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

December 2003

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

## Contents

1.	Policy assessment	2
2.	Overview and key policy judgements	3
3.	Current economic situation	9
4.	The macroeconomic outlook	23

## Appendices

1.	Summary tables	31
2.	Chronology	36
3.	Companies and organisations contacted during the projection round	37
4.	Reserve Bank statements on monetary policy	38
5.	The Official Cash Rate chronology	39
6.	Policy Targets Agreement	40

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<sup>1</sup> Projections finalised on 21 November 2003. Policy assessment finalised on 3 December 2003.

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# 1 Policy assessment

The Reserve Bank has decided to leave the Official Cash Rate unchanged at 5.0 per cent. However, in saying that, small increases in the OCR may be required over the year ahead to ensure that inflation remains comfortably within the target range over the medium term. New Zealand's economy has continued to perform well in 2003, although growth has been seated in the domestic economy rather than the export sector, where earnings are under pressure from the rising NZ dollar. New Zealand's current account deficit is again building and some key asset prices appear to be moving beyond their sustainable level. The strong activity, especially in housing and construction, spurred by rapid population growth and high consumer confidence, has produced quite intense inflation pressures in parts of the domestic economy.

Despite the domestic inflation pressures, CPI inflation has fallen over the past year largely due to falling import prices. Although the immediate outlook for the exchange rate is uncertain, the sharp falls in import prices seem unlikely to be sustained. CPI inflation is therefore expected to lift over the next year or so, driven by underlying domestic inflation pressure. Slower population growth and the flow-on effects of weaker export activity will help to limit inflation pressures, although a modest increase in the OCR may be required to keep inflation comfortably within the Bank's inflation target as defined in the Policy Targets Agreement.

As always this assessment is subject to change as new economic data emerge. We will pay close attention to the path of the domestic economy, which has proven more robust over 2003 than we expected. We will also be closely monitoring the path of the New Zealand dollar, with a particular focus on what it means for the export sector and the medium-term path of inflation.



Alan Bollard  
Governor

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## 2 Policy Assessment

### Overview

The New Zealand economy returned to a healthy pace of growth in the second half of 2003, after experiencing a brief slowdown in the June quarter on account of earlier climatic influences and the impact of SARS on tourism. This extends a particularly strong period of growth for New Zealand: growth will have averaged 3½ per cent per annum over the five years to the end of 2003. Over those five years, the unemployment rate has dropped from nearly 8 per cent to 4.4 per cent now, a level last seen in 1987. Meantime, the average rate of inflation over that period was 2¼ per cent, only a little higher than 1¾ per cent recorded in the preceding five year period.

We expect growth to be more moderate over the next three years though, despite signs of continued strong domestic economic activity and a pick-up in trading partner growth rates. Over those three years, inflation is likely to continue to average 2¼ per cent.

Two factors will lead to a moderation in growth. Net immigration – a major factor behind our growth rate remaining healthy during a sluggish period for many of our trading partners – has started to slow. And the exchange rate has appreciated by just over 30 per cent over the last two years, with the effects now being felt by the export sector.

Were the growth rate to continue at the pace seen over recent years, chances are that inflation would become a problem. The economy entered 2003 with a degree of inflationary pressure caused by limited spare capacity and labour shortages. The anticipated June quarter dip in economic growth alleviated some of that pressure, but to a smaller extent than expected. Without a slowing in growth to below trend for a period, such circumstances would normally be expected to generate accelerating inflation, and call for higher interest rates. With growth expected to moderate, any required interest rate increase will be made less urgent, and more modest.

### Monetary policy and inflation developments – competing forces

Consumer price inflation is currently 1.5 per cent, and likely to fall during the next one or two quarters towards the bottom end of the 1 to 3 per cent inflation target range. The

apparently benign picture derived from the current “headline” inflation rate on its own could be misleading, however. Within the aggregate inflation measure are two substantial forces pulling in opposite directions. On the one hand, many prices affected primarily by domestic economic developments are showing signs of abnormal inflation pressure. Prices of these goods and services are currently increasing at an annual rate of about 4 per cent, on average. On the other hand, prices affected primarily by international conditions and the exchange rate are on average falling, by around 1 per cent per annum. And this gap has been growing over recent quarters (figure 23 in Chapter 3).

The driving consideration for *today's* monetary policy settings is how these two distinctly different trends will turn out *over the next three years*. Looking forward as far as three years when setting monetary policy is a reflection of the lags with which monetary policy affects the economy, and of the Policy Targets Agreement (PTA). Monetary policy actions normally begin to have an effect on economic activity immediately, or even earlier if the action is anticipated, but the bulk of the effect is not felt until a year or more has passed. Recognising this, the PTA requires monetary policy actions to be set against expected future inflation outcomes, with the medium-term evolution of those outcomes being paramount. It is generally understood that focussing on the medium-term rather than one specific point allows monetary policy to react less to temporary events and relatively more to events that would change the trend of inflation. In this way, monetary policy can act in a smoother fashion, avoiding introducing unnecessary volatility into the economy.

The PTA calls for us to focus on economy-wide inflation. To evaluate the likely track of economy-wide inflation over coming years, it is necessary to understand the main factors at work driving one group of prices up and the other group down. The picture is necessarily complicated, reflecting the complexity of both the New Zealand economy and the world around us. Chapters 3 and 4 of this *Statement* attempt to bring out the essential elements of the story, focusing respectively on the current situation and one possible scenario for the future outlook. The analysis in those Chapters points to the prominent roles played by:

- Migration developments, which are expected to provide a diminishing boost to activity in the three years ahead.

- World commodity prices, which dropped back sharply in 2002, from former high levels, causing some retrenchment in the previously rapid pace of farm spending. But they have since recovered and are likely to be supportive of activity over the period ahead.
- The economic health of our trading partners, which is now clearly on the upswing after a poor period (Australia excepted). Overall, while few are forecasting an above-average period ahead for the world economy, enough strength is anticipated that commodity markets are pushing prices into above-trend regions, supportive of our exporters.
- The residential property market, which has recently seen the construction industry struggling to build quickly enough to absorb the needs of the rapidly growing population, at the same time as beneficiaries of earlier income growth became keen to build or buy desirable properties around lakefronts and seashores or for lifestyle reasons. Prices have inevitably been squeezed higher, with a speculative dynamic subsequently coming into play. Looking forward, the expected shift in migration trends will reduce housing demand relative to the now rapidly increasing supply. This will remove heat from the construction sector and moderate consumption growth, while quite probably making some of the recent speculative activity costly for those involved.
- Business and consumer confidence, which have recently recovered from the dark side of the ledger. Interestingly, however, both business investment spending and household consumption spending have been steadily strong, notwithstanding shifts in surveyed attitudes.
- Fiscal policy, which by virtue of surprisingly strong revenues has been a mildly contractionary influence on the economy, but which through increased expenditure is likely to become mildly expansionary.
- The exchange rate, which has turned from a strongly stimulatory influence two to three years ago to a contractionary influence now. The 32 per cent appreciation of the exchange rate (on a Trade Weighted Index basis) over the last two years has both a “fast burn” and a “slow burn” influence on the economy and inflation. The fast burn influence is the direct effect on local prices of traded goods and services. This fast burn influence is responsible for the current negative rate of

inflation of “tradables” components of the CPI. The slow burn influence works its way through its effect on exporters’ incomes, and subsequently their spending patterns, a process that normally takes one to two years to build to full strength.

