# Mr Sherwin discusses the origins of New Zealand's inflation targeting regime and its evolution over the past decade

Speech by Mr Murray Sherwin, a Deputy Governor of the Reserve Bank of New Zealand, to the New Zealand Association of Economists Conference in Rotorua, New Zealand on 1 July 1999.

A decade ago, during the course of 1989, the New Zealand Parliament devoted considerable time and intellectual energy to the consideration of the Reserve Bank of New Zealand Bill, later to become the Reserve Bank of New Zealand Act 1989.

That Act completely re-wrote the RBNZ's charter. The bulk of the Act – indeed almost half of its 192 clauses - relates to prudential supervision. While the prudential material is interesting in its own right, I won't be dwelling on it in this address. Rather, I will concentrate on the origins of our inflation targeting regime, its evolution, and an assessment of our experience with it over the past decade.

The origins of the 1989 Act lay primarily with Roger Douglas. Around the middle of 1986, with memories of the 1984 election debacle still deeply etched in his mind, Douglas initiated a discussion on means by which monetary policy could be made less susceptible to manipulation for short-term political ends. Officials were asked to explore options that might have that effect. Not too surprisingly, especially in the light of some of the academic literature then circulating on the subject of the relationship between central bank independence and long-run inflation performance, officials recommended reforms which would confer some degree of operational independence on the Reserve Bank.

#### THE ORIGINS OF INFLATION TARGETING

Inflation targeting as we now understand that term – with multi-year medium-term targets in an economy with liberalised prices, wages and financial markets – was pioneered in New Zealand<sup>1</sup>. However, it was not an inherent part of the original conception of an independent central bank. Rather, its genesis lay in the confluence of two sets of policy priorities in the late 1980's. Our inflation targeting evolved – at times abruptly, at times almost as painfully as having teeth pulled – rather than being delivered fully formed and fully considered from some quasi-academic ivory tower high above The Terrace.

Even before Roger Douglas had asked for specific proposals to reform the institutional arrangements for monetary policy, the managerialist approach to the public sector and its activities had been coming to the fore in New Zealand. Specifically, this took the form, later enshrined in the State Sector Act and the Public Finance Act, of giving public sector managers the authority to manage, but holding them directly accountable for outputs — i.e., the measurable products or services that each agency was mandated or contracted to deliver.

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For historical completeness, we should note that Italy, Greece and Portugal had all used published targets for inflation at times during the early 1980's, and Sweden had briefly operated a form of inflation targeting in the 1930's. However, none of these provided a complete structure for inflation targeting of the sort now understood by that term.

In the Reserve Bank's case, it was difficult to define meaningful outputs. There were suggestions that some form of monetary base measure might be appropriate, but this concept failed when it proved impossible to identify a stable relationship between this particular output and the sort of ultimate outcome – price stability – our political masters were seeking from an independent central bank. Eventually, it was accepted that the only practical solution was something of a hybrid. The Reserve Bank would be held accountable not for outputs, but primarily for the judgements it reached in pursuing the desired outcome itself. This was to be done mainly via the six-monthly Monetary Policy Statements, but also through an employment contract for the Governor which would state the inflation goal directly. Note that at that stage, it was not envisaged that there would be a high profile public role for the employment contract – any more than most public sector CEOs' employment contracts are ordinarily matters of high public profile.

The evolution of the Governor's "employment contract" into what we now know as the Policy Targets Agreement (PTA) took place under pressure of another development. After successfully driving down inflation from a 1985 peak in the high teens, Roger Douglas became concerned that the public – including financial markets, employers and unions – were expecting the Government to be content with progress to that point and that inflation and, more importantly, inflationary expectations, were settling at around 5 to 7 percent. Without consulting officials, or, apparently, his parliamentary colleagues, Douglas announced in a TV interview on 1 April, 1988 that policy was to be directed to reducing inflation to "around 0 or 0 to 1 percent" over the following couple of years. This was as much a surprise to the Reserve Bank as it was to the community generally. Douglas was aiming, with this announcement, to influence inflation expectations and by that means to reduce the inevitable costs of disinflation.

