Supporting Paper A11
Background material on monetary policy processes and accountability mechanisms

Introduction

This paper is divided into three sections. The first section outlines the process used to generate economic projections at the Reserve Bank. The second section discusses how the Governor is advised on monetary policy issues. The paper finishes by outlining the framework used for monitoring the conduct of monetary policy in New Zealand.

Developing economic projections

Because of the time it takes for monetary policy actions to affect inflation outcomes, economic projections play an important role in monetary policy formulation. We set the OCR today to influence inflation outcomes two years ahead. For this reason, it is important that the Reserve Bank has a process for reaching a view on the outlook for the economy and inflation pressures that draws on all available sources of information, knowledge, and experience. We need to be both rigorous in interpreting the data and constantly open to new perspectives and interpretations.

This section starts by describing the type of information used during the projection process and then details the process by which the economic projections are brought together. This process relies just as heavily on the knowledge and experience of internal and external sources as it does on economic models.

Data, information and opinion sources

New Zealand data sources

In preparing short-term projections, the forecasters rely on a wide range of data from Statistics New Zealand and other organisations, including the New Zealand Institute of Economic Research, Quotable Value New Zealand Ltd, the Real Estate Institute of New Zealand, various private bank surveys, the National Institute of Water and Atmospheric Research, the Ministry of Agriculture and Forestry, the Meat and Wool Economic Service, and the MetService.

In addition to the data released by these organisations, the Reserve Bank also closely monitors daily data, including domestic and international interest rates, exchange rates, and oil prices. Some data are also collected from newspaper reports and websites, including council rates, petrol prices, electricity prices, and airfares.

Business information contacts

Once a quarter, staff (mainly from the Economics Department, but often also including senior management) visit senior executives from around 50 businesses and business organisations across the country. During these business visits the current trends and the outlook over the next year or so are discussed, particularly as they relate to individual firms. Discussions cover trends in sales, output, capital expenditure, employment, costs and pricing.

These business visits add richness to the context within which the official data can be interpreted, and help the Reserve Bank to discern the relevant economic trends in those data for the purposes of forecasting and policy assessment.

In addition to the business visits, Reserve Bank staff visit major banks regularly to discuss issues such as credit conditions, and are in regular contact with trade unions.

External agency forecasts

The Reserve Bank uses forecasts from Consensus Economics to forecast world GDP, interest rates and CPI inflation. Consensus Economics surveys more than a dozen forecasting agencies (primarily financial institutions) in each economy and provides a central forecast by taking a mean of the forecasts obtained from the survey respondents.

The Reserve Bank also collects commentaries and projections from a range of domestic agencies (particularly trading banks). These commentaries and projections play a role in testing the Reserve Bank's projections, the range of information the Reserve Bank considers, and the Reserve Bank's interpretation of the data.

Forecasting

While the projection published in the *Monetary Policy Statement* is just one component of the assessment and policy-formulation process, it is no doubt an important one. Generating a central economic projection and analysing the bounds of uncertainty around that projection is a three-step process, with each step drawing heavily on internal and external information sources, and economic models.

The first step in the forecasting process is to provide analysis and interpretation of the current state of the economy, and to develop short-term projections for key economic variables. These projections provide the starting point for the Reserve Bank's medium-term projection of the economy. The second step is the development of the medium-term projection. Lastly, key risks and judgements around the projection are considered to ensure that risks are appropriately dealt with.

Short-term forecasting

Although policy actions affect inflation mostly one to two years from now, it is still important to understand the current state of, and near-term outlook for, the economy. Short-term movements in activity can have important implications for the evolution of the economy over the medium term. For example, a change in investment and employment intentions now can affect demand and inflation pressure further out. In addition, examining the current and near-term outlook of the economy can help the Reserve Bank better understand the impact of past monetary policy actions on the economy. This will put the Reserve Bank in a better position to determine the likely impact of any future policy actions on the economy.

Medium-term forecasting

Medium-term projections are developed using a model called the Forecasting and Policy System (FPS). FPS, like most macroeconomic-models, struggles to capture the short-term dynamics inherent in current economic data. To incorporate the information from current data, FPS uses the short-term forecasts as if they were actual outturns.

The first solution for the medium-term projection is produced using a minimum of judgement. However, no model can capture all the forces at work in the economy, so the "no-judgement" projection generated by FPS is unlikely to provide a good indication of the most likely outlook for the economy. Rather, the no-judgement projection provides an initial indication of the issues to be addressed over the projection round and a starting point to which judgement is added.

