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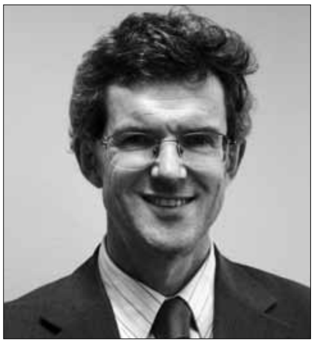
THE RESERVE BANK OF NEW ZEALAND'S NEW LIQUIDITY POLICY FOR BANKS

The Reserve Bank of New Zealand introduced new prudential liquidity requirements for registered banks on 1 April 2010 after concerns about the low level of liquid assets in the New Zealand banking system, its strong reliance on short-term offshore funding and the inability of existing bank disclosure requirements to address these concerns. This paper summarises the policy's three minimum ratio requirements (one-week and one-month mismatch ratios, and a one-year core funding ratio), and the rationale behind their design.[1]



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Drivers for the new policy

Liquidity risk is the risk that a firm cannot meet its financial obligations as they fall due or cannot obtain new funding to finance growth in its business. As a secondary matter, it is also the risk to an entity's profitability from only being able to achieve these goals at elevated cost. Banks are particularly vulnerable to liquidity risk as a result of their maturity transformation role.

The Reserve Bank of New Zealand (RBNZ) registers and supervises banks in New Zealand to maintain a sound and efficient financial system, and avoid significant damage to the financial system that could result from the failure of a registered bank. The maintenance of a sound and efficient financial system requires banks to maintain a liquidity profile robust to funding shocks.

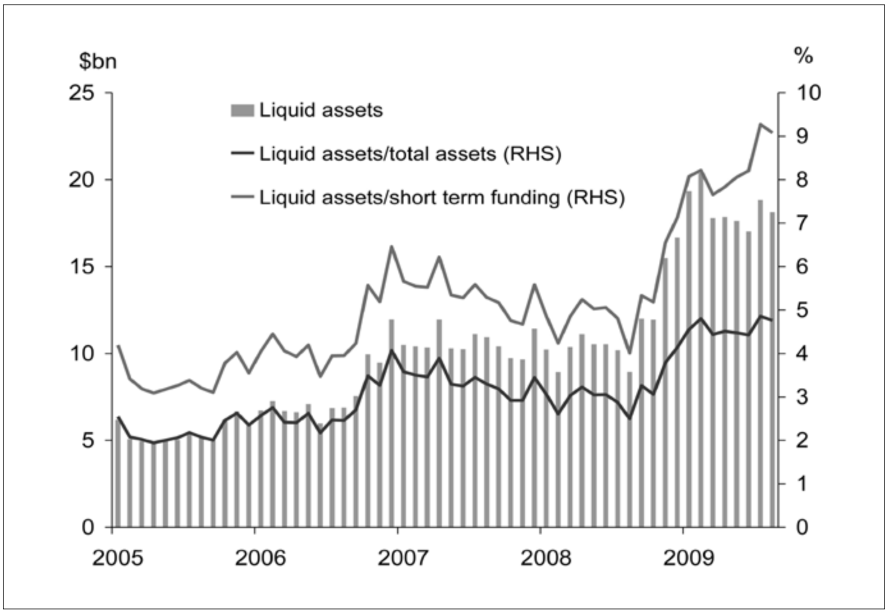
Until now, New Zealand banks' liquidity risk has been addressed purely as part of the RBNZ's disclosure regime, which was established in 1996 to enhance market discipline as an important complement to regulatory discipline. Current disclosure rules require each bank to publish information about its approach to managing liquidity risk, and the bank's directors must attest each quarter that the bank has had systems in place to monitor and control adequately its liquidity risk, and that those systems have been properly applied.

