The Monetary Policy Process at the RBA

Address by Mr GR Stevens, Assistant Governor (Economic), to Economic Society of Australia (Victorian Branch) Forecasting Conference, Melbourne, 10 October 2001.

Introduction

Thank you to the Victorian Branch of the Economic Society for another invitation to speak at your conference here in Melbourne. You have heard a number of thoughtful presentations this morning about the state of the world and the outlook. I have little to add to that, and do not intend to offer comments on the conjuncture.

I have chosen instead to speak on something which is less immediate, but about which I have found there to be a good deal of interest at times, namely the procedural elements of the monthly monetary policy process inside the Reserve Bank. You may think that this is a bit tedious, but there have on occasion been claims that the whole process is somehow mysterious, and that more information about it should be divulged. This view is, I suspect, most often put by people who do not agree with particular policy outcomes. But there is, nonetheless, a case for having an account of the process on the record.

I aim to show that there is nothing mysterious about the monetary policy process, by outlining the routine the staff and management of the Bank go through each month in formulating their view about the economy, and the recommendation to be taken to the Board meeting – which of course is the critical decision node. I will be speaking from the perspective of someone heavily involved in the process, including taking part in the Board meeting, but not as a decision-maker – only an adviser. Hence I do not, it should be clear, pretend to speak for the Board members, nor will I address questions of governance, or the Reserve Bank's communications with the Government. As a staff member rather than a Board member, I am not in a position to comment on such matters.

I shall try to make a few points which I think are important along the way, and I will end with a few observations about the policy process. Before setting out, let me emphasise that I have not come today to deliver any particular message about the short-term outlook for monetary policy.

The Meeting Schedule

The decision process revolves around the Board meeting schedule. As you know, the Reserve Bank Board meets eleven times each year to consider monetary policy. For the past twenty years, the meetings have been held on the first Tuesday of each month, except in January. Of course, meetings can be convened at any time, if needed, and the Board can be contacted by phone in the event of some urgent matter. Such events are rare, though they have occurred occasionally in the past. It has come to be regarded as a good thing, however, that policy decisions are, in normal circumstances, taken at meetings with a known schedule. Such a schedule for decision-making meetings, as well as for regular documents (such as the quarterly *Statement on Monetary Policy*) is increasingly the norm internationally. Even some countries that do not have a decision-making board have established a fixed timetable for making and announcing decisions on monetary policy. This is quite efficient, in that it helps financial markets and other observers in allocating their own resources – they know when to pay attention! – and lessens unnecessary speculative activity.

Internal Processes

The monthly schedule naturally provides the rhythm for the staff's efforts. In the case of the Economic Group, the process begins about two weeks or so before the Board meeting date (that is, not long after the previous meeting has finished). Relevant desk staff who monitor the data flow begin the preparation of comprehensive documents giving details of all the relevant information. This documentation ultimately forms part of the detailed briefing paper on the economy presented to the Board, and is updated continually as the information comes in (some of the key data, like the CPI, typically come in quite late in the process).

At the same time as the documents are in preparation, there is a sequence of meetings. Around twelve days prior to the Board meeting, we in the Economic Group hold a staff meeting to focus on the available economic information. We review data on the rest of the world, domestic economic activity, prices, wages, the labour market, and financial conditions. The full range of economic data is quite extensive: we track over 2 000 data series on the Australian and international economy. Hence the focus has to be on those pieces of information that are most significant and potentially view-changing. We are also exposed to relevant pieces of analytical or research work which can inform our assessment of the economy's development. At this meeting, there is a good deal of questioning about various elements of the figures, and in particular about apparent contradictions or tensions which inevitably arise in the short-run data flow.

Much of the process of data analysis for the purposes of policy advice is, in fact, of the nature of detective work: trying to fit all the pieces together in a way which makes the most sense. Usually, this proceeds by forming a working hypothesis about what is occurring in the economy, then being on the lookout for anomalies, and then hunting down why those anomalies are occurring, which may in turn lead to a revision of the original hypothesis. For example, is a key variable moving the way it should be, given our view of the outlook? If not, can a sensible reason for this be found? If it can't, perhaps our working hypothesis is in need of amendment.

