# Alan Bollard: Where we are going with macro- and microprudential policies in New Zealand

Speech by Dr Alan Bollard, Governor of the Reserve Bank of New Zealand, with Messrs Bernard Hodgetts and Mike Hannah, at the Basel III Conference, Sydney, 25 March 2011.

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*Thanks to Mike Hannah and Bernard Hodgetts for assistance in preparing this speech and to Grant Spencer, Toby Fiennes, Michael Reddell, Yuong Ha and Anella Munro for useful comments.*

## Introduction

Following the Global Financial Crisis, there has been general acceptance of the need for central banks and financial regulators to adopt a greater "macro-prudential" orientation to their supervision of financial systems and institutions. While the objectives of prudential policy are usually systemic, the policies have focused on ensuring the balance sheets of *individual* institutions are robust to shocks. The crisis showed that this micro-prudential approach can sometimes miss important *system-wide* financial risks. So, policymakers are increasingly focussing on the resilience of the financial system as a whole, and in particular on the capacity for pro-cyclical lending behaviour to amplify the macroeconomic cycle in a destabilising manner. I will return to these concepts and issues later.

There is currently considerable interest in macro-prudential instruments – policy tools that might be used to promote a more stable and resilient financial system and help smooth the credit cycle, reducing the risk of boom-and-bust cycles. These tools would take the form of specific prudential requirements placed on the balance sheets of banks or other financial institutions, such as capital requirements that vary over time, or restrictions on lending like loan-to-value caps.

This is not to suggest that micro-prudential policy is unimportant or that existing tools cannot be enhanced. On the contrary, a strong micro-prudential framework is essential for a robust financial system and remains at the heart of our efforts to maintain stability in the financial system. The Basel Committee on Banking Supervision (the Basel Committee) is now close to completing a major strengthening of the micro-prudential framework, while keeping system-wide stability objectives firmly in mind.

## Micro-prudential policies/tools

The Basel Committee has developed and released new global regulatory standards for bank capital adequacy and liquidity, as endorsed by G20 leaders at their November 2010 summit. While the frameworks are now broadly set, further work is being undertaken on some areas of detail, in particular with regard to the liquidity standards.

In addition, work continues on related international financial reform issues such as measures for systemically important banks, and reviews of international accounting standards, the Basel Committee's Core Principles for Effective Banking Supervision, and the international standards for financial market infrastructures.

The Reserve Bank of New Zealand is not compelled to adopt the full package of new global standards. While we are very supportive of strengthening global standards for bank capital adequacy and liquidity, we are likely to adapt aspects of the standards to New Zealand conditions or take a different view on some matters (for instance in relation to the leverage ratio).

We are currently in the process of assessing the potential impact of the new Basel 3 standards in the New Zealand context, but are yet to make final decisions about the measures we will adopt. We do not propose to “lead the world”, but just as most jurisdictions are likely to implement Basel 3 ahead of the Basel Committee’s timeline, we would expect to do likewise.

We are also likely to continue to implement our new liquidity policy according to our existing timetable (which is some years ahead of the Basel 3 timeline). While our liquidity policy is different in form to Basel 3, the substance is similar, and we do not propose to modify the policy in the near term.

There remains some uncertainty about how our liquidity policy will align with the global standards and with the Australian Prudential Regulation Authority’s liquidity requirements. We will be monitoring international developments and engaging closely with APRA as this process unfolds.

With regard to the Basel 3 leverage ratio, it is not risk-based, so it can give a misleading picture of risk, and a single leverage ratio implies that one size fits all banks, which is not credible. However, we will explore practical issues with the ratio prior to making a final decision on this.

More generally, the Reserve Bank remains committed to making improvements to its existing prudential policy framework, given the importance for both institutional and wider financial system stability. With our major banks accredited to use their own risk measurement models for Basel 2 capital calculations, we put particular emphasis on ensuring that those capital models are calibrated to plausible economic downturn scenarios, rather than the relatively benign credit loss conditions of the past decade.