To this end, FPS is just a tool in the projection process. It provides a disciplined starting point, encapsulating our general view of how economic relationships have worked in the past, and providing some important internal consistency checks. However, the knowledge and experience of Reserve Bank economists, Governors, and external advisors play a crucial role in settling on the final projection to get a more reasonable central projection. We use models, but are not driven by them.

Adjustments to the projections can account for special circumstances and information not included in the model, and can incorporate circumstance-specific dynamics and known shocks. In addition, as FPS reflects average business cycle behaviour, adjustments may be made when there is evidence that the current cycle is different from the average economic cycle.

Risk assessment

Huge uncertainty surrounds any economic forecast. One of the benefits of a good formal model is that it allows the Reserve Bank to address uncertainty within a well-defined conceptual framework, and examine the key risks and judgements around the projection in a quantitative sense. Where a specific judgement surrounding a shock has been made, alternative assumptions can be made, and simulations can be run to assess the likely impact and the corresponding range of possible outcomes.

Communicating the projections within the Reserve Bank

During the projection process the Monetary Policy Committee (MPC)[1] is updated weekly on data releases and the implications these have for the projections. In addition, the MPC is presented a suite of papers during "forecast week". Forecast week is a week of intensive MPC meetings held three weeks before the release of the Monetary Policy Statement. The papers presented during forecast week discuss recent economic and financial market developments and the forecasting team's projections.

Following the presentation of these papers there is significant and robust discussion and debate around the projection and economic outlook. The Governor will then direct the forecasters to make any adjustments to the projection that he feels are necessary. This process is discussed in more detail in the second section of this paper.

1 The MPC is a group of senior Reserve Bank staff and, during "forecast week", two external advisors. The role of the MPC is discussed in section two of this paper.

Publishing the projections

The Reserve Bank publishes a central economic projection including a forward interest rate track in its *Monetary Policy Statements*. While it is now quite common for a central bank to publish economic projections, it is still relatively unusual for central banks to publish a forward policy track. The forward track is not, in any sense, an undertaking about what we will do in the future; it is simply an approximate sense of the way we might normally tend to respond in the future in the unlikely event that everything else unfolded as assumed in the projections. Most other countries still choose to do things a little differently; in some cases because they face different constraints. For example, it is probably considerably more difficult to agree a published forward track for interest rates if a committee is formally making OCR decisions than if a single decision-maker is doing so.

There is probably no ideal approach to this issue. Each approach has its own strengths and weaknesses. However, the Reserve Bank believes that publishing policy projections works well in New Zealand and is helpful in a number of ways. Firstly, publication of our projections demonstrates that the Reserve Bank has an integrated framework for thinking about how, and how strongly, the Reserve Bank might respond to particular price pressures. For example, the Reserve Bank can use the publication of the projections to help the public better understand what inflation effects from an oil price shock the Reserve Bank will look through and which it will respond to.

Secondly, increasing the openness of the policy process by using published projections may assist the Reserve Bank to establish a reputation for consistently aiming monetary policy at price stability, promoting a greater degree of trust in its actions.

Thirdly, a central bank's leverage relies on transmission mechanisms operating primarily via financial markets. At the core of such transmission mechanisms are public expectations of future central bank actions. We believe that publishing projections makes the transmission mechanism a little more powerful and efficient by helping the market to understand the policy model better.

And lastly, the quality of policy decisions can be more effectively monitored if full projections are published. This is important for the accountability of the Reserve Bank. This is discussed in more detail later in this paper.

The monetary policy decision-making process

This section describes the process by which the Governor is advised on monetary policy issues. The monetary policy decision-making process at the Reserve Bank is centred on a single decision-maker model, with the Governor having full responsiblity for all monetary policy decisions. This is relatively unusual, although by no means unique, internationally. The single decision-maker model allows for clear accountability, but makes it important to establish a disciplined process to ensure that the Governor is exposed to a range of interpretations and opinions during the policy-making process.

The policy assessment process is a rigorous and intensive one and draws directly upon the knowledge and experience of senior Reserve Bank staff and external advisors. Issues are debated openly and robustly, with the aim of appropriately capturing the range of reasonable policy options confronting the Governor.

In the remainder of this section, we outline the activities of the Official Cash Rate Advisory Group (OCRAG), the Monetary Policy Committee (MPC), and external advisors during the main phases of the policy assessment round. Emphasis is given to the nature of MPC and OCRAG discussions leading up to Official Cash Rate (OCR) decisions and publication of the *Monetary Policy Statement*.

The OCR Advisory Group

Successive Governors have chosen to establish an OCR Advisory Group to provide formal advice to the Governor on setting of the OCR. OCRAG is a small group that includes the Governor, Deputy Governor, Assistant Governor(s), the Head of the Economics Department, several other senior staff from the Economics and Financial Stability Departments, and two external advisors. The Head of Communications also attends to advise on related communications issues for general audiences.

