Inflation targeting in New Zealand, 1988-2000

A speech by Donald T Brash, Governor of the Reserve Bank of New Zealand to the Trans-Tasman Business Circle, Melbourne on 9 February 2000.

Introduction

It is now almost exactly two years since I addressed a luncheon hosted by the Trans-Tasman Business Circle in Melbourne, and it gives me great pleasure to be back here again.

Today, I want to talk about New Zealand's experience of having an inflation-targeting central bank, and to make a few remarks comparing our own approach to inflation targeting with that in Australia.

Twelve years ago, Roger Douglas made it clear to the Reserve Bank of New Zealand, in early April 1988, that we should get inflation down to a range of 0 to 2 percent per annum, and keep it there. And it is just 10 years last week since legislation came into effect making the achievement and maintenance of price stability the single focus of monetary policy, and giving the Reserve Bank operational independence to achieve that objective.

I believe that that singular focus on achieving and maintaining price stability, on targeting monetary policy at a very low rate of measured inflation as agreed between the Minister of Finance and the Governor of the Bank, has served New Zealand well.

As can be seen in figure 1, New Zealand's inflation performance through the seventies and eighties was not only high in absolute terms, it was also high relative to that in most other developed countries. Australia's own inflation performance during those decades was not particularly brilliant; New Zealand's was markedly inferior.

Since the introduction of inflation targeting in early 1988, New Zealand's inflation performance has moved from being among the worst in the developed world to being around the middle of the pack. We have not, it should be noted, driven our inflation rate markedly below the average in the developed world, but we are certainly now clearly in the mainstream of low-inflation countries. Comparing New Zealand with Australia, as is done in figure 2, it can be seen that, after many years in which our inflation rate was markedly higher than that in Australia, the last decade has seen inflation in New Zealand running at a rate very similar to that in Australia.