Making assumptions about the exchange rate’s future path – necessary in order to form a view as to how these influences add up over the next three years – has always been problematic. In short, too little is known about the determinants of the exchange rate to make reliable projections. As discussed in Box 2 in Chapter 4, we generally assume that the exchange rate will return to its long term trend, from wherever it is now. That approach is consistent with historical evidence. Large question marks exist around when and how fast that eventual reversion to trend will happen, and whether a further move away from trend will occur in the meantime. Large question marks also exist around how much these dynamics will be influenced by the surrounding economic situation, including growth, interest rates, and current account.

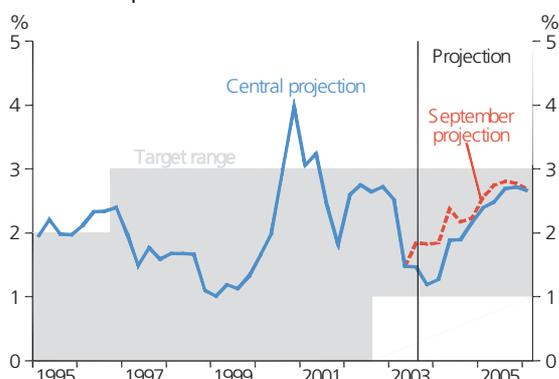
In the projection that is explained and analysed in Chapter 4, we assume that the exchange rate will remain around the high levels recently observed – 65 on the TWI – for several months before beginning a reversion to trend. The pace of reversion assumed is a little slower than previously allowed, in keeping with some research on what is “normal” for New Zealand’s exchange rate. Although it is technically based, this assumption is also consistent with our judgement about what is probable in the current circumstances. History amply demonstrates that once the exchange rate gets significantly away from its long term trend – and it is at least 10 per cent above trend now – it does not stay there forever. In addition, our instinct is that it is a bit more likely that the exchange rate will appreciate than depreciate over the immediate future – especially against the US dollar which seems to be on a trend decline with some way to go. On balance, deferring the reversion to trend seems to capture some of that instinct.

The picture that emerges from combining these assumptions is one in which headline inflation rises from its current low level, to a peak that is high in the inflation target range (figure 1). Because we are not assuming further appreciation of the exchange rate, the fast burn influence which has been pushing prices down disappears over the

year ahead. As it does so, the current high rate of inflation in the domestic economy is revealed, and becomes the main persistent determinant of the overall inflation rate. But the slow burn influence of the last two years' exchange rate appreciation continues to work through the export sector and into the economy, combining with weakening migration to reduce existing pressure on the economy's resources. That in turn begins to reduce domestic inflation.

Consequently, a comparatively small increase (by historical standards) in interest rates is likely to be required to ensure that the anticipated inflation peak is neither high enough,

**Figure 1**  
Consumer price inflation



Source: Statistics New Zealand, RBNZ.

**Figure 2**  
90 day interest rates



Source: RBNZ.

nor lasting enough, to push the trend of inflation into uncomfortable territory (figure 2). Such a modest increase might perhaps need to come a little earlier than seemed likely a few months ago, reflecting the surprising ongoing strength of onshore economic activity, but is no larger overall.

These conclusions are fully dependent on the assumptions as to the future evolution of the key influences working out as described. Especially in a circumstance where the outlook is characterised by large influences pulling in different directions, it is very easy for things to turn out quite different from expectations. As we progressively respond to a changing outlook at upcoming policy reviews, the driving consideration will continue to be the medium-term outlook for inflation, relative to the target range. In that context, it remains the case that the current outlook is one which provides relatively little headroom for the economy-wide inflation trend to increase. Should the current strength of domestic spending persist in the face of weaker export sector incomes, or the combination of resurgent commodity prices and improving global demand offset the higher exchange rate to a greater extent than expected, interest rates will need to play a greater role in keeping the inflation trend within comfortable territory. In the meantime, however, it appears that a gentle return of interest rates towards a more clearly neutral level should be sufficient.

## Exchange rate cycles, monetary policy, and the economy

A 32 per cent swing in the exchange rate over two years is big and fast in anybody's book. Such a swing would be hard for even the most sophisticated internationally-oriented business to handle. It is harder still for smaller businesses new to exporting, especially those who geared up their export efforts on the basis that the previously exceptionally favourable exchange rates would be sustained.

Despite the depth of today's financial markets, no effective financial hedges are available over a long enough period to fully bridge exchange rate cycles. Financial hedging changes the time profile of the effect of large exchange rate cycles, but rarely removes the effect entirely. Some, but not all exporters and importers can arrange their businesses to create "natural" or "structural" hedges, whereby business costs move in the same direction to incomes when exchange rates change. But costs, incomes, and different individual exchange rates all change in unpredictably different ways, making natural hedges imperfect. Moreover, any international trade-

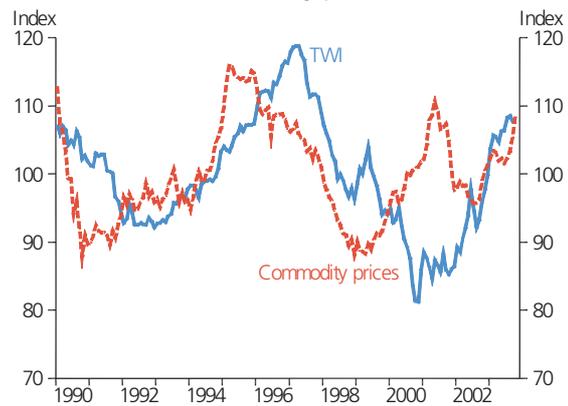
oriented business with a substantial amount of New Zealand content will have some exchange rate exposure that is not amenable to structural hedging. Furthermore, big swings in exchange rates are rarely predictable, even if – in retrospect – they seem to have a regularity about them. All in all, the unpredictability and lack of effective protection against large swings in the exchange rate make planning extraordinarily difficult, and shut out many who would otherwise be effective international traders.

However, whereas unpredictability and all that goes with it is almost wholly harmful, exchange rate appreciation is not entirely a net cost to society. Appreciation brings gains to importers, including consumers and buyers of imported capital equipment, intermediate products and raw materials. In fact, the exchange rate is in many ways better thought of as a price that affects the *relative* position of purchasers and producers of internationally tradable goods and services.

Second, the exchange rate acts to some extent as a useful buffering mechanism, leaning semi-automatically against changes in trading conditions. Thus when the trading conditions are favourable for our exports, the exchange rate often (but not always) appreciates, perhaps with a lag. Figure 3 shows how the 1990s swings in the exchange rate acted to offset a large swing in commodity prices (while the early 2000s commodity price cycle unusually did not induce such a reaction). To be sure, that exchange rate response takes away some of the gains for producers when conditions are good. But it also cushions some of the blow when conditions are bad, and as discussed above, big swings in trading conditions are not easy to handle. Without this semi-automatic mechanism, income cycles in the tradables (exporting and import-competing) sector would be all the larger, thereby increasing the scale of cycles in the overall economy.