One such question in recent months was: why were imports so weak? Was it because the exchange rate was doing a lot of work to shift demand to domestic production? Was it that much of the impact of the business sector inventory run-down was being reflected in imports? Or was domestic demand in fact much weaker than we thought? Or all three of the above to some extent? Another was whether the large fall in full-time employment in July was consistent with other information about the labour market (it wasn't). Yet another was whether the large fall recorded in business credit in July was a genuine signal or was affected significantly by technical changes in the way the data are compiled and shifts in seasonal patterns driven by changes to the tax system. In this case, statistical doubts don't seem to be enough to remove the impression that business credit is quite weak.

The analysis is not entirely focused on official statistics. As you know, the Bank has in the past year upgraded its economic liaison capacity, establishing Regional Offices in Melbourne, Perth and Brisbane. We have recently added an economist in Adelaide, who is attached to the Bank's Branch in that city. While we have for many years undertaken regular liaison with major retailers, the Offices have been quite active in developing additional contacts in the business community, state governments, industry groups and academia. Their work is coordinated from Sydney and we make considerable effort to ensure the results are integrated into Head Office's evaluation of the economy. Each month, an economist from one of the Offices has the responsibility of distilling the insights gained from the collective liaison effort into a document, and will travel to Sydney to present the results at the staff meeting. To date, we have been pleased both by the reception our liaison visits have received, and by the insights we have gained into some topical issues on which there are no timely official data to which we can appeal.[1]

In all of this, we are aiming to come to as comprehensive an understanding as we can of the state of the economy and its likely trajectory in the period ahead. We are ultimately seeking an assessment of the likely state of aggregate demand, supply and prices – which, of course, is the key focus for policy under an inflation-targeting framework.

As part of making this assessment, and of forming a view about whether the stance of policy ought to be altered, it is important to have a clear view of exactly what the current stance of monetary policy is, and what effect it is likely to be having on the economy, bearing in mind the widely-acknowledged lags. To gauge this we start by doing relatively simple things, like looking at the level of interest rates – in nominal and real terms – compared with history, examining the pattern and strength of credit growth, the state of asset markets, the level of the exchange rate and so on. In all this, we make allowance as best we can for the state of the business cycle, and for structural changes which may be affecting the course of these variables. We place a good deal of weight on the range of financial variables in the economy – monetary policy works, after all, by changing financial prices.

I would make one other observation that I think is important here, and that is that we believe it is very important to keep in mind the *level* of interest rates, not just their *changes*. Many commentators, of course, do the reverse – they focus heavily on the changes in rates. This is understandable in that a change in monetary policy is much more interesting news to report than no change. And, naturally, the way in which a particular movement (or non-movement) will be received by markets, the business community and the general public is an important tactical consideration for the policy-makers. But while the changes in rates make the news, it is surely the level which does most of the work on the economy.

Consideration of the current stance of policy can be supplemented by two other pieces of analysis. The first is the output of a suite of Taylor rule-type calculations. As I am sure you know, Taylor rules are a simple formula which give a benchmark for the real short-term interest rate, conditional on the latest information about output relative to estimated potential output and inflation relative to the target rate (and conditional on an assumption of a so-called 'neutral' real interest rate). Staff research over the years has identified a couple of Taylor rule formulations which we think are worth checking periodically. We also compile and monitor monetary conditions indexes – which combine interest rates and exchange rates – though we have significant

1. Since they commenced operations in February, staff from the Offices and from the Regional and Industry Analysis Section in Sydney have made several hundred contacts or visits around the country. The vast bulk of those we approached have been very receptive, and I would like to acknowledge their willingness to devote time to answering our questions.

reservations about the use of these indexes in more formal ways.[2]

The second additional piece of analysis is a simulation exercise using a small macro-econometric model of the economy developed by Economic Research Department. This model can be used as a forecasting tool (as an input to, or cross-check of, the central staff forecasts which are predominantly judgemental – and much more detailed – in nature). It can also be used in 'optimal policy mode'. That is, given the current state of the economy, and given the objectives for policy (the inflation target and a preference for avoiding undue instability in real GDP), the model can be asked: what is the path for interest rates over the relevant horizon which will minimise the variance of the objective variables around their targets?

