Central banks: what they can and cannot do

An address by Donald T Brash, Governor of the Reserve Bank of New Zealand to Trans-Tasman Business Circle, Sydney on 30 March 2001

Introduction

It is a great pleasure for me to be back in Australia, addressing an audience hosted by the Trans-Tasman Business Circle and Australian Business Economists. Last year, I spoke about the history of inflation targeting in New Zealand, and noted the extent to which the Reserve Bank of Australia and the Reserve Bank of New Zealand had converged in their respective approaches to monetary policy.

This year, it was suggested that I talk about recent developments in the New Zealand economy, and the immediate prospects. On reflection, however, I have chosen not to do that. My colleagues and I set out how we see the recent past and immediate future in our March *Monetary Policy Statement*, published just over two weeks ago, and I usually try to avoid making potentially market-moving comments except when I am announcing a formal review of our Official Cash Rate. The next such review is scheduled for 19 April.

Instead, I want to talk about what central banks can achieve, and what they can not achieve, and to make some comparisons between the role of central banks and the role of central governments.

And my motive in doing this is in large part because I believe that, in recent years, in New Zealand as in many other countries, the public have come to believe that central banks can achieve very much more than they can, in reality, deliver. There is a serious risk that, when the realisation dawns that the power of central banks is not in fact unlimited, or when economies which have been performing extremely well in recent years go through a period of slower growth, central banks will receive far more than their fair share of blame.

Indeed, there are already signs of this blame and anger emerging in the United States: for much of the last decade, Alan Greenspan was widely assumed to be able to walk on water. Now there are angry accusations from many quarters that imply that he should have been able to keep the US economy growing above its trend potential indefinitely, and prices in the US share-market growing with it. Perhaps there are similar tendencies closer to home.

In all developed countries and most developing countries, the central bank is charged with promoting stable money and a stable financial system. (This is true even though, in Australia and in many other countries, the task of supervising the institutions in the banking system has been allocated to a separate supervisory agency.)

And these are extremely important goals. To see just how important, it is worth reflecting on the economic and human cost incurred by many countries when central banks got policy wrong and contributed to the strong deflation of the thirties. Or reflecting on the economic and human cost incurred by those countries which experienced hyperinflation at some stage during the last century. Or reflecting on the economic and human cost incurred by those countries, including many in our own region, which experienced severe banking sector crises in recent years.

When central banks get it wrong, when they allow the value of the money which they issue to fluctuate substantially, as in the case of serious deflation or high inflation, or when they allow banking systems to become unstable, the damage which can be done is enormous. Savings can be destroyed. Businesses can be destroyed. Jobs can be destroyed. Lives can be destroyed. Indeed, whole societies can be destroyed.

So let me not understate the importance of the role which central banks can play. When central banking is done well, it not only avoids those catastrophic results which have been seen around the globe from time to time, but also makes some positive contribution to economic growth, to social justice, and perhaps even to the integrity of society itself. As a former Governor of the US Federal Reserve System used to say, "a place that tolerates inflation is a place where no one tells the truth".[1]

[1] Cited by Jerry Jordan, President of the Federal Reserve Bank of Cleveland, in a speech entitled "The challenge of stability: Mexico's pursuit of sound money", 29 April 1999.

What central banks can achieve

Today I want to focus on the responsibility which central banks have for keeping the value of money stable, for keeping inflation low, rather than on their responsibility for the financial system. To what extent *do* central banks make a contribution to economic growth and social justice by keeping the value of money stable?

Nobody seriously doubts that both hyper-inflation and significant deflation can do real damage to economic growth, and that by avoiding both central banks can make a considerable contribution. But what about the contribution to growth from keeping inflation in low single figures, as compared to the double-digit inflation which both our countries endured during much of the seventies and eighties? Perhaps inevitably, this is still a matter of ongoing debate among economists.