The RBNZ has had concerns for some time that these requirements were proving to be insufficient. Separately from prudential requirements, the RBNZ has made a number of operational changes in recent years to help ensure adequate liquidity for the New Zealand financial system, both before the global financial crisis and in response to it.[2] But the onset of the crisis in August–September 2007 further underlined the importance of liquidity, and the Reserve Bank announced in its November 2007 *Financial Stability Report* that it would commence work on a revised prudential liquidity policy.

Figure 1 shows New Zealand banks' holdings of traditional liquid assets[3]. These had already increased before the announcement of the planned liquidity policy, and there has been a further significant increase since mid-2008, primarily reflecting the banks' response to global market conditions, and an expansion of the list of securities eligible in the RBNZ's domestic market operations.

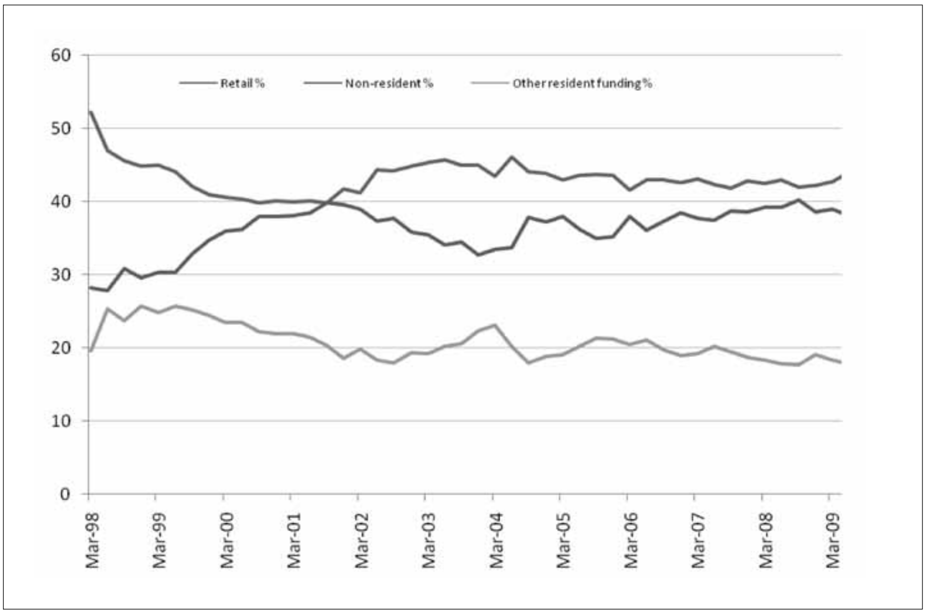
The Reserve Bank is also concerned with the overall funding profile of New Zealand banks, which is a key driver of longer-term exposure to liquidity risk. New Zealand runs a persistent and relatively large current account deficit, which is mainly funded through the banking system, and a large proportion of this offshore funding has been short-term, as demonstrated in Figures 2 and 3. The risks associated with this were palpably

FIGURE 1: *New Zealand banks' liquid assets*



Note: Short-term funding is approximated by funding at < 90 days to rate reset (overstates funding maturing within 90 days somewhat).
Source: RBNZ Standard Statistical Return.