Figure 1: Annual inflation rates: New Zealand and selected OECD countries

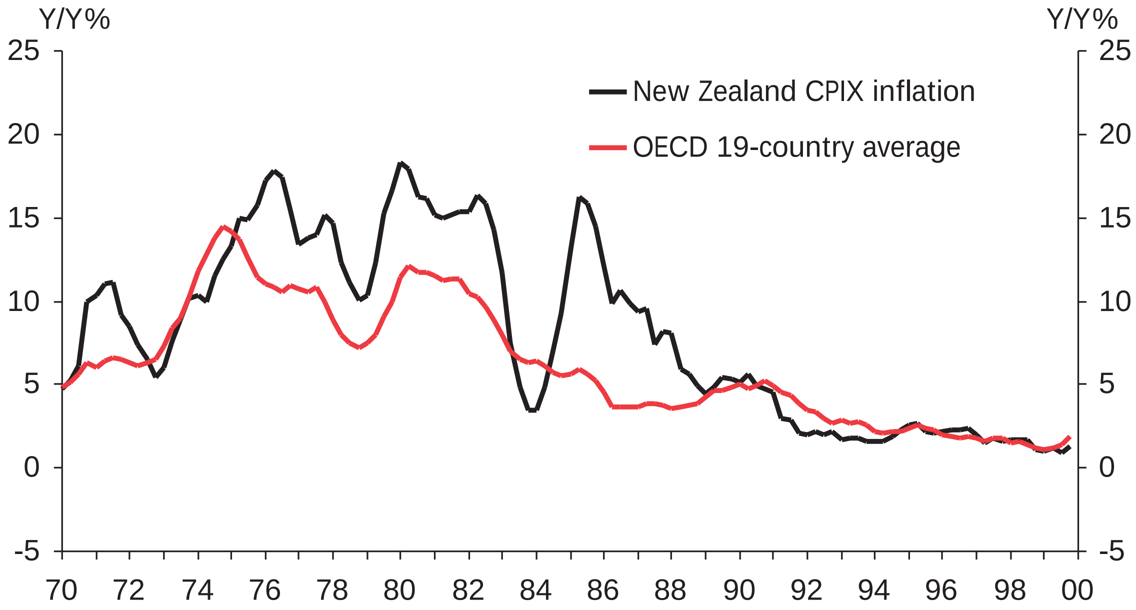
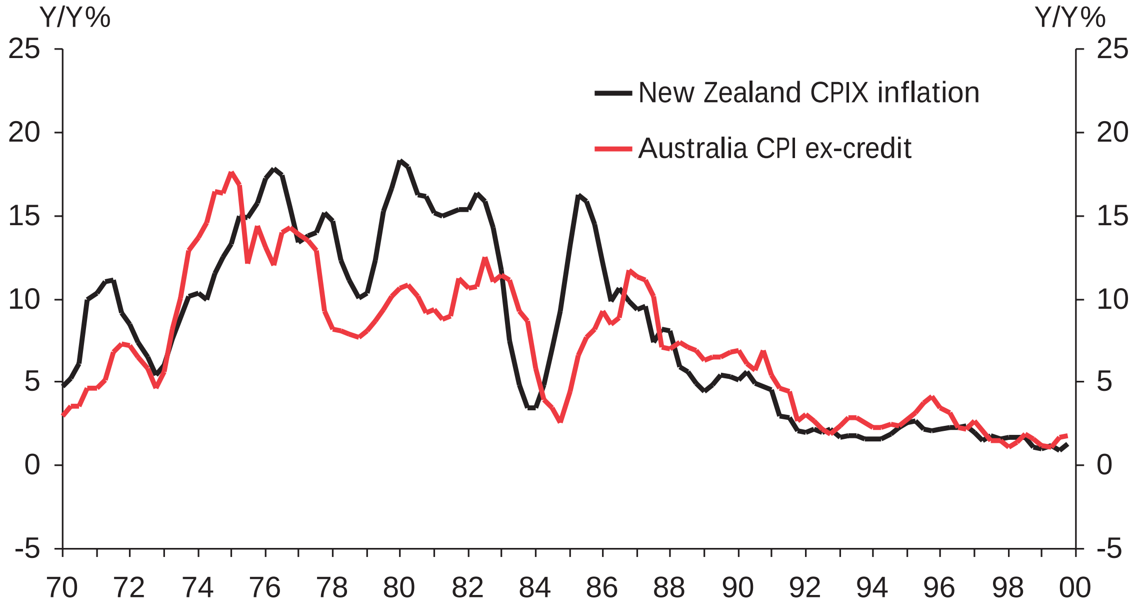


Figure 2: Annual inflation rates: New Zealand and Australia



Yes, inflation has fallen throughout the developed world in the last decade but, as indicated, inflation in New Zealand not only fell in absolute terms, it fell relative to inflation in other developed countries. Inflationary expectations also fell markedly between the eighties and the nineties, with 10 year bond rates falling from 17 to 18 percent in the mid-eighties, some 1000 basis points above US government bonds of similar maturity, to around 7.5 percent today, less than 100 basis points above US government bonds. For much of the last decade the yield on 10 year New Zealand bonds has been lower than that on Australian bonds of similar maturity. There seems little doubt that the inflation targeting regime played a substantial part in this achievement through focusing the attention of the central bank and the government, and through assisting the public to understand what was being aimed at.

The impact of low inflation on growth?

But even those who concede that New Zealand's performance in keeping inflation low and stable has been good often argue that the cost of achieving this, in terms of economic growth and employment foregone, has been too high, and that perhaps something more moderate, or "less obsessive" in the words of some of our critics, would have been more desirable.

There is not much doubt that *the process of reducing inflation* from around 15 percent per annum in the mid-eighties to below 2 percent in 1991 had an adverse impact on growth and employment during that period. I have often acknowledged that point, and indeed I know of no central banker who would claim with any confidence that inflation can be reduced from a high level to a low level without at least some, temporary, impact on growth and employment. The reasons for this are now widely understood and relate to the way in which a policy to reduce inflation interacts with expectations that inflation will continue at its previous pace.