Some claim that the contribution is negligible, that beyond avoiding the catastrophes of hyper-inflation and significant deflation the contribution which inflation control makes to economic growth is very small. Others see a rather larger contribution, through the fact that the pricing system works more efficiently to allocate resources when prices are *on average* stable, for example, or through the avoidance of the distortions caused by the interaction of inflation and a tax system based on the assumption that prices are stable.

I myself see this latter point – the distortions caused by the interaction of even quite modest levels of inflation with a tax system designed on the assumption that prices are stable – as being particularly relevant to the way in which keeping inflation under tight control can assist economic growth. I find it hard to escape the conclusion that one of the reasons for New Zealanders' relatively heavy investment in property assets, and relatively low investment in financial assets, in recent decades is related to the fact that, under the present tax regime, inflation results in an "under-taxation" of property investment and an "over-taxation" of financial assets. I suspect also that the fact that government spending as a share of GDP increased so substantially over the seventies and eighties is in no small measure a result of the fact that inflation and relatively unchanging income tax brackets caused government's share of the national cake to expand steadily, without the politically uncomfortable need to actually raise tax rates. And if, as many believe, an increase in the government's share of GDP is associated with lower economic growth, this is another way in which inflation damages growth.

But even those who see stable money as making a positive contribution to economic growth, as I do, do not see that contribution as large in the sense understood by most people. It is a growth contribution measured in fractions of one per cent, not the difference between, say, a 3 per cent annual growth rate and a 5 per cent annual growth rate.

Of course, achieving even a small increase in annual growth is definitely worth having. One recent study estimates that a 10 percentage point increase in inflation reduces the growth rate of real per capita GDP by between 0.2 and 0.3 percentage points per annum, leading to GDP being some 4 to 7 per cent lower than otherwise after 30 years.[2] Otmar Issing, now a member of the Executive Board of the European Central Bank and prior to that for many years the chief economist of the Bundesbank, reminds us that

"With regard to the output gains found in most studies from price-stability and low inflation, it is important to bear in mind that they are permanent. Even if they may appear to be small in any one year, in present value terms, the size of these gains can be substantial. For example, discounted at a 3 per cent real interest rate, a 0.5 per cent gain in the level of output per year amounts to 17 per cent of GDP in present value terms. In fact, the empirical evidence suggests that the gains may be larger than this."[3] Output gains of that magnitude are certainly worth having. But they don't represent the kind of improvement in growth which many people think of when they think about improving the growth rate in our societies.

In many ways, keeping the value of money broadly stable makes a bigger contribution to social justice than it does to economic growth. When money is not stable, when in other

[2] Barro, R (1995), "Inflation and Economic Growth", National Bureau of Economic Research Working Paper No. 5326. In this paper, the adverse effect of inflation on growth diminishes over time, with the economy converging back to its long-run growth rate, but at a permanently lower level of output.

[3] Issing, O (2000), "Why Price Stability?", a paper delivered to the first ECB central banking conference in Frankfurt, 3 November 2000.

words there is inflation or deflation, the value of financial assets and liabilities changes in potentially major and unexpected ways. With inflation of 10 per cent per annum, for example, the value of a financial asset falls by about 85 per cent over 20 years, which means that those with savings see these all but wiped out, and those with debts benefit enormously.

There are no doubt many reasons why New Zealanders had such a miserable savings record during the nineties – including deregulation of the financial sector and the removal of all restrictions on imports. But the searing experience of high rates of inflation during the seventies and eighties must surely have been a significant contributory factor.

Two or three years ago, my colleagues in the Reserve Bank of New Zealand suggested that we should stop issuing five cent coins (as we stopped issuing one and two cent coins about a decade ago). I was surprised by the suggestion, until it was pointed out that the purchasing power of five cents in the late nineties was the same as the purchasing power of a half-penny when New Zealand converted to decimal currency in 1967 – and it never occurred to us to issue a half-cent coin at that time. In other words, the purchasing power of New Zealand's money had declined by over 90 per cent over a period of just 30 years – despite inflation being quite low for the last 10 years of that period.