With the input of advice from officials over the subsequent few weeks, that initial announcement crystallised as the 0 to 2 percent inflation target to be achieved by the early 1990's. It took real shape as a strictly defined target in the Bank's 1989 Annual Report and in the 1989 Budget as one of a series of macroeconomic goals announced by David Caygill<sup>2</sup>.

It is the case that the 1989 Act was passed without a single dissentient vote in Parliament. Don Brash has made that point on a number of occasions while also reminding us that one certain dissenter, Rob Muldoon, was hospitalised at the time. However, it is also the case that despite the bipartisan support evident on the evening of the vote, both major political parties struggled to reach positions where they could support the passage of the Bill. Significant opposition or reservations existed within both caucuses.

Reservations about the new framework were also evident in submissions made to the Select Committee which considered the Bill. As the report of the Finance and Expenditure Committee notes, 10 of the 23 submissions received raised concerns about the proposal to assign monetary policy the single objective of price stability. Generally, and without challenging the desirability of low inflation, those submissions sought inclusion of a reference to real sector objectives as well. In the event, the FEC's report was quite unequivocal on that point. "The Committee.... is firmly of the view that the primary function of monetary policy

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For the purposes of those attempting to analyse the impact of inflation targeting, we date its introduction in New Zealand from April 1988 rather than early 1990, which was when the Act came into effect and the current monetary policy structure was formalised.

should be that set out in clause 8(i). Members acknowledge that monetary policy should not be made to wear the cost of inappropriate fiscal and micro-economic policies. Monetary policy at the end of the day can only hope to achieve one objective, that is, price stability."

Of course, this was not a new insight or perspective on the appropriate objective of monetary policy. To indulge a small historical diversion, it's interesting to look back at the 1931 report of Sir Otto Niemeyer, the Bank of England official brought to New Zealand to advise on the formation of a central bank. His report led directly to the establishment of the Reserve Bank of New Zealand. Borrowing wording from the statutes of the Bank of Estonia, Niemeyer proposed "stability of the value of its notes as the primary duty of the Bank," and required it "to exercise control over monetary circulation and credit towards that end." That, argued Niemeyer, was simply the standard specification for a central bank at that time. As it transpired, his original proposal for the new central bank's objective was amended slightly during the drafting of the 1933 Act by the addition of the words "to the end that the economic welfare of the Dominion may be promoted and maintained."

That amendment, of course, parallels the words added to the Policy Targets Agreement in December 1996. The PTA now reads that "... the Bank shall formulate and implement monetary policy with the intention of maintaining a stable general level of prices, so that monetary policy can make its maximum contribution to sustainable economic growth, employment and development opportunities within the New Zealand economy".

#### WHAT IS INFLATION TARGETING?

A decade on from the passage of the new Act, inflation targeting has become a very widely practised, researched and analysed policy. But what is it?

Bernanke et al<sup>4</sup> provide the following definition:

"Inflation targeting is a framework for monetary policy characterised by the public announcement of official quantitative targets (or target ranges) for the inflation rate over one or more time horizons, and by explicit acknowledgement that low, stable inflation is monetary policy's primary long-run goal. Among other important features of inflation targeting are vigorous efforts to communicate with the public about the plans and objectives of the monetary authorities, and, in many cases, mechanisms that strengthen the central bank's accountability for attaining those objectives".

In providing that definition, the authors take some care to describe inflation targeting as a framework as opposed to a rule. In other words, inflation targeting fits somewhere between the extremes which feature in the "rules versus discretion" debate which raged in monetary policy circles in earlier years. Inflation targeting is not "automatic" in the sense of a Friedmanlike rule. But nor does inflation targeting allow the central bank full discretion. Rather, inflation targeting can be described as a form of "constrained discretion". To quote Bernanke et al again, "By imposing a conceptual structure and its inherent discipline on the central

<sup>&</sup>lt;sup>3</sup> Hawke, 1972

<sup>&</sup>lt;sup>4</sup> Bernanke et al. 1999

bank, but without eliminating all flexibility, inflation targeting combines some of the advantages traditionally ascribed to rules with those ascribed to discretion."<sup>5</sup>

While we use the label "inflation targeting", Lars Svensson<sup>6</sup> uses a variation on that term which he regards as a more accurate description of the process – namely, "inflation forecast targeting". Given the lags inherent in the operation of monetary policy, he argues that the essence of inflation targeting is a commitment to adjust policy to ensure that a credible or unbiased forecast of future inflation falls within the specified target.

