

## Contents

I.	Policy assessment	3
II.	Issues facing monetary policy	6
	Box 1. Interaction of fiscal policy and monetary policy	16
	Box 2. An indicator of monetary conditions	22
	Box 3. World prices for major agricultural exports	26
III.	Economic activity and inflation: recent developments and outlook	30
IV.	Financial market developments	57
Appendices:		
	1. Chronology	63
	2. Reserve Bank statements on monetary policy	64

This document is available for download from the Reserve Bank's World Wide Web page (<http://www.rbnz.govt.nz>).



# Monetary Policy Statement<sup>1</sup>

December 1996

*This Statement is made pursuant to Section 15 of the Reserve Bank of New Zealand Act 1989.*

## I. Policy assessment

New Zealand, more than most other developed economies, has suffered the consequences of inflationary booms and busts. The experiences of the 1970s and early 1980s demonstrated vividly that tolerating more inflation cannot assure stronger growth or greater competitiveness, or dampen economic cycles. If anything, the opposite is closer to the truth. We also saw that breaking an ingrained inflation habit is hard, and certainly not the kind of experience one would want to repeat.

In the current economic cycle, New Zealand has tried to do things differently. In particular, monetary policy responded early to signs of emerging inflation pressures, rather than waiting until inflation had already escalated. The Bank's foresight was not perfect; inflation did rise above the top of our target range. But the fact remains that, for the first time in a generation, New Zealand has managed to have a sustained period of economic expansion without a major acceleration of inflation.

Containing the upward pressures on inflation has proven to be a tougher task than most expected. And, for a variety of reasons discussed in this *Statement*, a disproportionate share of the burden of restraint has in this cycle tended to fall on the export sector. Less restraint would not necessarily have helped shift the burden elsewhere, but it would certainly have made the task longer and, ultimately, more difficult for all.

The policy has, slowly but surely, been whittling away at the upward pressures on inflation. Indeed, the evidence suggests that the pace of spending and the productive capacity of the economy are once again nearly in balance. As a result, there are increasing signs that inflation has stabilized and is beginning to weaken.

Monetary policy takes time to have its full effect on activity and inflation. Policy therefore works best if it is run in a forward-looking manner. This implies that, during an economic upswing, monetary conditions should be tightened in response to the pressures that generate increasing inflation, rather than waiting until inflation has already clearly risen. Similarly, in the current circumstances, monetary policy needs to adjust to signs that inflation is likely to fall, rather than waiting until the numbers confirm it.

In view of these considerations, and on the basis of the projections presented in this *Statement*, the Bank's assessment is that a modest easing in the stance of policy is warranted by the prospect for declining inflation. At the time of writing, it seems evident that financial markets have reached a similar assessment.

---

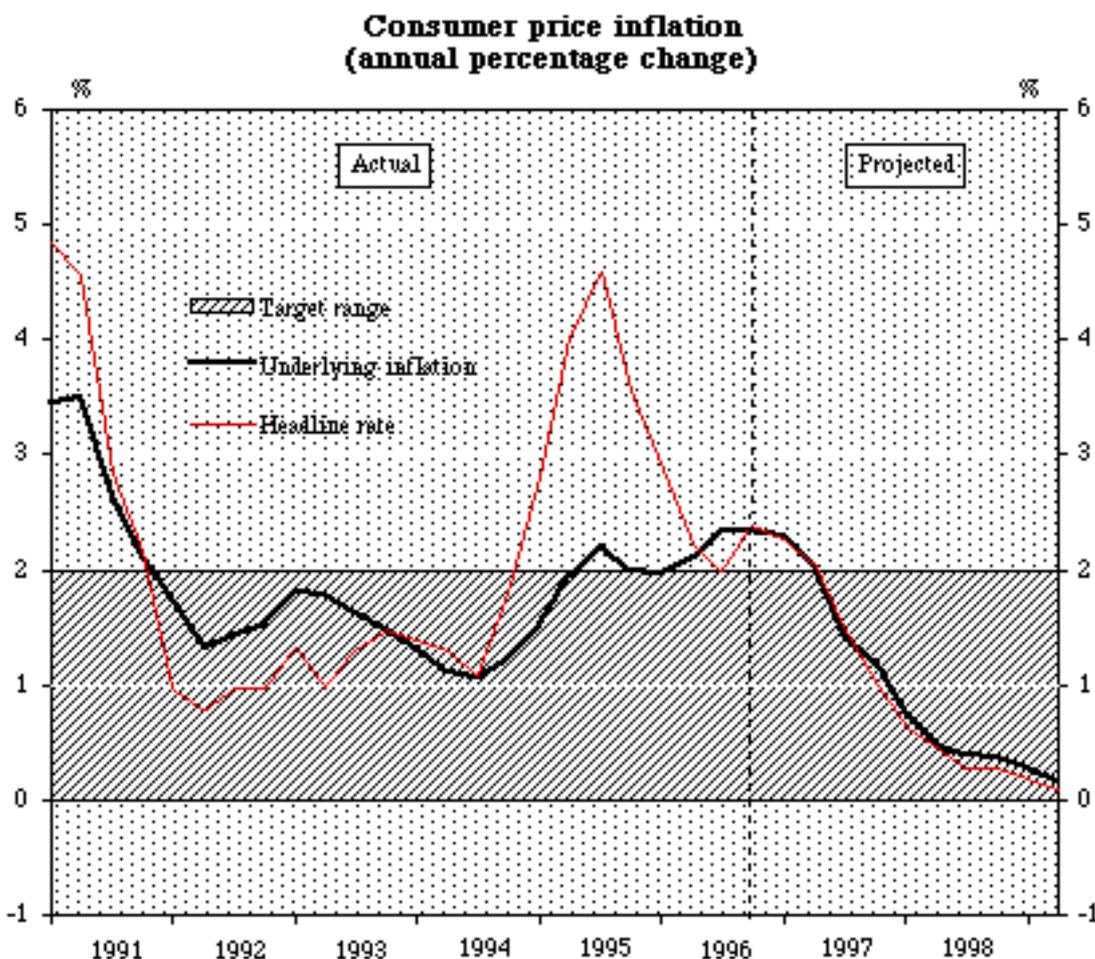
<sup>1</sup> Text finalised on 5 December. Inflation projections finalised 26 November.

The extent to which an easing of conditions takes place through lower interest rates rather than through a decline in the level of the New Zealand dollar is beyond the Bank's control. How the mix of conditions evolves will depend, *inter alia*, on movements in foreign interest rates and on changes in foreign and domestic investors' appetites for New Zealand dollar assets.

The key point so far as monetary policy is concerned is that somewhat different combinations of interest rates and the TWI exchange rate can produce an overall level of monetary conditions consistent with returning to price stability in the medium term. The projections in this *Statement*, for example, are based on a level of monetary conditions involving a 90-day interest rate of 9 percent and a TWI of 66.5. A roughly similar level of overall conditions could be achieved with a lower exchange rate but higher interest rate, or *vice versa*. Broadly speaking, the effect of a TWI level about 2 percent lower (ie around 65.2) could be approximately offset by a 90-day rate about 100 basis points higher (ie around 10 percent).

At this stage, the signs of declining inflation pressures in the economy are still too tentative for the Bank to sanction a more substantial easing of conditions. The prospects for further loosening in monetary conditions will depend on how quickly inflation pressures recede.

**Figure 1**



In this context it should be emphasized that, at the time of writing, a new government has yet to be formed. The policy assessment in this *Statement* is predicated on the degree of fiscal stimulus implied by the fiscal initiatives announced by the last government. If the next government's programme differs substantially in terms of its likely impact on spending pressures in the economy, the outlook for inflation and, therefore, the prospect for monetary conditions will inevitably be affected.

Donald T Brash  
Governor

## II. Issues facing monetary policy

Over the past two and a half years or so, monetary conditions in New Zealand have been progressively tightened in response to the emergence of inflation pressures in the economy. The firming of conditions has been more pronounced, and lasted longer, than we or most others anticipated. It is natural for many to ask why conditions have needed to be so firm, and how long it will be before policy can move to a less restrictive stance. The purpose of this section is to shed some light on these questions.

### 1. The past twelve years: bringing inflation down, then keeping it down

*From 1984 to 1991 ...*

Since late 1984, monetary policy in New Zealand has been directed towards bringing inflation down and, subsequently, towards maintaining price stability. Achieving these objectives has involved two distinct phases in the formulation of policy.

*... the task of monetary policy was to bring inflation down.*

The first phase involved bringing inflation down from the double-digit rates experienced over the previous decade. The process of wringing entrenched inflation out of the system and out of expectations was arduous. Forceful monetary restraint was required, leading to high interest rates and a sharp appreciation of the New Zealand dollar. The task for monetary policy was made easier by the fact that fiscal policy also moved in the direction of restraint. This process of disinflation took roughly six years, so it was not until the beginning of 1991 that monetary policy could move towards a significantly more neutral stance.

*Since 1991, the task has changed ...*

Since then the challenge for monetary policy has been to keep inflation low so that New Zealand can gain the long-term benefits associated with price stability. Success in this endeavour differs in important ways from the task of bringing inflation down. To bring inflation down, policy needed to tighten monetary conditions enough to create a substantial margin of slack capacity in the economy for sufficiently long to break long-established price- and wage-setting habits and expectations.

*... to maintaining price stability ...*

By contrast, once inflation has been brought down, the challenge for policy is to prevent significant deviations of inflation from the target. The existence of business cycles means that, at times, activity will tend to outstrip productive capacity in the economy, putting upward pressure on inflation. At other times, output will tend to lag behind capacity, putting downward pressure on inflation.

*... by leaning against cyclical swings in inflation pressures.*

When activity is outpacing sustainable levels, monetary policy needs to lean in the direction of restraint by encouraging or accommodating a firming of monetary conditions. Conversely, if activity is falling short of sustainable levels, monetary policy needs to move in the direction of stimulus by accommodating or encouraging an easing of monetary conditions. In late 1990 and through much of 1991, for example, monetary conditions were allowed to ease markedly in order to eliminate the substantial degree of slack in the economy which, had it been sustained, would likely have led to deflation. Conversely, in the 1994-96 period, the Bank has leaned against the cyclical upswing and rise of inflation pressures.

*This period has seen good economic performance ...*

In the five years of near price stability since mid-1991, the New Zealand economy has grown by some 16 percent (an average of a little over 3 percent per year) and employment has grown by about 230,000, bringing the unemployment rate down from almost 11 percent to a little over 6 percent. New Zealand may not be an Asian 'tiger', but the overall performance since the achievement of price stability is the envy of many nations, and a huge improvement on the stagnation during the years of high inflation.

*... and no evidence of a 'floor' under inflation.*

There is no evidence that aiming for price stability is aiming 'too low', or that price stability can only be maintained by suppressing growth. Although money wages are commonly found to be fairly 'sticky' in a downward direction, this does not appear to have created a 'floor' under inflation, even at the low rates of inflation attained in New Zealand. If such a 'floor' did exist, then the only way to keep inflation below it would be to maintain a large and persistent degree of slack in the economy. To achieve this, a tight monetary policy stance would be required more or less continuously.<sup>1</sup>

There are two basic grounds which cast serious doubt on the empirical importance of such 'nominal rigidity' effects.

*Expectations and wages adapt to declines in inflation ...*

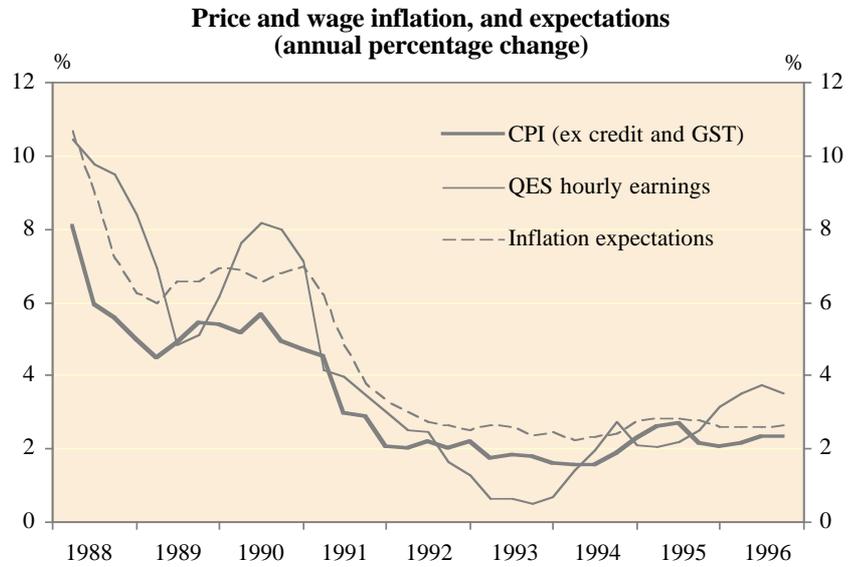
The first is that the available evidence from New Zealand and elsewhere indicates that inflation expectations and money wages adapt to the evolution of inflation. There is evidence to suggest that inflation expectations and wages adjust more rapidly to increases in inflation than to decreases.<sup>2</sup> But we have not seen any clear evidence that there is some lower limit to inflation beyond which inflation expectations and money wages do not adjust.

---

1 The recent article by Paul Krugman, "Stable prices and fast growth: just say no", in *The Economist*, 31 August 1996, provides an example of this argument.

2 See W. Razzak (1995) "The inflation-output trade off: is the Phillips curve symmetric?" *RBNZ Discussion Paper G95/7*.

**Figure 2**

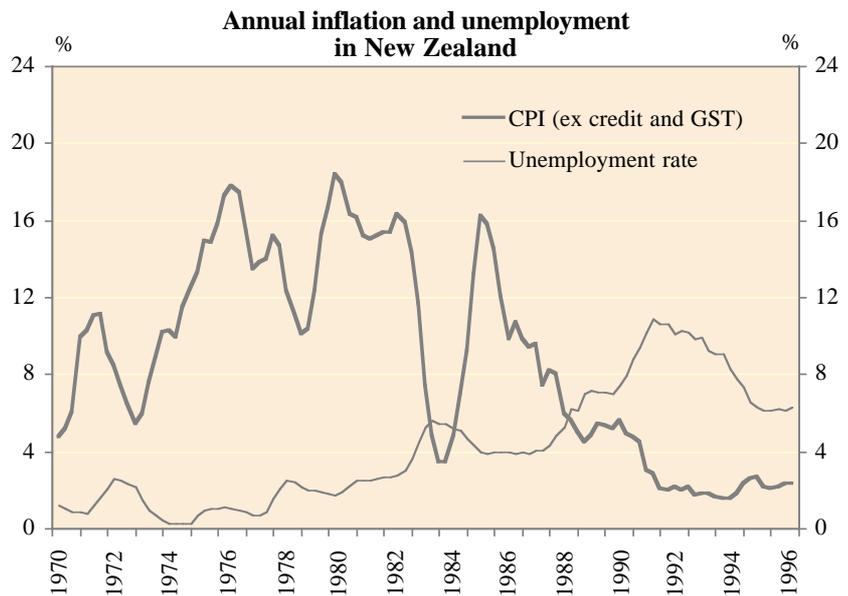


QES: Quarterly Employment Survey of private sector average hourly earnings.  
Inflation expectations: NBNZ Survey - next 12 months (all sectors).

*... and wages can rise even with price stability.*

Second, even if there is some such lower limit to money wage or price flexibility, it is not at all obvious that it is likely to be an obstacle to maintaining price stability. Productivity growth and natural progression through the labour market mean that most wage earners will experience increases in money wages (and other forms

**Figure 3**



Unemployment rate: HLFS s.a. measure (backdated from 1986 by NZIER).

of remuneration) even if the aggregate inflation rate is zero. As a result, even if money wages are sticky downwards, the effective 'natural' floor under inflation - if it exists at all - is unlikely to be significantly greater than zero.

*Low inflation has not stopped unemployment from falling.*

New Zealand's experience through the rise in inflation from the late 1960s to the 1980s and the subsequent disinflation is much more consistent with money wage increases adjusting to whatever the prevailing inflation rate turned out to be. This in turn is consistent with the fact that high inflation did not prevent the unemployment rate in New Zealand from rising in the 1980s, just as low inflation has not prevented unemployment from falling sharply in the 1990s.

## **2. The current business cycle in perspective**

*The current business cycle in New Zealand ...*

Monetary policy does not have to remain tight perennially to maintain price stability. But there is no doubt that the stance of policy in New Zealand has needed to be restrictive over the past two and a half years in order to contain the build-up of inflationary pressures in the economy. It is reasonable to ask why policy has needed to be so firm, and whether there is relief in sight. A proper answer to these questions requires looking back at the factors that have generated the cyclical upswing as well as at the outlook for these basic driving forces.

*... has been importantly shaped by the US and Australian cycles ...*

Because New Zealand is a small open economy, our business cycle is bound to be largely shaped by the business cycles in our major trading partners. The current cycle is no exception to the norm in this regard. In broad terms, the current US, Australian and New Zealand business cycles have been quite similar. Overlaid on this common cyclical element, however, have been a number of influences specific to New Zealand. On balance, these have tended to accentuate the strength of the cycle here relative to the US and Australian cycles.

*... but has been more pronounced.*

In all three countries, the central banks began to lean against emerging inflation pressures in 1994. The more substantial firming of monetary conditions in New Zealand than in the United States or Australia basically reflects the stronger inflation pressures with which we have been contending.

### **Sources of cyclical expansion**

*The upswing began in mid-1991, ...*

Picking the turning points of business or activity cycles in the economy is imprecise even in retrospect - the indicators almost never turn in unison. The expansionary phase of New Zealand's current cycle probably began around mid-1991, as manufacturing output, capacity utilisation and employment began to pick up. By

the end of 1992 the recovery was well established and GDP growth has been positive in every quarter since then.

*... and peaked in 1994.*

Judging the peak of the cycle is more difficult, but most measures of output or expenditure suggest that the rate of growth in spending had peaked by the end of 1994. Since then, the expansion has continued, but at a more moderate pace.

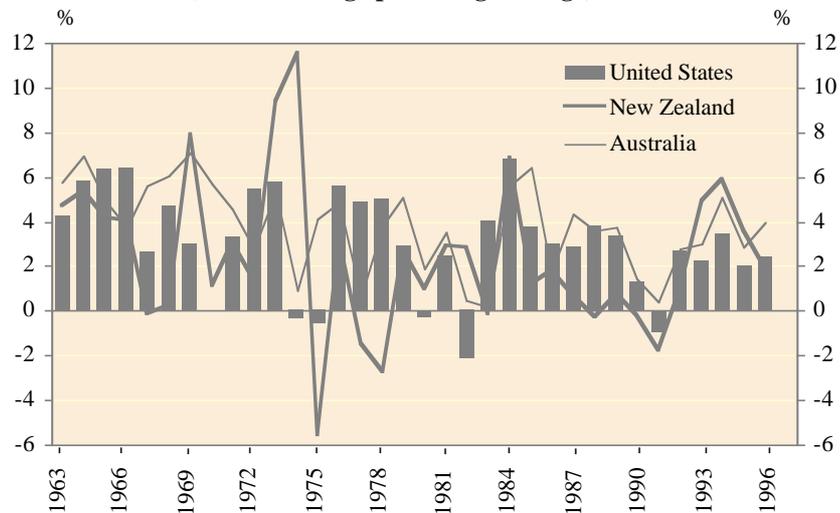
**(i) International influences**

*Foreign business cycles affect our exports ...*

Cyclical expansions in the world's major economies, particularly those of our major trading partners, tend to provide a general boost to activity and real incomes in the export sector. Shifts in world market prices of the goods and services New Zealand imports and exports also strongly influence the relative performance of different sectors of the economy.