If we did have larger cycles in the overall economy, chances are that we would also have larger cycles in interest rates, as monetary policy worked to keep inflation relatively stable in the face of alternating inflationary and deflationary episodes. The current situation illustrates the point. Exchange rate appreciation over the last two years has harmed, and for a period will continue to harm, incomes in the tradables sector. That has come at a time when other influences were pushing economic activity hard up against resource constraints, causing a rise in domestic inflation. Had it not been for exchange rate

Figure 3  
TWI and world commodity prices<sup>1</sup>



Source: ANZ Banking Group Ltd, RBNZ.

appreciation, interest rates would have had to have been higher.

The fact that recent exchange rate appreciation has helped monetary policy to contain inflation pressures does not mean that we are actively seeking to use the exchange rate as a mechanism to control inflation and keep interest rates more stable in the process. Indeed, because the exchange rate tends to move in bigger swings than seem justified by a buffering or smoothing role, we are constantly on the lookout for ways to run monetary policy that might be associated with less exchange rate action. Inherently, that is not easy in a world of floating exchange rates. Adopting lower interest rates to avoid appreciation – and there is considerable uncertainty about the reliability of that link – would undermine the inflation control task, eventually harming international competitiveness as well as doing other damage. And other forms of policy intervention seem to have more costs than benefits.

## Emerging savings-and-debt stresses?

Over recent years, the economy has benefited from robust business and consumer spending activity in the face of relatively weak international trading conditions. Even as the world economy recovers, domestic economic momentum is such that spending will continue to outstrip income growth for a while yet. A downside of this is an expansion of the

<sup>1</sup> Each index is rebased so that the average for the period equals 100.

deficit on the current account of the balance of payments (figure 4), and the accompanying increase in national indebtedness (figure 5), when that indebtedness is already exceptionally high by developed country standards. What are the implications?

**Figure 4**  
Current account  
(% of GDP)



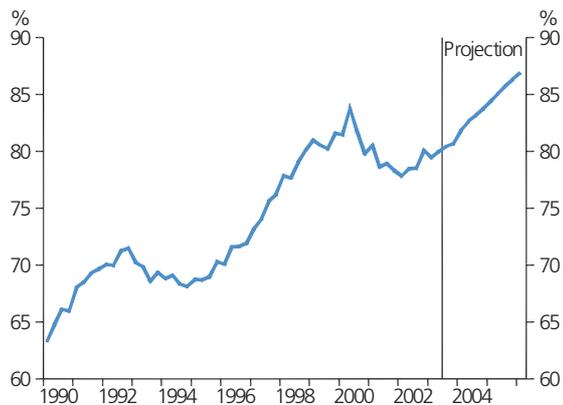
Source: Statistics New Zealand, RBNZ calculations.

Having narrowed to around 2½ per cent of GDP two to three years ago, the current account deficit has since doubled as a share of total income. The projections reported in Chapter 4 suggest that the deficit will widen to around 6 per cent of GDP by the end of next year. Cyclical fluctuations in the current account deficit between 2 per cent and 6 per cent of GDP do not necessarily imply a trend of increasing debt relative to income.<sup>2</sup> But as there has been a trend increase in our indebtedness over recent decades, each new bout of borrowing raises questions about sustainability.

There are many good reasons why households and firms will go into debt. But for each household and firm, there is ultimately a limit associated with the need to pay back debt, or at least not pass on an unsustainable debt burden to heirs and future shareholders. These considerations also apply at the national level. Even if the collection of households and firms can continue indefinitely to pay interest and dividends to foreigners at the current pace, a permanently increasing

<sup>2</sup> Arithmetically, given the existing level of external liabilities, if long term nominal growth is around 5 per cent per annum, our external liabilities will grow faster than national income for current account deficits greater than 4 per cent of GDP. Conversely, external liabilities will grow slower than national income for deficits of less than 4 per cent of GDP.

**Figure 5**  
Debt position<sup>3</sup>  
(% of GDP)



Source: Statistics New Zealand, RBNZ estimates.

share of our incomes being commanded by debt servicing obligations cannot be sustained.

At the same time, the greater the level of debt and debt service obligations, the greater our exposure to changes in foreigners' willingness to lend to us. Research suggests that in amongst all the things that determine the interest rates that we have to pay in order to persuade foreigners to lend, there is a small but growing risk premium associated with the growing external indebtedness.<sup>4</sup> And that interest rate premium appears to have been increasing during a very stable period in our history characterised by high quality policy. Were New Zealand to be confronted with a substantial adverse event that significantly raised the perceived risk of lending to New Zealanders, especially in New Zealand dollars, the jump in the cost of retaining access to financing could represent a very substantial cost to our collective disposable income.

It is not clear that a future change from an unsustainable to a sustainable indebtedness trend need be abrupt or disruptive. It is clear, however, that a rise in the rate of income growth relative to consumption would be required at some point in the future. This can come through faster income growth, which is difficult to achieve for a country that already has good quality policy structures in place. A substantial improvement in the quality of investment would be called for. A switch from residential investment to income-generating investment could provide some scope for higher "quality" investment overall. Such a switch might well be encouraged

<sup>3</sup> Calculated from cumulative current accounts.

<sup>4</sup> See Plantier, C., 'New Zealand's Economic Reforms after 1984 and the neutral real rate of interest', RBNZ Workshop Paper.

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by a sharp drop in speculatively-driven house prices that brings home the message that house price inflation is not a one-way street, and that out-sized real house price gains are not assured. Or it can come through a reduction in consumption growth, which is easier to achieve. But people rarely cut back consumption autonomously. Normally, adverse changes in prices are required to induce adjustment. Examples of such adverse price changes are an increase in the already high interest rate premium we are collectively charged for borrowing overseas, and a permanent exchange rate *depreciation* that serves to increase import prices, uncompensated for by higher salaries and wages. Neither are comfortable routes to adjustment, but may be unavoidable.

## Avoiding unnecessary instability

The PTA requires us to implement monetary policy to keep the medium-term path of inflation under control, avoiding introducing instability into the economy in the process to the extent possible while still achieving the task. The discussions of exchange rate cycles, housing price developments with some speculative component, and the possible re-emergence

of stresses associated with external indebtedness trends, bring the stability issue to the fore.

The degrees of freedom we have to influence macroeconomic developments towards greater stability are, unfortunately, limited. Monetary policy has one instrument at its disposal – the interest rate – for which our choices are limited to timing and level. With domestic demand pulling in the opposite direction to net exports, and the buoyant housing market and exchange rate being the dominant factors in the respective areas, the ideal would be simultaneously to have two interest rate paths. But in a modern economy, it is very difficult to have one interest rate for some purposes and another for other purposes.

Nor are there many degrees of freedom available for monetary policy to influence the economy towards better investment decisions and lower debt levels while maintaining price stability. Lower debt and better investment decisions would normally be helped by higher interest rates over a lengthy period, but that would push inflation too low.

In short, operating monetary policy steadily and predictably to maintain medium-term inflation within the target band appears to be the most effective way of discharging our responsibilities.

### 3 The current economic situation

#### Overview

The New Zealand economy has grown strongly over the past year, with GDP increasing by 4.0 per cent in the year to June. As expected, June quarter growth was soft due to the negative effects of SARS, the electricity-generation shortages and a drought-related reduction in agricultural production. However, the impact of these events has proven temporary with indicators suggesting a resumption of a stronger growth path during the second half of 2003. Domestic demand has remained buoyant, providing a powerful offset to lower export incomes and strong demand for imports.