However we choose to define inflation targeting, it has certainly gained a very rapid acceptance around the world in a diverse range of countries. Table 1 lists the countries currently engaged in formal inflation targeting, with interest growing rapidly at present. There are many variants in the approach, but the essential elements described above are common to all

Table 1

Inflation Targets Internationally

| Country           | Date Adopted  | Target                               | Target variable   |
|-------------------|---------------|--------------------------------------|---|
| Australia         | 1993          | Average of 2-3% over the medium term | 'Underlying' PI up until<br>October 1998; CPI<br>thereafter             |
| Canada            | February 1991 | Midpoint 2%<br>+ 1% band             | CPI   |
| Finland*          | February 1993 | 2%<br>no explicit<br>band            | CPI excluding indirect<br>taxes, subsidies and<br>housing-related costs |
| New<br>Zealand    | April 1988    | 0-3%<br>0 - 2%<br>originally         | CPI excluding interest  |
| Spain*            | November 1994 | 2%                                   | CPI   |
| Sweden            | January 1993  | Midpoint 2% +1% band                 | CPI   |
| United<br>Kingdom | October 1992  | 2.5%<br>+1% reporting<br>range       | Retail price index<br>excluding mortgage<br>interest payments           |

<sup>\*</sup> Now members of the Euro area

<sup>&</sup>lt;sup>5</sup> Bernanke et al, 1999

<sup>&</sup>lt;sup>6</sup> Svensson, 1997

NB. Czech Republic, Republic of Korea, Israel, Mexico and Chile also describe themselves as inflation targeters, but not necessarily with explicit, public commitments to specific targets of the sort listed above.

#### THE EVOLUTION OF THE MONETARY POLICY FRAMEWORK

It seems a decade is a long time in monetary policy. We have seen one full business cycle pass and that has been extensively reviewed, documented and analysed in recent Reserve Bank Bulletins. While the Reserve Bank Act has not changed in any significant respect, the way we go about "doing" monetary policy has changed over that time. The formal inflation target has been widened, the way we describe the targeted measure of inflation has shifted and our approach to dealing with the impact of external shocks or "caveats" has changed.

In addition, a number of less formal innovations have occurred. Under this heading I include the development, and subsequent demise, of the housing adjusted price index (HAPI); the emergence of the "underlying inflation" concept, and its evolution into, effectively, the accountability measure for inflation performance before it was eased out of the limelight in 1997; the more recent extension of the policy horizon from around 4 quarters to the current 6 to 8 quarter timeframe; and the shift in thinking about the role of the exchange rate in the practice of inflation targeting, as embodied in both the dropping of the MCI from its direct implementation role and the extension of the policy horizon. Policy implementation has also gone through several stages before reaching the current Official Cash Rate (OCR) structure.

Some degree of change was probably inevitable and even a healthy sign. As the pioneers of the inflation targeting process, it would have been a surprise if all aspects were "right" from day one. Perhaps more importantly, even if the framework had been conceived immaculately, the environment in which we operate today is not the same as that applying a decade earlier. Some degree of adaptation was necessary simply to meet those changing circumstances.

Let me deal with just a couple of aspects of the changes over the decade. Firstly, the movements along the spectrum between what Svensson refers to as "strict" and "flexible" inflation targeting, and secondly, the evolution of the implementation framework from a quantity based regime to the current interest rate based (OCR) structure.

#### Strict or flexible inflation targeters?

As already noted, the initial move to inflation targets arose from a wish to influence inflationary expectations by stating clearly the Government's commitments. The hard-edged character of the targets emerged a little later, partly as a consequence of the Bank taking up the role of shaping general inflationary expectations through a vigorous external communications programme that stressed the Bank's commitment to the targets and the Governor's personal accountability for achieving them. While clearly a useful device for communicating the strength of the Bank's resolve to a wider public audience, the portrayal of the inflation target as hard-edged also carried risks given the lags and uncertainties in monetary policy decision making. A "strict" approach to inflation targeting encouraged a search for precision in calculating "core" or underlying inflation measures for accountability purposes and may have encouraged a shortening of policy horizons as the direct price effects of the exchange rate became more important to the achievement of the target outcomes. Both of those effects were evident in our monetary policy through the past 10 years.