**Figure 4**

**Real GDP growth: New Zealand, U.S. and Australia  
(annual average percentage change)**



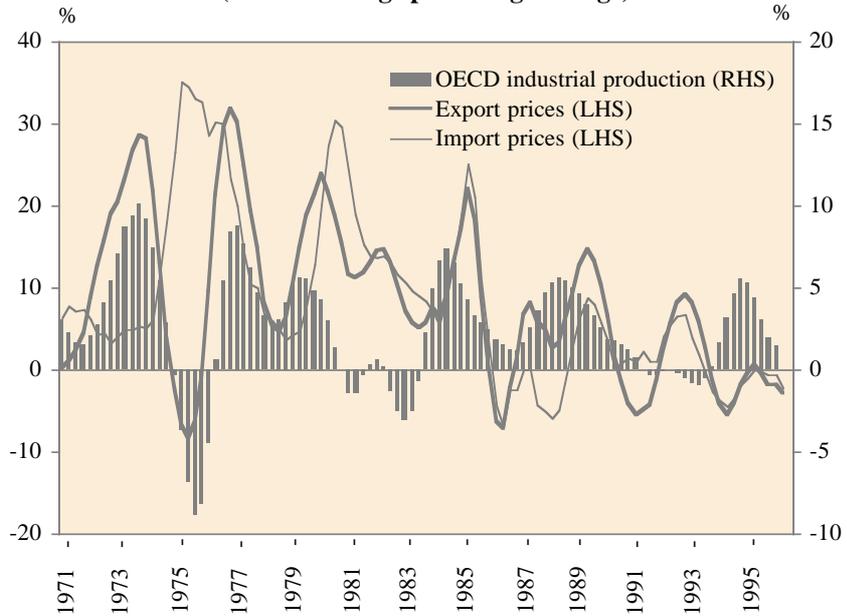
1996: Estimate; for U.S., Australia: Consensus Economics; for N.Z.: RBNZ.

*... as well as our financial and asset markets ...*

Financial linkages also play an important role in the 'transmission' of foreign business cycles to New Zealand. Changes in yields on foreign financial assets are quickly transmitted through to New Zealand financial asset yields through movements in domestic interest rates and equity price changes, or through movements in the exchange rate, or both. This is simply because, with increasingly integrated global financial markets, our financial assets must compete head on with those of other countries, even for the savings of New Zealanders.

**Figure 5**

**OECD industrial production, NZ export and import prices  
(annual average percentage change)**

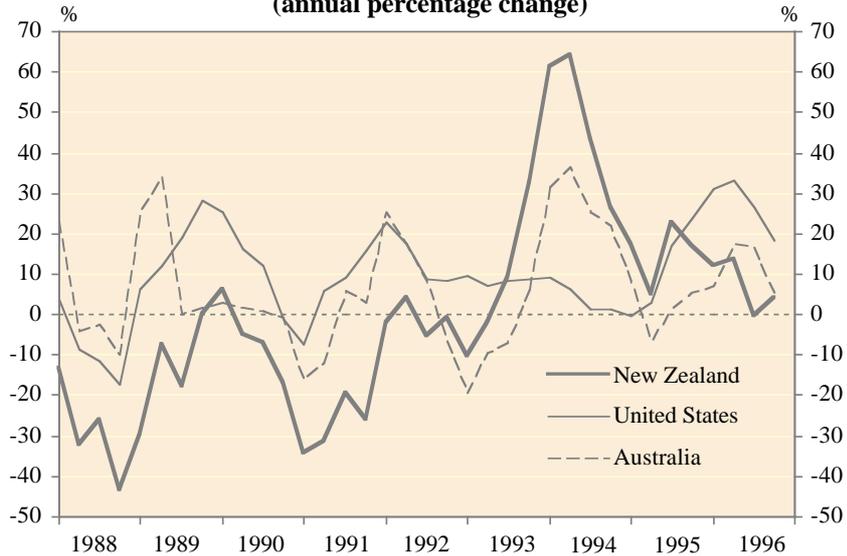


*... so that our cycle tends to track the US cycle.*

A consequence of all these linkages is that the business cycle in New Zealand (like those of Australia and Canada) has typically tracked fairly closely with that of the United States. It is no coincidence that the US expansions following the recessions at the beginning of the 1980s and at the beginning of the 1990s saw close counterparts both here and in Australia. The unusual length (by post-WWII standards) of the current US business cycle has un-

**Figure 6**

**New Zealand and foreign equity price indexes  
(annual percentage change)**



Source: Morgan Stanley.

doubtedly been a key factor explaining the durability of our own business cycle.

***(ii) Factors more specific to New Zealand***

*Overlaid are domestic influences.*

Developments affecting New Zealand specifically can either accentuate or offset external influences on our business cycle. At times these idiosyncratic developments may even overshadow the external influences.

*In the late 1980s, these were dominant.*

In the mid- to late-1980s structural reforms undertaken in New Zealand were on a scale large enough to substantially offset the stimulative effects of continuing expansion of our major trading partners' economies. Subsequently, in the 1989-91 period, the ongoing effects of the reforms tended to amplify the effects on New Zealand of the downturns in the other so-called 'Anglo Saxon' countries (the United States, the United Kingdom, Australia and Canada).

*Since 1991 our cycle has been amplified by:*

Since 1991, however, a number of developments specific to New Zealand worked to accentuate the cyclical expansion here relative to the recoveries experienced in our major trading partners, particularly the United States and Australia:

- ***Monetary stimulus in 1991-92***

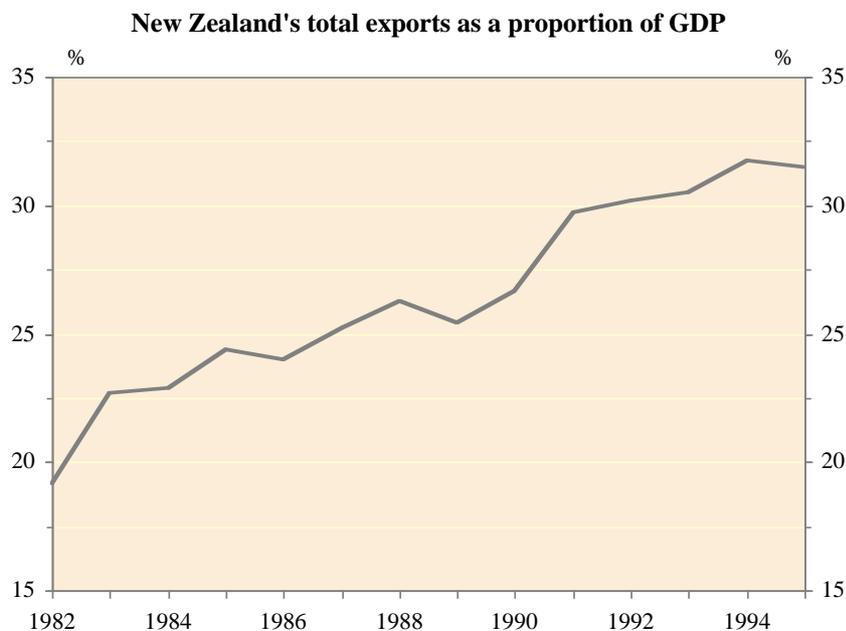
*the sharp fall in the real exchange rate in 1991, ...*

By 1991, the task of disinflation in New Zealand had been substantially accomplished. At that point, however, the degree of slack in the economy, if maintained, would have led to deflation. To prevent this, the Reserve Bank induced a sharp easing of monetary conditions. This included a marked depreciation of the trade-weighted value of the New Zealand dollar (the TWI).

*... boosting export growth;*

As a result, the 'real' exchange rate (ie the TWI adjusted for changes in domestic and foreign price levels) fell to well below its long-term average. The sharp increase in external competitiveness provided a major boost to activity, particularly in the external sector, on top of the stimulus from foreign economic recovery.

**Figure 7**



- ***Structural reforms stimulating investment***

*the impact of structural reforms, ...*

The structural reforms undertaken from 1984 onwards radically changed the business landscape in New Zealand. Key changes included the restructuring or privatisation of many public sector enterprises, dramatic changes in direct taxes, tariffs and subsidies, the elimination of capital and credit controls, increased labour market flexibility, and the achievement of price stability, which reduced the distortionary effects of the tax system and uncertainties relating to long-term investment opportunities.

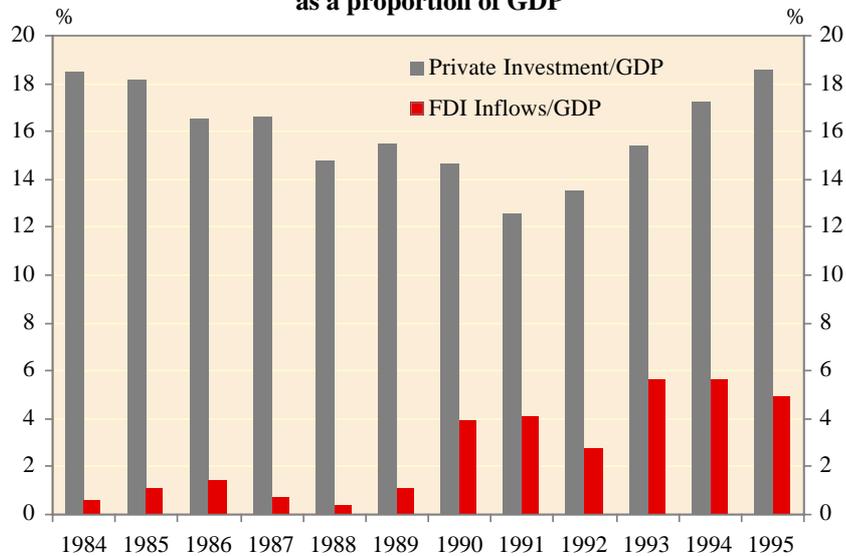
*... creating new investment opportunities;*

All these changes had the effect of rendering obsolete a considerable proportion of the existing capital stock and, at the same time, opening opportunities for high returns on new investment. As a result, domestic and foreign business confidence in New Zealand's economic potential soared. This confidence has been reflected in high rates of private sector business investment, financed to a significant extent by large increases in foreign capital inflows into productive investment.

Over time, such investments raise the country's potential for growth in employment, output and real income. In the short-term, however, the strength of investment spending and the significant capital inflows associated with it have contributed to pressures on capacity and inflation in the non-tradeables sector. The magnitude of associated capital inflows may also have contributed to the strength of the New Zealand dollar, with adverse consequences for the export sector.

**Figure 8**

**Private investment and foreign direct investment inflows  
as a proportion of GDP**



Source: OECD

- **Consumer confidence and tax cuts**

*and a marked decline in the savings rate, ...*

Economic expansions led by recoveries in the export or investment sectors will typically spill over into increased consumer spending as earnings in the leading sectors are spent and as employment expands. Even allowing for this, the expansion of consumer spending in the current cycle in New Zealand appears to have been remarkably strong. Despite the strong incentive to save provided by rising interest rates, especially as compared with the rate of inflation, household savings rates in New Zealand appear to have fallen to very low levels.<sup>3</sup>

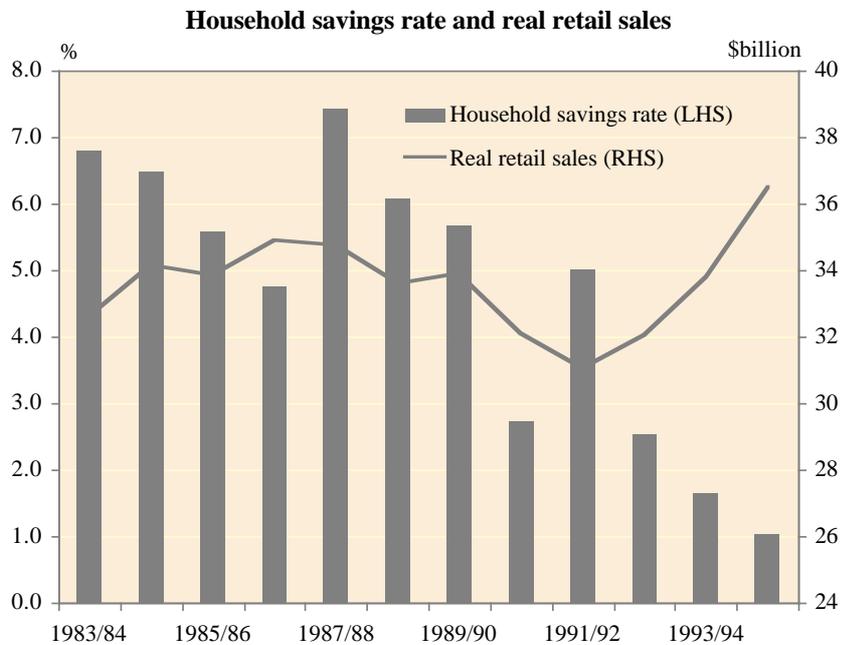
*... reflecting some pent-up demand, ...*

We do not have a fully satisfactory explanation for this decline in the savings rate, a phenomenon which has also been observed in the United States, the United Kingdom and Australia. To some extent, in the case of New Zealand, it probably reflects pent-up demand for consumer durables (especially cars), encouraged by the rapid increase in consumer choice following trade liberalisation. National income accounting conventions may also confuse the picture: national accounts treat housing construction as investment, while most purchasers of homes may regard this as a form of saving. As a result, households may perceive their savings rate as rather higher than is suggested by the national accounts.

---

3 It should be borne in mind, however, that savings data are usually considered to be of fairly low quality in so far as they are usually calculated residually and, therefore, incorporate measurement errors from other variables.

**Figure 9**



*... increased confidence in the future, ...*

A more lasting source of strength in consumer expenditure is likely to stem from renewed confidence in real disposable income growth prospects as a result of the structural reforms, the consolidation of public finances, and the fall in the unemployment rate.

*... and, more recently, income tax cuts.*

As discussed in greater detail in the accompanying 'box' on fiscal and monetary policy, the government's planned cuts in the fiscal surplus add significant stimulus to spending in the economy. Some of this stimulus has already been implemented, primarily through cuts in personal income tax rates in 1996, and further tax cuts are planned for 1997. This has helped to sustain consumer spending at high levels and will continue to do so for some time to come.

- ***Immigration***

*Immigration inflows have also boosted demand, ...*

A notable surprise element in the past few years has been a large net inflow of migrants. Traditionally, immigration to New Zealand has had a significant cyclical component. During the current cycle, however, net immigration has been exceptionally strong. In part this has reflected political developments abroad, but it probably also reflects the higher and more positive profile that New Zealand has gained internationally in the wake of the economic reforms.

*... notably for housing.*

In economic terms, the rise in net immigration has worked to increase the supply capacity of the economy. But it has also provided an additional boost to spending, notably for housing,

## **Box 1: Interaction of fiscal policy and monetary policy**

Because fiscal policy can influence the overall pace of spending in the economy, and pressures on sustainable capacity, the stance of monetary policy needs to adjust to changes in the stance of fiscal policy. The evolution of fiscal policy has been an especially important factor shaping monetary policy in 1996. This is because the July 1996 tax cuts and increased government spending have added a stimulus to aggregate spending pressures, despite the fact that the government continues to run budget surpluses.

If the government runs budget surpluses, it is a net saver. All other things being equal, this will tend to mean less spending in the economy than if the government were running budget deficits. Whether this reduces inflationary pressures or not depends importantly on how households - who are, after all, the government's ultimate creditors - react to the surpluses. If persistent surpluses are perceived as likely to lead to permanent tax cuts, households may save less than otherwise. Conversely, if deficits are perceived as implying future tax increases, households may save more than otherwise. The total impact of the government's fiscal position on spending in the economy, therefore, depends on the extent to which the government's savings behaviour is offset by that of households.

If higher government savings are not immediately and completely offset by lower private savings, then *changes* in the government's fiscal position - whether through changes in taxes or changes in government spending - will lead to *changes* in spending pressures in the economy. If a government with a fiscal deficit increases that deficit, whether through a tax cut or spending increase, this tends to add to total spending in the economy. Likewise, if a government with a fiscal surplus reduces that surplus, whether through tax cuts or spending increases, this also tends to increase total spending in the economy.

The key point, however, is that the stimulus given to spending in the economy depends on the *change* in the government fiscal position, rather than on the initial or final *level* of the fiscal position. If the fiscal stimulus given to spending in the economy adds to inflation pressures, then monetary conditions will need to adjust to contain those pressures. Essentially, monetary policy has to make 'room' in the economy for the change in spending associated with a reduced government surplus or increased deficit. Thus *changes* in the stance of fiscal policy induce *changes* in the stance of monetary policy.

This does not mean that changes in the government fiscal position will be constantly in conflict with monetary policy. Government spending and tax revenues are typically fairly cyclical. In cyclical expansions, tax revenues tend to increase while outlays (eg on unemployment benefits) tend to decrease. In cyclical downturns, tax revenues tend to fall and outlays tend to rise. As a result, government savings automatically tend to rise in upswings - dampening total spending and inflationary pressures - and fall during downturns - supporting total spending and countering deflationary pressures. The cyclical swings in the government fiscal position, therefore, tend to complement monetary policy actions taken to counter inflationary or deflationary pressures in the economy.

Discretionary changes in government fiscal policy, however, can result in fiscal stimulus when there are already excess demand pressures in the economy or, conversely, fiscal contraction when demand is already weak relative to productive capacity. In such circumstances the change in fiscal stance - regardless of whether the *level* of the government fiscal balance is in surplus or deficit - will accentuate existing upward or downward pressures on monetary conditions.

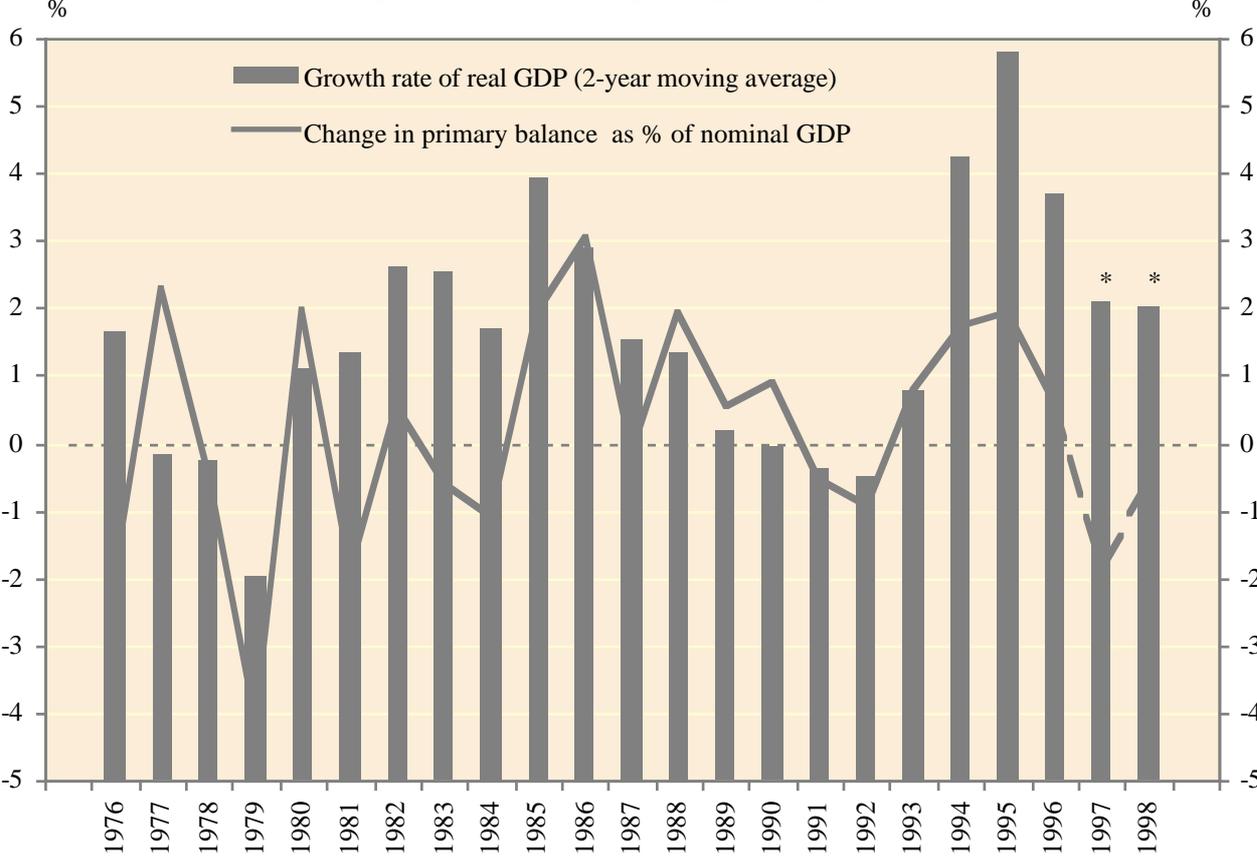
As shown in the figure below, movements in the 'primary' budget surplus (ie the budget surplus after netting out interest payments on public debt) tend to be strongly correlated with the growth rate of economic activity, reflecting the natural tendency of the tax system to stabilise the economy over business cycles. In 1991-1992 the budget surplus fell as the recession took hold, while in 1993-1995 the surplus grew sharply as the recovery boosted tax revenues. In both periods changes in the fiscal stance complemented monetary policy actions to keep inflation within the target range.