Inflation developments continue to reflect this divergence in the growth picture. Strong domestic activity has continued to place pressure on productive capacity and the labour market, with a sharp rise in non-tradables inflation over the past 2 years having been sustained. The impact of these domestic inflation pressures on the CPI has been masked recently by a rising exchange rate, which has led to an outright fall in tradables sector prices over the past year. Annual CPI inflation has fallen over recent quarters and stood at 1.5 per cent in the year to September. This reduction has been assisted by some special factors – including intense competition among the airlines on international routes.

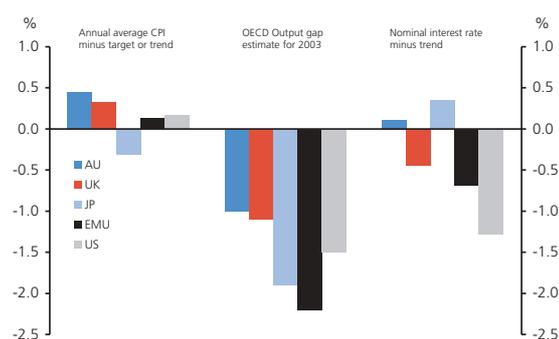
Between April and July of this year, we reduced the Official Cash Rate (OCR) by 75 basis points based on a view that the economy was likely to cool gradually over the coming year in response to weak external sector conditions, a rising exchange rate and a decline in population growth. This slowdown was expected to alleviate the build-up in domestic inflation pressures. However, the OCR was left unchanged in both September and October, and we indicated on both occasions that the economy no longer appeared to be cooling as much as expected. Since then, the evidence has continued to portray ongoing strength in the economy, albeit with that strength concentrated primarily in the domestic sectors.

#### Global and financial market developments

Following a sharp slowdown in 2001, the global economy has shown signs of a tentative recovery over the past year and a half, although most cyclical indicators remain comparatively weak (figure 6). More recently, evidence of the

global recovery has strengthened, with improving US growth cited as the main force behind this. While excess capacity remains in some economies, the risk of deflation has subsided as activity has picked up. Central banks around the world are moving away from their previous easing biases – in some cases, interest rates have already been increased, although in other cases tightening still looks some time away.

Figure 6  
Cyclical position of trading partners<sup>5</sup>



Source: Datastream, OECD, RBNZ calculations.

The greater confidence surrounding the sustainability of the global recovery has led to increased optimism in financial markets. This has been evidenced by a rise in interest rates, equity prices and commodity prices around the world. In line with this more optimistic outlook for the corporate sector, credit spreads have narrowed, reinforcing the development of a more favourable environment for business investment.

However, some US-centric downside risks still persist, namely a weak – albeit recently improving – labour market, the large current account deficit and rising government debt. In addition, there remains a concern that equity markets may still be overvalued based on measures of their historical average. As such, equity markets are vulnerable to adverse shocks to earnings or the underlying economic environment.

Despite these concerns, optimism about the US recovery is increasing in line with recent positive data. September quarter GDP recorded very strong growth across a number of sectors. Private consumption continued its strong run in response to tax cuts and low interest rates, while improving business confidence was reflected in increased business

<sup>5</sup> Trend measures have been calculated using an HP filter.

investment. The manufacturing sector is also showing improvement with the October ISM survey rising to its highest level since January 2000 due to a much higher new orders component.

Looking forward, US growth is expected to receive less of a contribution from private consumption as tax cuts fade, but a greater contribution from business investment and net exports. Although it has acknowledged improving economic growth, the Fed has so far kept rates on hold citing labour market weakness and continued excess capacity within the economy as reasons for retaining an accommodative policy stance.

The Japanese economy has also shown some encouraging signs of growth in the first half of the year. The Bank of Japan is expecting 2.5 per cent growth in the March year 2005, driven mainly by net exports and investment. There is some concern, however, that the Yen appreciation may hamper export growth. Consumption growth is expected to remain sluggish due to weak wage growth.

Growth prospects for non-Japan Asian economies look to be improving, with *Consensus Forecasts* for a number of countries being revised up recently. This follows from an improving US economy and continued strong growth in China – a country that is becoming an increasingly important player in the Asian region.

European economies remain weak, although this does not appear to be holding back the global recovery. Sentiment surveys and activity indicators continue to show improvements but there is little evidence of improvement in “hard data” yet. There is speculation that much of the improving sentiment comes from improving global growth rather than domestic conditions. Despite this, there is still an expectation that we will see a gradual improvement in growth towards the end of the year and into 2004.

In contrast, the UK is experiencing stronger demand and as such the Bank of England has raised interest rates to counter the “gradually” rising inflationary pressures. Growth in household spending is strong and the buoyant housing market has not slowed as much as expected. The improving global economic recovery and the depreciation of the British pound earlier in the year are expected to strengthen demand over the coming months.

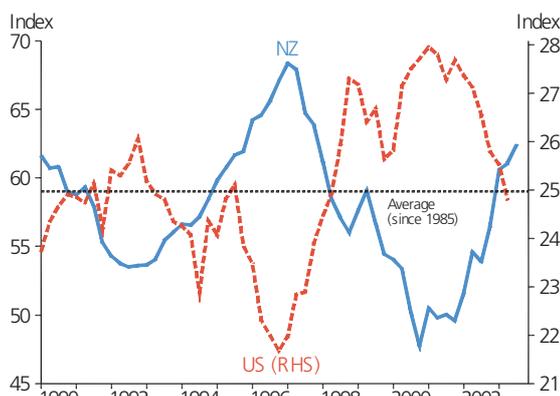
The Reserve Bank of Australia (RBA) has also increased interest rates, in line with a recovering world economy and

strong domestic demand. Both consumption and business investment growth is strong and the labour market is firming. Although the RBA expects CPI inflation to decline in the short term due to the exchange rate appreciation, and remain consistent with their target over a longer time frame, upside risks to this forecast are beginning to intensify. House prices continue to rise and annual household credit growth is currently very strong. In light of this, the RBA has concluded that expansionary monetary policy is “no longer prudent”.

This improving optimism within global economies, as mentioned above, together with subsiding fears of deflation, has led to increasing offshore interest rates over the past few months. Following these international movements, long-term interest rates in New Zealand have also increased. Short-term interest rates in New Zealand have picked up as stronger-than-expected domestic data and a rate rise by the RBA have led markets to bring forward their expectations of New Zealand interest rate rises from the second half of 2004 into the first half of 2004.

The dominant trend in global currency markets in the past few months has been broad-based US dollar weakness (figure 7). The US TWI, which was widely viewed as overvalued, has depreciated by around 20 per cent since early 2002 to move close to its long-term average. Recent *Consensus Forecasts* suggest that the US dollar is generally expected to depreciate further over the next year, although there is considerable uncertainty over the speed, magnitude and breadth of this depreciation. Many analyst commentators appear to see the risks as being skewed towards a larger fall in the US dollar, particularly if the US economic recovery falters.

Figure 7  
US and New Zealand TWI



Source: Datastream, RBNZ.

Over this period of US dollar depreciation, there has also been growing investor risk appetite as the fears of terrorism and the worries about corporate malfeasance dissipate. Investors have been more willing to invest in peripheral economies if they offer better returns. With a combination of strong growth and relatively high interest rates, currencies such as the Canadian, Australian and New Zealand dollars have gained favour and appreciated accordingly.