Now I do not want to leave you with the impression that the staff unquestioningly accept these results and rush breathlessly off to the Governor to suggest interest rates immediately be adjusted in accordance with them. Such technical work is undertaken with a view to informing our judgement, rather than as a substitute for it. The model results can some times be sufficiently counter-intuitive (at least to me) that we spend a lot of time questioning how they came about, which usually means examining properties of the models which produce the results. But that process can be quite illuminating, in that it prompts us to confront the implications of assumptions we make, either in a formal model or in our heads, about the way the world works.[3]

Nor do I wish to leave the impression that there is a single model of the economy which commands complete support, in every detail, from everyone in the Reserve Bank. That has never been, and will never be, so. I personally think we should be unashamedly eclectic in our use of models. Recognising that there is more than one way to think about things, comparing the results from those different approaches, and thinking about why they occur, is vastly preferable to being tied too tightly to a single model or view of the world. We have, in fact, examined a range of model approaches over the years, and routinely use more than one piece of modelling to inform key forecasts, including in particular for inflation. Incidentally, before the clamour for more detail of the nature of these models grows too loud, I should state that the models, and the Taylor rule research we have carried out, have all been in the public domain for some time.[4]

While all this is occurring in the Economic area, our colleagues in the Financial Markets Group have had a parallel process going on, with a particular focus on assessing developments in international and local financial markets. Once the two areas have had a chance to form preliminary views, the senior management of the two Groups meet to compare notes. This is important for ensuring that for the Bank as a whole, our reading of the economy and the policy options has integrated financial developments with the 'real' side data as far as possible, and that the policy options worked up have taken proper

2. See 'Pitfalls in the Use of Monetary Conditions Indexes', available at <http://www.rba.gov.au/Speeches/1998/index.html>.

3. In my view, there is an additional advantage to regular use of models of this kind, namely that it keeps the modellers in tune with what is going on in the actual data, and forces them to explain regularly to an expert audience the output of the model, the rationale for the various adjustments they habitually make to that output, and the changes they occasionally make to the model's structure or estimation procedure (which sometimes make for significant differences to the model's predictions).

4. The most current version of the small macro model is in Beechey M, N Bharucha, A Cagliarini, D Gruen and C Thompson (2000), 'A Small Model of the Australian Macroeconomy', Reserve Bank of Australia Research Discussion Paper No 2000-05. Work on Taylor rules of various kinds is found in de Brouwer G and J O'Reagan (1997), 'Evaluating Simple Monetary-policy Rules for Australia' in P Lowe (ed), *Monetary Policy and Inflation Targeting*, Proceedings of a Conference, Reserve Bank of Australia, Sydney, pp 244-276. An alternative modelling approach is Brischetto A and G Voss (1999), 'A Structural Vector Autoregression Model of Monetary Policy in Australia', Reserve Bank of Australia Research Discussion Paper No 1999-11.

account of financial market dynamics and expectations.

Board Materials

At this point, it is useful to say something about the documents for the Board meeting. Economic Group prepares a paper called 'The Economy and Monetary Policy', which summarises our analysis of economic conditions, provides a summary of the outlook and sets out the policy issues we believe the Board should have in mind for the forthcoming meeting. The paper has a four to five page overview essay prepared by the senior management. It also has detailed supporting documentation including tables, charts, and forecasts etc as attachments, prepared by the staff. A companion paper from the Financial Markets Group containing a comprehensive treatment of developments in financial markets is also prepared. About a week prior to the Board meeting, draft versions of these papers are circulated to a Policy Discussion Group (PDG), made up of the most senior management of the Bank, and the Governor and Deputy Governor.

The Governor then convenes a meeting of that Group to discuss the policy situation and the draft papers. The discussion is fairly broad ranging, and benefits from the fact that a number of senior colleagues attend who are familiar with the broad issues associated with monetary policy, but whose every-day job is to think about other things. These people bring a fresh perspective to the issues and offer quite substantive comments on the drafting of the papers, and the recommendations contained therein. This process helps to tighten up our thinking.

Following the PDG meeting, the papers are finalised and sent out to Board members ahead of the weekend, so that they have time to peruse them prior to the Board meeting on the Tuesday of the following week.

In our system, the final decision on what we will recommend to the Board is taken by the Governor, having heard the views expressed by the staff. On occasions where he feels the answer is sufficiently clear ahead of the Board meeting, the papers will contain a clear policy recommendation. On other occasions, where things are more finely balanced, the papers might set out the issues but leave the policy recommendation open, with a firm recommendation presented at the Board meeting itself.