In fiscal year 1997, as in 1991-1992, the net fiscal position is projected to have fallen, providing a stimulus to spending in the economy. This is despite the fact that the primary surplus is projected to remain strongly in surplus. The crucial difference between 1997 and 1991-1992 is that GDP is projected to expand during 1996 and 1997, whereas GDP fell in 1991. The drop in tax revenues in fiscal year 1997 will therefore be giving the economy a substantial boost, but at a time when there is relatively little ‘room’ in the economy for additional spending.

In late 1995 our view was that the tax cuts being proposed for 1996 and 1997 would help to restore fiscal balance and could be accommodated without generating undue inflationary pressures. Indeed, that view was laid out in a letter to the Minister of Finance in November 1995. In the absence of the tax cuts, the inflation rate was expected to return to the middle of the 0 to 2 percent range by mid-1996 and continue drifting down throughout the remainder of 1996 and on into 1997. The Bank’s projections suggested that the tax cuts would boost the inflation rate relative to this baseline projection, but never by enough to threaten the top of the inflation target.

In the event, spending has been more resilient, and the inflation rate higher, than was anticipated in 1995. Thus, even though the shift towards smaller fiscal surpluses may have been deemed to be desirable from a long-term perspective, the timing and magnitude of the shift have added to upward pressures on aggregate spending and inflation, and this has unavoidably influenced the stance of monetary policy.

**Real GDP growth and change in primary fiscal balance**

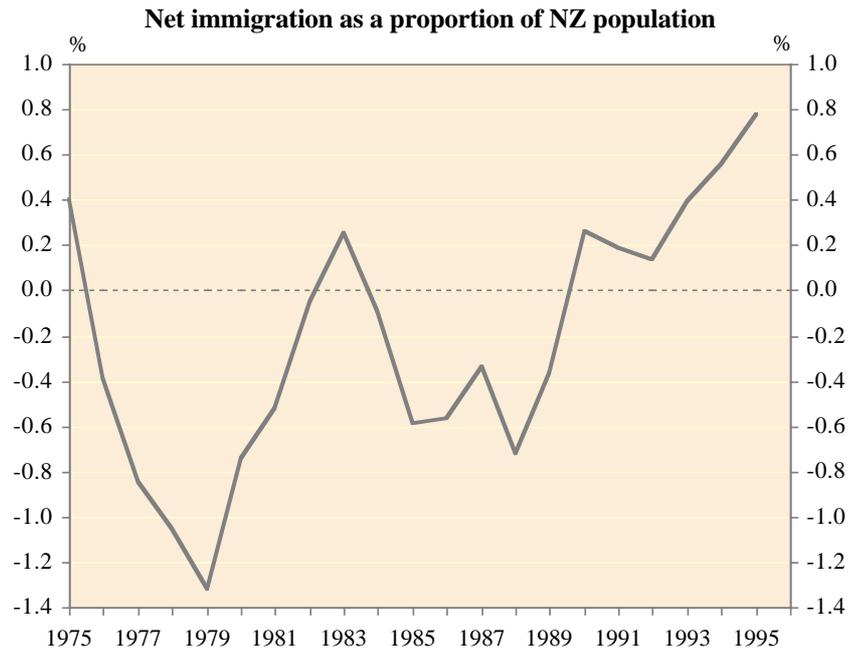


Note: The primary balance is the operating balance less net debt payments

\* Reserve Bank Projections for fiscal years 1997 and 1998

as immigrants establish their households. These pressures have been reflected in rapid increases in house prices and rents, particularly in the Auckland region.

**Figure 10**



**The role of monetary policy**

*The strength of the recovery ...*

Together, the kinds of factors discussed above have added to the stimulus provided by expansion in our major trading partners' economies and by movements in our terms of trade. As a consequence, New Zealand's economic growth outstripped that of virtually all industrial economies in the 1993-94 period.

*... led to pressures on capacity and a tightening of policy ...*

Economic expansion *per se* does not necessarily generate inflation. What matters more for inflation is whether the expansion leads to activity outstripping the economy's sustainable capacity. By mid-1994 the Bank's assessment was that pressures on capacity were beginning to produce inflationary stresses. For that reason we indicated in our June 1994 *Monetary Policy Statement* that the time had come to shift the stance of policy towards restraint, in order to contain inflation pressures and bring spending growth down to more sustainable levels.

*... that many felt was premature.*

At the time, many observers felt that that judgement was premature. Some argued that structural reforms could allow the New Zealand economy to grow rapidly without inflation. Others felt that we should wait until there was much clearer evidence of rising inflation, particularly in view of the still high unemployment rate.

*The shift in policy stance was appropriate.*

In retrospect, our assessment of the appropriate direction for policy was correct. Indeed, with the benefit of hindsight we can say that the stance of policy should have shifted in the direction of restraint even earlier. But it should also be said that policy did shift early enough to prevent a major deterioration in New Zealand's inflation performance, in sharp contrast with the experiences in the cyclical expansions of the 1970s and early 1980s.

*Demand outstripped capacity by more than expected ...*

The degree of monetary restraint that has turned out to be needed has been both greater in magnitude and in duration than either we or others had envisaged at the outset. Essentially this has reflected two factors. First, the driving forces behind the rise in demand have been stronger and more persistent than anticipated.

*... resulting in more inflation pressure than was envisaged.*

Second, the productive capacity of the economy has evidently not expanded as rapidly as was believed feasible. In 1993-94 it was very difficult for anyone to judge what the sustainable rate of growth for the economy was as a result of the structural reforms. The evidence suggests that, although the sustainable rate of expansion of the economy has increased as compared with the pre-reform period, it has not risen as rapidly as many thought possible in 1993-94. As a result, the expansion of activity outstripped the rise in sustainable capacity by a greater margin than believed at the time. That, in turn, has meant that considerably more monetary restraint has been required to bring activity levels back into line with the productive capacity of the economy than was envisaged back in 1994.

### ***Interest rates and the exchange rate in the adjustment process***

Monetary restraint has taken the form of significant increases in short-term interest rates and appreciation of the New Zealand dollar in trade-weighted terms.

*Interest rate rises ...*

Rises in interest rates - particularly in inflation-adjusted terms - have undoubtedly worked in the direction of dampening consumer and business spending relative to what would otherwise have occurred. But it is also possible that the rise in short-term interest rates may not have had as big an impact on spending plans as one might expect.

*... have not been expected to last, weakening their effect on spending ...*

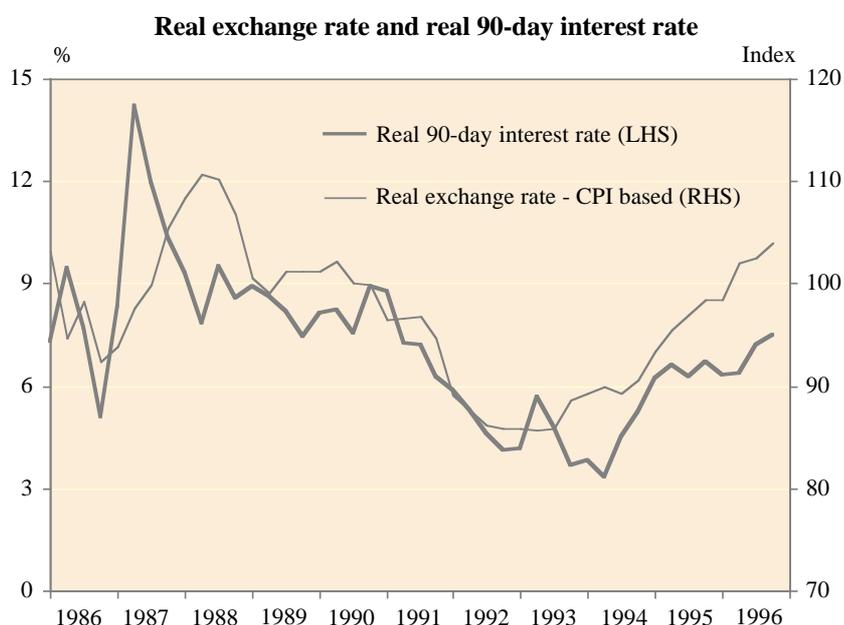
Throughout the current cycle, there has been a persistent expectation in financial markets that the firming in the stance of monetary policy would be fairly short-lived. As a result, the rise in medium-term interest rates (ie 1 to 5 year interest rates) has been far less pronounced than the rise in short-term interest rates. For firms undertaking long-term investments, as well as for households taking out mortgage loans to finance housing purchases, current short-term interest rates may not have been as influential in decision-making as the prospect for interest rates over the next few

years. As a consequence, the impact of higher short-term interest rates on spending pressures may have been muted by expectations that rates would not be high for long.

*... and investment may be less responsive to domestic interest rates.*

In addition, there is also some question as to the importance accorded to domestic interest rate developments for multinational enterprises (including those resident in New Zealand). For such firms, investment decisions affecting New Zealand (or elsewhere) may well be relatively insensitive to cyclical movements in local interest rates, particularly if their global investment strategies are based on long-term considerations, and their funding of investment takes place in international capital markets.

**Figure 11**



*Exchange rate rises have held down prices of traded goods & services, ...*

Rises in the exchange rate have worked to moderate inflation in two important ways. First, rises in the exchange rate have a very direct impact on inflation by lowering the New Zealand dollar prices of imported goods and services, and of goods and services which are also exported, such as meat and dairy products. How important and lasting this effect will be depends on the extent to which New Zealand businesses pass their savings in import costs on to consumers, and on the extent to which wage settlements take these price effects into account.

In addition, the rise in the exchange rate has also tended to dampen inflation by moderating excess demand pressures in the non-tradeables sector, where inflationary stresses have been most acute.

*... diverted spending away*

On the demand side, the higher real exchange rate has helped to alleviate strains on capacity in the non-tradeables sector by encour-

<i>from the non-tradeables sector ...</i>	aging a diversion of spending by firms and households away from non-tradeables goods and services towards imports, as well as away from close substitutes for imports within the tradeables sector.
<i>... and encouraged resources to move into the non-tradeables sector, ...</i>	On the supply side, the higher real exchange rate has also tended to encourage a reallocation of the economy's productive resources away from the export sector towards the non-tradeables sector where capacity constraints and inflation pressures have been greatest. In practical terms, the adjustment on the supply-side of the economy tends to be manifested in rising profit margins and wages in the non-tradeables and import sectors at the same time as profits and wages in the export sector, and in the sector competing with imports, tend to be squeezed painfully.
<i>... essentially the reverse of what happened in 1991-92.</i>	These effects, it may be noted, are essentially the reverse of what occurred in response to the fall in the exchange rate in 1991. At that time, the abnormally low real exchange rate encouraged a re-orientation of demand away from imports towards domestic production and a diversion of productive resources from the production of domestic goods and services towards the export sector.
<i>Conclusions are that:</i>	A number of important conclusions can be drawn from the preceding discussion:
<i>Excess demand was bound to hurt the external sector ...</i>	First, the emergence of excess supply (in 1990-92) or excess demand conditions (in 1994-96) in the non-tradeable or domestic sectors of the economy set in train a process of real economic adjustment that was bound to affect the external sector of the economy, in the former case to its advantage and in the latter case to its disadvantage.
<i>... especially if interest rate rises are not highly effective;</i>	Second, the less effectively that movements in real interest rates work to restore the balance between supply and demand in the domestic sectors of the economy, the more that the burden of adjustment tends to be thrown onto the external sector through movements in the real exchange rate.
<i>The adjustment process can be very uneven between sectors ...</i>	Third, as has been amply demonstrated during the current economic cycle, these real economic adjustments can result in quite different sets of economic conditions and pressures in the domestic and external sectors of the economy.
<i>... and this cannot be evened out by monetary policy.</i>	Fourth, these economic adjustments, and the disparities in sectoral economic performance that they have generated, are not something that was created by, or that could somehow have been offset by, monetary policy. At best, monetary policy might have been able to stretch out the adjustment process, at the cost of making the ultimate adjustment more painful. That approach has been tried before, at considerable cost. The challenge for monetary policy in this cycle has been to ensure that the adjustment process takes place

## Box 2: An indicator of monetary conditions

Monetary policy in an open economy affects inflation and the pace of aggregate activity through its influence over interest rates and the exchange rate. In order to assess the overall stance of monetary policy it is useful to have an indicator which combines the degree of monetary restraint coming through both interest rates and the exchange rate. This is what a 'monetary conditions indicator', or MCI, tries to do.<sup>1</sup>

If *both* the exchange rate and interest rates are rising (in 'real', or inflation-adjusted, terms), monetary conditions can easily be described as tightening, just as if *both* are falling, conditions can be described as loosening.<sup>2</sup> However, if the exchange rate is rising while interest rates are falling, or *vice versa*, it is more difficult to judge whether the overall degree of monetary restraint is increasing or decreasing. This is when an MCI is most useful.

To construct an MCI, it is necessary to judge the extent to which a movement in interest rates is in some sense 'equivalent' to a movement in the exchange rate. One way of doing this is to compare the impact of a 1 percent movement in the exchange rate with that of a 1 percentage point (ie 100 basis points) movement in interest rates on aggregate excess supply or demand and, therefore, on medium-term inflation pressures in the economy. Calculations of this type suggest that, for New Zealand, a 2 percent rise in the real trade-weighted exchange rate (TWI) is roughly equivalent to a 100 basis point rise in the real 90-day interest rate; that is, a 2:1 ratio. The importance of the exchange rate in the New Zealand economy is illustrated by the fact that comparable calculations for economies such as the United Kingdom, Sweden, Australia and Canada typically give ratios in the range of 3:1 to 4:1.

The MCI has a role to play in the Bank's day-to-day assessment of monetary conditions. For example, suppose the Bank's assessment was that a combination of a 90-day interest rate and a TWI exchange rate at around, say, 9 percent and 66.5, respectively, represented an appropriate overall degree of policy firmness. The MCI would indicate that a similar degree of overall restraint would be produced with combinations of the 90-day rate and the TWI of around 10 percent and 65.2 or 8 percent and 67.8, respectively. In other words, shifts can occur in the *mix* of monetary conditions while preserving the overall *level* of conditions.

As with any other summary measure of monetary policy, the MCI has its limitations. For example, the effects of monetary policy depend importantly on the expected duration of shifts in the policy stance, and these are not reflected in the MCI. Nor are the direct effects on the aggregate price level of different mixes of monetary conditions reflected in the MCI. Lastly, the 2:1 ratio is by no means precise and may, in fact, vary over time.

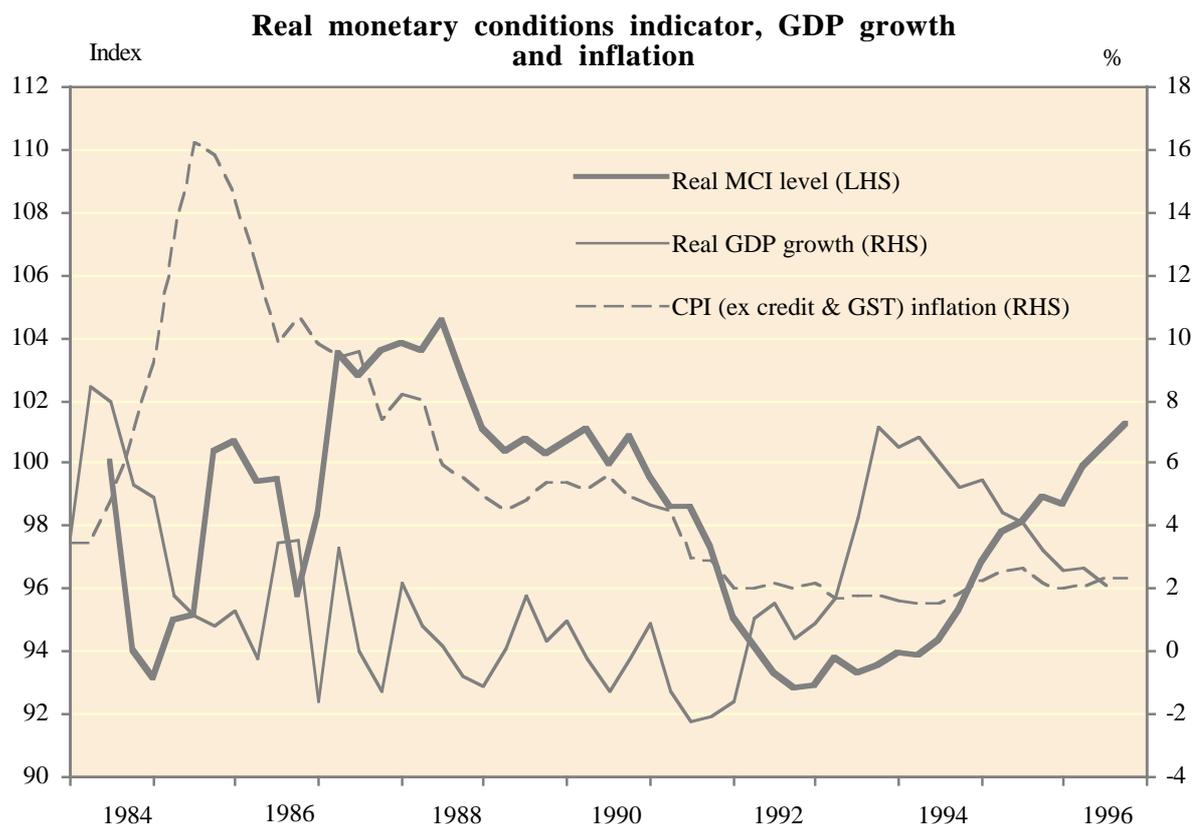
A practical implication of these limitations is that, while the MCI can provide a useful 'rule-of-thumb' in monitoring the stance of policy between economic projections, the Bank will be willing to tolerate some variation of actual monetary conditions around the level implied by the 2:1 ratio. In addition, of course, the Bank must continuously evaluate other developments affecting inflation prospects. It follows that the appropriate level of the MCI will change in accordance with changes in the Bank's assessment of the outlook for inflation.

---

1 Issues relating to the construction and use of an MCI are discussed in "Summary indicators of monetary conditions", *Reserve Bank Bulletin*, vol 59(3), pp. 223-28.

2 A change in the nominal exchange rate that solely reflects changes in New Zealand's price performance relative to its trading partners or a change in nominal interest rates that solely reflects changes in inflation expectations does not represent a meaningful tightening or loosening of conditions.

Finally, it may be noted that the MCI described above is based on the relative impacts of *real* interest rates and the *real* exchange rate on *real* spending in the economy. Over short periods of time, movements in a *nominal* MCI, calculated from *nominal* interest rates and the *nominal* exchange rate, should approximate movements in the *real* MCI reasonably closely. However, for comparisons over longer periods it is important to focus on the MCI measured in real terms. Even in making these comparisons it is important to bear in mind that the level of monetary conditions consistent with maintaining price stability will vary over time.