And in case you feel that New Zealand's performance was substantially worse than Australia's over that period, it is worth noting that the domestic purchasing power of the Australian dollar also fell heavily over the 30 years from 1967, by over 85 per cent.

There is nothing fair, just, or even honest in a monetary system which steals people's savings, or rewards those lucky enough to go heavily into debt at the right time. There can be little doubt that some of those who today are wealthy in both our countries became wealthy as much through having the real value of their borrowings evaporate before their eyes as through their own efforts and initiative. And this sends absolutely the wrong message to everyone making saving, spending, and investment decisions.

I know that when I returned to New Zealand in 1971 after living overseas for nine years, four of them in Australia, I bought a house for $43,000 by paying a small deposit and borrowing the balance. Fifteen years later, the house had a market value of nearly 10 times the price I paid for it, so that instead of owning just 10 per cent of it, as I did in 1971, with the bank effectively owning the balance, by 1986 I owned almost all of it. That increase in my equity was substantially larger than anything I had been able to save out of my post-tax income during those 15 years.

On the other side of the ledger so to speak, my elderly uncle sold the apple orchard on which he had worked all his life, by chance also in 1971. To keep the sale proceeds safe – the orchard had represented virtually his entire life's savings – he invested them in 18 year government bonds, then yielding 5.4 per cent. Perhaps fortunately, he died before the bonds matured in 1989, because by that time the $30,000 for which he had sold his orchard would have bought him one small, four-cylinder, car – not much of a retirement nest egg. In 1971, $30,000 would have bought him 11 of the same four-cylinder cars, a much more substantial retirement nest egg.

I, and people like me, benefited enormously at the expense of my uncle and people like him, and all because of inflation.

Because in most societies interest rates are used as a way to try to compensate savers for the erosion of the principal value of their savings through inflation, there is an additional problem which often makes it particularly difficult for those with low incomes or few other assets to borrow at a time of high inflation. The problem arises from the fact that, when inflation is high and nominal interest rates are similarly high, the cash-flow problem of servicing a loan is quite difficult in the first few years of the loan, but very easy in the last few years of the loan. Put another way, using interest rates to compensate savers for the effects of inflation on their savings has the effect of front-loading the real burden of debt service. This may effectively deny those on low incomes any access to borrowing facilities in times of high inflation, even though the real interest rate on the loan is at a moderate level.

So central banks can probably make some modest contribution to trend growth through keeping inflation low and stable, and can help to avoid the social injustices often caused by unstable money.

In seeking to keep inflation low and stable, central banks may also have a tendency to smooth the economic cycle. It is now well understood that one of the more important determinants of changes in the inflation rate is the extent to which actual output diverges from potential output. When actual output falls short of what the economy could produce without difficulty – where, in other words, resources of capital and labour are under-utilised – there is a tendency for inflation to fall. Conversely, when the economy is straining to produce more than it can on a sustainable basis, when capital is being used around the clock and the labour market is tight, there is a tendency for inflation to rise. For this reason, all central banks, even those with no formal mandate to be concerned about output or employment, have to watch carefully what is happening to both in their attempt to keep inflation under control. Indeed, once inflation has been brought down to a low level, it is not much of an exaggeration to say that keeping inflation low and stable is mainly about trying to keep actual output tracking close to potential. And, by reducing the economic and social dislocation caused by booms and busts, that is a useful contribution which central banks can make.

What central banks can not achieve

But too often the general public assume that central banks can achieve very much more than in fact is possible. This tendency to exaggerate the role of central banks has been particularly evident in the United States in recent years, as I have mentioned, with the almost universal perception that the strong growth in US productivity since the mid-nineties has been closely related to the way in which the Federal Reserve System has operated monetary policy. Of course, the way in which the Fed has run policy appears at this stage to have been remarkably sound: monetary policy decision-makers appear to have correctly judged that there was a step increase in the rate of growth of productivity around the mid-nineties, and that potential output growth had increased as a consequence. But the main thing driving that step increase in the rate of growth of productivity was the application of some very sophisticated technology, initially in the manufacture of computers themselves and then, progressively, in much of the rest of the economy. Monetary policy did not impede that development, but of course did not create the new technology.