FIGURE 2: *Shares of domestic and non-resident funding in New Zealand banks*

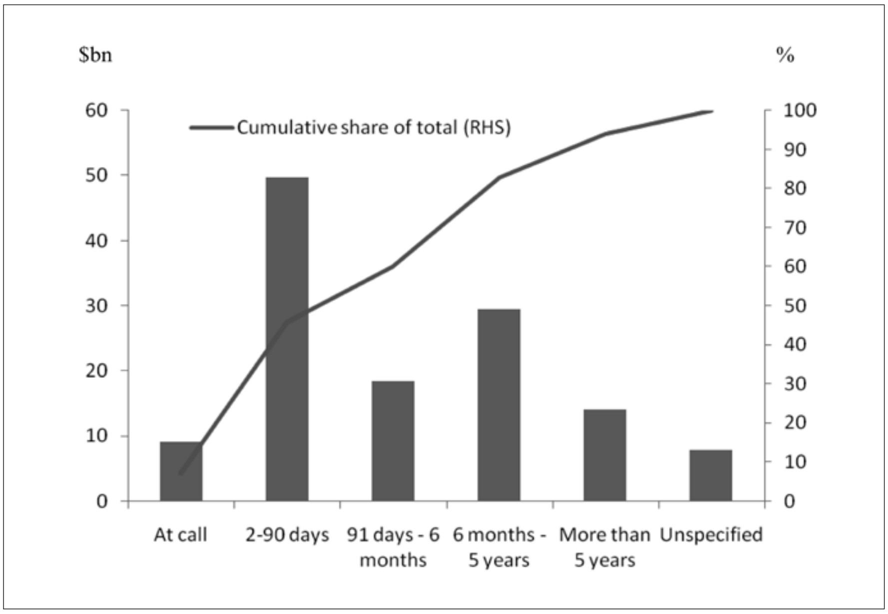


Note: Other resident funding includes interbank funding.
Source: RBNZ calculations.

demonstrated by the tightening of international markets experienced by New Zealand banks during the financial crisis, which saw offshore commercial paper issuance fall by around a third in NZD terms between September 2008 and March 2009.[4]

The RBNZ's new liquidity policy framework has been developed in response to these concerns. Extensive consultation with the banks followed the November 2007 announcement, leading to publication of the policy in substantially its current form in October 2009,[5] giving the banks just under six months for implementation.

FIGURE 3: *Residual maturity of New Zealand banks' non-resident funding*



Note: Based on data from December 2007.
Source: Statistics New Zealand and RBNZ calculations.

The Reserve Bank's new liquidity requirements

There are four main components of the policy:

> minimum prudential ratio requirements;
> rules and guidance on banks' liquidity risk management processes;
> regular liquidity reporting to the RBNZ; and
> public disclosure requirements on banks' liquidity risk and how they manage it.

The first three components are now in place for most locally incorporated banks, and discussions are under way to bring them into effect for the other registered banks, including branches of overseas banks. Disclosure requirements will be introduced in due course, as discussed further below.

Minimum ratio requirements

The policy defines three ratios:

> one-week mismatch ratio;
> one-month mismatch ratio; and
> one-year core funding ratio.

Because a bank's short-term liquidity position can change significantly each day, banks are required to meet the minimum ratios as at close of business of each working day. Locally incorporated banks are normally required to calculate the ratios consolidated downwards, that is, including the business of all subsidiaries of the bank.

A key distinction is made between 'market' and 'non-market' funding in all three ratios. Market funding refers to professional wholesale market funding that would all be withdrawn from the bank on maturity at the first sign of problems. It is defined as all funding provided to the bank by other financial institutions (including any related parties of the bank), and all funding raised by issuing tradable debt securities into professional markets.

Non-market funding is the rest of the bank's funding. It can, for instance, include a $100 million deposit from a large corporate, which is why the policy does not use the conventional terms 'retail' and 'wholesale'. For all three ratios, it is assumed that providers of non-market funding will be less reliable the larger the total amount of deposits that they provide, as that would mean that they are generally more financially sophisticated, and thus more alert to the safety of their funds. But the policy does not treat large corporate deposits, for instance, as purely wholesale because a reasonable amount is used as working capital balances, rather than professional money market placements.

This has been a particularly challenging area for both the design and implementation of the policy. Initial attempts to divide funding into retail and wholesale according to the nature of depositor foundered on issues of what types of legal entity other than natural persons might be regarded as retail. The RBNZ nevertheless wanted, as far as possible, to establish clear objective tests rather than rely on banks' own definitions, which tend to vary depending on how they organise their business lines. This led to the size-based approach, which has still presented systems challenges to the banks when establishing which groups of depositors are connected and thus need to be treated as a single provider of funds.