Note: MCI based on 1984Q2=100; GDP growth and inflation in annual terms.

without an ultimately damaging deterioration in inflation performance.

***Pressures on the export sector and the 'mix' of monetary conditions***

*The export sector has been hit hard, ...*

Through the current cycle, the export sector in general, and some parts in particular, have been exceptionally hard-pressed. In this context two aspects of the cycle have been especially important. These have been the strength of capital inflows to New Zealand and the evolution of world prices for some of our major exports.

*... partly by the effect of capital inflows on the exchange rate ...*

As discussed earlier, strong business confidence and investment have been prominent features of this business cycle. Both have been reflected in very substantial capital inflows, which have tended to put upward pressure on the value of the New Zealand dollar. As a consequence, the balance of monetary conditions - as between interest rates and the exchange rate - has tended to be 'tilted' towards more pressure on the export sector than might otherwise have occurred.

*... fuelling a perception that monetary restraint is at exporters' expense.*

Unfortunately, this 'tilt' in monetary conditions has helped to fuel a perception that monetary restraint 'inevitably' falls most heavily on the export sector. As a general proposition, this is not the case. Although it is obviously the case that the export sector is more exposed to exchange rate movements than the non-tradeables sector, exporters are not necessarily more exposed to interest rate movements; this depends on the capital intensity of production and firms' indebtedness. Moreover, it is not necessarily the case that a firming in the stance of monetary policy will come primarily through movements in the exchange rate.

*It is important to distinguish the level of monetary conditions from the interest rate - exchange rate mix.*

It is important to distinguish between the overall *level* of monetary conditions, and the *mix* of conditions in terms of interest rate pressure as distinct from exchange rate pressure. The Bank implements policy through its ability to influence very short-term (overnight) interest rates. This gives it the leverage needed to control the level of overall monetary conditions. But the Bank is not able to determine whether actions to influence the overall level of conditions will show up primarily in the form of movements in the spot exchange rate, or primarily in the form of movements in bank bill and other, longer-term, interest rates.

*The mix was already shifting to a higher exchange rate in 1993.*

In this context it can be noted that even back in 1993 the mix of monetary conditions was already being driven towards lower interest rates and a higher exchange rate (90-day interest rates fell from 8.3 percent to 5.0 percent over the course of 1993, while the TWI exchange rate rose by 7.2 percent). This occurred even with a much less restrictive policy stance than is now the case, and even

though the Bank was not yet actively tightening conditions. The shift in the mix of conditions has continued since then, at the same time as policy has tightened, but not because of it.

*A delay in tightening would ultimately have made things worse.*

Of course, one can ask whether a different, more inflation-tolerant, monetary policy might have produced a 'better' outcome. Obviously, had policy responded more gradually to signs of inflation pressures, the rise in the nominal exchange rate would have been less rapid. But more delay would have allowed inflation pressures to accumulate even further, making the eventual task of stabilising inflation even more difficult. In other words, the eventual tightening would have led to even tighter conditions than are currently required, and for even longer.

*Higher inflation would have eroded competitiveness ...*

In addition, of course, inflation would have been higher. Higher inflation would have progressively offset the effect on competitiveness of having a lower nominal exchange rate - as was demonstrated so clearly in New Zealand through the 1970s and into the 1980s. In other words, exporters would have found their competitive positions and profitability undermined by increases in their wage, interest and other input costs. In this context, it can be noted that part of the pain being experienced in the export sector reflects exactly this sort of process - firms finding the cost of their non-tradeable inputs rising faster than the prices of their outputs.

*... as was amply demonstrated in the late '70s and early '80s.*

The key conclusion is that a more gradualist monetary approach would not have produced a better outcome. In particular, the export sector would still have found itself squeezed between a higher inflation rate for its inputs than for its outputs, and delay in arresting the rise in inflation would eventually have made matters worse. One has only to look back to the 1970s and early 1980s to see how ineffective monetary policy was when it did attempt to cushion the export sector, and how costly the effort eventually proved to be for the entire country.

*Differences in pressures in the export sector reflect ...*

While the export sector as a whole has tended to be squeezed progressively through the business cycle, it is also the case that conditions have varied substantially within the export sector. The degree to which profitability in different parts of the export sector has changed has depended on far more than just the change in the trade-weighted exchange rate.

*... world commodity price shifts ...*

As discussed in the accompanying 'box' on agricultural prices, movements in the world prices of major New Zealand exports can completely offset or greatly accentuate movements in nominal exchange rates. Declines in world prices for beef, for example, have hurt beef producers all over the world, not just in New Zealand. Moreover, because the world prices of major export commodities move very differently from one another, some parts of the export sector can thrive and others suffer at the same time.

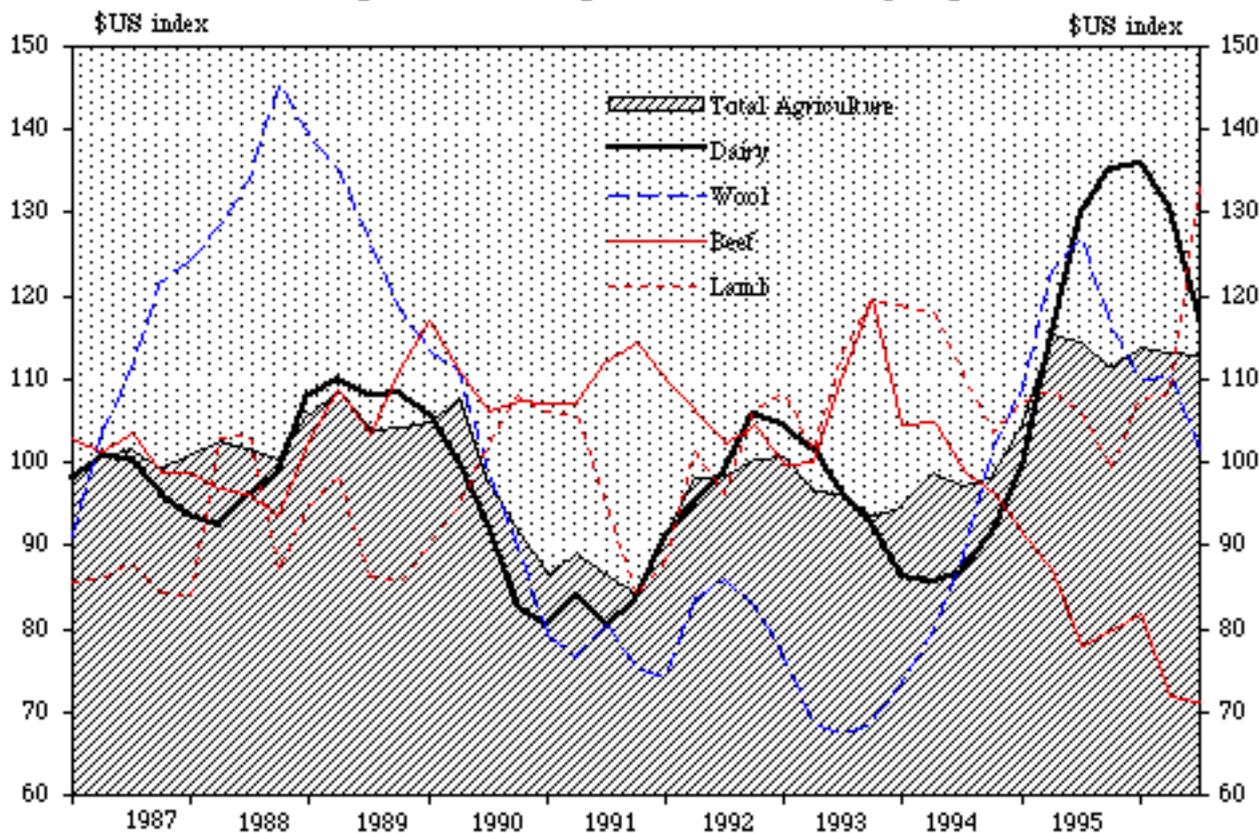
### Box 3: World prices for major agricultural exports

As discussed in the main text, the export sector of the economy has been squeezed by the cyclical rise in New Zealand's real exchange rate since 1993. Nonetheless, the averages conceal significant differences between various parts of the export sector. In particular, the real exchange rate does not reflect substantial differences in the movements in the prices for major New Zealand export commodities in world markets.

The figure below illustrates how differently world prices for some of New Zealand's major agricultural exports have evolved over the past 10 years. Three features stand out:

- Prices for individual agricultural exports are much more volatile than the overall average. Indeed, the swings seen in individual export commodity prices in world markets are far greater than movements in the exchange rate. Most of the pain being experienced in particular segments of the export sector reflects these individual price movements.
- During the current business cycle, world prices for New Zealand's major agricultural exports have followed quite different paths. Beef producers world-wide - not just those in New Zealand - have been hit by falling prices since mid-1993. By contrast, wool and dairy prices recovered strongly in the 1993-95 period, while lamb prices have risen sharply over the past year. It is only since about mid-1995 that world prices of dairy, wool and beef products have all been moving in the same direction.
- The rising New Zealand dollar has tended to accentuate declines in world prices of some products, and has partly offset rises in the world prices of other products. Even had the exchange rate stayed flat, exporters would have experienced very different swings in pressures on profit margins.

**World prices of NZ agriculture commodity exports**



Source: ANZ commodity price indexes in \$US.

*... and differences in bilateral exchange rate movements ...*

Similarly, movements in different bilateral exchange rates can produce quite different pressures in different parts of the export sector. For some firms, particularly in the manufacturing sector, the bilateral exchange rate with the Australian dollar is of critical importance. For others it is the US dollar exchange rate, and for still others it may be the Yen exchange rate. Significant movements in the Yen-US dollar exchange rate and in the US-Australian dollar exchange rate mean that, for particular sectors or industries, the movement in the weighted-average exchange rate will give only a poor impression of the pressures they face.

*... both of which are beyond the influence of monetary policy.*

Pronounced differences in the evolution of major export prices and in bilateral exchange rates with our major trading partners have meant that different parts of the export sector have faced very different competitive pressures. Clearly it is beyond the scope of monetary policy to control or reduce such differences.

### **Monetary policy and inflationary pressures in prospect**

*Turning to the outlook, ...*

In the preceding section, the focus was on the broad forces that have been behind the cyclical upswing beginning in 1991-92, and how monetary policy has needed to respond. In this section, the focus shifts forward to where the broad pressures on inflation pressures are likely to lead policy and monetary conditions in the foreseeable future.

*... tight monetary conditions ...*

There is no question that monetary conditions are very firm. 'Real' interest rates (whether measured as the difference between nominal short-term interest rates and the inflation rate, or as the difference between short-term and long-term nominal rates) are considerably higher than what most observers would consider to be a reasonable long-term average. Similarly, almost any measure of the 'real' exchange rate suggests that it is well above reasonable estimates of the long-term average level - perhaps by about as much as it was below that level in 1991.

*... cannot be expected to last indefinitely.*

Neither the high real interest rates nor the high real exchange rate should be expected to last indefinitely. Indeed, it is clear from financial market prices that these conditions are not expected to last much longer. As strains on the productive capacity of the economy dissipate and upward pressures on inflation give way to downward pressures, monetary conditions will also ease.

*Scope for easing depends on how inflation is expected to evolve.*

Judging the timing and extent of an easing of monetary conditions involves taking a view on both the extent of pressures on inflation, and on how spending pressures are likely to evolve relative to the expansion of capacity in the economy.

*Slower spending has allowed capacity to catch up, easing inflation pressures.*

Since at least the end of 1994, the pace of aggregate spending growth in the economy has moderated considerably in response to the firming of monetary conditions. This slower pace of growth has allowed the productive capacity of the economy to catch up gradually with the level of demand. As a result, we are now beginning to see more evidence of a stabilisation and, in some areas, an easing of inflation pressures.

*This has taken longer than expected, but the time for easing cannot now be far off.*

Bringing demand back more closely into line with the capacity of the economy to supply has taken much more monetary restraint than originally expected. But the indications are that the toughest part of the task is now substantially behind us. That also means that, barring any major new stimulus to demand, the time when monetary policy should move towards a more neutral stance cannot be too far off.

*The extent of easing will reflect ...*

How quickly and how far conditions will be able to ease depends on the outlook for the broad forces likely to be driving the business cycle over the coming few years.

*... the strength of the international economic cycle, ...*

The evolution of the international business cycle will continue to be a basic influence on our own. The US and Australian business cycles show no signs of a sharp downturn, though both are past their peaks. The Japanese economy appears, at last, to be on the upswing, while the situation in Europe is quite mixed. These considerations suggest that international economic conditions are likely to be a source of continuing, though relatively moderate, stimulus to our economy, and that our terms-of-trade are likely to be favourable.

*... immigration-related demand pressures, ...*

Immigration-related demand pressures, particularly in the housing market, already appear to be diminishing, and will continue to do so as inflows slow.

*... and fiscal policy developments under a new government.*

On the basis of current plans for tax cuts, and for increases in government spending, fiscal policy will be a continuing source of stimulus to demand for some time to come. The extent of stimulus and, therefore, the scope for easing of monetary conditions will depend importantly on how the fiscal programme is modified under a new government. The policies pursued by the new government will also have a bearing on business and consumer confidence and, consequently, on consumer and investment spending.

*A fairly gradual easing of monetary conditions is likely.*

A more detailed discussion of these broad influences on the outlook for activity and inflation is the subject of the next section of this *Statement*, but the kinds of considerations above suggest that a very sharp slowing of economic activity relative to the sustainable rate is unlikely. In view of this, the outlook for monetary conditions is likely to be for a relatively gradual easing rather than a sharp easing of the kind experienced in 1991. The Bank is aware that, in some

sectors of the economy, a sharp easing of conditions would be very welcome. It is also aware that in other parts of the economy pressures on capacity and prices are still strong. Those differences cannot be evened out, or inflation brought down, by running looser monetary policy.

*In short, the hardest part of the job appears to have been done.*

The past two and a half years of monetary policy restraint have been putting to the test this country's resolve to maintain price stability. It has not been as easy as many might have hoped, and some have had to carry a heavier share of the load than others, but the hardest part of the job appears to be more or less completed. The effort will have been wasted if we abandon the commitment to price stability in the last straight.

### III. Economic activity and inflation: recent developments and outlook

*The stance of policy is guided by the inflation projection.*

There are long lags between a change in the stance of monetary policy and a change in price setting behaviour. Therefore, by necessity, a forward-looking approach to monetary policy is required. The Bank must anticipate the likely path of inflation pressures in 6 to 24 months time when considering the appropriate level of monetary conditions. Thus, the stance of monetary policy becomes a direct function of the projection for inflation. The purpose of this section is to outline the projection of inflation that will guide the formulation of monetary policy over the period ahead.

The section begins with an overview of the projection. The discussion focuses on the main forces that are currently shaping aggregate demand and inflation outcomes. The discussion then shifts to the detailed analysis that has led the Bank to reach these judgements. Recent information is evaluated; the key policy assumptions upon which the projections are based are stated; and the Bank's best estimate of the outlook for underlying inflation is explained. The section concludes with an assessment of the uncertainties surrounding the central projection.

#### (i) Overview

##### *Recent developments*

*Growth in aggregate demand has weakened ...*

The Bank's previous economic projections were finalised in early September. An important feature of those projections was our expectation that aggregate demand would remain weak over the short-term. Information that has come to hand since early September appears to have confirmed this assessment. Indeed, if anything, growth in aggregate demand appears to have been slightly weaker than we had expected.

*... reflecting monetary restraint and slower world growth.*

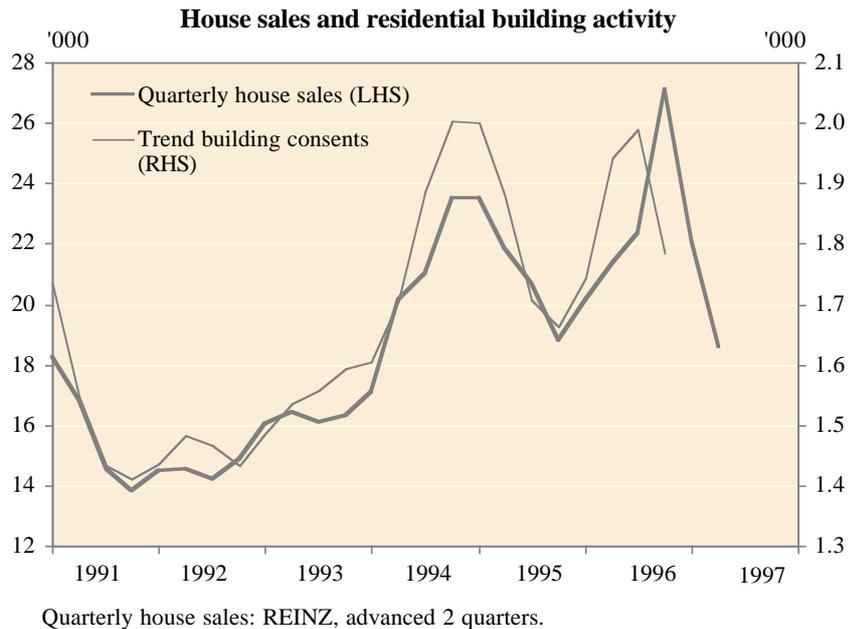
The weakening of growth in demand reflects a number of factors. Substantially, it reflects the impact of continued monetary policy restraint and a period of slower economic growth in New Zealand's main trading partners. In addition, increased levels of economic and political uncertainty may also have dampened confidence and spending.

*Inflation pressures appear to have peaked in the housing market ...*

As a result, excess demand pressures - which had manifested themselves in the form of a sharp rise in housing costs and strong growth in unit labour costs - now show encouraging signs of abating. For example, both the number of houses sold and the number of building consents issued have fallen more significantly than we had projected. Tentatively, this appears to have led to a sharp fall in price

pressures in the housing sector. Indeed, our over-estimation of price movements in the housing sector accounted for about three-quarters of the total 0.4 percentage point over-estimation of underlying inflation in the September quarter.

**Figure 12**



*... and in the labour market.*

More generally, growth in unit labour costs also appears to have peaked. The rate of wage and salary growth over both the June and September quarters was consistent with our September *Economic Projections*. Growth in labour productivity also appears to have begun to recover in line with our projections. Both of these results bode well for the inflation outlook. They lead us to be more confident regarding the future path of economic activity and inflation.

***The behaviour of firms and households***

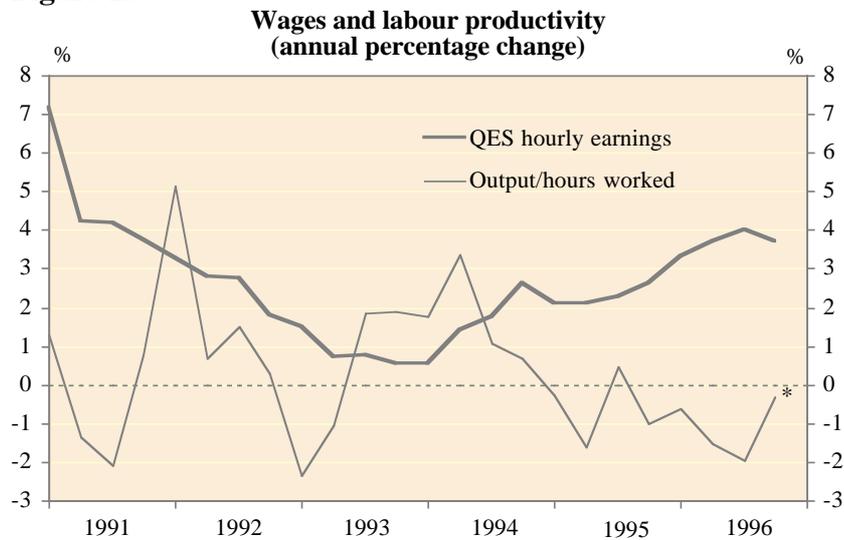
*Monetary conditions are assumed to remain firm ...*

The projections discussed in this *Statement* are based on the assumption that monetary conditions - at least as reflected in the 90-day bank bill rate and the trade weighted exchange rate (TWI) - remain constant at around recent levels in nominal terms.