Before each OCR decision OCRAG members each submit written advice to the Governor. This advice outlines their views on the projection, the upside and downside risks they see to the projection, what policy decision they think the Governor should make, and any communication issues they see in communicating that decision. The advice provided by each OCRAG member is confidential to OCRAG. This helps ensure that the Governor is consistently provided with free and frank advice.

OCRAG is expressly not a decision-making committee. OCRAG members do not vote and minutes are not published. Rather, the intent of OCRAG discussions is to ensure that the Governor is exposed to alternative views and opinions.

The Monetary Policy Committee

The MPC is a wider group of senior Reserve Bank staff (and, in forecast week, at times up to two external advisors) that meets regularly to:

- discuss issues relating to the formulation and implementation of monetary policy;
- provide a forum for the exchange of information on, and analysis of, current developments in financial markets and newly released economic data;
- provide a forum for the consideration of research and analysis relevant to monetary policy; and
- consider and establish priorities for future research and analysis of monetary policy and related issues.

External advisors

In preparation for each *Monetary Policy Statement* two external members join both the MPC and OCRAG to assist in the policy process. These two external members are called “external advisors” and are typically business people, rather than economists. Each advisor is appointed for one year at a time, with typically only one extension. The role of the external advisors is to provide an external check on conclusions and assumptions used by the Reserve Bank. They do this by contributing to policy deliberations and providing the Governor with advice on monetary policy matters. The external advisors attend all MPC and OCRAG meetings during forecast week.

Like other OCRAG members, the external advisors submit written advice to the Governor when each Monetary Policy Statement is being prepared. Their involvement in OCR reviews between *Statements* is more limited. A few days before each OCR review the external advisors are phoned to update them on economic developments and ask them for any OCR advice.

Three phases of discussion and consideration

The policy assessment process takes several weeks. During the process there are three broad phases of discussion: first, a "broadening" of thought and canvassing of issues to be explored in depth; second, presentation and discussion of the forecasting team's projection, and associated policy issues; and finally, a "narrowing" towards an agreed central projection, content for the *Statement*, and the OCR decision itself.

Broadening

The thought-broadening process begins with the business visits approximately ten weeks prior to the release of the *Monetary Policy Statement*. The Reserve Bank also considers and analyses the views of economic commentators and markets. Once the forecasting team has put together initial forecasts, issues and risks around the domestic and international outlook are discussed within the Economics and Financial Stability Departments.

Formal forecast presentation

The forecasting team's presentation of the benchmark projection takes place about three weeks before the release of the *Monetary Policy Statement*. The implications of latest data and the forecasting team's judgement and assumptions on the economic outlook are presented to MPC. The forecasting and modelling teams also present sensitivity analyses and risk scenarios (based on issues canvassed in the broadening phase), and note the key policy issues they consider the projection development process has highlighted.

Later in the week, the MPC meets again to discuss the issues raised. The MPC might ask the forecasting team to present further alternative scenarios.

Throughout this part of the process there is significant discussion and debate around the economic outlook. The projections presented by the forecasting team are challenged extensively. This process ensures that the final projections are robust and helps determine reasonable policy outlooks.

Narrowing

The third, "narrowing", phase of the process occurs in the two weeks prior to the release of the *Monetary Policy Statement*. The Governor directs the forecasting team to make any adjustments to the projection that he sees as necessary before incorporation as the central projection into the *Statement*. Given that central projection, OCRAG meets to provide written advice to the Governor regarding the OCR decision and the accompanying content of the *Statement*. There is a range of possible policy responses for any economic outlook, so OCRAG's role is to advise the Governor on how to weigh up alternative policy responses.

After reviewing the independent written advice provided by each OCRAG member, the Governor tells the group his provisional decision about the OCR and his rationale for that decision. He then gives directions for the content and tone of the *Statement*. Considerations for the content of the *Statement* include the choice of alternative scenarios and risks to illustrate, and text boxes covering special issues.

The remaining week and a half before the *Statement* is released consists of drafting and production activities. The Governor's OCR decision is finalised the day before the Statement is released.

Monetary policy accountability and monitoring

This section outlines the framework used for monitoring the conduct of monetary policy in New Zealand. The Reserve Bank of New Zealand Act 1989 sets out a framework for setting monetary policy goals and places considerable explicit focus on mechanisms to hold the single monetary policy decision-maker (the Governor) to account. This framework assigns to a Board of Directors the primary role of monitoring and reporting on the Governor's performance and allows the Governor to be dismissed for inadequate performance.