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As inflation expectations have subsided, it has been possible to assume a degree more flexibility in the regime, and the current PTA reflects that. Rather than detailed calculations of the impact of specific shocks, as embodied in the old underlying inflation measure, the PTA now explicitly acknowledges that outcomes will occasionally fall outside the target range for a variety of reasons, even when the Bank is "constantly and diligently" striving to deliver price stability. In those circumstances, the Bank is required to provide a satisfactory rationale for its judgements. Ultimately, the Bank's non-executive board members must assess the quality of those judgements and report their findings to the Treasurer.

Embodied in the shift in emphasis over the past year or two has been the analytical work undertaken in reviewing the past business cycle. I won't attempt to summarise that, since it has been published in recent Bulletins. But some key considerations have emerged with greater clarity than was previously available to us. These relate to the possible trade-off between volatility of inflation and output; the nature of the shocks we are likely to experience over the course of a business cycle; the nature of the interactions between those shocks, the inflation targets, and alternative policy reaction rules; and whether movements of the exchange rate are best considered to have their origins in "real" or "portfolio" shocks in the first instance.

The judgements which we take from that work are:

- the narrower the target range the more active monetary policy must be;
- more activism implies more variability in interest rates, the exchange rate, and perhaps output; and (up to a point) less variability in inflation;
- lower inflation expectations allow for a longer policy horizon, and less active monetary policy.<sup>7</sup>

Those judgements fit well with the wider target range introduced in December 1996 and with the shift in thinking about the exchange rate. Based on research undertaken on the nature of the shocks commonly experienced by the New Zealand economy, we now assume, in the first instance and in the absence of evidence to the contrary, that shifts in the exchange rate are 'real' in character. As such, they do not require an immediate and offsetting interest rate adjustment to maintain longer-term price stability. The direct price consequences of an exchange rate movement shift in response to a real shock are likely to be transitory and, for that reason, are best ignored. In this respect, we have moved in the direction of the Reserve Bank of Australia. This shift in thinking is consistent with our dropping of the MCI from its central role in the implementation structure. In effect, the "banded" MCI approach we were using assumed exchange rate movements to be "portfolio" in nature. This shift in thinking on the exchange rate is also consistent with the lengthening of the policy horizon.

In essence, we are accepting the prospect of somewhat greater variability in inflation outcomes around the mid-point of our target range, against the prospect of a little less variability in the instruments of monetary policy and perhaps in output. In doing so, we recognise the risk that the inflation target may be breached more frequently, and that the judgements we will be confronting with each quarterly Monetary Policy Statement have

<sup>&</sup>lt;sup>7</sup> Drew and Orr, 1999

become more difficult. If we get those judgements wrong too often, we risk undermining public confidence in the Bank's capacity to deliver consistent price stability and in that way could hinder, rather than enhance, overall economic performance.

## **Implementation structures**

One aspect of the monetary policy regime that has given rise to repeated stresses and distractions is the implementation regime. The regime emerged in the late 1980s as essentially a quantity-based structure – first centred on the Primary Liquidity (PL) measure and then the settlement cash target. We were probably unique, at least within the OECD, in having no officially set or targeted interest rate. The preference for a quantity-based structure had its roots in our reluctance to fix a particular interest rate in the midst of the structural reforms and deregulation of the 1980s, probably encouraged by a degree of "frustrated monetarism" which continued to hope that some stable and usable relationships would emerge between prices and some form of money or credit aggregate.

Those relationships did not emerge. While the implementation structure formally rested on the quantity of settlement cash provided to the banking system, increasingly the de facto vehicles for effecting changes in monetary conditions were statements based variously on TWI comfort zones, 90 day bank bill rates, and, briefly, MCI comfort zones. At times, references to the shape of the yield curve also served to reinforce a position.

Finally, in February of 1999, the quantity-based structure was abandoned in favour of a more conventional arrangement which targets the overnight cash rate.