*... but growth is expected to recover.*

Given this assumption, one might expect the Bank to project a further weakening of economic growth over the period ahead. However, the Bank is not projecting such an outcome - indeed, growth is expected to gradually recover during 1997. To understand why, it is first necessary to analyse the main factors that lie behind the current, unusually shallow, downturn in the business cycle.

**Figure 13**



QES: Quarterly Employment Survey of private sector average hourly earnings (ordinary time).  
\* Estimate.

*Policy  
restraint ...*

Over the past year, firms - in aggregate - appear to have increased employment beyond the levels justified by current production requirements. To some extent this probably reflects some firms' unrealistic expectations regarding the sustainability of the high rates of economic growth experienced in the period 1993-1994. However, natural cyclical factors, together with policy actions taken by the Bank to avert inflation pressures, have led to a slowing in growth in aggregate demand.

*... has squeezed  
margins.*

This slowdown has resulted in a decline in profitability, particularly in the export sector, where firms have been squeezed by high interest rates and rising costs for domestically sourced inputs on the one hand, and by weak export prices and the appreciation of the exchange rate on the other. Nevertheless, at least until recently, firms have been very reluctant to shed labour as a route to increased profitability.

*Firms have been  
"looking  
through" the  
business cycle ...*

In the Bank's view, this reluctance reflects high levels of confidence amongst firms about the fundamentals underpinning medium to longer-term business prospects in New Zealand. It also reflects firms' expectations of an imminent recovery in demand due to an expected easing of both monetary and fiscal policy settings. As a result, rather than reduce their labour force (which itself is costly), many firms have taken a longer-term view and 'looked through' the business cycle. They have sought to retain skilled staff, particularly those in whom they have invested heavily to develop firm-specific skills and knowledge. This 'labour hoarding' has resulted in a more significant downturn in measured labour productivity - both in depth and duration - than experienced in past New Zealand business cycles.

*... in making investment decisions.*

Because of firms' behaviour, growth in household incomes has remained quite resilient, consumer confidence has stayed at historically high levels, and thus, up until recently, growth in domestic spending has remained quite strong. The brunt of monetary policy pressure has instead largely been borne by firms in the form of a substantial squeeze in profitability. As a result, one might have expected firms to cut back sharply on investment spending, as occurred in 1991. However, firms - again looking through the business cycle - have continued to invest heavily in new technology, despite the current fall in profitability. Indeed, many firms see continued investment spending as crucial to ensuring the longer-term profitability and thus viability of their business. Firms' strong balance sheet positions - especially compared with 1991 - have supported this behaviour. Current cashflows have become slightly less important in determining investment spending.<sup>1</sup>

*More recently, some firms have shed labour ...*

It seems reasonable to suggest, however, that firms will eventually change their behaviour if the underlying pressures on profitability are maintained long enough. Monetary conditions have remained restrictive for longer than most firms had expected, and there is now some evidence that at least some firms (and households) are beginning to make adjustments. Notably, firms appear to have reduced their full-time staff by around 1 percent in the September quarter - the first fall recorded for four years. At the same time, firms appear to be making greater use of part-time staff, possibly reflecting greater economic and political uncertainty.<sup>2</sup>

*... and households have increased savings.*

The household sector also appears to be adjusting its spending behaviour. At this stage at least, the tax cuts do not appear to have had a marked impact on household spending, implying that the household savings rate has begun to rise from the historically low levels recorded over the past two years.

*A more significant downturn in demand will be averted ...*

At first glance, if monetary conditions were really to remain as tight as assumed in these projections, for as long as assumed in these projections, a reasonable conjecture may be that a much more significant slowing in aggregate demand would eventuate.

---

1 There are, of course, other possible explanations. For example, the relevance of domestic interest rates to firms may have declined. Open capital markets and increased foreign equity investment in New Zealand may mean that foreign interest rates have become a relatively more important determinant of investment spending. It is also possible that many households - focusing on nominal magnitudes rather than real magnitudes - do not perceive current real interest rates as high. Indeed, from the household's perspective, current fixed mortgage rates at around 9 percent probably seem very cheap compared with the rates prevailing 10 years ago (over 20 percent for a brief period), especially when one considers recent gains in house prices.

2 The sharp increase in part-time employment reported in the September 1996 quarter Household Labour Force Survey may be misleading. Given recent changes to benefit abatement rules (which raised the income threshold at which benefits begin to be abated), the increase may partially reflect greater self-reporting of part-time work.

*... as a result of the tax cuts ...*

However, a number of offsetting factors suggest that a more substantial downturn is unlikely. First, households have experienced a significant boost in incomes as a result of the July 1996 tax cuts, and a further tax cut is scheduled for July 1997. The increase in incomes will allow households to raise simultaneously both their level of consumption spending and the rate at which they save.

*... and robust world growth.*

Second, New Zealand's major trading partners are projected to enjoy reasonably robust rates of economic growth and New Zealand's terms of trade are expected to improve. Both factors should provide an important source of support for aggregate export volumes and incomes.

Finally, the projections contained in this *Statement* suggest that underlying inflation will fall into the lower quartile of the 0 to 2 percent target range in 1998. If actual outcomes do in fact evolve in line with these projections, at some point there will be room for an easing in monetary conditions relative to the level assumed in these projections. As the economy expands, and firms' profitability improves, the incentive for firms to reduce investment spending will decline. And as pressures on spare capacity increase, firms will again begin to look to raise employment levels.

### ***The outlook for inflation***

*Aggregate demand will strengthen in 1997 ...*

The Bank's judgement is that growth in aggregate demand will strengthen over 1997. However, growth is projected to slow again during 1998, as the fiscal stimulus passes, while monetary conditions are assumed to remain firm. In both years, growth is projected to remain below the economy's so-called 'potential' growth rate - the trend growth rate of productive capacity (currently estimated by the Bank to be about 2.75 percent per annum).

*... but pressures on capacity will ease, dampening inflation.*

The Bank's current estimates suggest that the economy's positive output gap has now been more or less eliminated. Therefore, with growth in aggregate demand projected to remain below growth in 'potential', a small amount of spare capacity is projected to gradually build up in the economy over the period. As this occurs, competitive forces will lead to downward pressure on inflation. However, these pressures take time to work - by themselves, they would lead to only a gradual reduction in underlying inflation. Nevertheless, the projections in this *Statement* point to a sharp fall in underlying inflation over the coming year. This reflects three factors.

*Lower growth in housing costs are also expected ...*

First, because the prices of durable assets such as housing are inherently forward-looking, they tend to anticipate the outlook for inflation more generally. Just as house price inflation in the early stages of economic expansion outpaced inflation generally, so it is now expected to decelerate more quickly than in other sectors.

Consequently, the extreme price pressures seen during the past two years are not projected to be repeated.

*... as are falling import prices.*

Second, the projections also incorporate a significant fall in the world prices of imported and exported goods and services during 1997. The world prices of many of our export commodities have fallen sharply since the first quarter of 1996. Lower growth in OECD industrial production during 1995/96 is also estimated to have led to a decline in the world prices of many of our imported intermediate goods. This will have a significant impact on underlying inflation in 1997.

Finally, the lagged effects of rises in the TWI will continue to exert downward pressure on CPI inflation right through 1997.

*Underlying inflation is projected to fall rapidly.*

On the basis of these considerations, underlying inflation is projected to fall rapidly over the next 12 to 18 months. After narrowly re-entering the Bank's target range in the year to March 1997, underlying inflation is projected to fall to 0.5 percent in the year to March 1998. Moreover, as excess supply pressures build up in the economy, the underlying inflation rate is projected to fall further to 0.2 percent in the year to March 1999.

### ***Key uncertainties surrounding the projections***

*The projections are subject to uncertainty ...*

These projections represent the Bank's best estimate of the outlook for inflation *on the basis of a particular set of assumptions*. However, economic projections, by their nature, are subject to uncertainty. Uncertainties stem from the appropriateness of the policy and non-policy assumptions that underpin the projections. They also reflect gaps in our understanding of the structure and parameters governing economic behaviour.

*... but these uncertainties are balanced.*

The key uncertainties are discussed in some detail in the latter part of this section. To summarise, the risks to the central projection are considered to be evenly balanced. Given the *policy* assumptions made, there is a possibility of a slightly weaker outlook for economic activity and inflation, particularly towards the end of the period. However, in the Bank's judgement, this risk is offset by the likelihood of a more expansionary fiscal policy stance than is assumed in these projections.

## **(ii) Recent trends and the short-term outlook**

### ***Economic activity***

*The short-term growth projection has been lowered ...*

Aggregate demand appears to have been weaker than seemed likely when we developed the September *Economic Projections*. We now project that GDP will grow by around 1.3 percent between the March quarters of 1996 and 1997 - around 0.7 percent weaker than we had

estimated previously.<sup>3</sup> Our projection of annual average growth has been revised down to 1.6 percent for the March 1997 year, compared with our previous projection of 2.0 percent.

*... reflecting historical revisions ...*

Around half of the downward adjustment to GDP growth is due to revisions made to the historical growth profile with the publication of the June 1996 quarter GDP statistics. These statistics showed that real GDP grew by 0.3 percent in the June quarter, taking the annual (quarter on quarter) rate of growth to 2.1 percent over the year to June 1996. While growth during the June quarter was weaker than we had expected, offsetting upward revisions to the December and March quarters meant that annual (quarter on quarter) growth was more or less as expected.

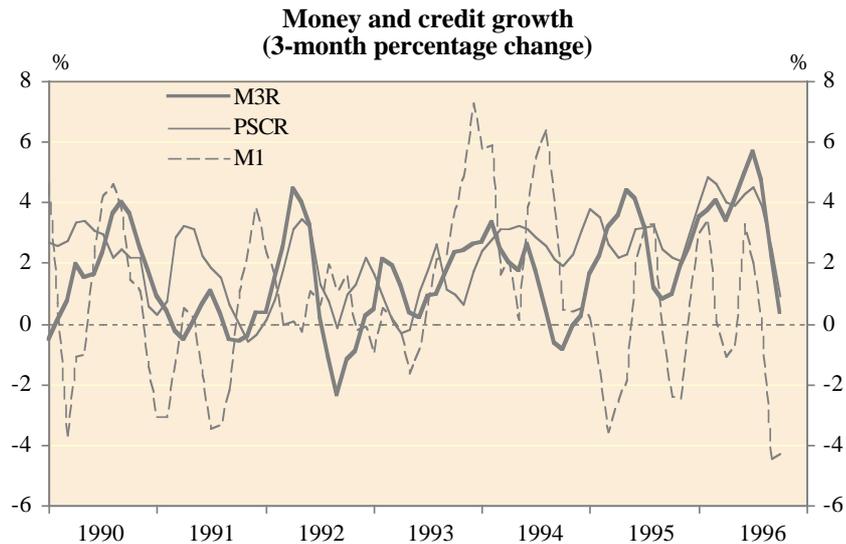
*... and recent activity indicators.*

The remainder of the downward adjustment reflects our interpretation of information which has come to hand since September. Indicators of both production and demand appear to point to rather sluggish growth in activity in the September 1996 quarter and immediately beyond, notwithstanding the positive impact of tax cuts on household disposable incomes.

*Household spending has been weak, ...*

The volume of retail sales, for example, decreased by 0.3 percent during the September quarter. This outcome, combined with other indicators of consumer spending, suggests that total household consumption grew by little more than 0.3 percent during the quarter.

**Figure 14**



M3R: M3 held by NZ residents; growth rates adjusted for structural breaks.

PSCR: credit extended to private sector NZ residents.

3 All GDP statistics refer to the more reliable production-based GDP series and all quarterly growth rates (relating to both real GDP and other real series) are seasonally adjusted.

Activity in the housing market has also weakened considerably: house sales and residential building consents have declined markedly, and house prices have fallen for the first time since the June 1992 quarter.<sup>4</sup> Growth in the money and credit aggregates has also slowed significantly in recent months. In particular, lending to households has slowed sharply, almost certainly reflecting the slowdown in demand for housing finance.

*... employment growth has slowed ...*

Labour market data also points to a weak September quarter. According to the Household Labour Force Survey, full-time-equivalent employment was virtually unchanged during the September quarter, while both the level of full-time employment and the number of hours worked fell. The number of job advertisements - as recorded by the ANZ Jobs Ads survey - has also continued to decrease.

*... and wage growth appears to have peaked.*

As job growth has slowed, surveys suggest that skill shortages have become less prevalent. Not surprisingly, therefore, wage and salary growth has also begun to weaken. According to the Quarterly Employment Survey, private sector hourly earnings increased by 1.0 percent (in seasonally adjusted terms) in the June quarter and 0.8 percent in the September quarter. Both outcomes were in line with the Bank's projections. The annual rate of increase fell from 4.0 percent in the year to June to 3.7 percent in the year to September.

**Figure 15**



\* Estimate.

4 Valuation New Zealand house price data for the September quarter is provisional.

*Other indicators suggest that recent growth may be understated.*

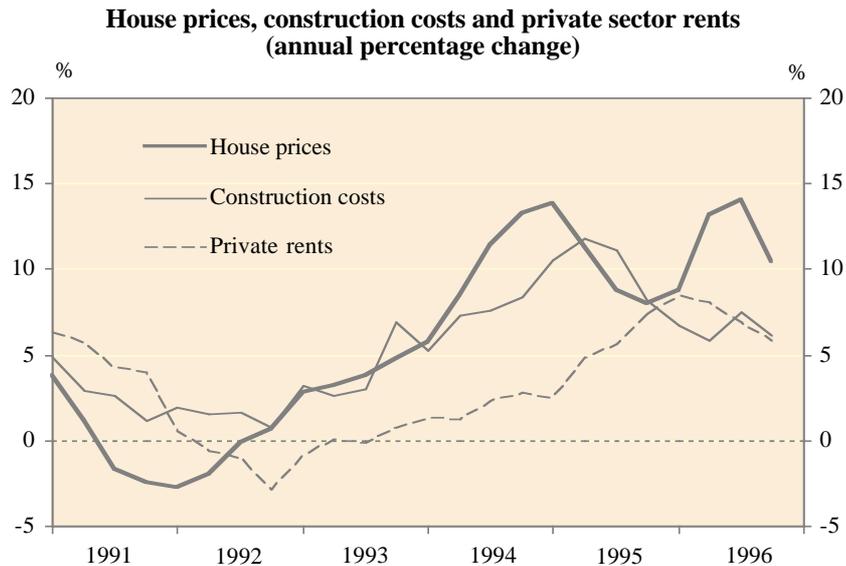
By contrast, business and consumer confidence appears to have increased slightly in the September quarter. Expectations of an imminent easing of monetary policy are likely to have influenced these outturns. Nevertheless, recently released national accounts data also indicate that nominal GDP had been growing at a faster pace than thought previously, at least up until March 1996. The source of this revision - stronger real activity and/or higher inflation - will not be known until January 1997 when the September 1996 quarter real GDP data are published. Income tax and GST data have also pointed to strong growth in nominal GDP, although the most recent outturns indicate that growth may be slowing.

On balance, taking these and other indicators into account, we estimate that production GDP grew by around 0.2 to 0.3 percent in the September 1996 quarter.

*Growth may be slightly stronger in 96Q4 and 97Q1, but is expected to remain subdued.*

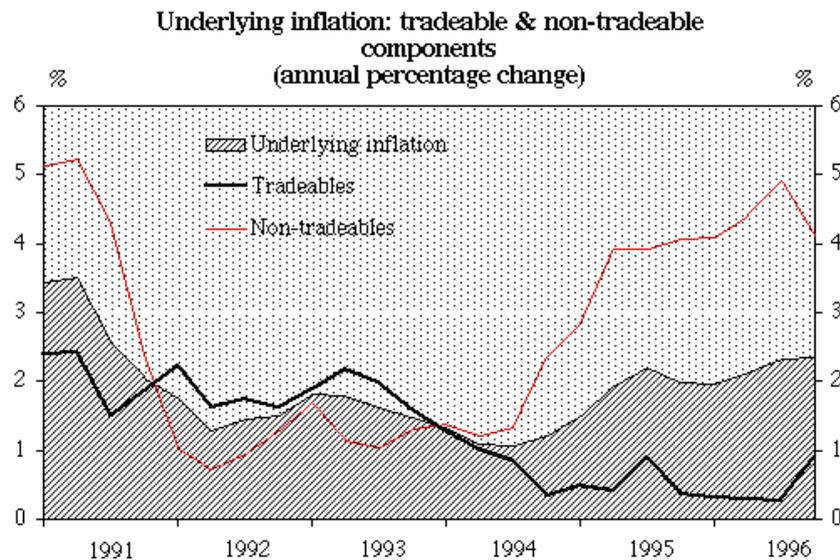
The limited data available for the December quarter, combined with information from our business contacts, suggest that growth in consumer and foreign demand may have recovered very slightly in the December quarter. While the short-term outlook for exports of primary goods and manufactured commodities is quite favourable, we expect a significant fall in residential building activity to dampen overall growth in the December 1996 and March 1997 quarters.

**Figure 16**



House prices are from the Valuation New Zealand quarterly house price index. Construction costs are CPI-weighted section and construction costs.

**Figure 17**



Note: 'Tradeables' refers to goods and services whose prices are primarily determined in international markets, while 'non-tradeables' refers to goods and services whose prices are primarily determined in domestic markets.

### ***Underlying inflation***

*Inflation in 96Q3 was lower than expected ...*

Weaker economic activity - at least in the housing sector - appears to have already resulted in a decline in underlying inflation. Underlying inflation was 0.3 percent in the September 1996 quarter. This outcome was markedly lower than the 0.7 percent increase expected by the Bank in the September *Economic Projections*. As a result, underlying inflation over the year to September was unchanged at 2.3 percent - still above the target range, but less than the 2.7 percent that we had expected.

*... reflecting lower house construction costs.*

Around three-quarters of the total difference can be attributed to a lower-than-expected outcome for house construction costs.<sup>5</sup> The sharp increase in house prices in the first half of 1996, together with strong growth in the monetary aggregates, led our model to project a large increase in house construction costs in the September quarter (seasonal factors also usually contribute to an increase in this quarter) that did not, in fact, occur.

Tentatively, it appears that the sharpness of the downturn in the residential construction sector is resulting in a rapid cooling in construction cost pressures. The distribution of responses to the Statistics New Zealand construction cost questionnaire showed that far fewer respondents reported large or very large increases in construction costs in the September quarter. More respondents reported stable prices, or in some cases, large price falls.

5 Other factors leading to the over-prediction of the underlying inflation outcome in the September quarter were an unexpected decrease in domestic airfares and health care costs (these outcomes are expected to be reversed in the December quarter), and a larger-than-expected fall in household appliance and furniture prices. Partially offsetting these errors, meat prices proved somewhat stronger than we had expected.

## Tradeable goods and services prices

*Tradeables inflation has remained low ...*

Around half of the expenditure represented in the CPI is on goods and services that may be broadly classified as 'tradeable'. The prices of these items - at least over the medium-term - are determined more by developments in world markets than by demand and supply conditions in the domestic economy.