But shortly after inflation was first reduced to the 0 to 2 percent target in 1991, the economy began to grow again and unemployment began to fall. In the six years to 1997, real GDP growth averaged 3.5 percent. This was slower than the 4 percent growth achieved by Australia over that period, but fractionally higher than growth in the United States, and clearly faster than the growth achieved in Japan and most of continental Europe. Unemployment fell from a peak of close to 11 percent in early 1992 to 6 percent in 1996, and has been consistently somewhat lower than that in Australia since 1992. Throughout that six year period at least, growth in real GDP was clearly superior to New Zealand's trend growth in the seventies and eighties.

But it is also fair to acknowledge that growth over the six years to 1997, while falling not far short in total of that in Australia, was significantly more uneven than in Australia. For a whole variety of reasons, including the fact that the Reserve Bank perhaps allowed monetary conditions to remain very easy for too long in 1993, New Zealand accelerated out of its early-nineties recession much faster than Australia, and growth in real GDP peaked at a clearly unsustainable 7.1 percent in the year to September 1993. It was not long before demand exceeded the economy's capacity to supply without inflation, and throughout the mid-nineties monetary policy in New Zealand had to lean hard to restrain those inflationary pressures.

Throughout 1995 and 1996, policy was tight, with high real interest rates and a rising real exchange rate, and despite that fact inflation remained slightly above the agreed 2 percent limit throughout 1996. Towards the very end of 1996, we felt reasonably confident that we could project a period of positive but below-trend growth coming up which would get inflation back within our target, and began a gradual easing of policy even though, in the year to December 1996, inflation was 2.4 percent. At much the same time, we were given additional room to manoeuvre when the newly-elected Coalition Government proposed an amendment to the inflation target, from 0 to 2 percent to 0 to 3 percent.

What we expected to happen then was a gradual decline in inflation as the economy continued to grow moderately. In the event, of course, six months later the Asian crisis began and six months later still the country was in the midst of its most severe drought for many years. Inflation did decline gradually, and was between 1.5 and 2.0 percent throughout most of 1997 and 1998. On that score, the performance was good.

But because neither we nor anybody else I have met accurately predicted either the Asian crisis or the drought, our growth projection was wrong. Instead of below-trend but positive growth in 1998 we actually had a mild two-quarter recession, with real GDP shrinking by a total of 1.6 percent in the first two quarters of the year.

This induced a very considerable degree of national pessimism in New Zealand. How could we have got it so wrong, especially when Australia continued to motor on strongly, despite the Asian crisis? Was it poor monetary policy in New Zealand, and perhaps specifically the introduction of a Monetary Conditions Index (MCI) "with bands" in June 1997, which was to blame?

I don't propose to give a comprehensive answer to these questions here, but in my own view the main reason for the difference in performance between the two economies in 1998 was that Australia was at a quite different stage in its business cycle than New Zealand was when the Asian crisis struck, perhaps because we in New Zealand were a bit too slow to tighten monetary policy in 1993-94.[1] And drought had a relatively much larger impact on the New Zealand economy than was the case in Australia. While the path which short-term interest rates took in the year following the introduction of the MCI "with bands" in June 1997 may well have delayed the pick-up in activity somewhat, it seems unlikely to have been the major factor responsible for a recession which started just six months after that approach was adopted.

In any event, the New Zealand economy has been growing again since the middle of 1998, the result in large part of a strong recovery in the world economy and very relaxed monetary conditions. After shrinking by 1.6 percent in the first half of 1998, it grew by 1.3 percent in the second half, to make a very slight contraction for the year as a whole, while during the first nine months of 1999 the economy grew by 3.1 percent. With most commentators now expecting growth for the full year to be around 4 percent, it seems very likely that growth in the New Zealand economy will have been quite respectable for the decade as a whole, compared with our history and compared with the growth in many other developed countries over the same period. It is not obvious that *maintaining* low inflation (as distinct from *achieving* low inflation) has incurred any cost whatsoever in terms of growth foregone, and some modest growth "dividend" from low inflation seems at least plausible.