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Mismatch ratios

The one-week and one-month mismatch ratios use a stylised projection of a bank's cash inflows and outflows over the following week or month in the event that the bank is subject to a serious loss of confidence. The ratio definitions then offset the net cash flow against available cash and liquid assets that the bank would be able to use to raise cash at short notice. The cash flow projections underlying the ratio calculation should not be seen as describing a precise scenario; rather, these are a generic set of assumptions that provide a standard metric for the amount of liquid assets required.

Consistent with the market/non-market split described above, all market funding is withdrawn at the earliest possible date, whereas the cash withdrawal assumptions for each provider of non-market funding varies with the size of their total deposits, as shown in Figure 4.

A number of other cash inflow and outflows are included in the ratios, arising from items such as potential draw-downs of lending facilities provided by the bank, and derivative contracts.

For a bank with a conventional balance sheet profile, the sum of assumed stress cash inflows and outflows will invariably be negative, that is, a net outflow. The policy recognises two options that a bank could take to meet that cash shortfall.

The first is to draw on committed borrowing lines that it has received from other banks. Seventy-five per cent of available credit on such lines can be included in the calculation, subject to tight conditions on their terms, and with limits on the extent to which they can contribute to the ratio. This treatment recognises that committed lines are a less reliable source of emergency cash than holding a stock of liquid assets, but that they are still a desirable addition to a bank's liquidity armoury.

The second option is to draw on cash balances, or to sell or repo liquid assets. The policy specifies which types of marketable securities can be treated as liquid assets in the mismatch calculations. Table 1 gives a broad summary of the two classes of liquid assets — primary and secondary — defined in the policy.

Only primary liquid assets qualify for the one-week mismatch calculation; this ensures that a substantial proportion of banks' total liquid assets will be primary. With one exception, primary liquidity securities are those of such high quality and/or market liquidity that they should be realisable for cash with most financial market participants at any time. The exception is residential mortgage-backed securities, which are not tradable but can be used as collateral for short-term borrowing from the Reserve Bank.

FIGURE 4: *Percentages of non-market funding in each size band to be included as outflows (negative sign) in the mismatch ratio calculations*

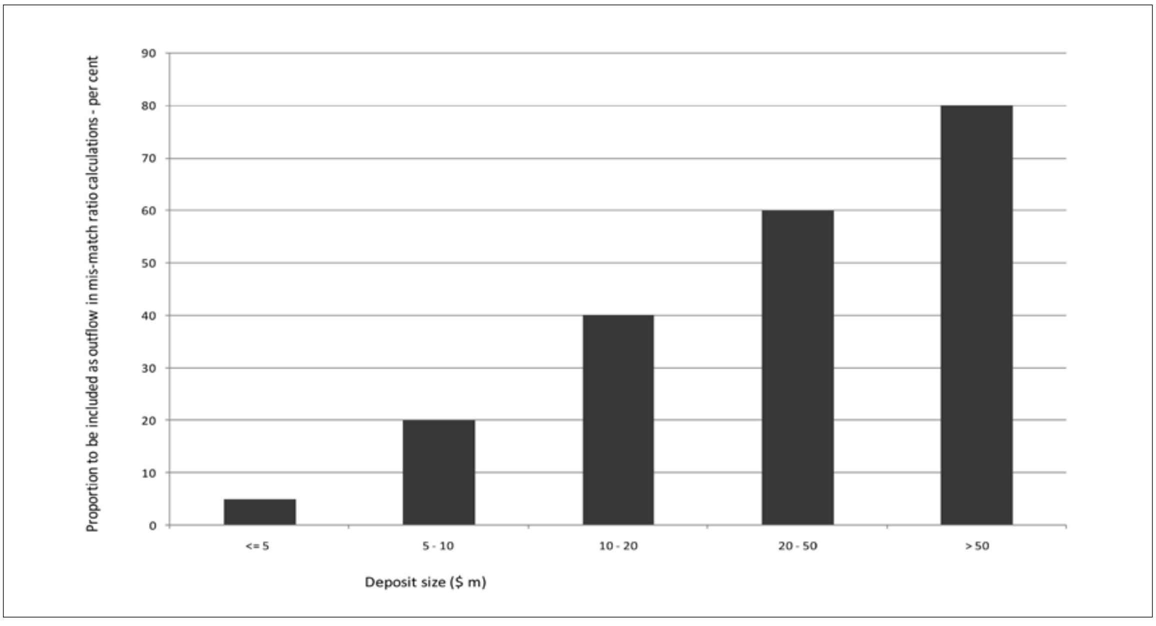

TABLE 1.