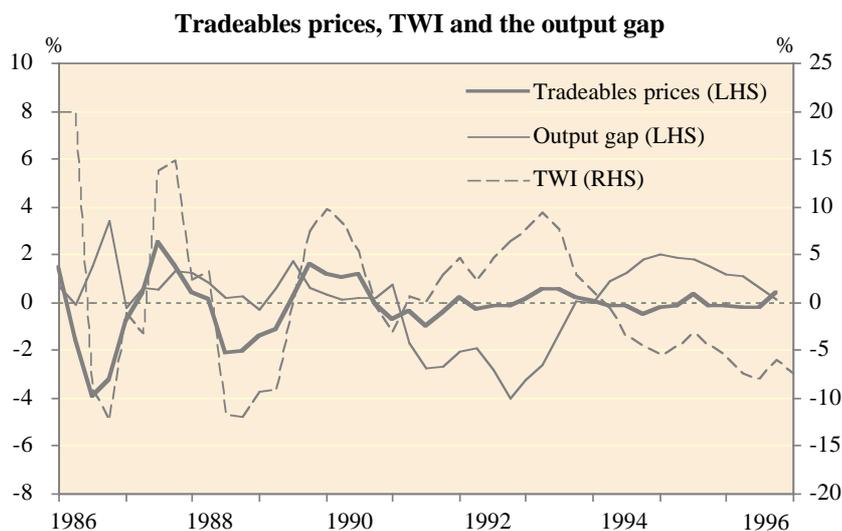
*... but might have been lower still ...*

In underlying terms, tradeable goods and services prices increased by 0.1 percent in the September quarter, and by 0.9 percent in the year to September. Although tradeables inflation remains well below that of non-tradeables, it is perhaps surprising that tradeables inflation has not been lower still given the sharp movement in the nominal exchange rate over the last two years.

*... had demand pressures been less prevalent.*

Figure 18 relates the deviation of tradeables inflation from its trend to past movements in the TWI and the Bank's estimate of the output gap. As one would expect, the figure shows a close correlation between movements in tradeables inflation and the TWI. However, this relationship appears to have largely broken down since 1990. The depreciation of the TWI during 1990-1992 - a period characterised by substantial excess supply in the economy - put less upward pressure on inflation than had historically been the case. Similarly, the subsequent appreciation of the TWI during 1993-1996 - a period characterised by significant excess demand pressures - has put less downward pressure on inflation than has historically been the case.

**Figure 18**

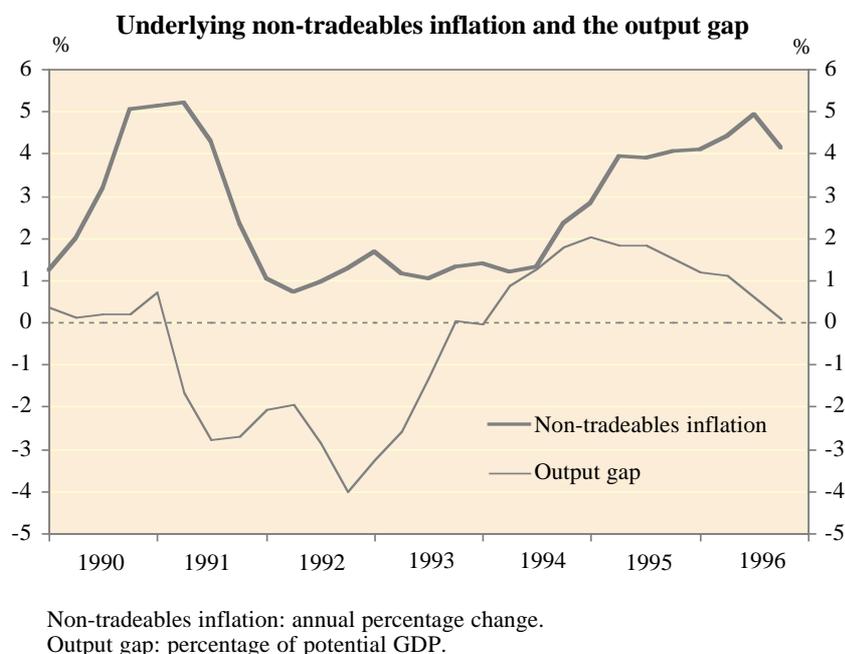


Tradeables prices: annual percentage change (deviation from trend).

Output gap: percentage of potential GDP.

TWI: expressed in cost of foreign exchange terms (ie positive change of the TWI represents a depreciation), advanced 3 quarters.

**Figure 19**



This outcome is consistent with a degree of “pricing-to-market” behaviour by firms.<sup>6</sup>

### *Non-tradeable goods and services prices*

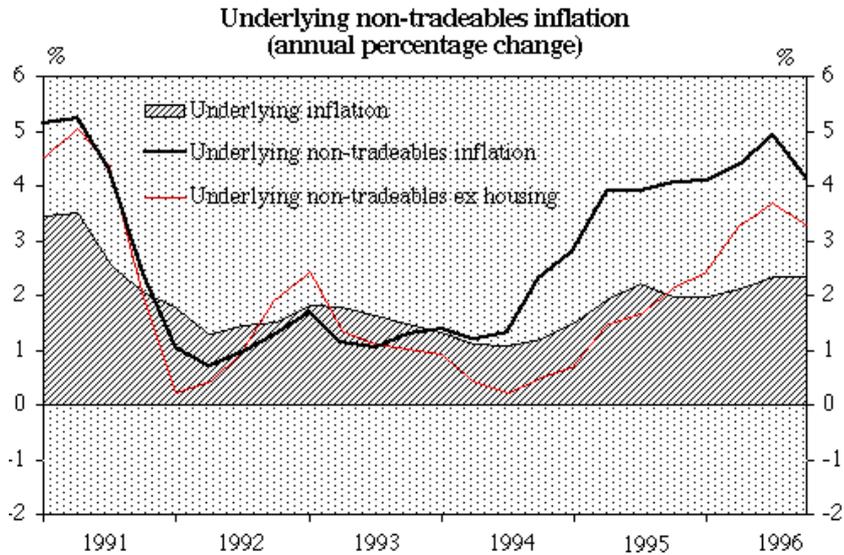
*Slowing non-tradeables inflation mainly reflects housing sector developments.*

By contrast with the prices of ‘tradeables’, the prices of ‘non-tradeable’ goods and services are mainly determined by the balance of demand and supply in the domestic economy. In underlying terms, the prices of non-tradeable goods and services increased by 0.6 percent in the September quarter, following growth of 1.1 percent in the June quarter. The September outturn was the weakest recorded since the June 1995 quarter. As a result, the annual rate of non-tradeables inflation fell to 4.1 percent, compared with 4.9 percent in the year to June 1996. The sharp fall in growth of house construction costs was a major factor explaining the slowdown.

Excluding the impact of house construction costs and other components related to the housing cycle, the slowdown in non-tradeable inflation was less marked. Non-tradeables (excluding housing) increased by 0.6 percent in the September quarter (2.4 percent in annualised terms). This compares with 0.7 percent (2.8 percent annualised) in the June quarter.

<sup>6</sup> In an open economy, the Law-of-One-Price implies that domestic import prices should equal the domestic currency equivalent of foreign export prices. However, in the short term, physical and institutional barriers to trade can lead to a divergence from the Law-of-One-Price whereby import prices, and the degree of exchange rate passthrough, are determined according to domestic market conditions. This behaviour is known as ‘pricing-to-market’. See, for example, Hansen (1996) “A Pricing-To-Market Model with Unobserved Variables: Explaining New Zealand’s Import Prices”, forthcoming in *Applied Economics*.

Figure 20



Note: 'Housing' comprises the following CPI series: construction expenses, purchase of new dwellings, sections and holiday houses, professional and real estate agent services, dwelling maintenance services, rentals.

### ***Other measures of trend inflation***

*Measures of trend inflation ...*

The Bank also monitors other measures of trend inflation. These exclude the effects of exceptional price movements but, unlike the Bank's measure of underlying inflation, do not involve substantial elements of judgement. One such measure is the weighted-median measure of inflation. This represents the 'middle' rate of inflation in the sense that half of the CPI regimen experiences increases above, and half below, the median rate. Another measure of trend inflation is the trimmed mean. This is calculated by removing the largest 5 percent of price increases and the largest 5 percent of price decreases (in terms of regimen weight), and then computing the weighted mean of the remaining price movements.

*... suggest that inflation has peaked.*

Recent outcomes for the weighted median, the trimmed mean, and the Bank's underlying measure of inflation, are illustrated in Figure 21. These measures all suggest that the general rate of inflation has peaked.

### ***Headline inflation***

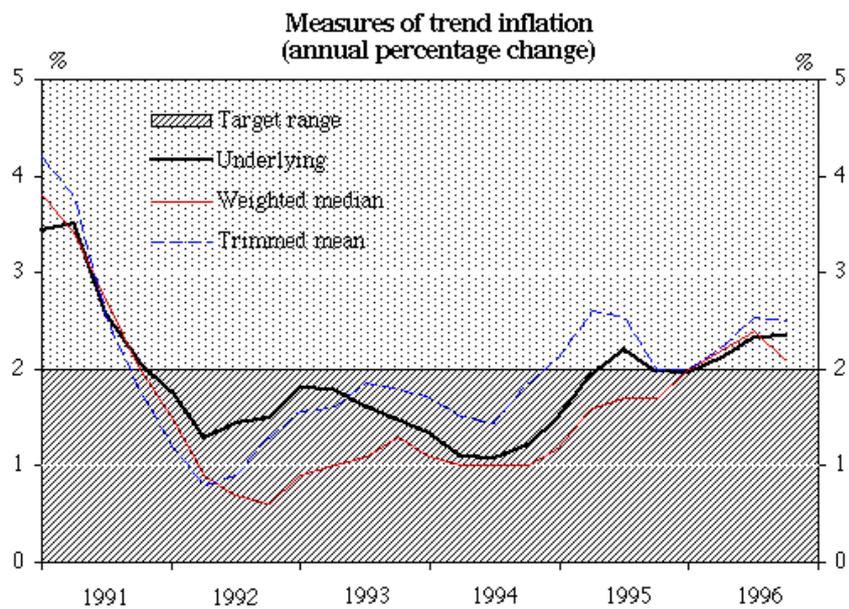
The All Groups or 'headline' CPI increased by 0.6 percent in the September 1996 quarter. As a result, the headline inflation rate increased to 2.4 percent in the year to September, compared with 2.0 percent in the year to June. Table 1 accounts for the difference between headline and underlying inflation in both the September quarter and the September year. As the table shows, changes in credit costs account for the entire difference between the two measures.

**Table 1**

**Reconciliation of underlying and headline CPI inflation to September 1996 (in percent)**

	September quarter	Year to September
Underlying inflation	<b>0.3</b>	<b>2.3</b>
Plus/minus the impact of interest rates	0.3	0.1
Plus/minus the impact of government charges	0.0	0.0
Plus/minus the impact of oil price movements	0.0	0.0
Headline CPI	<b>0.6</b>	<b>2.4</b>

**Figure 21**



Note: Series exclude credit services.

### ***The short-term outlook for inflation***

*The Bank's  
projections ...*

The Bank's projections for inflation over the next two quarters (in this case, December 1996 and March 1997) are primarily based on a component-by-component analysis of the prices of the goods and services measured in the CPI. This approach takes into account recent trends, established seasonal patterns, leading indicators, and other specific information gathered from a wide variety of sources.

*... point to falling  
inflation in the  
December and  
March quarters.*

We now expect underlying inflation to be 0.5 percent in the December 1996 quarter and 0.4 percent in the March 1997 quarter. The projection for both quarters is 0.1 percentage points higher than that published in the September *Economic Projections*.<sup>7</sup> On the basis of this outlook, underlying inflation is projected to remain at 2.3 percent in the year to December 1996, before declining to 2.0 percent in the year to March 1997. The projection for the year to March 1997 is 0.1 percent lower than that published in the September *Economic Projections*, notwithstanding the small upward revisions in the December and March quarters. This reflects the impact of the unexpectedly low inflation outturn in the September 1996 quarter. Thereafter, our medium-term projections (discussed later in the section) point to a rapid fall in inflation outcomes.

### **(iii) The medium-term outlook**

#### ***Technical assumptions about policy***

*Our medium-  
term  
projections ...*

The projections discussed in this *Statement* are conditional on a number of assumptions regarding the stance of monetary and fiscal policy, and how these are reflected in the mix of monetary conditions.

*... are based on  
stable monetary  
conditions ...*

As was the case in the September *Economic Projections*, monetary conditions - at least as reflected in 90-day bank bill rates and the trade-weighted exchange rate (TWI) - are assumed to remain fixed in nominal terms throughout the period. Compared with the *Economic Projections*, the assumed level of monetary restraint is in broad terms unchanged. However, the Bank's assumption regarding the mix of monetary conditions has changed to reflect the rebalancing that has occurred over recent months.

- The TWI is assumed to remain constant at around 66.5 over the entire period covered by the projections. By contrast, in the

---

<sup>7</sup> With regard to the December quarter, the main factors accounting for the revision are stronger increases in food prices, health care costs, petrol, and domestic airfares, together with a weaker fall in used car prices. The March 1997 quarter has been projected using the components approach for the first time. This approach suggests a marginally higher rate of inflation than that previously suggested by our medium-term inflation equations. Housing costs, tertiary fees, and domestic and international airfares make notable contributions.

September *Economic Projections* the TWI was assumed to remain constant at around 65.0.

- The 90-day bank bill rate is assumed to remain at around 9 percent over the entire period covered by the projections. By contrast, in the September *Economic Projections* the 90-day bank bill rate was assumed to remain constant at around 10 percent.

*... and an unchanged fiscal policy stance.*

Fiscal policy is assumed to evolve in a manner consistent with the 1996 *December Economic and Fiscal Update*, published by the Treasury on 2 December 1996. No allowance has been made for any change in the stance of fiscal policy following the completion of Parliamentary coalition negotiations. As usual, our fiscal outlook differs from that published by the Treasury to the extent that our macroeconomic outlook differs from that underlying the Treasury's projections. In practice, this mainly has implications for our projections of spending on social welfare and debt servicing, and for our projection of tax revenues.

*The assumptions are not forecasts or policy targets.*

We stress that the assumptions regarding monetary conditions are *assumptions*, not forecasts or policy targets. The appropriate *level* of monetary conditions - that consistent with underlying inflation moving back into the middle part of the target range - depends on the accuracy of other assumptions and judgements made regarding external influences (for example, world growth and inflation), the nature of behavioural relationships, and the future course of fiscal policy. The exact *mix* of monetary conditions will depend on decisions made within financial markets.

### ***Economic activity and excess demand pressures***

*Growth of around 2 - 2.5 percent is projected.*

On the basis of the technical assumptions outlined above, we project GDP growth of around 2.5 percent in the year to March 1998 and around 2 percent in the year to March 1999. Table 2 provides a summary of the key economic projections.

*Compared with our September Projections ...*

The aggregate outlook is little changed from the September *Economic Projections*. However, the composition of growth is expected to differ slightly, mainly reflecting the different mix of monetary conditions assumed in these projections. In arriving at these judgements, we have considered the various and divergent impacts of the key drivers of aggregate demand.

**Table 2****Summary of economic projections  
(March years)**

	Actual		Projections		
	94/95	95/96	96/97	97/98	98/99
Production GDP growth					
(March to March)	4.5	2.6	1.3	2.6	2.1
(Annual average)	5.3	3.1	1.6	2.3	2.3
Employment growth					
(March to March)	5.0	3.9	1.9	0.2	1.1
Unemployment rate					
(March quarter s.a.)	6.6	6.2	6.7	7.0	6.7
Current Account - % of GDP					
(March year)	-3.9	-4.0	-4.7	-4.8	-5.3
Govt. operating surplus - % of GDP					
(June year)	3.1	3.6	2.1	1.6	1.9

*... the monetary and fiscal policy assumptions are similar ...*

Both the assumed fiscal policy stance and the assumed *level* of monetary conditions are judged to be broadly unchanged compared with the assumptions made in September, and thus have a neutral impact on the projections. We continue to expect the increase in household disposable incomes (due to tax cuts) to feed through into robust growth in consumer spending. Indeed, given the lower interest rates assumed in these projections, consumer spending is expected to grow by slightly more than we had projected in September. However, the impact of this on overall activity is offset by weaker export growth and strong import growth as a result of the higher real exchange rate implicit in these projections.

*... the terms of trade will be weaker ...*

Over the short-term we no longer expect the terms of trade to rise as quickly as projected in September, although the same level is attained by the end of the projection. This reflects a downward adjustment to our short-term projections of the world price of New Zealand's exports and a change in the timing of our projection of a fall in the world price of New Zealand's imports.

*... but household wealth will be stronger.*

The impact on growth of the revision to the terms of trade is judged to be broadly offset by an upward revision to household wealth. The September quarter Valuation New Zealand measure of house prices, although indicating a fall in prices, was higher than projected. Information from our business contacts suggests that house prices have now stabilised and surveys also point to a modest recovery in sentiment towards the purchase of housing. This information, combined with the lower interest rates assumed in these projections, has led us to modify our previous projection of further falls in house prices over the coming year. Instead, we project house prices to remain broadly stable over the next six months or so in nominal terms. Thereafter, house prices are projected to rise gradually over the remainder of the

period in line with past trends in *real* price movements and the projected path for underlying inflation.

*Lower immigration will affect the housing market ...*

The outlook for the remaining driver of aggregate demand - population growth - is judged to have changed little compared with the assumptions underpinning the September projections. Net immigration is projected to decline substantially over the coming year or so as past changes to immigration policy begin to take effect. While considerably slower population growth will affect most components of domestic spending, a particularly important impact will be to remove one source of pressure on the housing market.

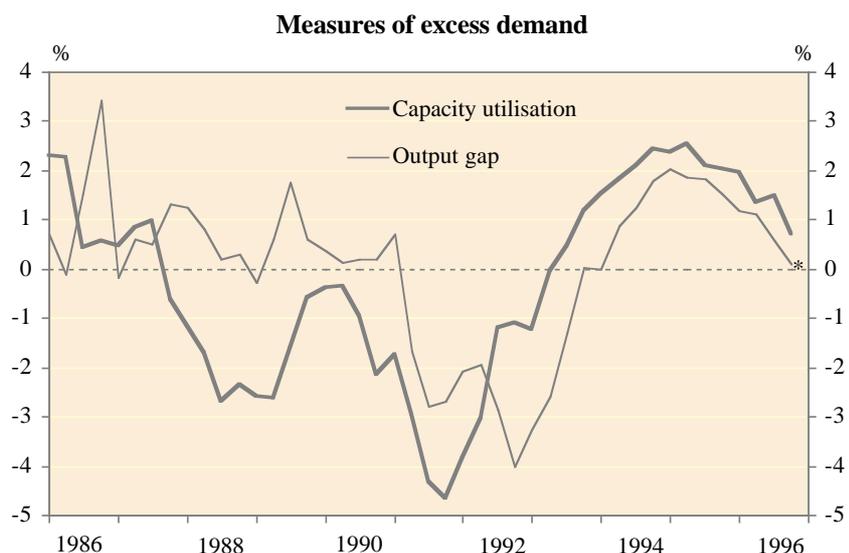
*The current account deficit will widen.*

Our projections now indicate a slightly more significant increase in the current account deficit. Less positive outlooks for the trade, services, and investment income balances all contribute to this result. The Bank's economic projections - which embody a less optimistic outlook for economic growth than those of the Treasury - also lead us to project markedly smaller fiscal surpluses than those expected by the Treasury.

*Growth is projected to remain below potential.*

On balance, the Bank's assessment is that the rate of growth of aggregate demand over each of the next two years will be slightly greater than that experienced in 1996/97, although somewhat below the economy's longer-term sustainable rate of growth. Indeed, excess demand pressures are expected to give way to excess supply pressures over the period covered by these projections, particularly in 1998/99.

**Figure 22**



Capacity utilisation: deviation from trend, in percent.  
 Output gap: percentage of potential GDP, based on HP1600 filter.  
 \* Estimate.

*As spare capacity increases, inflation will fall.*

The gradual build up of spare capacity is projected to lead to a significant decline in wage and salary growth, and further pressure on firms' profit margins (although total profits in the economy are still projected to grow). When combined with a rise in labour productivity, these factors will contribute to a reduction in underlying inflation, particularly later in the period covered by the projections.

*Construction cost rises will be modest.*

Growth in house construction costs is also projected to remain quite modest (by recent standards). However, given that we have revised up our projection for the path of house prices, construction costs are projected to make a stronger contribution to medium-term inflation than was envisaged in the September *Economic Projections*.

### ***Inflation expectations***

*Longer-term inflation expectations ...*

Expectations of future inflation are themselves an important influence on wage- and price-setting behaviour. Therefore, the Bank monitors a range of surveys recording the inflation expectations of firms, households, and financial sector participants.