## Macro-prudential/financial policies/tools

*Objectives*

We have always had system stability as our objective for prudential policies, and the institutional focus of those policies has worked well in practice. The conservative and through-the-cycle approach to capital adequacy, including Basel 2 implementation, is an example of how our micro-prudential stance has enabled our financial system to flourish and to be resilient through the recent crisis. We believe this approach and our micro settings are effective in doing the job almost all of the time. However, by its nature, micro-prudential supervision has not always paid sufficient regard to macro-financial interactions. The aim now is to design prudential policies with macro-effects firmly in mind. The challenge for researchers is to identify policy instruments that can actually be used in a real-world setting. This involves careful analysis of what individual tools might or might not be able to achieve, the channels through which they would be expected to work, and the potential costs associated with using them.

The case for these new instruments rests mainly on their scope to build greater financial system resilience to the risks associated with the extremes of the credit cycle. In addition, some tools may have the ability to directly dampen the credit cycle. Some tools are potentially more effective in achieving the first of these objectives than the second. While a range of instruments is being viewed enthusiastically by some commentators, we must be careful about unintended consequences. The case for any particular instrument needs to be informed by a full analysis of its likely effectiveness in a real-world setting, along with the associated costs of deploying it.

It is important here to be clear whether tools would be aimed at building resilience and/or dampening excessive credit growth.

We also need to think about policies that address the cross-sectional dimension as well as the time dimension. In other words, the risk exposures and interconnections between institutions at any point in time (the “cross-section” dimension), as well as the tendency for financial institutions, households and businesses to become over-exposed during an upswing, and excessively cautious in the subsequent downturn (the “time dimension”). There are also numerous design issues. Would the instruments be set by rules or discretion? Would they be set once and left alone or varied over the course of the economic cycle? Or would they be deployed only in exceptional circumstances? What governance arrangements are needed?

We need to be very conscious of the costs of using macro-prudential tools when considering whether to use them. Some tools have the potential to damage financial system efficiency. They could also result in disintermediation (that is, promote lending through channels other than those affected by the restrictions) or cause other unintended or undesirable consequences. During the period from the 1960s to the 1980s, New Zealand and other countries used a range of prudential measures to assist in the control of money and credit, some of which look rather similar to the macro-prudential instruments currently under consideration. Some of these tools, including the system of reserve asset ratios that applied to the trading banks in New Zealand, ultimately proved quite ineffective and led to the re-routing of financial activities outside of the banking system. So history reminds us of the need for caution.

Above all, macro-prudential policy should not be viewed as a panacea for macro-economic imbalances. When seeking solutions to these imbalances, we also need to consider the role of the tax system and the broader regulatory environment. Where clear distortions in these areas exist, we need to correct them in lieu of adopting macro-prudential solutions. Tax distortions in the area of investor housing contributed to an overheated housing market in New Zealand during the last cycle, and the Reserve Bank was strongly supportive of tax changes made in this area last year.

## Potential macro-prudential instruments for New Zealand

Over the past year, the Reserve Bank has been assessing a range of macro-prudential instruments that might have a role to play in contributing to broader financial stability in New Zealand.[1]

As in other countries, credit growth in New Zealand is currently weak, so we have not felt a pressing need to implement such tools. We want the credit process to be able to support economic growth.

However, there have certainly been periods in our history where we have experienced unsustainably strong credit growth and asset price cycles, and we have seen the damaging effects of these, both on the economy and the financial system. We will certainly face similar developments in the future, so we want to develop our macro-prudential toolkit now to enhance our ability to deal with them when the time comes. Rapid credit and asset price growth have amplified the general economic cycle and have made monetary policy’s task of controlling inflation more difficult. We have seen the difficulties that can arise when interest rates alone are used. The collateral damage to the net export sector from the high New Zealand dollar exchange rate during the previous economic upswing prompted a search for potential tools to assist monetary policy. Now, in light of the broader and significant social and macroeconomic costs arising from financial system distress in the aftermath of the global financial crisis, there is greater will to consider additional tools.

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1 For further discussion on macro-prudential instruments see Ha and Hodgetts (2011).

We believe several instruments may be useful from this perspective and could potentially form a useful part of the Bank's macro-prudential toolkit in the future. The instruments we have been considering include credit-based measures and liquidity and capital buffers.

We have been analysing these policy options in a New Zealand context, undertaking some simulations and other calculations to help establish their likely effectiveness.

Our expectation is that we would use these tools infrequently. In this regard, the Basel Committee has suggested that some countries might only use the counter-cyclical capital buffer once every 10 to 20 years when faced with exceptionally strong credit growth. We think this is a useful perspective.