But why, some New Zealanders and even some Australians ask, has New Zealand not grown quite as strongly as

[1] See Brook, Anne-Marie (1998), "A quick look over the neighbour's fence: New Zealand and Australia compared", *Reserve Bank of New Zealand Bulletin*, 61(1).

Australia? New Zealand's trend growth rate has been lower than that in Australia for a number of decades. The gap was quite large in the sixties, seventies, and eighties and was actually somewhat narrower in the nineties. But in a sense the strange thing is not that our two growth rates are slightly different but that so many people *expect* them to be the same.

In reality, there are a great many quite fundamental differences between the two countries, so a different growth rate should be no surprise at all. Yes, our two countries both export commodities, but the mix of those commodities is quite different; New Zealand exports almost no minerals and is a net importer of oil. Yes, we both have governments which take a lively interest in the health, education, and income level of our peoples, but the extent of that support, relative to GDP, is markedly different in our two countries. It is as logical to expect average growth in New Zealand to be the same as average growth in Australia as it is to expect growth in Tasmania to match that in Queensland. New Zealand is neither Tasmania nor Queensland. Nor does it precisely replicate the characteristics of the Australian economy as a whole. This is neither "good" nor "bad." It just means that New Zealand is different in some respects.

Lessons

What have we learnt about inflation targeting and monetary policy over the last decade or so? At least four things I think.

First, I think we have seen further evidence of what theory and international experience have been saying for a good many years now, namely that monetary policy makes its best contribution to economic growth and employment by keeping inflation low and stable. New Zealand had high inflation in the seventies and eighties, relative to other developed countries, and very poor growth. In the nineties, our inflation rate was typical of the low inflation achieved by most other developed countries, and our growth rate was somewhat better than it had been in the seventies and eighties, and indeed better relative to growth in many other developed countries. There were no doubt many reasons for that better growth, including the far-reaching policy changes which had an adverse initial impact on growth in the late eighties and early nineties. But, as I have noted, at the very least it seems reasonable to conclude that monetary policy aimed at maintaining very low inflation had no adverse impact on trend growth, and pretty reasonable to conclude that, at the margin, low inflation actually helped the economy grow in a more sustainable way.

That said, it is also clear that no amount of good inflation policy can convert a slow-growth economy to a fast-growth economy. As I said in a speech just 10 days ago in Christchurch, the speed at which an economy can grow in the longer term depends on a whole range of factors – quality of the labour force, quality of management, openness of the economy to the world economy, quality of government policy, geography, and so on. Bad monetary policy can damage the economy; good monetary policy avoids that damage.

Secondly, I think we can say with confidence that a credible institutional framework is helpful in encouraging desirable behavioural changes in the central bank, in government, in financial markets, and in the public. To be sure, what ultimately matters for behaviour is a record, a history. No amount of political promises, and no amount of institutional tinkering, will convince people that low inflation will be an enduring feature of the economic landscape if what they have actually seen over decades is promises regularly broken and the value of their money constantly shrinking.

But the combination of a single focus on price stability; an explicit and numerical definition of the inflation target; the operational independence of the Bank (coupled with an explicit understanding that the Governor could be dismissed for "inadequate performance" under the inflation target); and the requirement for a transparent accounting to Parliament and the public of central bank actions, all these together played a part in convincing people that *this* time the Government was serious about reducing inflation and keeping it down.

Without wishing to overstate the point, I believe this played some part – small perhaps, but nevertheless useful – in reducing inflationary expectations in financial markets (I have already mentioned the effect on bond yields), in pricing behaviour, and in wage settlements. Indeed, in 1990, soon after the legislation mandating price stability was passed, the head of the Council of Trade Unions actively campaigned for moderate wage increases, recognising the serious implications for unemployment of high wage settlements in an environment where the Government was committed to having the central bank reduce the inflation rate.