*... have increased slightly ...*

Recent surveys suggest that inflation expectations have increased slightly, especially expectations of longer-term inflation. The Reserve Bank's November 1996 *Survey of Expectations* indicated that one- and two-year-ahead expectations of annual underlying inflation were 1.7 percent and 1.8 percent, respectively. The two-year-ahead expectation was up 0.2 percentage points compared with expectations in the August survey. The most recent Alexander Consulting Group survey of economists showed a similar increase in longer-term inflation expectations, and the range of expectations also widened considerably.

*... and could make restoring price stability harder.*

Higher inflation expectations may reflect a reaction to disappointingly high inflation outcomes over the past year or expectations of a change in the Bank's inflation target range as a result of coalition negotiations. Either way, further significant increases would make the job of restoring price stability more difficult.

### ***External price influences***

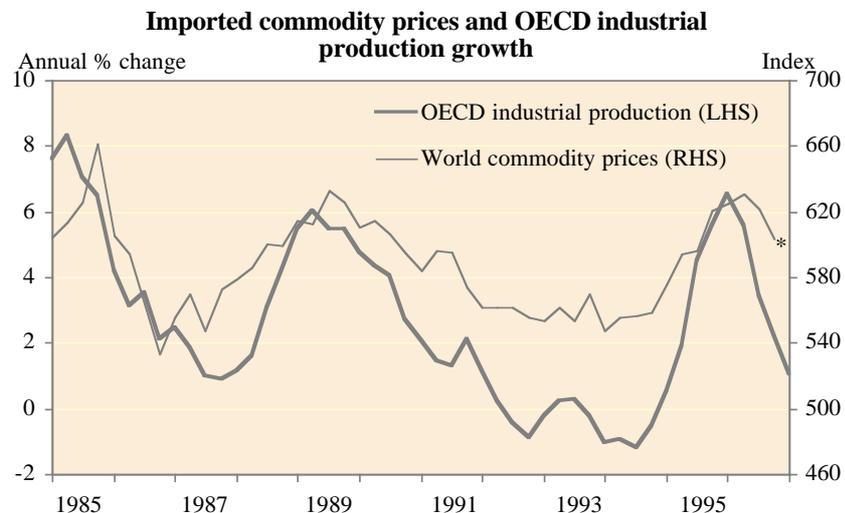
*Tradeables prices continue to dampen inflation.*

As in the September *Economic Projections*, external prices are generally expected to be a source of downward pressure on inflation over the period ahead.

*Export commodity prices have fallen ...*

The world prices of many of New Zealand's export commodities - for example, dairy products, pulp and paper, and aluminium - have fallen sharply since the first quarter of 1996. These prices are not projected to recover until around mid-1997.

**Figure 23**



OECD industrial production: advanced 4 quarters.  
 World commodity prices: derived from the overseas Trade Indices deflated by the TWI.  
 \* Estimate.

*... as have the prices of imported intermediate goods.*

Our projection of the average world price of New Zealand's non-oil commodity imports continues to draw upon the strong historical relationship with (lagged) OECD industrial production. Lower growth in OECD industrial production during 1995/96 is estimated to have resulted in a sharp decline in the world prices of many of our imported intermediate goods during 1996. This is projected to impact on underlying inflation in 1997. Thereafter, *Consensus Forecasts* point to an increase in OECD industrial production during 1996/97, suggesting a rise in commodity prices during 1997/98.

*Manufactured goods prices will track below world CPI inflation.*

Our projections for the prices of the various components of non-commodity manufactured imports are based on a series of econometric equations. These equations link the domestic prices of transport equipment, electrical machinery, and non-electrical machinery to the relevant world price indices and bilateral exchange rates. *Consensus Forecasts* of the relevant world price indices suggest that inflation in the average world price of New Zealand's manufactured imports will track below world consumer price inflation throughout the period covered by these projections.

*World oil prices are assumed to fall over 1997.*

World oil prices have risen significantly in recent months, averaging around US\$21-\$22 per barrel for Dubai crude. This largely reflects strong demand from North America and Europe and low inventory levels (the latter had been reduced in anticipation of a drop in prices once Iraq is re-admitted to the market). In due course, however, growth in oil supply is expected to begin to outstrip growth in

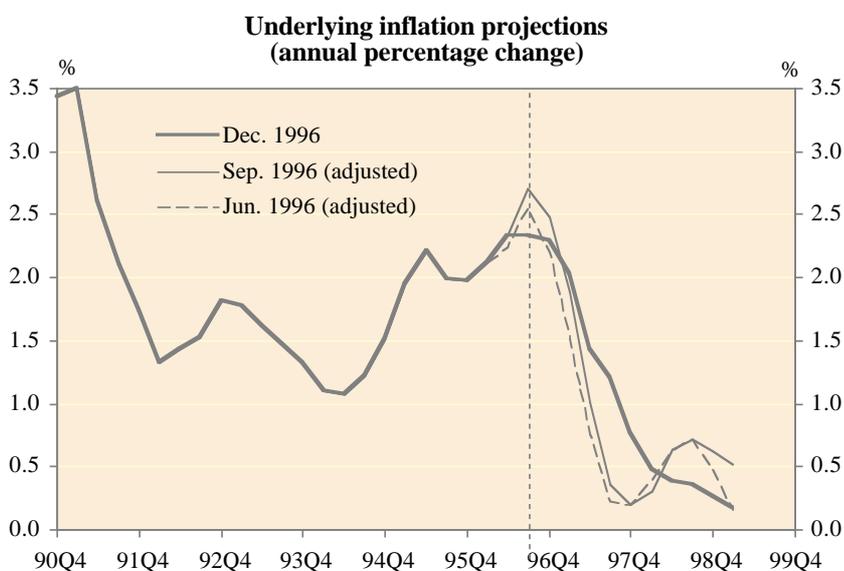
demand. Consequently, we have assumed that prices will drop back to below US\$18 per barrel by the beginning of 1998.

Given recent outturns, we have slightly lengthened the lags with which falls in world prices are assumed to be translated into falls in domestic prices. Consequently, compared with the September *Economic Projections*, import prices make a stronger contribution to inflation over the short-term, but a weaker contribution over the medium-term.

### ***Medium-term inflation projections***

On the basis of the technical assumptions made and the various other influences on inflation discussed above, the Bank's latest projections for underlying and headline inflation are shown in Table 3 and Figure 24. Table 3 also presents the Bank's projections for the *CPI ex credit services* series published by Statistics New Zealand, and used by the Bank as the base for calculating underlying inflation.

**Figure 24**



Note: For reasons of comparability, previous projections have been adjusted to bring them on to the same exchange rate tracks as used for the June 1996 projection

**Table 3****CPI inflation projections  
(percent changes)**

	Underlying		CPI ex credit services		Headline	
	Qtrly.	Ann.	Qtrly.	Ann.	Qtrly.	Ann.
<b>1996</b>						
Mar.	0.6	2.1	0.6	2.1	0.5	2.2
June	0.8	2.3	0.8	2.4	0.8	2.0
Sept.	0.3	2.3	0.4	2.3	0.6	2.4
Dec.	0.5	2.3	0.6	2.3	0.5	2.3
<b>1997</b>						
Mar.	0.4	2.0	0.4	2.1	0.3	2.1
June	0.2	1.4	0.1	1.4	0.2	1.5
Sept.	0.1	1.2	0.1	1.2	0.1	1.0
Dec.	0.1	0.8	0.1	0.7	0.1	0.6
<b>1998</b>						
Mar.	0.1	0.5	0.1	0.5	0.1	0.5
June	0.1	0.4	0.1	0.4	0.1	0.3
Sept.	0.1	0.4	0.1	0.4	0.1	0.3
Dec.	0.0	0.3	0.0	0.3	0.0	0.1
<b>1999</b>						
Mar.	0.0	0.2	0.0	0.2	0.0	0.1

*Underlying inflation is projected to fall rapidly ...*

The medium-term outlook for underlying inflation is not substantially different from that published in the September *Economic Projections*. Underlying inflation is projected to remain above the 0 to 2 percent target range in the year to December 1996, before narrowly re-entering the target range in the year to March 1997. Annual underlying inflation is projected to fall rapidly thereafter, to 0.5 percent in the year to March 1998 and 0.2 percent in the year to March 1999.

*... reflecting the impact of spare capacity on price setting, ...*

With growth in aggregate demand projected to remain below growth in the economy's productive capacity, a small amount of spare capacity is projected to build up gradually through the period. As this occurs, competitive forces will lead to a reduction in price pressures. However, these channels take time to work - by themselves, they would lead only to a gradual reduction in underlying inflation. Nevertheless, the projections outlined above point to a sharp fall in underlying inflation over the coming year. This reflects two factors:

*... less inflation in the housing market ...*

- The slowdown in the housing market seems to indicate that the particularly high degree of excess demand in that sector has now been relieved. Activity in the housing market is projected to remain relatively subdued over the projection period. Therefore, the extreme price pressures seen in the housing sector during the past two years are not projected to be repeated.

*... and falls in import prices.*

- A significant contribution to the fall in inflation over the next 12 months or so stems from our projection of a large fall in import prices. As noted above, this reflects both projected falls in world commodity prices and the direct price level impacts of the recent appreciation of the exchange rate - particularly against the US dollar and yen - on the price of imported manufactures.

These factors allow inflation to fall over the next year or so even though significant downward pressure on inflation from excess capacity in the economy is not expected until later in the period.

*The fall in inflation is more rapid than previously projected.*

Although the general profile is quite similar, the fall in underlying inflation is slightly more pronounced compared with the projections published in September. The downward revision to the inflation outlook for the year to March 1998 largely reflects the impact of the higher assumption for the TWI, offset to some extent by an upward revision to our assumption regarding house construction costs. The downward revision to the outlook for the year to March 1999 reflects a smaller contribution from world import prices and increased downward pressure on firms' margins. Again, this is offset to some extent by a stronger contribution from house construction costs.

*Headline and underlying inflation follow a similar path.*

The path of headline inflation is projected to follow closely that of underlying inflation. Headline inflation will fall below underlying inflation in the March 1997 quarter. This solely reflects the impact of recent decreases in mortgage interest rates. Thereafter, our assumption of no further movement in credit costs, combined with our projection of no adjustments to reflect either international commodity prices or government charges, means that our quarterly projections for headline and underlying inflation are the same.<sup>8</sup>

It should be noted, however, that, on current projections, the contribution of world oil prices to underlying inflation is very close to reaching the required threshold for exclusion from headline inflation (a 0.25 percentage point contribution to inflation over a 12 month period). Indeed, given current domestic prices and the \$US/\$NZ exchange rate, we estimate that world oil prices will contribute about

---

<sup>8</sup> The movements in the CPI ex credit services and the headline CPI are based on rounded whole index numbers in accordance with Statistics New Zealand conventions. The slight downward drift in the annual headline inflation projection relative to that for underlying inflation is the result of the impact of our assumption of no movement in measured credit costs beyond the March 1997 quarter.

0.2 percentage points to underlying inflation in the year to March 1997. If world oil prices were to be sustained at current levels there exists the possibility of a further rise in domestic petrol prices. At that point, the threshold would be breached, and the contribution from oil prices would be removed from headline inflation. This would lead to a downward revision to actual and projected underlying inflation stretching back to the June 1996 quarter.<sup>9</sup>

#### **(iv) Uncertainties in the projection**

*The projections are subject to uncertainty.*

The projections discussed in this *Statement* represent the Bank's best estimate of the most likely outlook for economic activity and inflation *given the assumptions made*. The projection, however, is subject to a number of uncertainties. Some uncertainties relate to the policy and non-policy assumptions that underpin the projections; other uncertainties stem from gaps in our understanding of the structure and parameters governing economic behaviour.

*Overall, the uncertainties are balanced.*

Over the short term, we are comfortable with our assessment that the uncertainties surrounding the central projection are broadly in balance. Over the medium-term, given the *policy* assumptions made, there is a possibility of a slightly weaker outlook for economic activity and inflation, particularly towards the end of the period. However, in the Bank's judgement, this risk is offset by the possibility of a more expansionary fiscal policy stance than is assumed in these projections. The main uncertainties are discussed below.

#### ***Uncertainties related to policy assumptions***

*More fiscal stimulus would add to demand pressures ...*

The outlook for fiscal policy is clearly a major source of uncertainty. As noted earlier, the projections assume that the fiscal policy stance remains consistent with that outlined in the *December Economic and Fiscal Update*. No allowance has been made for a more expansionary fiscal policy stance as a result of coalition negotiations - the timing, form, and potential magnitudes involved are too uncertain to build into the central projection. However, the Bank is very conscious that further increases in government spending or more tax cuts would add to pressures on aggregate demand, and thus inflation.

*... leading to more of a squeeze on the export sector.*

At the same time, a more expansionary fiscal policy may contribute to a further shift in the mix of monetary conditions so that even

---

<sup>9</sup> The increase in world crude oil prices has led to a similar rise in the price of jet fuel. Jet fuel accounts for around 15-20 percent of total airline costs. In the past, the Bank has not taken this into account when calculating the total impact of world oil prices on headline inflation. If the Bank's early estimates of the contribution of jet fuel prices to headline inflation were added to that for petrol prices, a case could be made for applying the caveat to oil prices in the March 1997 quarter even in the absence of a further rise in the price of petrol. A decision on whether or not to apply a caveat to world oil prices will be made in 1997 once firmer estimates of the full impact on inflation have been obtained.

greater upward pressure is exerted on the real exchange rate. At some point, this could lead to a sharp contraction in export and import-competing activity, and a more substantial increase in the current account deficit. As debt burdens rise and the loss of income from the external sector feeds through the economy, an even more pronounced slowing in economic growth could occur, notwithstanding the positive impacts of lower interest rates on domestic spending. At some time during this process, a further rebalancing of monetary conditions would be likely to happen - towards higher interest rates and a lower exchange rate - while the level of monetary conditions might also need to fall in order prevent the economy opening up a sizeable negative output gap. This risk was given some emphasis in the March 1996 *Economic Projections*.

### *Uncertainties related to other assumptions*

*Measures of potential output are imprecise.*

The difference between aggregate demand and the economy's sustainable level of production is an important factor influencing the Bank's outlook for inflation. The Bank's assumption regarding the economy's sustainable long-run growth rate (currently about 2.75 per cent per annum) is at the optimistic end of the spectrum in terms of New Zealand's recent historical performance (at least as captured by official statistics). However, given extensive financial and economic reform, many commentators expect trend productivity growth to strengthen in the future. If potential growth is stronger than we have assumed, excess demand pressures will dissipate more quickly than we have projected, and thus inflation will be lower than we project. The converse applies if we have overestimated New Zealand's potential growth rate.

*World economic growth could turn out slightly weaker ...*

As usual, developments in the world economy remain a source of uncertainty. World growth affects inflation in New Zealand partly by influencing the demand for New Zealand exports and thus pressures on capacity, and also by influencing the world prices of New Zealand's exports and imports. We base our external sector projections on world growth forecasts from *Consensus Forecasts*. In the Bank's view, the world's major economies may undergo a more pronounced business cycle than that suggested by *Consensus Forecasts*. Thus, there is an element of downside risk to our assumption for world growth towards the latter part of the period covered by our projections.

*... affecting the mix of monetary conditions.*

Financial market transmission channels are also important. Actions taken by the world's central banks to avert inflation pressures will also impact on the mix of monetary conditions prevailing in New Zealand. This can have a temporary effect on domestic inflation.

## *Uncertainties in our knowledge of economic behaviour*

- The passthrough of the exchange rate is uncertain.* As usual, the assumption regarding the exchange rate passthrough is an important risk. We have previously noted that the passthrough from TWI appreciation into CPI prices has been less than expected. There are two possible explanations for the apparently weak passthrough:
- Underlying inflation could be lower ...*
- There may be a significant cyclical element in the passthrough as a result of 'pricing-to-market' behaviour. If so, the apparent lack of exchange rate passthrough during 1993-1996 may simply reflect the unwinding of the lack of passthrough that followed the depreciation of the TWI during 1990-1992. Implicitly, this is the assumption made in these projections. However, the equilibrium level of passthrough as a result of the total movement in the TWI across this period is unclear. Given that excess demand pressures appear to have dissipated, there is also the risk that additional downward pressure may now feed through into prices.
- ... or higher than projected.*
- The passthrough coefficient may be permanently lower than the 0.3 assumed. Given that domestic demand influences and external influences have been working in different directions, even a small downward adjustment to the passthrough coefficient would have significant consequences for the inflation outlook. For example, reducing the passthrough coefficient to 0.25 - implying greater weight on relatively fast-growing unit labour costs - would cause our projection for annual underlying inflation to rise by up to 0.6 percentage points in the year to December 1997.
- Confidence levels could fall, weakening demand.* A further source of uncertainty is our judgement that firms will largely look through the current cycle, and thus delay adjusting to declining profitability. In light of the fall in full-time employment recorded in the most recent Household Labour Force Survey, our projection that firms will continue to hoard labour (in anticipation of a pick-up in aggregate demand) could prove inaccurate. Further falls in employment, and thus increases in the unemployment rate, would reduce consumer confidence and likely lead to lower levels of consumer spending than we have projected. This, in turn, could be expected to cause a fall in business confidence and investment spending.
- A weaker tradeable goods sector could affect the rest of the economy.* Even in the absence of a further rise in the exchange rate, activity in the exchange-rate-sensitive sectors of the economy - particularly manufacturing, tourism, and agriculture - represents a downside risk to the projections. As discussed earlier, we have projected that robust rates of world economic growth will more than offset the recent loss of price competitiveness experienced by the manufacturing and tourism sectors. As a result, these sectors contribute quite strongly to growth over the period. However, this judgement could prove too

optimistic. If so, activity in these sectors would be weaker than projected. Together with the impact of the lower incomes in the agriculture sector, this would have flow-on effects through to incomes and demand in the rest of the economy.

*The housing sector is a source of upside risk ...*

By contrast, developments in the residential construction sector continue to pose an upside risk to the outlook for economic activity and inflation. Recent falls in mortgage interest rates (both floating and fixed), together with an expectation of further falls, could spark a renewed surge in house prices and construction costs as occurred following similar falls in the second half of 1995. The consequent increase in household wealth would act to stimulate aggregate demand to a greater extent than projected here. However, this risk is countered to some extent as we may be underestimating the impact on housing demand of the projected decline in net immigration flows.

*... as is the commercial construction sector.*

Activity levels in the non-residential construction sector also represents a significant upside risk. A considerable number of major construction projects have been confirmed, announced, or mooted in recent months. We have assumed that several of these projects will proceed, but our assumption could turn out to be too conservative.

*Higher inflation expectations could lead to higher inflation outcomes.*

Finally, as noted earlier, recent surveys point to a rise in longer-term inflation expectations. If these trends were to continue, the resulting impact on wage- and price-setting behaviour could lead to higher inflation outcomes than we have projected.

## IV. Financial market developments

*Tight monetary policy has attracted strong capital inflows*

Monetary policy has held overall conditions firm throughout the last six months (as in the previous two years), while in the rest of the world monetary policy has generally been relatively loose to neutral. As a result, New Zealand has attracted very large capital inflows. These inflows have altered the mix of conditions towards a considerably higher exchange rate and somewhat lower interest rates than would otherwise have been the case. The inflows largely swamped the impact of political uncertainties associated with the general election.