The New Zealand TWI has appreciated around 15 per cent this past year taking it to levels that appear to be clearly above estimates of its long-term trend. Analysts are forecasting the TWI to remain around current levels, which is unsurprising given the known difficulties of forecasting exchange rate cycles. However, analysts appear to see the risks to their forecasts as lying towards further appreciation over the next year.

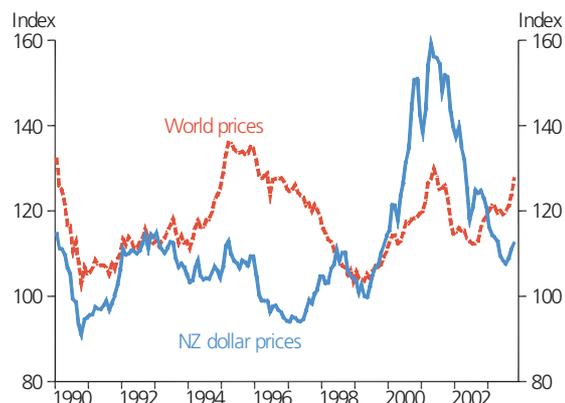
### Tradables sector activity

Over the past year export earnings have fallen away reflecting weak external prices and a rising exchange rate. The fall in export earnings has increasingly exerted a braking effect on the economy. This is in marked contrast to 2000/2001 when export revenues were expanding rapidly, providing substantial stimulus to aggregate demand. While the volume of exports has continued to grow modestly, falling New Zealand dollar export prices have more than offset the stronger volumes, with total export earnings down around 10 per cent in the year to September. Box 1 provides a summary of export earnings and volumes by sector.

Export price declines appear to have been driven chiefly by the appreciation of the New Zealand dollar. After falling sharply in 2002, commodity export prices on world markets showed little change in the opening months of 2003. However, prices have moved up noticeably over recent months (figure 8) reflecting the improvement in the global economy, which has seen a generalised improvement in commodity prices, and tight supply conditions for some of New Zealand's key commodities such as beef and dairy products.

The June quarter saw a sharp contraction in export volumes, mainly as a result of drought-related falls in agricultural exports (figure 9 and table 1, box 1). More recent monthly trade data shows exports of meat and wool have recovered, primarily driven by a large rise in beef exports.

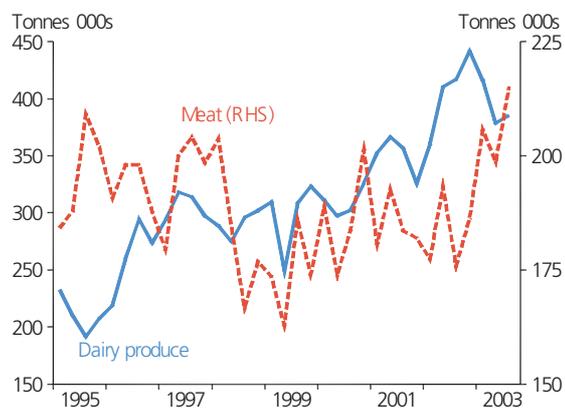
Figure 8  
ANZ commodity prices



Source: ANZ Banking Group Ltd.

Dairy export volumes have also increased, although they remain below their pre-drought peak levels. Difficult conditions in early spring led to some lamb losses throughout the country although production is reported to have improved recently. Overall, dairy production appears to have been strong over recent months, although production in Northland has been weak due to adverse climatic conditions.

Figure 9  
Agriculture export volumes  
(seasonally adjusted)



Source: Statistics New Zealand.

Activity in the forestry sector remains very subdued, with global demand still weak and prices at cyclical lows. New Zealand's forestry production has been cut back significantly as those in the industry struggle to cope with poor New Zealand dollar returns, higher freight costs and tougher competition from other suppliers. This cut-back in production has tightened supplies in our main export markets, especially

## Box 1: Recent export sector performance

There is little doubting that the rising exchange rate has made trading conditions tougher for exporters over the past year, with lower prices measured in local currency producing a sharp fall in export revenues. However, within this broad picture, the performance of individual export industries (and firms within industries) has varied considerably, a point borne out by our regular business contacts. Indeed, while export prices have been under pressure, aggregate export volumes have continued to grow moderately with volumes for some export industries recording substantial growth.

These differences in performance across exporters highlight a myriad of factors that may be influencing export performance aside from the exchange rate. Factors include:

- Global supply and demand conditions in overseas markets – for example, world prices for some primary exports such as beef and lamb have edged up recently due to limited supplies while those for others such as forestry products have remained under pressure. Some exporters have continued to benefit from strong demand conditions in Australia.

- Climatic conditions can have a major impact on the production and export volumes of primary commodities which are less influenced by the exchange rate.
- The extent of competition faced by the exporter in overseas markets – exporters lucky enough to face little competition from other countries or products have tended to fare better in the face of adverse exchange rate movements than those that do.
- Exchange rate hedging behaviour – hedging practices vary substantially from industry to industry and from firm to firm and have a significant bearing on the impact of exchange rate movements on short-run export competitiveness and profitability.
- The degree to which imported materials are used in the production of exports – the use of such materials can provide a natural hedge against exchange rate movements, the extent of which will depend on where (and in what currency) they are bought.
- The configuration of particular bilateral exchange rates – those selling into the Australian market appear to have found some relief from the recent decline in the cross-rate against Australia, especially if they source inputs paid for in US dollars against which the New Zealand dollar has appreciated substantially.

Table 1  
Export sector activity  
(year to June 2003)

Industry	Main Markets	\$b	Export Earnings		Export volumes	
			aapc*	qpc**	aapc*	qpc**
Dairy	US, Japan	4.7	-21	-5	15	-10
Beef	US, Canada	1.6	-15	-10	7	-3
Lamb	UK, Europe	2.3	0	1	4	-2
Wool	China, Australia	0.8	-8	-10	-8	-7
Forest products	Australia, Japan	3.5	-5	-11	5	-10
Seafood	US, Japan	1.3	-14	-10	-3	-7
Fruit & vegetables	Europe, Japan	1.6	-9	11	-2	12
Non commodity manufacturing ***		7.3	-3	2	4	3
Processed food	Australia	1.7	-1	0	7	2
Carpets & textiles	Australia	0.4	10	3	9	1
Clothing & footwear	Australia	0.2	-4	6	6	6
Chemicals	Australia	1.1	-5	5	2	2
Leather & skins	Australia	0.4	-15	-18	-17	-20
Machinery & transport equipment	Australia, US	2.4	-3	10	4	14
Total goods exports		28.0	-9	-5	5	-4
Transport	Aust, Japan, UK, US	2.5	-6	-9	-2	-10
Travel	Aust, Japan, UK, US	6.5	8	-2	8	-2
Total services exports		11.1	3	-4	15	-3

\* Annual average percentage change, year to June 2003.

\*\* Quarterly percentage change, June quarter 2003 (seasonally adjusted).