Primary Liquid Assets (NZ$ only)	Secondary Liquid Assets
Securities issued by the New Zealand Government; local authorities; state-owned enterprises; RBNZ	Securities guaranteed by the NZ Government (NZ$ and foreign currency) Securities guaranteed by AAA-rated sovereign entities (NZ$ and foreign currency)
NZ$ securities issued by overseas sovereign, supranational and quasi-sovereign entities	Foreign currency securities issued by AAA-rated sovereign entities Lower-rated local authority securities
Residential mortgage-backed securities	NZ corporate securities Asset-backed securities Registered bank securities

Secondary liquid assets are generally those which are of lesser quality, or are less liquid in the New Zealand market, than New Zealand government securities. Registered certificates of deposit issued by banks are also treated as secondary, and with a cap on the amount that can be included, even though the market for them is normally liquid. This is because they are likely to become illiquid as soon as one bank in the system faces liquidity problems.

To adjust for various types of risk (such as market risk, liquidity risk and credit risk) the market value of eligible liquid assets is reduced by a risk margin (also known as a 'haircut') before they are included in the mismatch calculation.

The one-week and one-month mismatch ratios are defined as net dollar mismatch amount/ total funding.

One-year core funding ratio

The basic notion underlying the one-year core funding ratio is a comparison between an estimate of the funding of the bank that is stable and can be assumed to stay in place for at least one year ('core funding'), and the core lending business of the bank that needs to be funded on a continuing basis.

Imposing a minimum one-year core funding ratio reduces the vulnerability of the whole banking sector to a period of general market disruption. If offshore markets were closed to New Zealand incorporated borrowers for an extended period, having existing funding at longer maturities would provide a longer breathing space to address the problem.

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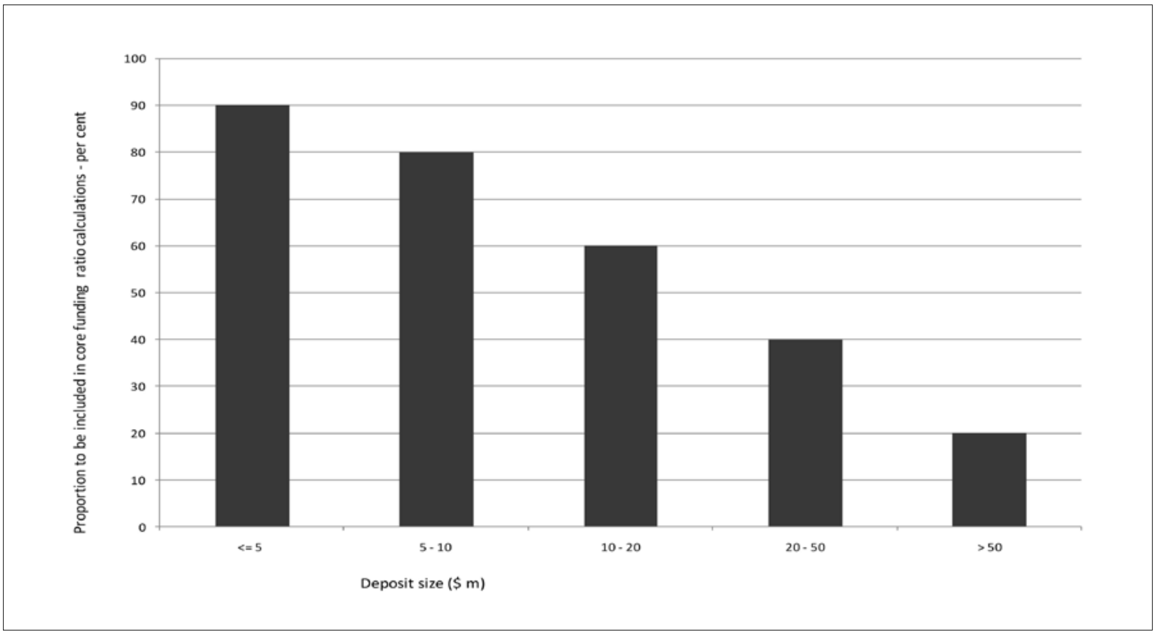
Core funding includes all funding with residual maturity over one year. This includes Tier 1 capital as defined in the RBNZ capital adequacy framework, which is regarded as permanent funding.