The Board Meeting

The RBA Board is charged with making decisions on monetary policy, subject to the legislation governing the Bank. Hence the decision process involves a recommendation to the Board, which they consider at their meeting.

The Board meeting occurs during the Tuesday morning, and usually concludes by lunchtime. Supplementing the written material, the Board receives quite extensive presentations on the economy and on the financial markets. At this point, I have to reiterate that my involvement at the meeting is in the capacity of a staff member. Obviously, I cannot and do not pretend to speak for the Board members on the details of the meeting's conduct, or on what they might make of the material we give them. But I can say that they can (and do) ask a great many questions, offer their own interpretation of events and, of course, bring perspective from their own regular activities. They also bring from their experience an instinctive grasp of the problem of decision-making under uncertainty, which is at the heart of monetary policy making.

After the presentations are made and questions addressed, the Governor will invite a discussion of the recommendation, and whether or not members support it. Once a decision has been reached, we go from there. On occasions where the decision is to change interest rates, we spend much of the Tuesday afternoon working on the statement which will announce the change the following morning. Apart from the process of writing up the minutes, this completes the policy round.

Reflections on the Process

All of this is, I hope, roughly what you would expect would happen. The purpose of recounting it all is to show that there is no mystery in this process. The staff of the Bank evaluate the data, the management help the Governor form a judgement, and he puts a recommendation to the Board. The Board consider that, make their decision and then the Bank implements that decision, explaining it as necessary.

Do we have a secret set of information, unavailable to other people, on which the Board are invited to base their decision? No, we don't. Virtually all of the statistical information processed by the staff of the bank is public. There is very little data we have that you don't have, apart from knowing the shape of those data we are responsible for compiling (such as the financial aggregates) before they are published. The liaison information is, by its nature, given by individual firms and organisations in confidence and hence cannot normally be made public, but I think most people would accept that restriction.

So the decision process does not rely on a superior information set to that which the market possesses. Indeed, it seems to me that, ideally, financial markets and other interested parties would understand our policy framework sufficiently well that, most of the time, the flow of data would be the main thing which shifts expectations about future policy moves. There will always be, of course, room for differences of opinion about the importance of a particular piece of information, and the markets will not always be able to pick the exact interpretation the decision-makers will place on it. Hence there will be some surprises. Nonetheless, given a good understanding of the framework, which I think now exists, there should normally be a reasonable degree of predictability of the general course of action the Bank will take over time, even if not necessarily month by month.

This is helped, we trust, by the efforts made over the years to explain our evaluation of the full range of economic and financial data. The *Statements on Monetary Policy*, appearing four times each year, and now on a schedule known in advance, have become increasingly bulky over time as we have tried to make our analytical coverage of the economy and financial markets more comprehensive. They are probably too big to read at one sitting for most people, but the main messages are well flagged and the detail, we hope, repays careful reading by interested observers.

It is also worth noting that the compilation of these *Statements* every third month coincides with the build-up to that month's Board meeting. The same (scarce) people work on that document as on the material for the Board. Hence, it will hardly surprise you to learn that the analytical and descriptive material in the *Statement* bears a rather strong resemblance to that in the Board papers. In other words, the analysis available to the Board that month is, for the most part, in the public domain within days of the meeting (the pattern we have evolved towards is for the *Statement* to be released the Monday following the Board meeting). Since the themes in the economy tend to evolve gradually most of the time, moreover, the analysis is usually not that different to what was said to the Board in the preceding month or two. The material in the *Statement* on the policy considerations behind recent decisions is also very similar, as you would expect, to the arguments put in the Board papers.

I would add that the policy process does not rely as heavily as some believe on specific forecasts. This is a point I have made before but bears repeating. In policy-making, we have to be forward looking. So there has to be a forecast as a benchmark for thinking about the future. But it would be a mistake to focus only on the point forecast; it makes much more sense to think of the central forecast as simply the modal point on the distribution of the possible outcomes, with a sequence of progressively less likely outcomes on either side. Nor is that distribution necessarily symmetric – it may be skewed one way or the other.