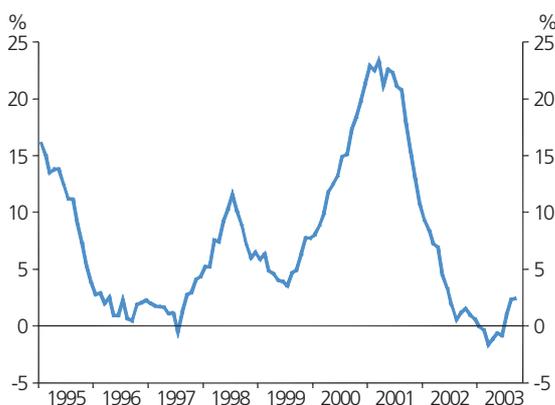
\*\*\* Major categories, comprising approximately 84% of Non Commodities Manufactures.

Korea, causing prices to lift modestly as importers become concerned about their dwindling stock levels. While the increase in prices is positive news for New Zealand's forestry industry, activity remains depressed and reports of further cut-backs continue.

Encouragingly, earnings from non-commodity manufactured exports have recently begun to increase despite the appreciating currency – this follows an earlier period of weakness (figure 10). Strength has been seen across a range of goods, in particular processed foods and carpets and textiles. The rise in the New Zealand dollar over the past two years is likely to have undermined the sector's profitability and competitiveness to some degree, although the recent fall in the cross-rate against Australia may have provided some relief to exporters to the key Australian market. Some of our business contacts have reported increasing competition from Asia – especially China – in some manufactured export markets. Low labour costs are enabling Asian manufacturers to compete aggressively on prices, and large-scale production has increased demand for inputs and thus bid up costs in some markets.

Tourism looks set to carry on its strong growth over the remainder of 2003. After recovering from the decline that followed September 11, visitor arrival numbers suffered

**Figure 10**  
Value of non-commodity manufactured exports  
(annual average percentage change)



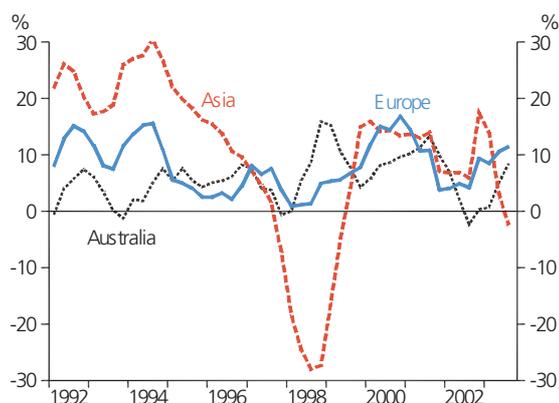
Source: Statistics New Zealand

another blow from external factors with SARS and the Iraq war negatively affecting tourism around the world. Short-term visitor arrivals have since bounced back (figure 11), more than recovering the falls seen over April and May this year.

While Asian short-term visitor numbers have been weak – in part reflecting a fall in the number of Asian English language students – arrivals from Australia, the UK and Ireland have shown notable increases.

Increased capacity and reduced fares on trans-Tasman routes are among the explanations for the larger number of Australian visitor arrivals. With the introduction of further

**Figure 11**  
Visitor arrivals  
(annual average percentage change)



Source: Statistics New Zealand.

competitors on this route likely, this increase in trans-Tasman tourism is expected to continue. Future Asian tourism numbers, on the other hand, remain very uncertain with fears of the return of SARS in the Northern-hemisphere winter discouraging forward bookings. Even with an offsetting increase in Australian visitor arrivals, the loss of Asian tourists will affect exports of services – on average, an Asian visitor spends almost twice the amount an Australian visitor spends while in New Zealand.

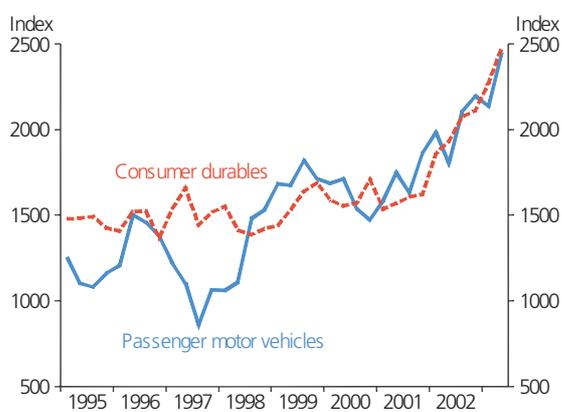
The reduction in total export earnings over the past year has been coupled with a continuation of high levels of spending on imports – the result of continued buoyant domestic demand. The narrowing in the trade surplus has led to a significant expansion in the current account deficit to 4.6 per cent of GDP as at the June 2003 quarter.

The high level of spending on imports has been sustained despite substantial falls in import prices, reflecting a larger volume of goods imported over the past year (figure 12). While imports of both capital and intermediate goods have shown solid growth, the strongest growth has come from consumption goods, with increases of over 20 per cent in

import volumes in the past 18 months. In particular, imports of durable consumption goods have increased rapidly – a result of increased migration inflows, a buoyant housing market and historically low interest rates. Another factor behind the strong import volume growth has been the historically high number of passenger cars imported, as reflected in a record number of car registrations over the past year.

The September quarter has seen a modest reduction in import values, although signs of price decreases over the quarter suggest further modest volume growth. This is

**Figure 12**  
Imports of durable goods and cars  
(*seasonally adjusted*)



Source: Statistics New Zealand.

evidence of the continuing strength in the domestic economy and supports a view that consumption growth is showing few signs of cooling.

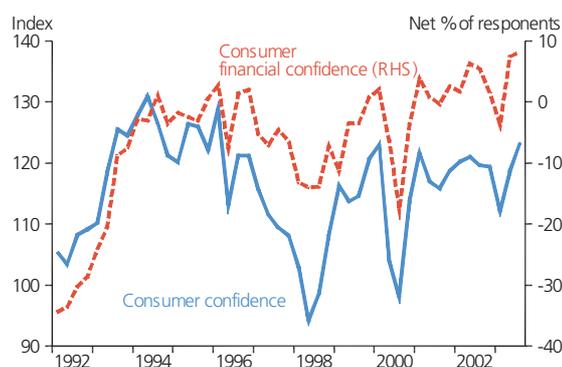
## Domestic demand

Over the past year, expanding domestic demand has provided a powerful counter to weakness in the external sector. A sustained period of rapid population growth over the past two years, brought about by an increase in arrivals and a marked fall in New Zealanders leaving for abroad, has fuelled consumer demand and a residential investment cycle of a scale not previously seen. Historically low interest rates have acted to support the higher demand. Meanwhile, although a rising exchange rate has acted to dampen export revenues over the past year, the powerful increase in export incomes that occurred between 2000 and 2001 continues to have an

effect on activity levels in the rural areas of New Zealand, many of which continue to show solid growth.

Consumer confidence fell sharply at the beginning of this year, with concerns over SARS, the Iraq war, and the electricity shortages threatening to undermine household demand. However, with the passage of these events, confidence has returned, and there is little evidence of a significant disruption to domestic demand. The Westpac McDermott Miller survey, which asks a range of questions on households' economic and financial wellbeing, shows consumers appear upbeat about their financial position, reflecting strong house price inflation, low interest rates and solid household income growth (figure 13).