Similarly in New Zealand, and perhaps also in Australia, there has been a tendency to attribute to monetary policy and central banks an influence on the economy out of all proportion to the reality. The reality is that, beyond the contribution they can make by maintaining inflation at a low level, central banks can not have any substantial effect on trend growth in output or trend growth in employment. By contrast, the policies of governments can have a material influence on both.

This is not the place for a comprehensive discussion on the determinants of trend growth in output, but most of the studies which have examined this issue focus on issues quite unrelated to monetary policy. For example, some studies have suggested that high levels of taxation discourage growth through their effect on incentives to work, save and innovate. Others have pointed to the importance of protecting private property rights if growth is to be dynamic. Still others note the importance of human capital, and highlight the role of education as a determinant of economic growth. And there are many other factors too, such as the extent to which government regulations distort or disguise market signals, thus distorting the allocation of investment. Getting policies in all of these areas right is crucial if growth is to be increased, and none of them are policies susceptible to central bank influence.

What about employment? Surely central banks have an impact on employment? Yes, monetary policy does have an impact on employment in the short-term, as it does on output in the short-term. But there is no evidence that I have seen that monetary policy can have any *enduring* effect on the level of employment.

So what can deliver higher levels of employment on an enduring basis? The answer lies not with central banks but with choices made by governments and societies more generally.

It was the soon-to-retire Secretary of the Australian Treasury, Mr Ted Evans, who had the courage to say in 1993 when Australian unemployment was 11 per cent of the work-force that unemployment at that level was "a matter of choice" – choices made by governments and societies. He went on to say that

"If we are today looking for innovative solutions for reducing unemployment that is partly because, over the last two decades, we have found innovative ways of creating unemployment; more basically, it is because we choose now to accept the constraints imposed by the many economic and social policy choices made during those decades."[4]

And by saying that the unemployment level was a matter of choice, he was not suggesting that it was a choice for the central bank, but rather a choice of central government and society more generally. He went on to note that

"There are now very few economists….who would deny a relationship between labour costs and unemployment – indeed, doing so would require abandoning some of the most basic tenets of our economic training. That said, there are very few, any more, who would see a reduction in nominal wages as the preferred solution to an unemployment problem……..Such solutions are not preferred in the formalized labour market but we should be quite clear that that reflects a choice."

In other words, he was suggesting, I believe correctly, that in the long-term unemployment is to a substantial extent a function of the relationship between the costs and risks associated with hiring people on the one hand, and the benefits, in terms of increased output, on the other. So job creation and employment levels are ultimately a function of things like labour market legislation, the level of the unemployment benefit, and the education system. And all of these things are matters quite unrelated to monetary policy. Rather, they have a great deal to do with government policy and the attitudes of the public, both as providers of jobs and as potential employees.

More fundamentally, I suspect that trend growth in output and employment are both a function of culture and social attitudes. How much do we as a society value consumption today as compared to consumption tomorrow? How much do we value education? How much do we value being independent as compared to being dependent on the state? How highly do we regard private property rights? The answers to these questions are, I suspect, the primary determinants of both economic growth and employment growth, and none of them have much relation to monetary policy.

I mentioned that, in the course of keeping inflation low and stable, central banks operate monetary policy with the objective of keeping actual output as close as possible to the trend of potential output. But that does not imply that monetary policy can guarantee an absence of booms and busts, or eliminate the business cycle.

To begin with, the "trend of potential output" is not something which can be seen, felt, or measured. For this reason, it is impossible for any central bank to be sure when actual output is above, below, or equal to it. Rough calculations can be made of course, adding assumed growth in the labour force to assumed growth in productivity to come up with a ball-park number. But growth in the labour force can vary for all kinds of reasons, including in particular because of abrupt changes in net migration.