### (i) Changing views of the stance of policy

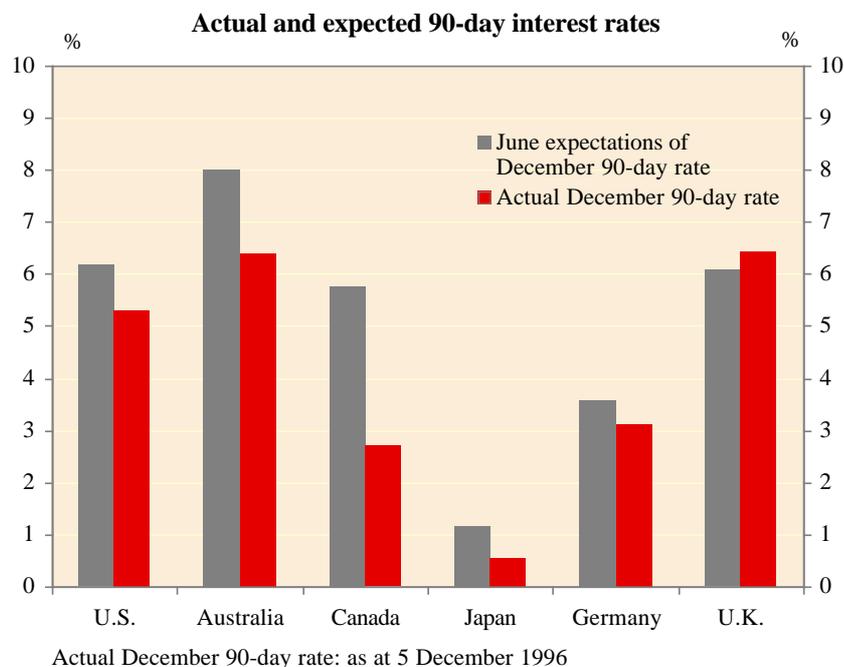
*The firm stance of monetary policy took markets by surprise ...*

Markets were generally taken by surprise by the firm stance of monetary policy implied by both the June *Monetary Policy Statement* and the September *Economic Projections*. In June the main surprise was the extent to which the Bank's view of the short-term inflation outlook had worsened. By contrast, in September the surprise element was how firm the Bank indicated that overall conditions needed to be until there was conclusive evidence that inflation was falling away. As interest rates were expected to remain higher for longer than previously, the trade-weighted exchange rate (TWI) surged to new eight-year highs following each of these statements - to an index level of around 66 in early July and to nearly 68 in late September. This, in turn, tightened overall conditions, shifting them in each case towards the upper end of the Bank's tolerance range at the time.

*... at a time when expectations abroad moved in the other direction.*

Over the same period, expectations about monetary policy in a variety of other countries moved quite sharply in the opposite direction. In the United States, for example, the official Federal funds rate target has not been changed and, as a result, the US 90-day bill rate is now some 90 points lower than markets in the middle of the year had expected. Consistent with this change of view, longer-term US bond yields have tumbled and are now 100 points lower than the mid-1996 highs. Official rates have been cut sharply and unexpectedly in both Australia and Canada, and, again contrary to expectations, the already very low rates in Japan and Germany have been flat or have fallen a little further. In almost all countries - the United Kingdom excepted - the expected timing of tightenings has been pushed out.

**Figure 25**



**(ii) Capital inflows**

*Record capital inflows were attracted ...*

There has been an extraordinary upsurge of interest in investing in New Zealand dollar instruments among retail investors in continental Europe and Japan during the period. The bulk of the funds have been invested through specialised retail instruments denominated in New Zealand dollars and issued in Europe or Japan (the so-called ‘Eurokiwis’ and ‘Samurais’ respectively). After almost a decade of relatively little issuance, a record \$8250 million of these bonds has been issued this year so far<sup>1</sup>, mostly in the last six months or so - an annualised amount equivalent to around 15 percent of New Zealand’s GDP.

*... by a combination of factors ...*

An unusual combination of factors - which together cannot be expected to persist indefinitely - explains the dramatic upsurge:

- low and/or falling interest rates in continental Europe and Japan (the major markets in which the investors live);
- high interest rates in New Zealand (making investments in NZ dollar instruments attractive);
- expectations among Japanese households that the yen will depreciate over the next few years (making foreign currency investments appear more attractive);

---

<sup>1</sup> These totals and those in Figure 26 refer only to publicly listed issues. In addition, there has been a substantial volume of privately placed and unlisted issues.

- falling interest rates in Australia and Canada (two of the other major ‘dollar-bloc’ markets investors considering NZ dollar assets are likely to have been considering);
- the steeply downward-sloping yield curve and buoyant housing market here (over the last 12 to 18 months this has encouraged a sharp rise in the demand for one to three year fixed rate mortgage finance).

Most of the bonds are issued by prominent overseas organisations that have no natural interest in borrowing NZ dollars. The borrowers, in effect, pass the proceeds of the issue and the future repayment obligations to a New Zealand bank while taking, say, US dollars in exchange (a standard “swap” transaction).

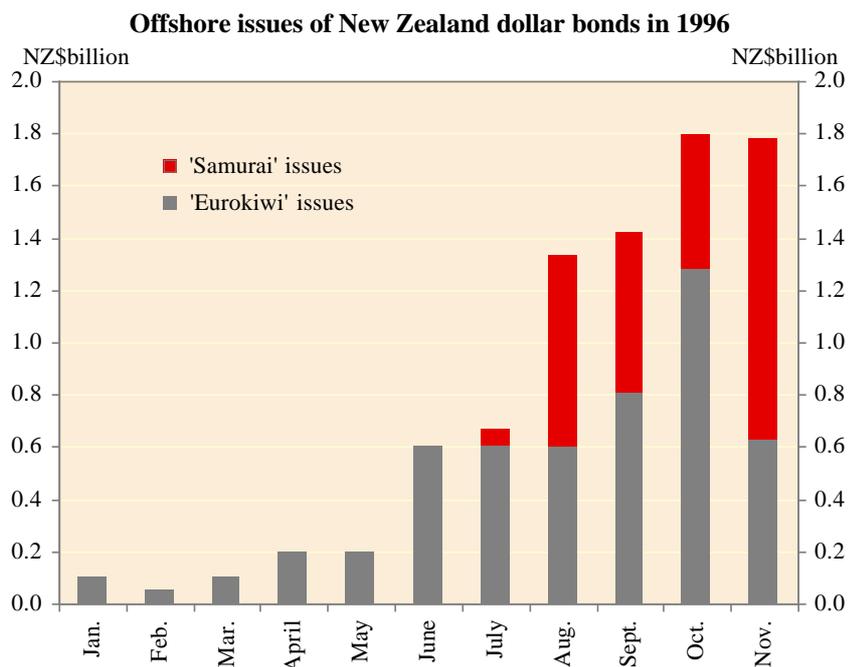
*... and boosted the exchange rate.*

Stripped of their complexity, these issues simply allow domestic banks to obtain relatively cheap NZ dollar finance by tapping into a pool of retail investors overseas who want a NZ dollar asset issued by a high quality familiar borrower. The domestic banks can then invest those funds either in one to three year domestic bonds, or in fixed interest rate mortgages of the same term. The bond issues affect the exchange rate because foreign investors need to purchase NZ dollars to pay for the bonds when they are first issued.

*There have been signs that the inflow may be slowing ...*

Toward the end of the period, there were some factors emerging that tentatively suggest that the flow of foreign funds into New Zealand dollar instruments may soon begin to slow. Although our very short-term interest rates have remained high, both absolutely and relative

**Figure 26**



to those in other OECD countries, further along the yield curve New Zealand bond yields have fallen further than those in many other comparable countries.

*... as interest rate differentials shift.*

The fall in bond yields relative to those in other countries has resulted from both the very strong foreign retail demand for New Zealand dollar securities over recent months and the increasing expectation among more professional investors that a substantial easing in monetary policy is likely in the next few months, regardless of the composition of the next government. Abroad, the pace of easing has generally slowed, and in early November the United Kingdom became the first G7 country to raise interest rates this year. As a result, New Zealand interest rates for the favoured one to three year terms no longer stand out quite as they did at mid-year. Other markets, including Italy and the United Kingdom, may soon start to be seen as providing similar or better opportunities.

### **(iii) Political influences**

*Political factors were significant around mid-year ...*

The exchange rate has been persistently strong over recent months despite the intense focus on the early October general election and evident concerns about possible changes to the fiscal and monetary policy frameworks. In hindsight, it is clear that political concerns had their greatest impact on markets at around the time of the last *Monetary Policy Statement* in June, following the surge in support for those parties which appeared to be least supportive of the recent thrust of economic policy management. These concerns led to a marked widening in the spread between New Zealand and foreign bond yields.

*... but have had little impact more recently.*

A modest pre-election sell-off in early October was quickly reversed in the days after the election. The underlying strong foreign demand for New Zealand assets swamped the impact of those participants who had expected that the heightened prospects for a near-term easing would cut the support from under the TWI. Notwithstanding the continued uncertainty about the composition and policy priorities of the next government, politics appear to have had little sustained influence on markets throughout the period of post-election coalition talks.

### **(iv) Interpreting policy**

*Many believed that the Bank would resist interest rate falls ...*

Bond yields have fallen dramatically in recent months as the surge of retail funds has washed through our markets. More recently, shorter-term interest rates have also fallen quite rapidly as investors anticipated that that Bank would accommodate some easing in the stance of policy.

*...because of the inflation pressures, ...*

Earlier in the period, there had been a sense among professional investors that the Bank would not be happy with any fall in short-term interest rates. In a sense, this was a fair perception. As much of the recent inflation pressure had been concentrated in the housing sector, and in the non-tradeables sector more generally, the Bank had been reluctant to see interest rates fall. As a result, the exchange rate was allowed to appreciate a little more than might otherwise have been the case. However, a wide range of indicators influence the Bank's assessment of appropriate monetary conditions, not just the exchange rate and short-term interest rates.

*... notably in the housing market.*

*Two unscheduled statements were made ...*

The Bank made two unscheduled statements designed to influence monetary conditions over the period since the last *Monetary Policy Statement*. The first was on 16 October in response to a relatively rapid easing in monetary conditions that was occurring in the wake of the unexpectedly low September quarter inflation outcome. This statement noted, in effect, that the inflation outcome was not in itself the conclusive evidence needed to warrant a significant easing in policy. By reaffirming a continued firm stance, this appeared to reinforce perceptions in some quarters that there was a largely independent interest rate floor in place. But it also came as another wave of overseas buying interest in New Zealand securities washed across the local markets. In consequence, the exchange rate rose sharply with very little interest rate reaction. As a result, overall conditions tightened to the point where, if they had been sustained, the bottom of the inflation range would have been threatened<sup>2</sup>.

*... the first in response to the low CPI outcome ...*

*... and the second in response to the strengthening of the exchange rate.*

The Bank issued a further statement on 24 October, noting how firm conditions had become and, more importantly, reiterating the notion of a trade-off. The statement acknowledged that the pressure of market demand meant that more of the disinflation pressure would probably have to be taken on the exchange rate and less on interest rates than might have been ideal.

#### **(v) Overall assessment**

*The mix of monetary conditions changed over the period ...*

Over the six months as a whole, monetary conditions have been influenced by two trends. First, markets have continued to be surprised at the extent of the monetary pressure needed to get inflation back into the inflation range - at a time when the inflation concerns that dogged global markets earlier in the year have largely dissipated. Scarred by the memory of last year, investors in the local market were very wary for much of the period of anticipating an early easing and particularly of bringing short-term interest rates down

---

<sup>2</sup> In recent months the Bank has been reviewing the techniques it uses for implementing monetary policy and signalling its policy intentions. There is a range of options available and we plan to release a consultative document on these issues in the next six to eight weeks.

very far. This wariness and the evident need for overall conditions to stay very firm have provided the basis for the extraordinarily strong flow of retail funds into high-yielding New Zealand dollar instruments. In combination, the mix of conditions has changed substantially over the last six months.

*... but overall conditions have firmed.*

Within that mix, the TWI has risen by around four percent - unambiguously a substantial rise in the real exchange rate. Longer term interest rates have fallen by around 150 basis points - as have fixed mortgage rates for most terms. Short term rates have also fallen by around 150 basis points. There has been little indication that inflation expectations have fallen - although the political nervousness which gripped the markets mid-year has abated - so most of these falls should be treated as falls in real interest rates. Making an overall assessment involves weighting the various components of overall monetary conditions. Taking just two of the major components - the TWI and the 90 day bill rate - research suggests that in New Zealand a two percent change in the exchange rate is usually roughly equal to a one percentage point change in short-term interest rates. On this basis, overall conditions appear to have firmed further over the six months as a whole, but towards the end of the period have eased back quite considerably.

## Appendix 1: Chronology

Over the period, key events of relevance to monetary policy and inflation included:

### 1996

- 27 June: The Reserve Bank released its fourteenth *Monetary Policy Statement*. The press release accompanying the *Statement* is reproduced in Appendix 2.
- 28 June: GDP production figures showed that the New Zealand economy had grown by 2.1 percent in the year to March 1996.
- 16 July: The June quarter CPI was released. Headline inflation for the year to June 1996 was 2.0 percent. The annual rate of underlying inflation was calculated to be 2.3 percent.
- 31 July: The Reserve Bank of Australia cut its official cash rate by 50 basis points to 7 percent.
- 13 September: The Reserve Bank released its September *Economic Projections*.  
  
Underlying inflation in the years to December 1996 and 1997 was projected to be 2.5 and 0.8 percent, respectively. The accompanying press release is reproduced in Appendix 2.
- 27 September: GDP production figures showed that the New Zealand economy had grown by 2.1 percent in the year to June 1996.  
  
The GDP growth figure for the year to March 1996 was revised up to 2.6 percent.
- 15 October: The September quarter CPI was released. Headline inflation in the year to September 1996 was 2.4 percent. Underlying inflation was calculated to be 2.3 percent in the same period.
- 16 October: The Reserve Bank commented on current monetary conditions. The press release is reproduced in Appendix 2.
- 24 October: The Reserve Bank commented on current monetary conditions. The press release is reproduced in Appendix 2.
- 6 November: The Reserve Bank of Australia cut its official cash rate by 50 basis points to 6.5 percent.

## **Appendix 2: Reserve Bank statements on monetary policy**

The following are reports or texts of significant public comments on monetary policy issues made by the Bank during the period under review in this *Monetary Policy Statement*:

### **Inflation more persistent**

27 June 1996

“The immediate outlook for inflation is plainly worse than that projected by the Bank even a few months ago”, said the Reserve Bank’s Governor, Dr Don Brash, at the release of the Bank’s latest *Monetary Policy Statement*.

“Demand and price pressures have proved unexpectedly persistent and as a result underlying inflation is expected to rise to 2.6 percent in the year to September before falling away quite rapidly in 1997.”

“While there are at last signs that demand pressures are falling - which means that a further policy tightening would be wrong - there is still too much uncertainty for policy to be eased. We need to be confident that inflation will return to, and stay within, the middle part of the target range even after an easing.”

“The Bank will be monitoring the emerging data closely over the next few months for evidence on the speed at which inflationary pressures are abating. At this stage we are not seeking any firming in conditions relative to those assumed in the *Statement*, but we will also vigorously resist any significant easing, relative to assumed conditions, in the absence of conclusive evidence that inflation will drop away sharply next year and beyond.”

“I reiterate my absolute commitment to continue operating monetary policy towards the goal of maintaining price stability”, Dr Brash concluded. “Maintaining price stability is clearly the best contribution the Bank can make to the prosperity of all New Zealanders.”

### **Easing remains off the agenda**

13 September 1996

“Although the medium-term inflation outlook appears quite encouraging, it is still too early for an easing”, Reserve Bank Governor Don Brash said today at the release of the latest *Economic Projections*.

“The outlook for inflation and for the wider economy over the next 12-18 months appears to be evolving broadly as we envisaged in June. We expect that inflation will remain outside the top of our target range over the next few quarters, but should drop back quickly into the middle part of the range in 1997 and beyond. In the short-term, however, the risk to this inflation outlook is still on the upside.”

“As we noted in the June *Monetary Policy Statement*, if the outlook for inflation evolves along these lines, some easing of monetary conditions will become appropriate in due

course. Some preliminary signs are encouraging, but too much uncertainty remains about how rapidly and sustainably inflation pressures will abate. An easing remains off the agenda until conclusive evidence is at hand that inflation will in fact fall away sharply next year and beyond.”

“Over the next few months, the Reserve Bank will continue to monitor developments closely. Despite the unfavourable short-term inflation outlook, we are not seeking any firming in monetary conditions - a mix of, among other things, retail and wholesale interest rates, and the exchange rate - relative to those in early September. However, at present we can also not accommodate, and will resist vigorously if necessary, any significant easing in overall conditions relative to those assumed in the *Economic Projections*.”

“Maintaining price stability is clearly the best contribution the Bank can make to the longer-term economic prosperity of all New Zealanders. We are not willing to take any risks that might jeopardise confidence that price stability will be restored and maintained,” Dr Brash concluded.

### **No scope for further easing at this stage**

16 October 1996

David Archer, Chief Manager of the Reserve Bank’s Financial Markets Department, said today that at this stage any further easing in monetary conditions would be inappropriate.

“Yesterday’s inflation outcome was markedly lower than we and other forecasters had expected. That is good news. However it is only one number, and most of the deviation from forecast occurred in a single area (construction costs). The implications of this result for the future inflation outlook will have to be assessed in the light of all of the other emerging indicators before we could be comfortable with considering a major easing in policy. In the normal course of events that review will take place as we prepare our projections leading up to the December *Monetary Policy Statement*, to be released on 17 December.”

### **Monetary conditions**

24 October 1996

David Archer, Chief Manager of the Reserve Bank’s Financial Markets Department, today indicated that monetary conditions have become a little firmer than needed for the task of keeping inflation inside the target range.

“The sharp exchange rate appreciation that we have seen in recent days has been accompanied by a relatively small drop in interest rates, leading to a marked tightening in overall monetary conditions”, Mr Archer said. He explained that while the Bank had expressed concern about too rapid an easing in monetary conditions following the surprisingly low inflation result for the September quarter, it could see no particular policy requirement for monetary conditions to have firmed as much as has occurred in recent days.

“The issue for monetary policy is that, as the exchange rate rises, somewhat lower interest rates are needed to keep the impact of overall monetary conditions on inflation broadly the

same. But those lower interest rates also take some of the disinflationary pressure off the housing market. Rapidly rising prices in the housing sector have been one of the main factors behind our recent surge in inflation,” Mr Archer said. “However, preventing interest rates falling a little also means that upward pressure on the exchange rate would remain. The end result would be too much overall monetary policy tightness, with an even greater proportion of the pressure coming onto the export sector.”

“Unfortunately, in order to keep overall monetary conditions consistent with maintaining price stability, it appears that we will have to accept rather less interest rate pressure than might be ideal, and rather more exchange rate pressure than might be ideal.”

### **Brash urges fiscal restraint to help exporters**

11 November 1996

Reserve Bank Governor Don Brash today urged parliamentarians taking part in coalition talks to remember the plight of exporters when considering increased spending.

That’s come in a speech to Federated Farmers Southland delivered in Invercargill today titled *Monetary and Fiscal Policy and Their Impact on Exporters*, which also raised the possibility of deferring part of the tax cuts already planned if Government spending is to rise.

Dr Brash told the gathering of farmers that New Zealand is experiencing an inflow of capital such that “In October alone, it is estimated that foreign investment in New Zealand dollar interest-bearing securities amounted to some \$2 billion and the flow is continuing strongly into November ..... (that’s why) we conclude, reluctantly that, ‘in order to keep overall monetary conditions consistent with maintaining price stability, it appears that we have to accept rather less interest rate pressure than otherwise might be ideal, and rather more exchange rate pressure than might be ideal’ (October 24).”

Dr Brash said that this temporary effect was occurring because New Zealand’s economic cycle was out of phase with the rest of the world, in part due to pressure from migration flows and fiscal policy. He added that there is a risk that continued rapid strengthening of the exchange rate would considerably weaken projected export growth and therefore, “It is worth considering whether we have policy measures available that might help reduce the scale of the problem and reduce the risk.”

Dr Brash then turned to possible solutions, rejecting a temporary relaxation of monetary policy since “higher domestic inflation catches up with the temporary benefit.”

He then said, “One direct way of reducing the risk inherent in the present situation would be to ensure that further fiscal stimulus is not added in the process of coalition-forming. Coalition partners may indeed need to consider deferring some part of the tax cuts already announced if there is to be any net increase in government expenditure.”