The reasons for this shift were fairly straightforward in the end. The settlement cash target enabled us to indicate the desired direction of change in monetary conditions, but not the extent of change. As became clear, the relationship between the quantity of settlement cash made available to the system and prevailing monetary conditions was very elastic. For that reason, the settlement cash target ceased to be an effective policy instrument or a reliable policy signal. The MCI-based structure was intended to improve the communication of policy intentions, while explicitly recognising that both interest rates and the exchange rate are important to the monetary policy process in a small open economy. But any gains on that front were lost in the noise of short-term interest rate volatility. To be fair to the MCI, if anyone feels the need, we should recognise that it was put to a very stiff test with the onset of the Asian crisis and the accompanying sharp fall in the exchange rate. Any implementation structure was likely to experience a degree of stress through that period. Moreover, the concept of the MCI as a broad indicator of the overall stance of policy remains valid. What was unsuccessful was its direct application in intra-quarter policy implementation.

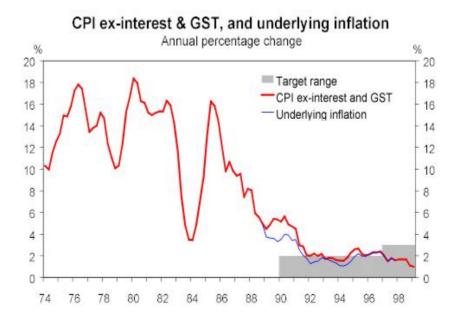
In any event, the OCR is now in place, and appears to be working well. Certainly, short-term interest rate volatility has declined markedly, and that has been welcomed. Also welcome has been the much reduced frequency of Reserve Bank Open Mouth Operations intended to guide monetary conditions in a direction compatible with the longer term policy objectives and the renewed capacity to maintain focus on policy rather than 'tactics'. But we need to bear in mind that the OCR structure has so far operated in fairly benign circumstances, and that we certainly haven't escaped the prospect of periodic stresses and awkward decisions.

Finally, it is worth reminding ourselves that while day-to-day implementation structures have attracted a lot of attention over the past decade, the real action in monetary policy was

elsewhere. What matters most in monetary policy are decisions on the policy stance over the course of the business cycle. In our case, the outlook for inflation is re-assessed with each quarterly forecast round and the monetary conditions required to deliver the required outcomes are reset. For the effective conduct of monetary policy over the longer haul, it is the quality of those decisions taken each quarter that is fundamental, not the particular implementation structure employed between those resets.

#### ASSESSING THE NEW ZEALAND EXPERIENCE

In one sense, assessing the success or otherwise of New Zealand's inflation targeting regime is perfectly straightforward. Monetary policy has a single goal and whether that has been met or not is transparently obvious. We need only refer to figure 1 to make a judgement.

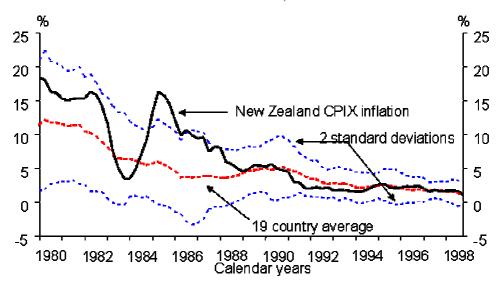


The message in that figure is a positive one. Inflation fell to the target zone promptly, and has stayed within, or close to, the target range since. The exception of the 1995/96 period, when inflation was a little above the target range, was minor when taken in broader context.

The critics could reasonably respond with a "So what? Much of the world has managed to reduce inflation over that period, most without the need for a regime as strict as that employed by New Zealand". That, of course, is perfectly true. However, New Zealand had previously managed to produce and sustain markedly higher inflation than others in the OECD. What has happened under inflation targeting is a drop, not just in our absolute inflation rate, but also in our relative inflation rate. Compared to OECD averages, New Zealand's inflation has moved from very much at the top end of the spectrum to the mainstream.

## ANNUAL INFLATION RATES: NEW ZEALAND AND SELECTED OECD COUNTRIES

(Sources: Statistics New Zealand and International Financial Statistics, RBNZ calculation)



Note also that our current inflation performance is not, in any sense, extremist by international standards. Rather, it sits at or about the OECD average.