To avoid excessive volatility of the ratio, 50% of tradable debt issued with an original maturity of two years or more is included in core funding for a further six months after it has passed the one-year residual maturity mark. Banks might otherwise be reluctant to make individual term debt issues in large amounts, which would be inefficient.

Non-market funding with less than one year to maturity is also included in core funding, but the percentage included from each funding provider reduces as the total funding from that provider increases. As with the mismatch ratios, this reflects the fact that deposit size is assumed to be a rough proxy for the stability of funding from each depositor. The percentages included in each depositor size band are set out in Figure 5.

The one-year core funding ratio is the total of one-year core funding as a percentage of the bank's total loans and advances. The idea behind including all loans and advances rather than, say, loans with more than one year residual maturity, is that the total represents a key part of a bank's core franchise. A bank that cannot obtain funding to keep rolling over its shorter-term lending, as well as fund its longer-term lending, is likely to be in a weak and unsustainable position.

FIGURE 4: *Percentages of non-market funding up to one year in each size band to be included in core funding*



Rules and guidance on liquidity risk management

While the three minimum ratio requirements put a ceiling on the amount of liquidity risk that a bank can take on, that in no way guarantees that a bank meeting those requirements is immune to liquidity problems. It is vital that a bank also has its own comprehensive measurement and control framework in place to manage liquidity risk within its chosen risk appetite, and allow it to spot any emerging liquidity problems early and respond to them promptly.

The new policy imposes a few high-level rules — backed up by fuller guidelines — which a registered bank must apply to its arrangements for managing liquidity risk. The extent to which the guidelines apply to a given bank depends on the nature of the bank's business and risks.

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Reporting requirements

From initial implementation, banks must report monthly information to the RBNZ, summarising the daily values of the ratios and detailing liquid assets held at the month-end. The RBNZ and the banks have broadly agreed on more detailed liquidity reporting, which banks are expected to be able to produce by March 2011.

The reporting will allow the Reserve Bank to monitor liquidity risk across the banking sector as a whole, to compare the liquidity positions of individual banks and spot potential outliers. Banks need to be prepared for increased frequency of reporting if required, when either bank-specific or general market concerns require it.

Disclosure requirements

In keeping with the importance attached to its disclosure regime, the RBNZ is keen to ensure that banks disclose adequate information about their actual liquidity position, and about the way they manage liquidity risk. As part of the consultation process, the RBNZ has proposed that quite extensive additional disclosure on liquidity be added to banks' existing quarterly disclosure requirements.

However, the RBNZ is now in the middle of a fundamental review of its disclosure regime, which is likely to take several more months. Among other things, this review is considering whether the overall volume or frequency of data disclosed imposes an excessive burden on the banks producing it, relative to how much the data is useful and comprehensible to its intended audience. Further work on liquidity disclosure has therefore been postponed until after that review.

Impact of the policy and next steps

The quantitative and qualitative requirements, together with initial high-level reporting, were put in place for locally incorporated banks with effect from 1 April 2010.