To support the formal framework, extensive procedures for disclosing information to the Board and enabling them to challenge both processes and policy judgements have been developed.

The remainder of the section outlines the formal framework, the thinking behind the framework, and the various ways in which the Board and other entities undertake monitoring to hold the Reserve Bank accountable for the conduct of monetary policy. The section finishes by comparing international approaches to monitoring monetary policymakers.

The statutory provisions

The central banking reforms of the late 1980s, contained in the Reserve Bank of New Zealand Act 1989 (hereafter "the Act"), were an attempt to balance a high degree of Reserve Bank operational autonomy over monetary policy, with rigorous accountability arrangements that included a high degree of transparency.

In establishing a regime to hold the Reserve Bank to account in its conduct of monetary policy, the Act outlines important, and distinct, roles for the Minister of Finance, the Governor, and Board of Directors. It also establishes key roles for two documents: the Policy Targets Agreement (PTA) and *Monetary Policy Statements*.

The Governor and Board members are both appointed by the Minister of Finance. However, while the parliamentary term is three years, Board members are appointed for staggered five-year terms. The Governor is also appointed for a five-year term. The Minister cannot appoint as Governor someone whom the Board has not recommended.[2]

When a new Governor is appointed, the Minister is required (section 9) to "fix, in agreement with that person, policy targets for the carrying out by the Reserve Bank of its primary function during that person's term of office". The Board has no formal role in this process.

Once the Minister has agreed policy targets with the Governor, the procedures in the Act are designed to help monitor the Governor's performance and enable the Governor to be held to account formally for the Reserve Bank's conduct of monetary policy.

Under the Act, the Reserve Bank has the ability to adjust the instruments of monetary policy itself. The responsibility for the exercise of the Reserve Bank's powers and the conduct of its functions became vested explicitly in the Governor.[3]

The Board is responsible for much of the monitoring of the Governor's performance. The Board's role focuses on two dimensions: advising the Minister on the appointment (and reappointment) of a Governor, and monitoring and reporting on the Governor's performance.

Section 15 of the Act requires that the Reserve Bank publish a *Monetary Policy Statement* at least every six months. In this document the Reserve Bank is required to review and assess recent monetary policy decisions and to articulate "the policies and means by which the Reserve Bank intends to achieve the policy targets". As part of its role, the Board is required (section 53) to "determine whether policy statements made pursuant to section 15... are consistent with the Reserve Bank's primary function and the policy targets agreed to with the Minister".

Consistent with its primary ongoing role as a monitoring agent on behalf of the Minister, the Board is also required to keep under "constant review" two conditions under which the Minister can seek the removal of the Governor (sections 49 and 53). These conditions are:

- that the Reserve Bank is not adequately carrying out its functions (the primary function being monetary policy); or
- that the performance of the Governor in ensuring the Reserve Bank achieves the policy targets has been inadequate.

Moreover, the Board is required to advise the Minister whenever it is satisfied that either of these two conditions has been met, or if it believes that a *Monetary Policy*

[2] The Minister can reject a nomination made by the Board, but in this case the Board would be required to provide another nomination.

[3] The Minister of Finance has certain reserve powers relevant to monetary policy. These have not been used to date. They are elaborated slightly in supporting paper A1.

Statement is inconsistent with the Reserve Bank's primary function or the PTA. However, whether or not dismissal is sought is entirely at the discretion of the Minister.

Note that the Act does not allow the Governor to be dismissed simply for failing to meet the policy targets. The criteria in the Act refer explicitly to the performance of the Reserve Bank and the Governor in pursuit of those targets.

The Policy Targets Agreement

How the monitoring framework is applied depends to some extent on the form the targets take. The Act requires that targets be agreed for the Reserve Bank to carry out monetary policy, directed to maintaining a stable general level of prices, during the Governor's term of office.

All of the PTAs since the Act came into effect have specified a range of inflation rates which monetary policy should aim to achieve. But because monetary policy affects inflation only slowly, and indirectly, and because monetary policy is not the only influence on inflation, inflation targets are not an ideal basis for holding monetary policy decision-makers formally to account. What has evolved is a regime that attempts to provide as much formal accountability as is consistent with encouraging good policy and maximising the chance of getting good economic outcomes.

The way the PTAs have evolved over time is discussed in detail in supporting paper A1.

Monitoring by the Board

Since the Act came into effect, the Board has been the primary body with formal responsibility for monitoring the conduct of monetary policy. As discussed earlier the Board is required to assess the Governor's performance in implementing monetary policy decisions, and in communicating and accounting for policy in the *Monetary Policy Statements*. In addition, the Board is required to recommend a suitable candidate for Governor.