At least as important as the effect of the inflation target on financial markets and the public was its effect on the central bank and the Government. Perhaps for the first time, the central bank had a clear and unambiguous mandate. Whatever individuals might think about the relative merits of a 1 percent inflation target as compared with, say, a 3 percent target, the inflation target had been agreed formally and in writing between Government and Governor. The only debate possible around the implementation of monetary policy was about how best to achieve that target, and that certainly helped to focus our deliberations.

The Government also recognised that, having nailed its colours to a particular inflation mast, the extent to which monetary policy had to be tightened in order to deliver that was, to some degree at least, a function of the stance of its own fiscal policy. Easier fiscal policy was likely to lead to tighter monetary policy in any given set of circumstances, and vice versa. This relationship was most clearly seen in the early nineties, when an easing of fiscal policy in 1990 was followed by a tightening of monetary policy, and when a tightening of fiscal policy in 1991 was followed by an easing of monetary policy.

In late 1995, the then Government promised to reduce income tax rates in 1996 subject to a number of prior conditions, one of which was an assessment from the Reserve Bank about the extent to which monetary policy would need to be tightened. I think it is fair to suggest that one of several factors which led New Zealand from a very persistent series of fiscal deficits to a succession of surpluses from 1993/94 to the present was an awareness on the part of the Government, and sectors particularly sensitive to the impact of monetary policy, of this relationship between fiscal and monetary policy.

Thirdly, I think we have seen confirmation that monetary policy is a poor instrument with which to target a balance of payments deficit. New Zealand has had a current account balance of payments deficit in every year since 1974. Sometimes that deficit has been modest in size; at other times it has been very large. But it has been persistent through all kinds of monetary policy, and certainly long pre-dated the inflation targeting regime. During the mid-nineties, the Reserve Bank was blamed for causing an increase in the deficit by tightening monetary policy, with a resultant strong appreciation in the exchange rate and pressure on the export sectors of the economy. During the late nineties, some have suggested that excessively easy monetary policy has caused a deterioration in the current account position through the strong stimulus provided to the domestic economy (and therefore demand for imports), despite the fact that the exchange rate has been close to its lowest levels in history throughout most of the last two years.

I am among those economists who want to believe in the view that, with a floating exchange rate, policymakers can afford to be relatively relaxed about a current account deficit as long as it arises from private sector decisions (and not a public sector deficit), a view variously associated with the names of Max Corden, John Pitchford and Milton Friedman. But whether or not I should be concerned about the current account deficit – and in New Zealand it is currently pushing 8 percent of GDP, even higher than the already fairly high Australian deficit – I am quite persuaded that monetary policy can’t reliably reduce the deficit.

If monetary policy is tightened, domestic demand is reduced and with it the demand for imports and for goods which could be exported. This helps to reduce the deficit. But the firmer monetary policy also tends to push up the exchange rate, and this tends to slow the growth of exports and encourage the growth of imports. Conversely, when monetary policy is eased, domestic demand is stimulated and with it the demand for imports and for goods which could be exported. This tends to increase the deficit. On the other hand, the easier monetary policy also tends to lead to a depreciation in the exchange rate, and this tends to encourage the growth of exports and to discourage the growth of imports.

So even if monetary policy were not mandated to focus on keeping inflation low and stable, and even if I thought that reducing New Zealand’s balance of payments deficit was the most important policy priority, I would argue strongly that monetary policy cannot be an effective instrument with which to deal with a balance of payments deficit.

And fourthly, we are feeling our way towards a better understanding of the possible trade-off between the variability of inflation and the variability of output. Theory associated with John Taylor of Stanford University suggests that, if a central bank attempts to constrain inflation into too narrow a channel, the economy may be pushed towards a boom-bust cycle.

This sounds entirely plausible, and work which some of my own staff have done points in the same direction. The theory also sounds suspiciously like a basis on which to compare the recent track records in New Zealand and Australia. But I doubt that the trade-off is quite as straightforward as might seem on the surface, or any more "exploitable" than the infamous Phillips curve.