Related to this we would have a preference for standards that can be set and to work through a cycle where possible, that is act as an automatic stabiliser rather than a discretionary stabiliser. This is an important learning from fiscal policy.

While our work is ongoing, we would offer the following preliminary conclusions:

### *Credit-based tools*

A range of credit-based tools has been used by the emerging economies, especially in Asia, for many years. They include a wide range of regulated caps, targets and limits. These tools are receiving increased attention by the advanced economies. Of these tools, we have looked specifically at loan-to-value restrictions.

*Loan-to-Value restrictions*

Loan-to-Value restrictions (or LVRs) have been used by a number of countries in response to excessive credit growth and overheated housing markets and, on balance, appear to have met with some success. Such a tool could be particularly useful in circumstances when funding and credit margins move counter-cyclically, and so reduce the effectiveness of liquidity and capital requirements in braking credit growth during a boom. Another advantage would be that an LVR restriction could be imposed and enforced relatively swiftly, given that banks would require longer operational lead times to meet higher liquidity and capital requirements. However, the use of non-price or administrative restrictions is subject to greater long-term enforcement and disintermediation risks. Moreover, we are not aware of any instances where LVR restrictions have been applied to sectors other than housing.

### *Accounting-based tools*

*Expected loss provisioning*

Expected loss provisioning is a return to the more forward-looking (and less pro-cyclical) standards of the 1990s, where general provisions may be based on the expected loss over the life of a portfolio of loans, rather than current loss experience. The two international accounting boards – the IASB and the FASB – have each published proposed models for expected loss accounting and the two boards have since been working to align these proposals. A return to a system of expected loss provisioning in due course can be expected to play its part in contributing to a less pro-cyclical financial system.

### *Liquidity tools*

*Core Funding Ratio*

The Core Funding Ratio is a tool that can help promote greater financial system resilience by requiring banks to fund credit using more stable sources than they might choose in the absence of the requirement. This discipline is particularly desirable during periods of rapid credit growth, when recourse to relatively cheap short-term wholesale funding rather than more stable longer term funding is more likely.

As a tool to actively lean against excessive credit growth, our simulations suggest that the Core Funding Ratio could, in some circumstances, play a useful supplementary stabilising role by requiring banks to always maintain a proportion of core funding which is typically more expensive than shorter-term wholesale funding. Alternatively, the Core Funding Ratio could be used as a counter-cyclical policy tool. Although the Core Funding Ratio could be a less effective anchor on credit growth during a global boom (when funding spreads become compressed), it would still be effective in its primary role of ensuring that banks resort to more stable funding sources.

### *Capital-based tools*

*Countercyclical Capital Buffers*

A Countercyclical Capital Buffer is a further potential tool for building resilience in the face of excessive credit growth, which could be very beneficial during the subsequent downswing. It has also been suggested that these buffers might help to dampen the credit cycle directly. However, our calculations suggest it would have only a small dampening effect on the upswing of the credit cycle through its effect on the cost of funds (unless one makes extreme assumptions about the size of the counter cyclical buffer or the market cost of capital).

*Sectoral risk-weight adjustments*

Sectoral risk weights could be adjusted to boost capital requirements for lending to a particular sector, over and above that calculated under the existing Basel 2 framework. While sectoral capital buffers would offer scope to more closely target those sectors subject to rapid credit growth, we have found in simulations that the use of such buffers is likely to have only a modest effect on the pricing of credit for the affected sectors, unless dramatic adjustments are imposed. In principle, sectoral risk weights, generated by Basel II through-the-cycle risk models, should already reflect the risks of lending to the sector, including the risk of a cyclical downturn. Accordingly, we must, in the first instance, focus carefully on the integrity of the risk models used to support Basel 2, before contemplating additional overlays. In recent years, we have sought improvements to the banks' Basel II risk models in New Zealand in key areas such as housing and agriculture, when it has become clear that risk assessments have been overly optimistic.

### *Moral suasion*

The potency of the tools we have considered as instruments to affect the credit cycle could be enhanced by a "moral suasion" effect, in addition to any direct impact via the cost of funds or credit constraints. This might mean that our simulations and calculations understate the effectiveness of the various tools to influence the credit cycle. The deployment of any tool would send an important signal to financial institutions, investors, rating agencies and the general public about the central bank's unease about rapid credit growth, and/or the risks accumulating in the financial system. It could thus help to reinforce a change in lending and borrowing behaviour. That said, we are naturally cautious about the strength of the moral suasion effect, particularly in the context of a credit boom (where risk aversion may be low), and if the instruments themselves were not widely considered by institutions to have "bite".