However, an assessment that stopped at inflation performance alone would be simplistic. As we have noted on many occasions, price stability is not an end in itself. Rather, it is a means to an end. Price stability is targeted only because that is the best contribution that monetary policy can make to broader economic welfare. So has our monetary policy made a positive contribution to our economic welfare more broadly defined?

The key criticisms one hears of monetary policy relate to concerns that it has constrained growth to levels lower than could otherwise be sustained, that it has been correspondingly hostile to employment or even "requires" a given level of unemployment to meet the inflation target, and that it has damaged export performance by maintaining an overvalued exchange rate and excessively high interest rates. The latter point, of course, is relevant to our weak current account and associated high levels of external indebtedness.

Those are all criticisms that the Reserve Bank takes seriously. Our recent research programmes have focused on reviewing the experience of the past business cycle to both uncover and describe the stylised facts, and to analyse the key drivers in that cycle.

Again, without wanting to review that work in detail, it does show that the 1991 to 1997 expansion was both long and strong relative to the cycles that preceded it. That does not seem to support a proposition that inflation targeting, or the particular version of it practised in New Zealand, is inherently hostile to growth. Likewise, the employment creation which accompanied that growth cycle was strong, both relative to the two previous decades and relative to the 1990s experience of our peer group in the OECD. Certainly, we see nothing inherent in an inflation target that should "require" particular limits to unemployment levels or constraints on employment creation. As the US has been demonstrating with great clarity over recent years, strong growth, low levels of unemployment and stable, low, inflation can coexist for a sustained period of time in the right circumstances. Of course, that particular story

has yet to be concluded, and it has far more characters in it than just Mr Greenspan's monetary policy.

The proposition that monetary policy has been persistently too tight, with interest rates and the exchange rate persistently too high, is difficult to reconcile with inflation outcomes that have been persistently above the mid-point of the target range. Our recent work has given us a pretty good understanding of the "real" influences that shaped the past cycle. Factors such as the surge in immigration, the associated house price cycle, the strength of the external sector early in the cycle and the influence of fiscal policy later in the cycle go a long way to explaining why interest rates and the exchange rate behaved the way they did.

Would a different monetary policy have led to less impact on the tradeables sector, and possibly to a better current account outcome? I find it difficult to accept that case. The different monetary policy sought is generally an easier monetary policy. The most likely outcome of an easier monetary policy would have been higher inflation, a stronger and more sustained asset price cycle and, with that, the same sort of pressures on the real exchange rate and the tradeables sector as were experienced - albeit over a more extended period of time.

A couple of points to bear in mind though. First, over much of the past decade, monetary policy has been engaged in a process of consolidating price stability - of ensuring that inflationary expectations are reduced and that public confidence in the durability of price stability is reinforced. As such, we could probably have expected monetary policy to be, on balance, somewhat restraining. For that reason, I don't assume that the past decade is "as good as it gets" or in any sense the norm for the longer-term behaviour of monetary policy. But the key to that lies with the evolution of inflationary expectations.

Secondly, monetary policy has acquired a high degree of public prominence, in large part a product of the vigorous campaign to influence inflationary expectations. I suspect that we have left the public with an impression that monetary policy is the source of almost every wobble experienced in the economy, while masking the real shocks that monetary policy is often responding to. One consequence of that is a tendency to look to monetary policy to solve all manner of economic difficulties. We're not alone in that, of course. There seems to be a widespread but equally erroneous impression in the US that Alan Greenspan is the source of all economic good and evil. But such prominence for just one component of macro-policy is unlikely to lead to realistic and balanced public debate, and is ultimately destructive of good outcomes.

### THE LESSONS LEARNED

In a recent review of the Australian experience with inflation targeting, Glenn Stevens, Assistant Governor of the RBA, observed "There are maybe six things we have learned about monetary policy in two centuries of economists and others thinking about it:

- monetary policy affects principally, or only, prices in the medium term;
- it affects activity in the short term;

Brook, Collins and Smith, 1998

- because of lags, policy has to look forward; but
- the future is uncertain, as is the impact of policy changes on the economy;
- expectations matter, so giving people some idea of what you are trying to do, and acting consistently, is useful;
- an adequate degree of operational independence for the central bank in the conduct of monetary policy is important."