A useful forecast, then, is one which contains not just a single number, but also some sense of the balance of risks: is it more likely, for example, that inflation will be above the central forecast than below it? The policy implications of such a distribution of risks might be quite different to those of the same central forecast but with the distribution of risks skewed in the other direction. This is why some central banks have presented their forecasts in terms of so-called fan charts, which are an attempt to quantify both the degree of (im)precision in the forecast and the extent of skewness in the distribution of possible outcomes. We do not use fan charts *per se*, but we do try to consider alternative scenarios to the central forecast. We attempt to use the results of that process to articulate some sense of the balance of risks – both on the inflation outlook and on growth prospects – in the published statements.

This is very important because it is to that balance of risks that policy-makers will want, quite properly, to respond. The future is, by definition, uncertain and so policy is never a matter of simply making a point forecast and solving for the 'correct' interest rate that goes with that forecast. It is also about thinking through what might go wrong with the forecast, and formulating some notion of what response is appropriate in the event that things do go off track, or even to the *risk* of such an event.

The fact that policy-makers seek to respond to *risks*, as opposed to waiting for problems to build up before responding, is what makes for a degree of controversy on some occasions. If the economy is already in recession, or if inflation is already high and rising, and policy has not yet made any response, almost everyone will agree that something should be done – in fact, they will agree that something should already have been done. But there is a lot more room for disagreement over what should be done when policy is seeking to head off possible problems in advance, because on these occasions the evidence for a problem is almost certainly far from conclusive. Such evidence may never emerge clearly if a pro-active policy is successful in heading off the problem. And, of course, policy-makers seeking to be pre-emptive do run some risk of responding to perceived problems which do not, in the end, eventuate.

But in all these cases, the policy-maker will be seeking an answer to the question: which mistake, of those I could possibly make, would I be likely to regret most? The policy-maker is then likely to try to make reasonably sure that that particular mistake is not being made, perhaps at some risk of making another but, less costly, mistake. This question is likely to be most important near business-cycle turning points, when interest rates are already a fair way from their normal level, and when holding on to an unusually high or low setting for too long is likely to have more significant consequences than other errors which might be made. It is also likely to be important when a large shock comes along, with the potential to fundamentally change the whole outlook.

Another way of putting this, in slightly more technical language, is that policy-making involves consideration both of the shape of the distribution of forecast outcomes, and of the 'loss function' which the policy-maker is carrying around in his or her head. I believe this is what Dr Greenspan had in mind when he said the following:

> The center of the forecast distribution, of necessity, is still important to our deliberations but, more than many people realize, policymaking is to a substantial extent focused on the potential deviations from the central forecast and the costs should those outcomes prevail. In short, our policy behavior is the result of examining the implications of the interaction of probability distributions and loss functions. We do not engage in the formal

mathematics of such a model, of course, but we do follow its underlying philosophy.[5]

Conclusion

The degree of scrutiny of the monetary policy process these days is an order of magnitude more intense than it was when I started my career at the Reserve Bank nearly twenty-two years ago. That is fair enough, in that decisions taken in the RBA Board room are important in the life of the nation's economy, and the RBA operates independently of the political process, albeit within clearly agreed goals. A requirement for an official organisation to have a fairly transparent process and to communicate the basis for decisions is part and parcel of operating in a free society.

Yet sometimes the discussion about monetary policy proceeds as if there is a degree of mystery about the process, and it has to be admitted that in times past, central bankers cultivated this to some extent. What I have tried to do today is to de-mystify the process, and show that it involves what most people would expect: it examines data and evaluates competing hypotheses about the economy's current and likely future performance. With due consideration for the uncertainty surrounding these assessments, it tries to develop a sense of the balance of risks, so as to provide a basis for coming to an informed decision on interest rates each month. The analysis comes into public view on a regular basis through the published *Statements*, and is based overwhelmingly on data which is known to everyone. All of this is in the context of a framework for monetary policy – a medium-term inflation target – which is I think well understood.

You may, as I suspected at the outset, have found all of this terribly dull. If so, I have achieved my objective of making clear that the process is what common sense would expect, with no mystery. No one would claim that all our processes are perfect. We are always, of course, on the lookout for ways of improving them. I'm sure you will have plenty of suggestions in the question time.

5. Speech to Economic Club of New York, 24 May 2001, available at <http://www.federalreserve.gov/boarddocs/speeches/2001/200105242/default.htm>.