## Interplay of macro-financial and monetary objectives

The recent focus on macro-prudential instruments has gone hand-in-hand with the debate about the role of monetary policy in leaning against asset price cycles and the accumulation of financial imbalances. We know that easy monetary policy, in the form of low interest rates, can interact with financial decisions by encouraging greater leverage. Whether monetary policy can moderate imbalances or lean against the dynamics of credit booms is a more complex question. Some economists have argued that monetary policy could be used to more actively address these imbalances than in the past. This would essentially see monetary policy take on a more active role in leaning against asset market and credit cycles rather than focussing solely on medium-term inflation.

An alternative view is that macro-prudential policy instruments are the preferred means to deal with these imbalances. This has been the suggestion of Blanchard and others[2] who state that the authorities now have potentially many more instruments at their disposal than they used before the crisis. They argue that the policy interest rate is a poor tool to deal with excess leverage, excessive risk taking, or deviations of asset prices from fundamentals.

Whether macro-prudential tools are actually suitable for leaning against the credit cycle and managing various imbalances ultimately rests on an analysis of the individual tools and policy experience over time. Some tools may be useful, while others may well prove to be ineffective.

Our analysis of recent credit cycles suggests that the timing and magnitude of previous credit and asset price cycles fuelled the general business cycle and made the monetary policy task more difficult. These credit cycles also resulted in growing macro imbalances and institutional resilience was weakened due to the heavy reliance on short-term wholesale funding. Though bank capital positions remained adequate throughout the past two decades, there were downside risks, given that sectoral lending looked stretched, particularly for housing and agricultural lending. To the extent that macro-prudential policy may have helped to dampen the credit cycle, there would have been less pressure on monetary policy and on the exchange rate.

While none of the macro-prudential instruments we have considered would be a silver bullet in terms of moderating the credit cycle, we believe some could make a useful contribution. It may be the case that macro-prudential tools could be employed more effectively to influence the credit cycle by adopting a multi-pronged approach where several tools are employed in tandem. For example, faced with evidence of excessive credit growth, counter-cyclical capital requirements could be used alongside increases in the Core Funding Ratio, and this might represent a more even-handed approach than focussing on either one alone. This approach might even be supplemented by a more targeted instrument such as a Loan-to-Value restriction. Using multiple tools in this fashion would also tend to reinforce the signalling effect on lenders and borrowers.

### Our current policy stance

In addition to strengthening banks' liquidity positions, the new Core Funding Ratio might be expected to discourage periods of very strong credit expansion. In recent years, banks have tended to fund cheaply in the offshore money markets and then use derivatives to synthesise fixed-rate term New Zealand dollar funding at a relatively low cost. The Core Funding Ratio, which is part of the new prudential liquidity policy, will drive banks to either compete for more stable funding from non-financial customers, or borrow in wholesale markets for terms longer than one year. During periods of rapid credit expansion, banks will thus not have the same ability to borrow in the offshore money markets, and will need to put increased emphasis on customer deposits and longer-term funding markets. As a result, lending rates may automatically move higher without the Reserve Bank needing to move the official cash rate to the same extent. Through these channels, the policy has the potential to have a role in assisting monetary policy, although this effect is likely to operate "at the margin". With short-term wholesale market rates not likely to rise as much, the attractiveness of the New Zealand

[2] See Blanchard et al (2010).

dollar as a destination for "carry trade" investors could also be reduced, which is of benefit to a small open economy such as ours in terms of reducing exchange rate volatility.

**Statutory powers and governance**[3]

The prospect of new macro-prudential tools raises important governance issues. These include how decision-making about particular tools can be dovetailed with monetary policy decision-making and how policy changes should be implemented.

In New Zealand, the Reserve Bank has dual responsibilities for price stability and promoting the soundness and efficiency of the financial system through its prudential powers under the Reserve Bank Act. The powers under the Act thus provide us with the scope to adopt additional macro-prudential instruments as long as they are used with the intent of better achieving financial system stability. On the other hand, using macro-prudential tools purely for macroeconomic stabilisation purposes would require changes to current legislative arrangements. We do not believe that such an approach would be sensible.

