreign banks were following the policies established by their head offices and therefore had not formulated a liquidity policy for their operations in Hong Kong. The HKMA considers it necessary for these branches to develop their own policies so that the Authority can understand how they manage their liquidity, including how the system in Hong Kong is integrated into the head office centralised system for management of liquidity.

Experience of the new regulatory system

As the new regime was only introduced in August 1994, it is too early for a comprehensive review of its effects on the liquidity position of authorised institutions. However, the trial exercise conducted before the implementation of the new regime provides some indications. In addition to reporting under the old regime, institutions were asked to report their liquidity ratio as at end June 1994 using the new basis of calculation. The trial exercise showed that due to the various tightening measures the average liquidity ratio of all institutions for the month of June 1994 under the new regime was 9 percentage points lower than the corresponding figure under the old regime. However, the average liquidity ratio under the new basis of calculation was still well above the statutory minimum. It also showed that the liquidity ratio of a small number of institutions fell below

the 25% threshold under the new basis of calculation. These institutions are predominantly branches and deposit-taking subsidiaries of foreign banks.

The shortfall was mainly due to the following factors:

- (a) holding of marketable debt securities which could not pass the qualifying credit rating test;
- (b) holding of export bills which were not payable within one month or accepted and payable by relevant banks;
- (c) the discounting effect of the Liquidity Conversion Factors applied to certain types of liquefiable assets such as marketable debt securities and loan repayments;
- (d) the ineligibility of back-to-back transactions as liquefiable assets pending home supervisors' confirmation that they have no objection to such transactions.

In light of the above findings, HKMA has held discussions with the institutions concerned on their proposals to improve their liquidity positions before the implementation of the new regime on 1 August 1994. The August return showed that all authorised institutions managed to comply with the new liquidity ratio requirement.

The new regime will be kept under regular review in the light of experience. As indicated in the Policy Paper on the Supervision of Liquidity, the HKMA intends to convert the Policy Paper into a formal guideline under section 7(3) of the Banking Ordinance in due course. *

— Prepared by the Banking Policy Department