**Figure 13<sup>6</sup>**  
Consumer confidence

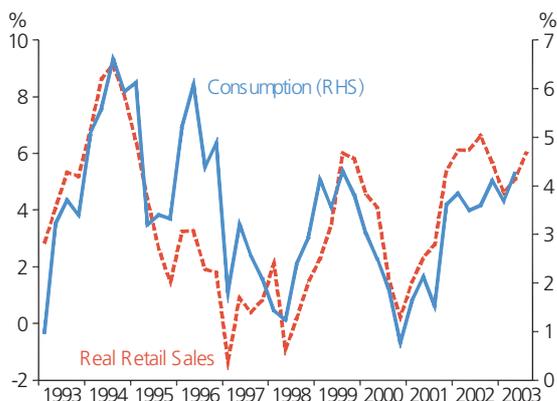


Source: Westpac McDermott Miller.

Not surprisingly, given this background, retail sales have grown at a rapid rate (figure 14), with broad-based strength seen across most regions of New Zealand. Sales of durable goods have been exceptionally strong, no doubt supported by increased migration and a rampant housing market. Despite some anecdotal evidence that activity is cooling, retail spending has also been sustained in rural areas of New Zealand. The rapid growth in export incomes up until 2002 appears to have left farm balance sheets in good condition and confidence appears to be relatively upbeat. Rising rural property prices and solid growth in borrowing by the farming sector appear to be factors helping to sustain demand.

<sup>6</sup> Consumer financial confidence is measured as the net percent of respondents who indicate they are financially better off now than a year ago.

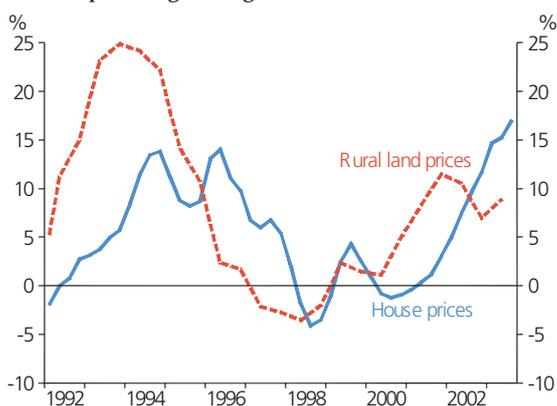
Figure 14  
Retail sales and household consumption  
(annual percentage change)



Source: Statistics New Zealand.

In addition to strong consumer spending, surging activity in the housing market and new dwellings construction has also been a major driver of domestic demand. House sales have reached record levels in many areas of New Zealand over recent months and a range of indicators continue to suggest a relative shortage of supply. Houses are selling at record speed and this has been reflected in significant upward pressure on house prices (figure 15).

Figure 15  
Property prices  
(annual percentage change)



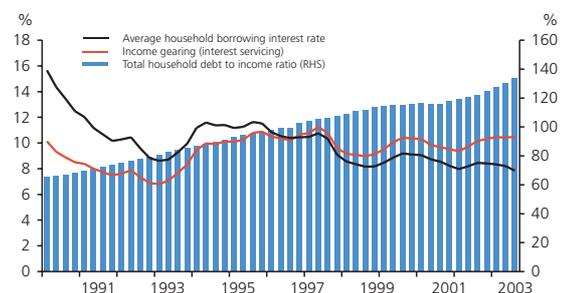
Source: Quotable Value New Zealand.

Meanwhile, residential investment has also been at all-time highs over the past year and the latest dwelling consent issuance remains very strong, particularly for new houses. Residential investment continued to expand in the June quarter, despite reports of capacity constraints in the building sector. Employment in the construction sector has increased

in recent years, indicating some growth in the sector's capacity to meet demand, but current activity levels are high and both survey data and anecdotal evidence suggest that spare capacity is relatively limited (and non-existent in some regions). Based on consents in the pipeline, residential investment looks likely to be sustained at high levels well into next year.

Over the past year household indebtedness has increased further, indicating a willingness by households to take on more debt (figure 16) and a higher debt servicing burden. One possible explanation for this trend is an increase in housing wealth associated with rapid house price inflation. A common measure of household indebtedness is the household debt to income ratio, which currently sits around 130 per cent, around twice that of a decade ago. It should be noted that the ratio is calculated over all households (regardless of whether they have debt or not) while the debt servicing component in the chart only includes interest repayments (and not the principal). Some households may have increased their indebtedness and repayment schedules in recent times by significantly more than is suggested by figure 16. While it is difficult to determine at which point greater indebtedness may begin to constrain household spending, there is a risk that debt levels may start to place more of a constraint on household demand at some stage in the future. However, at this point, there are few signs that debt levels are constraining households.

Figure 16  
Household debt

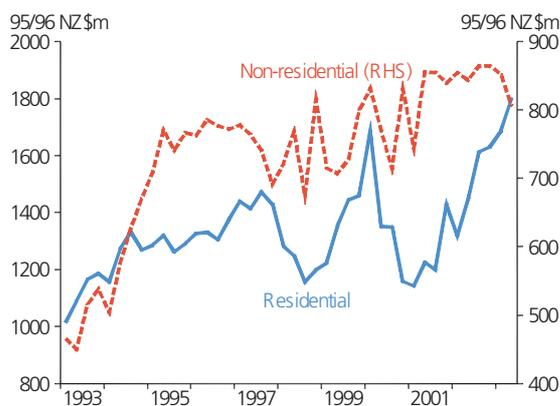


Source: Statistics New Zealand, RBNZ.

On the business side, commercial construction has been sustained at a relatively high level over recent years (certainly in comparison to its lows of the early 1990s) but has edged down over recent quarters (figure 17). This may be due to some diversion of resources to the strongly growing residential

construction sector. There are few signs that building intentions are declining as consents for non-residential construction have been trending up since January 2003, providing tentative signs that non-residential construction activity will increase over the coming quarter. This could potentially act to sustain pressure on an already-stretched construction sector.

**Figure 17**  
Residential and non-residential investment  
(seasonally adjusted)



Source: Statistics New Zealand.

Other sectors within the business community have also reported significant capacity constraints over the past year, but until recently growth in business investment has been relatively steady. The June quarter, however, saw a pick-up in business investment – investment in plant and machinery was especially strong, increasing by 10 per cent. Perhaps partly as a result of this acceleration in investment, capacity utilisation rates – particularly for manufacturers – dropped away in September’s Quarterly Survey of Business Opinion (QSBO), despite other reasonably positive indicators of manufacturing sector activity.

## Cyclical pressures and inflation

### Productive capacity and the labour market

As discussed in our *Statements* over the past couple of years, a sustained period of growth in the economy at above-average rates has seen many industries draw heavily on their available productive capacity and also on the available pool of skilled labour. This observation should not be taken to imply that all industries (or firms within individual industries) are operating at full capacity – some exporters, for example, appear to have substantial excess capacity at present due to weak trading conditions. However, over the past year in particular, aggregate indicators have been consistent with an economy that has been relatively ‘hot’ in a cyclical sense, especially within industries serving mainly the domestic economy.