The minimum requirement for both mismatch ratios has been set at 0 per cent, and for the core funding ratio at 65 per cent. Banks are likely to set their own internal minima for each ratio a few percentage points above the regulatory minimum, to reduce the chance of breaches, as the values of the ratios are likely to be quite volatile from day to day. As at 30 April 2010, average actual ratios across all the banks were +7 per cent and +8 per cent for the one-week and one-month mismatch ratios, and 79 per cent for the core funding ratio.

The RBNZ has no current plans to change the minimum mismatch ratios from 0 per cent. Given that liquid asset holdings were already high by the standards of recent years (Figure 1), banks have needed to make only modest further adjustments, if any, to their holdings to achieve compliance. The real impact of these requirements is likely to come in the future, when banks might have otherwise economised on liquid assets in benign market conditions.

However, the RBNZ believes some further lengthening of banks' maturity profiles is desirable, compared to levels when the policy was first announced. Increasing long-term funding is a slower process than increasing holdings of liquid assets. The 65 per cent minimum was originally chosen so that banks could reasonably meet the start date (with some prior adjustment needed in some cases). The plan is to raise the minimum to 70 per cent in July 2011 and to 75 per cent in July 2012 — although the timing is subject to reviews of the impact of the framework in practice.

In addition to strengthening banks' liquidity positions, the core funding ratio might also provide a degree of automatic stabilisation to the economy. During future periods of rapid credit expansion, banks will not have the same ability as previously to borrow at short terms in the offshore money markets to supply domestic demand. To meet that demand, banks will need to borrow from a variety of sources, including much more in longer-term markets. As a result, lending rates should automatically move higher without the RBNZ necessarily needing to move the official cash rate to the same extent. The policy thus has a potential role in assisting monetary policy.

The Reserve Bank may need to adapt its policy in due course to take account of international developments. The global financial crisis has prompted numerous papers from national and international bodies with proposals to strengthen the institutions and requirements of prudential supervision. In relation to liquidity risk, these have culminated in the proposals published by the Basel Committee on Banking Supervision (2009) in December 2009.

The Basel proposals include two prescribed minimum ratios quite similar in intent to the RBNZ's one-month mismatch ratio and one-year core funding ratio. They will apply to international banking groups on a group basis, which will include the four major Australian banking groups and their New Zealand subsidiaries. The RBNZ broadly supports the proposals[6], but has some concerns, particularly about the very narrow definition of liquid assets. The limited stock of New Zealand government debt, and the lack of other NZD securities that meet the proposed stringent criteria to be highly liquid, would require banks to hold a high proportion of their liquid assets in foreign currency securities, which would not be prudent. The RBNZ believes that the liquid asset criteria will need to give greater recognition to eligibility in central bank market operations.

The Australian Prudential Regulation Authority (APRA) also issued proposals[7] for revised liquidity risk requirements for banks in September 2009, and the finalised form of those will be the channel through which the Basel proposals most directly affect the RBNZ's framework. The RBNZ aims to coordinate any revisions to its own approach with APRA's approach as far as possible, to achieve greater consistency across the affected banking groups.

Although there are some challenges ahead in adapting to these developments overseas, the Reserve Bank considers that its new requirements represent a sound basis upon which to proceed. It is confident that the policy will make an important contribution to the objective of a sound and efficient financial system in New Zealand. ■

Notes

1. With thanks to Kevin Hoskin and Ian Nield, who were co-authors of an earlier Reserve Bank *Bulletin* article from which this paper has been adapted (Hoskin et al. 2009).
2. See Nield (2008).
3. Defined here as currency, government securities and claims on the RBNZ, rather than the definition in the new policy.
4. See p. 31 *Reserve Bank Financial Stability Report* May 2009.
5. Available from www.rbnz.govt.nz/finstab/banking/
6. See RBNZ submission to the Basel Committee at www.rbnz.govt.nz/finstab/banking/
7. See www.apra.gov.au/Policy/Enhancing-prudential-framework-for-ADI-liquidity-risk-management.cfm

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