In most instances we would expect a macro-prudential intervention aimed at moderating macro-financial imbalances to be consistent with the desired monetary policy stance. In the rare event of inconsistency with monetary policy, we would either need to hold back on macro-prudential intervention, or proceed with considerable caution. An example of this might be in a severe downturn where, on financial stability grounds, we might want to keep a capital or liquidity buffer in place for longer than usual, while also wishing to stimulate the economy.

An important issue for consideration is thus how the Reserve Bank might choose to implement macro-prudential policy in the future. The process would begin by establishing that asset market imbalances had become exceptional and unsustainable − as reflected in asset prices and/or excessive credit. Then we would determine whether this was likely to contribute to macro imbalances in the future, which warranted policy action to bolster financial sector resilience and/or moderate the credit cycle. We are continuing to work on developing a set of indicators to help identify the build-up of financial imbalances, but, in practice, there will need to be a degree of judgment in assessing whether a macro-prudential overlay is warranted based on the Bank's financial stability objective. Next, we would assess whether a macro-prudential overlay would support monetary policy, or at least not work against it.

The nature of the imbalances would then guide the selection of the appropriate tool. Generalised credit growth and broadly-based accumulation of banking system risk would prompt consideration of tools that are broad-brush in effect, such as the Core Funding Ratio, or an aggregate Capital Buffer. Pressures emanating specifically from housing or other sectors could suggest more targeted tools such as Loan-to-Value restrictions or adjustments to risk weights for the implicated sectors.

Turning to governance structures, there is no consensus in the literature whether monetary policy and prudential regulation and supervision should be combined in a central bank, or undertaken by separate institutions. A strong case can be made that central banks are best placed to be macro-prudential regulators and that centralising responsibilities within the central bank helps to avoid problems of coordination. Certainly, this appears to be the trend internationally following the crisis. Our own experience is that dealing with these policy overlaps is assisted by having a small "full-service" central bank managing monetary policy and prudential policy across all its dimensions. Nevertheless, the coordination of these functions can still pose challenges and good internal process is important.

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[3] See Spencer, G (2010) for further discussion of the Reserve Bank's macro-financial stability role.

We established a Macro-Financial Committee in 2009 for the internal consideration of macro-financial issues and policies. This complements the Reserve Bank's Monetary Policy and Financial System Oversight Committees, which consider monetary policy and micro-prudential policies respectively. The Macro-Financial Committee currently reviews indicators of financial stability, oversees production of the Bank's *Financial Stability Reports*, and analyses potential new macro-prudential policy tools. If and when new macro-prudential policies are implemented, these will be reviewed and recommended to the Governor by the Macro-Financial Committee. The implications of such recommendations for micro-prudential policy and for monetary policy will be considered by the Governor and potentially referred to the other policy committees. We also regularly consult with the Treasury and Minister of Finance to keep them abreast of prudential policy developments and to glean their views. The *Financial Stability Report*, which is a legal requirement under our Act, requires us to explain and justify the prudential policies we adopt.

## Conclusion

Micro-prudential and macro-prudential policies are both important. Good micro-prudential regulation should contribute to financial system stability and we need to remain focused on improving the regulation of individual financial institutions. However, we have learned that this might not be enough to contain system-wide risks. Macro-prudential instruments that focus on system-wide imbalances can also bolster financial system resilience and possibly help to moderate credit cycles. We need to be realistic about what can be achieved. Even if credit cycles can be moderated, they will not be eliminated.

Like other countries, New Zealand has already taken steps to promote a more resilient financial system with our liquidity policy helping to shift the banking system on to a more stable funding base. In terms of using macro-prudential instruments to better manage the credit cycle, there has not been a pressing need for the use of such tools given recent weakness in the credit cycle. However, we do need to keep preparing for how we might deal with credit and asset price booms when they recur in the future. Our work so far on macro-prudential instruments suggests that we should keep our expectations modest, but we have identified several tools that we would contemplate using in the right circumstances.

The world has little practical experience with some of the macro-prudential tools currently under consideration. There will be an important learning period ahead as countries start to use these instruments and develop their implementation frameworks. We can expect our understanding of this broad area to have evolved significantly in five or ten years' time.

## References

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