Let me illustrate. Since we began inflation targeting in New Zealand, inflation has become dramatically more stable than previously. But output cycles have also been smaller than previously, not larger. The same is true for several other countries, including Australia. And many people, including John Taylor himself, attribute a large part of the remarkable record of steady growth in the US recently to a monetary policy that has more successfully kept inflation under control.

What, then, is the policy prescription from this trade-off? It seems to be to focus monetary policy on price stability, but not to the "nth degree." The problem is that we don't know what "n" is in this context: where is the cross-over point from an appropriate to an inappropriate degree of stability, and how does it vary with circumstances? We can, I think, be confident that, once inflation expectations have fully adjusted, and have become well anchored, it *may* be feasible to reduce the variability of output slightly by being willing to tolerate a little more variability in inflation. But the cross-over point, between appropriate and inappropriate price stability, will change with expectations.

Looking forward

New Zealand now has a monetary policy framework which looks pretty robust – an inflation target of appropriate width, an explicit recognition that there will be supply shocks and other events which will (and should be expected to) drive inflation outside the agreed band, and appropriate directives to the Bank to operate policy in a transparent and sustainable manner while avoiding, to the extent feasible, unnecessary variability in output, interest rates, and the exchange rate. We have an unambiguous mandate that monetary policy should focus on delivering medium-term price stability, and a wide, though not by any means unanimous, acceptance of that being done through an operationally independent but accountable central bank.

For our part, the Bank has shifted its focus to the important issues affecting medium-term inflation rather than the issues which have more temporary impact, such as the direct price effects of exchange rate movements, with an acceptance of the fact that this may mean somewhat more variability in short-term inflation outcomes. While this shift in part reflects a better understanding on our part of the factors which drive medium-term inflation, it is also a dividend from the more firmly anchored inflation expectations of recent years.

In all important respects, the inflation targeting frameworks in Australia and New Zealand are now very similar. Both countries are now clearly and explicitly "inflation targeters." Both countries run policy by setting a short-term interest rate. Both countries forecast and react to expected future inflation. And the central banks of both countries take flak from all sides whenever monetary policy is tightened!

There are a few differences, but in most cases these are more apparent than real. For example, Australia's use of a "2 to 3 percent on average over the cycle" target, while expressed differently, is quite similar to the approach now adopted in New Zealand with a 0 to 3 percent per annum target, with not too much concern over temporary breaches of the bottom or the top of this range.

There are a few differences in the area of transparency, in that we publish more detailed information about how we see the present and the future. But we recognise that there are both positives and negatives about this. As we discovered last month – when we increased our Official Cash Rate by 25 basis points less than two hours before the Government Statistician announced that inflation in the December quarter had been well below the estimate we had published in November – a high degree of transparency can at times be not only very uncomfortable but also damaging to the credibility of the central bank. Given that forecasting errors of this kind will happen from time to time, the benefits of increased transparency in terms of market understanding of what the central bank is doing have to be weighed against the inevitable costs in terms of credibility.

Unfortunately, we have not yet been very successful in getting across the idea that our accuracy in estimating current and recently-past inflation is actually rather less important in judging our performance than whether we keep trend inflation within target most of the time or not. And that involves picking the big swings in the economy accurately most of the time, not picking the precise magnitude of last quarter's inflation or GDP figure.

The reality is that recently-past inflation is only marginally relevant to how policy should be set to deal with inflationary pressures one to two years ahead. Given the lags, it is not too surprising that inflation in the second half of 1999 was pretty low – demand had fallen short of capacity for the previous 18 months. But equally it is not surprising that the Reserve Bank should see a need to move conditions to a more neutral stance fairly quickly given the speed with which demand has been expanding in the last few quarters. Even following last month's increase in the Official Cash Rate, most observers believe that monetary policy remains "below neutral" and is thus providing continuing stimulus to the economy. Far from "choking off the recovery" therefore, as some have suggested, we are simply easing back on the throttle somewhat in an endeavour to moderate, and thus prolong, the period of growth.