Actually, Stevens footnoted a seventh candidate for his list that I thought worthy of inclusion – namely, "that monetary policy – and for that matter most other policies – usually can't do everything that people might hope for."

That list is certainly consistent with my own thinking. However, we can add a few more specific lessons from our experiences over the past decade.

- Despite the effort devoted to trying to reduce the public's inflation expectations, and with that, the costs of disinflation, what really matters in terms of expectations is performance. It is the constant delivery of price stability that causes expectations to adapt to the new reality.
- Forecasting is difficult. Given the lags inherent in monetary policy and the consequent need to be forward-looking, we will continue to work on enhancing our forecasting capacity. But it's a tough game, especially around the turning points of the cycle. And as much as we try to look forward in shaping our monetary policy, our evolving policy stance is inevitably heavily influenced by new data and views of the recent past.
- What is happening internationally matters. Our financial markets are increasingly
  integrated with those abroad. Shocks, surprises and policy decisions elsewhere are
  reflected in our markets instantly. Monetary policy in New Zealand will inevitably be
  influenced by, and have to react to, developments abroad.
- Even if the inflation target framework has had a fairly modest influence on the public's inflationary expectations, it has certainly exerted a very direct impact on the Reserve Bank's approach to its monetary policy task. The target is at the front of our minds with each policy decision. I have no doubt that the framework has influenced the behaviour of the Bank's Monetary Policy Committee and the choices made by the Governor at key points.

## **CONCLUDING COMMENTS**

I have described the origins of our inflation targeting regime and its evolution over the past decade. With inflation expectations now better anchored at a level consistent with our "price stability" mandate, we see less need to react aggressively to anything and everything that might take inflation towards the edges or even outside the target range in the short run. Rather, we are focussed on policy settings which should ensure that inflation a year or two ahead will be at about the centre of the target range. In short, we have shifted the emphasis

<sup>&</sup>lt;sup>9</sup> Stevens, 1999

from staying within the edges of the range in the short run to having inflation at about the mid-point in the medium term. At the margin, this should result in less short-term volatility in monetary policy.

But I shouldn't make too much of that evolution. While we think that there may be more scope for flexibility, we shouldn't overestimate that scope, nor expect too much from it. It remains as true today as a decade ago that the most important contribution that monetary policy can make to real economic growth is through maintaining price stability, and we are not about to subordinate that objective in the interests of a policy approach that implies we can buy a bit more growth by tolerating a bit more inflation. We can't. Nor has anything changed in terms of the real drivers of New Zealand's growth performance. Those are found in how productive, innovative and creative we are, and how well we market what we produce to the rest of the world.

If long-run price stability is the most important contribution that monetary policy can make to our broader economic welfare, is inflation targeting the best monetary policy framework available to us? You won't be surprised to hear me answer with a clear 'yes'.

As I have described, we found our way into inflation targeting, partly as a process of elimination, partly by accident, and partly by way of some original thinking about old problems. When we try to assess its particular contribution to our improved inflation performance, we run into all the usual difficulties of isolating the impact of our inflation targeting regime from all of the other influences at work over this period.

In making that assessment, we could place a high weight on the shifts in political priorities which dated from July 1984, on the sweeping reforms that have occurred generally in New Zealand's macro and micro policies, or on the shift in our trading partners' inflation performance. It could be argued that the shift in political attitudes towards inflation was, ultimately, the only change that really mattered. We could also argue, reasonably, that the major changes in New Zealand's monetary policy came with decisions to float the exchange rate and commit to market funding of the Government's fiscal deficits.

To accept those arguments, however, would miss some important points. Certainly, the political will to adopt a price stability target was an essential pre-requisite to any serious attack on well entrenched inflation. But as my counterpart at the Bank of England, Mervyn King, recently observed in reviewing the performance of their Monetary Policy Committee, "Institutions matter." What our inflation targeting regime has done is to give the initial political commitment to price stability a degree of durability that transcends the particular politicians or central bankers in place in 1989 when the RBNZ Act was passed into law. The framework has shifted the incentives from an acceptance of inflation arising from all the familiar pressures towards a more robust resistance to any future re-emergence of inflationary tendencies.

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