Some of the items the Board might concern itself with in fulfilling the monetary policy monitoring role include:

- the processes the Governor uses to gather and interpret economic information;
- the choices the Governor makes in allocating resources in areas of the organisation relevant to monetary policy;
- the means the Governor uses to ensure that he is exposed to alternative perspectives;
- the way in which the Governor thinks about and responds to the uncertainties around monetary policy;
- the processes the Governor uses to assess past policy decisions and learn from experience; and
- the stability through time in the Governor's policy choices.

The Board uses a wide variety of information and skills to undertake its evaluation and monitoring role. The Reserve Bank provides a range of information to the Board to help them analyse the Governor's performance. This information currently includes:

- the quarterly *Monetary Policy Statements*, including forecasts for inflation, GDP, interest rates, and exchange rates;
- all the background documents that the MPC and OCRAG used in the formal process leading up to OCR decisions (including material on the views of markets and other commentators);
- the written advice provided by OCRAG members to the Governor prior to each OCR decision (with names removed to help ensure a free and frank internal process);
- material on the Reserve Bank's budget etc, providing the Board with information on (and opportunity to question) resources devoted to monetary policy functions; and
- copies of many of the supporting or interpretative pieces of analysis prepared for the MPC between forecast rounds.

The Board would be expected to use a variety of sources of information in addition to the Reserve Bank's own analysis. These would typically include:

- information on how other central banks handle similar issues, and how they react to similar shocks; and
- indications about the confidence that markets and key stakeholders have in the Governor's performance in the role.

The material that the Board receives is dominated by information which helps provide assurance about the Reserve Bank's processes. This is appropriate given the pervasive uncertainties affecting an assessment of OCR decisions. The Board has also focused on inflation outcomes, especially on occasions when inflation has been, or threatened to, move outside the target range.

Inflation outcomes outside the target range will tend to raise questions and prompt analysis, even if at the time the relevant OCR decisions were made the Board was content that the *Monetary Policy Statements* were consistent with achieving the inflation targets. Given the asymmetry of resources and economic expertise available to the Governor, the fact that the Board accepted at the time that any particular *Statement* was consistent with the PTA, should not stop it asking questions about the conduct of policy later, with the benefit of the passage of time, and actual inflation outcomes.

Inflation outcomes inside the target range will also prompt questions from the Board. In evaluating the Governor's conduct of monetary policy, the Board should use as much data as possible, and assess (formally or otherwise) the role that good or bad policy choices, as opposed to sheer good or bad fortune, played in all inflation outcomes.

The Board meets regularly (typically monthly). The Governor himself is a member of the Board, and as a matter of practice has his Deputy and Assistants present for some of the Board meetings and discussion.[4] The Board is thus exposed regularly to key senior managers involved in advising the Governor.

The Reserve Bank's Board has made an independent submission to the inquiry. That should be read together with this document for the Board's perspective on its monitoring and accountability role.

Other monitoring

Monetary policy is conducted under intense and continuous public scrutiny. Other than the Board other agencies, economic commentators, markets and the media have important roles in monitoring the Governor.

The Treasury is the principal agency charged with providing advice to the Minister of Finance on macroeconomic policy, including regular briefings on issues relating to monetary policy. If there were concerns that monetary policy was running astray, the Treasury and the Minister could be expected to do their own analysis and ask questions of the Board and the Governor. The power to commission a performance audit (section 167) provides considerable leverage. The Reserve Bank is also required to publish a *Statement of Intent* and an *Annual Report* each year.

Parliament also has a role in monitoring the Reserve Bank's conduct of policy. By statute, each *Monetary Policy Statement* stands referred to Parliament's Finance and Expenditure Committee. That Committee, with the assistance of its own professional advisor, can choose to intensively scrutinise the extent to which policy was, and has been, conducted consistent with the Policy Targets Agreement.

Financial markets, the business media, and other economic commentators all play a part in scrutinising the Reserve Bank's monetary policy choices. The presence of the extensive market commentary on major pieces of data and on OCR decisions means that if the Reserve Bank takes a position that even a significant minority of outsiders disagree with, the difference is likely to be highlighted. This provides information that the Board can use in questioning and evaluating the Governor.

Of course, market commentators do not have the resources the Governor has, nor do they have the incentives to devote much resource to evaluating, after the event, whether the Governor was correct in his judgements. In addition, a diversity of views among market commentators and forecasters is fairly normal – highlighting the way in which reasonable people can, at times, reach quite different conclusions about the appropriate stance of monetary policy.

[4] Although, of course, no staff are present when the Board formally evaluates the Governor's performance.