But it is obviously a bit difficult for some observers to reconcile that gradual easing back on the throttle with the low figures for recently-past inflation. In the same way, it may have been a bit difficult for some observers to understand why we began to ease monetary policy in December 1996, even though inflation was above the top of the then 0 to 2 percent inflation target (though I did not hear too many people protesting that easing at the time!). Monetary policy has to be forward-looking, and it was because of that that we increased the Official Cash Rate in November last year, and increased it again last month. Our November *Monetary Policy Statement* foreshadowed the need to gradually continue to increase the Official Cash Rate during this year, though of course it goes without saying that the extent to which that will prove necessary remains under literally constant review by my colleagues and me.

I was somewhat relieved to deduce that Mr Ian Macfarlane, Governor of the Reserve Bank of Australia, occasionally faces somewhat similar misunderstanding of what he is doing. In a speech to Business Economists in Sydney on 11 November last, he noted that

"Some interpretations of (Australia's flexible inflation targeting framework) imply that the Bank is not supposed to contemplate any rise in interest rates until the upper end of the target is threatened. This is equivalent to saying that the most expansionary setting reached during the downward phase of the interest rate cycle should be maintained until such time as a move to a clearly restrictive setting is required, and only then should a move be made. (That virtually guarantees that such moves will be large.) It is as though policy has to operate only with settings of maximum "go", and heavy braking."[2]

Precisely. As Mr Macfarlane went on to say, the policy "instrument does not remain at its most extreme setting once that is no longer needed. As the outlook changes, and as the balance of risks shifts, it is appropriate also for the policy instrument to shift."

Indeed, it is particularly important if we in New Zealand are to take seriously our new mandate to seek to avoid unnecessary instability in output, interest rates and the exchange rate that we move to adjust policy in a timely fashion. The appreciation of New Zealand's real exchange rate in the mid-nineties was not in fact out of line with real exchange rate appreciations experienced during the nineties by a number of other much larger countries with floating exchange rates, such as the United States and the United Kingdom. It was very much smaller than the real exchange rate appreciation experienced by Japan during the nineties. These countries approach monetary policy in various ways, and their experience makes me reluctant to promise that we in New Zealand will necessarily be able to avoid big exchange rate appreciations in the future. But we certainly intend to try, and we recognise that big appreciations of the kind we experienced from early 1993 (when the New Zealand dollar was almost certainly below its long-term equilibrium) to early 1997 (when it was almost certainly above its long-term

[2] Macfarlane, I J (1999), "Notes for a talk to Australian Business Economists," Sydney, *http://www.rba.gov.au/speech/sp_gov_111199.html*.

equilibrium) make life very difficult for the export and import-competing sectors.

It is our current assessment that the best way of reducing the risk of a repetition of that kind of experience is to ensure that monetary policy avoids a situation where inflationary pressures build up too big a head of steam, with the consequence that policy has to be tightened aggressively for a prolonged period. Far from being inconsistent with the new clause in my agreement with the Minister of Finance, as some have suggested, our decision to increase the Official Cash Rate last month was absolutely consistent with that clause.

Finally, let me acknowledge that the practice of monetary policy is more art than science, with a huge amount of uncertainty surrounding all decisions. In making a decision on policy affecting inflation in two years time, the central banker does not clearly know how the economy works now (even though he may have a hazy idea of how it worked in the past), does not know what unpredictable events (droughts, share-market collapses, Asian crises, etc) lie within the next two years and, despite all efforts to gather information from formal and informal sources, has only a very vague notion of where the economy is at the time the decision has to be made. As Dr Mervyn King, Deputy Governor of the Bank of England, remarked in a speech in August last year.[3]

"Perhaps one of the strongest arguments for delegating decisions on interest rates to an independent central bank is that, whereas democratically elected politicians do not often receive praise when they say "I don't know," those words should be ever present on the tongues of central bankers."

To the extent that our rhetoric has not always reflected that reality, we will certainly strive to do better!

[3] King, Mervyn (1999), "Challenges for Monetary Policy: new and old," *Bank of England Quarterly Bulletin*, 39(4).