And growth in productivity is also susceptible to change, as the experience of the United States over the last four decades clearly illustrates. Until the early seventies, US productivity growth was quite rapid. Then, in about 1973, for reasons which were certainly not clear at the time and are only dimly understood now, productivity growth slowed rather abruptly, and remained low until the mid-nineties. Then, apparently because of heavy investment in computers and related high-tech gadgetry, productivity growth picked up again quite strongly. Unless the central bank quickly becomes aware of these changes, monetary policy will be inappropriately too tight or too loose.

Another reason not to expect that central banks can keep actual output growing at a rate exactly equal to the trend growth in potential output is that monetary policy affects demand, and hence inflationary pressure, with a considerable lag – and a lag which varies from economy to economy and from one period to another. And within the period between the time a central bank adjusts monetary policy and the time that policy adjustment affects output, and the further time before the change in output affects inflation, all manner of things may change in ways which are difficult or impossible to predict – the world economy might change (of huge importance to economies like New Zealand and Australia), the economy might be affected by a drought, government

[4] Address to the 1993 National Forecasting and Economic Policy Conference, 28 October 1993.

might change its taxation or spending policies, government might change its immigration policy, and so on. All these things, "shocks" in the jargon, can have a considerable effect on the relationship between demand and supply, and therefore on the relationship between actual output and potential output.

So it is simply not possible for even the most diligent central bank to keep actual output always growing at the rate of growth of potential output, and all of us, within the central bank and outside, need to remember that. There will be times when the economy slows, or even goes backward slightly, and it may be totally inappropriate to blame the central bank for that event.

Governments can help to minimise the "shocks" hitting the economy by changing fiscal policy in a gradual and well-signalled way, so that monetary policy is not caught off-guard by a sudden shift in demand emanating from public sector policy choices. And governments can help by ensuring that the labour market is as flexible as possible, in order to ensure that, when shocks do hit the economy, they are not reflected in persistent increases in unemployment.

Finally, it is worth noting that central banks can not solve regional, or sectoral, problems. In the mid-nineties, New Zealand saw quite strong inflationary pressures which required monetary policy to be tightened. In the public mind, if not always entirely in reality, these inflationary pressures were associated with a housing boom in Auckland. And wherever I travelled in New Zealand outside Auckland I was met by people asking why they had to face high real interest rates and a rising real exchange rate when, they claimed, the only inflationary pressures in the country were in Auckland. And always my answer was the same. All the parts of New Zealand are in a currency union, and it simply is not possible for the central bank to deliver different interest rates, or different exchange rates, to different parts of that currency union.

The same reality is relevant today. At the moment, with the New Zealand dollar at a level which most observers believe is well below its long-term or equilibrium level, it is the export sectors of New Zealand which are enjoying the fruits of the relatively easy monetary conditions. Industries serving the domestic market, such as the construction industry, are finding life much tougher, in part because over the last year or two New Zealand has been experiencing a moderate level of net emigration. But it is quite impossible for monetary policy to resolve the problem facing the construction sector, or any other particular sector. Monetary policy must be directed at keeping inflation under control in the economy as a whole, and can not sensibly be used to deal with sectoral pressures.

In conclusion

Because I am a central banker, it will not surprise you to know that I believe that central banks can make a very useful contribution to the economy and to society more generally. By running monetary policy to keep the purchasing power of the money they issue stable, they can provide an environment conducive to growth in output and employment. By doing that, they also provide an environment which avoids the capricious redistribution of income and assets which is so often the consequence of inflation.

But in some respects, central banks are a little like the judiciary, which most societies have also decided to make independent of day-to-day political influence in the interests of achieving the goals established by those societies in the best possible way. While both the judiciary and central banks can make a very useful contribution to the societies in which they operate, over the longer term central banks can't make economies grow much more rapidly, or materially reduce unemployment, or eliminate the business cycle, or deal with the problems of particular industries or sectors – any more than the members of the judiciary can make us all virtuous.