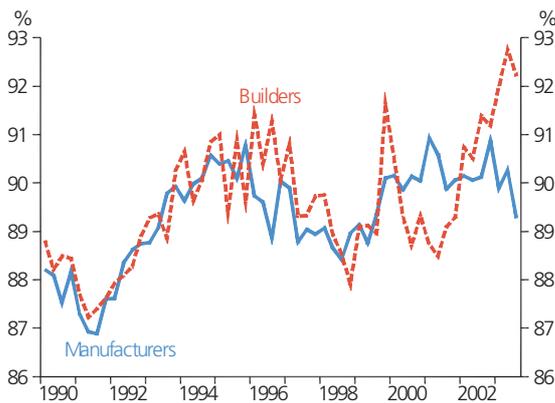
We use a broad range of indicators to ascertain the degree of spare capacity. Measures of capacity utilisation, such as those derived from the NZIER’s Quarterly Survey of Business Opinion (QSBO), provide a guide on the intensity with which firms are utilising their plant and equipment relative to the point at which unit production costs are likely to begin accelerating. Additional survey data indicating whether it is a lack of demand, productive capacity, or labour that is constraining firms from producing more are also useful in establishing the cyclical state of different sectors. Indicators such as the unemployment rate and reported skill shortages help to establish the degree of labour market tightness.

A range of these indicators is shown in figures 18 to 21. Capacity utilisation, as measured by the NZIER’s QSBO, has been at high levels over the past two years, consistent with an economy in a strong upswing. Recent movements in the series have been quite volatile, with a sharp fall recorded in the September quarter. Most of this decline was due to the manufacturing sector, while builders’ capacity utilisation remained strong, consistent with very high activity levels. At this point, we remain unsure whether the drop in manufacturers’ capacity utilisation is simply statistical noise, a reflection of weaker demand conditions, or a sign that capacity has been enhanced. Elsewhere in the QSBO survey, manufacturers reported improving prospects going forward, while plant and machinery investment has picked up recently.

This latter trend could indicate that the reduction in capacity utilisation is coming from increased supply capability.

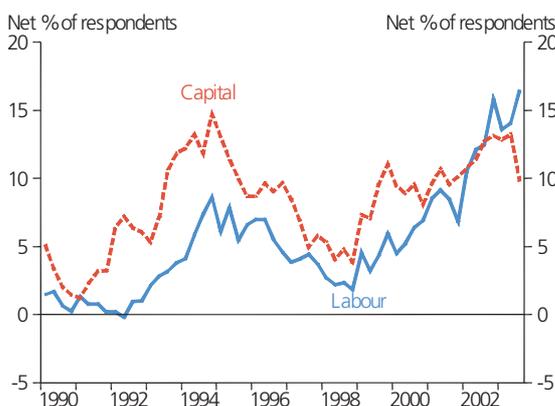
Over the past few years, the proportion of firms in the economy citing a lack of suitable labour or productive capacity as the primary constraint on producing more has lifted steadily to levels that are high relative to those seen over most of the past 20 years. The labour constraint has continued to intensify, but the September quarter survey showed a fall in the proportion of firms citing a lack of capital as the major constraint – consistent with the fall in capacity utilisation. In addition, while the proportion of firms citing a lack of forward orders as the key constraint on higher production has declined over the past few years, the proportion has begun to climb again over the past few quarters. This is consistent with a possible cooling in demand conditions, although the measure remains low by historical standards.

**Figure 18**  
Capacity Utilisation



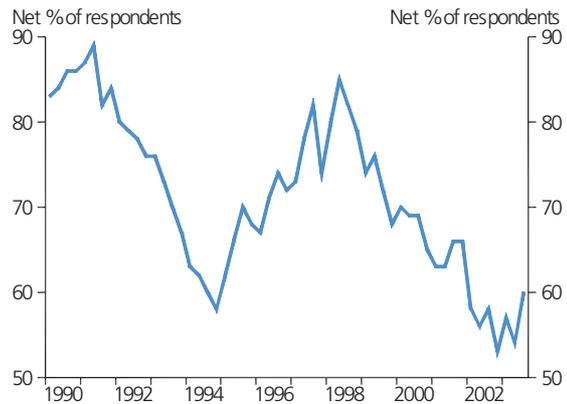
Source: RBNZ estimates based on NZIER's Quarterly Survey of Business Opinion data.

**Figure 19**  
Factors limiting increased production (capital, labour)



Source: NZIER.

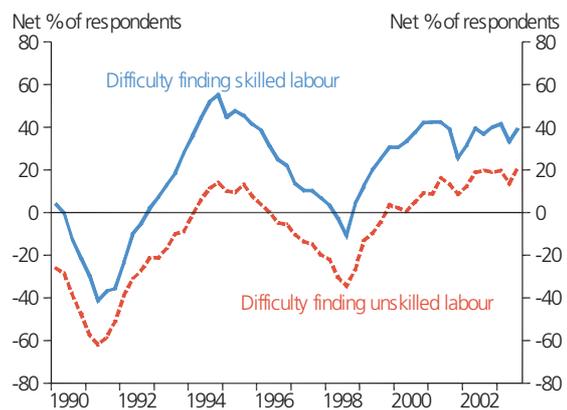
**Figure 20**  
Factors limiting increased production (demand)



Source: NZIER.

Turning to the labour market, indicators provide no compelling evidence that labour shortages are easing. The QSBO indicators of skilled and unskilled labour shortages intensified again in the September quarter after falling briefly earlier this year. These trends are consistent with the latest sharp fall in the unemployment rate which dropped to 4.4 per cent in the September quarter, the lowest level since 1987 and the fifth lowest unemployment rate in the OECD.

**Figure 21**  
Labour shortages



Source: NZIER.

### Inflation pressures

The overall impression to be had from the indicators of cyclical pressure is of an economy in which productive capacity and the labour market both remain relatively stretched, albeit with some mixed indicators recently. The key issue for monetary policy is the extent to which this cyclical pressure is being reflected in inflation.

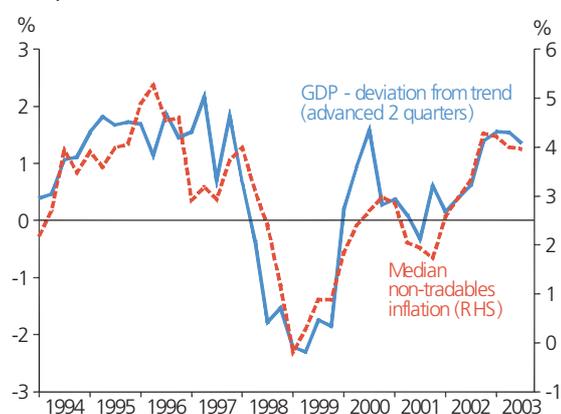
Table 2  
CPI and other price measures  
*Annual percentage changes*

	2002				2003		
	Mar	Jun	Sep	Dec	Mar	Jun	Sep
CPI	2.6	2.8	2.6	2.7	2.5	1.5	1.5
Food	5.3	4.1	2.3	0.9	-0.2	0.0	0.3
Housing	2.3	2.8	3.0	4.0	4.0	4.7	5.9
Household operations	1.5	2.7	2.9	2.7	1.9	1.1	0.9
Apparel	1.2	1.7	1.2	0.7	0.8	-0.6	-1.1
Transportation	0.6	0.9	1.2	3.3	4.3	-1.7	-2.5
Tobacco and alcohol	3.3	3.8	3.6	3.6	3.1	2.7	2.6
Personal and health	3.7	4.1	4.5	4.2	3.8	3.5	2.6
Recreation and education	2.1	2.5	2.3	2.5	2.7	2.1	1.7
Credit services	-5.9	0.0	2.3	1.9	-2.0	0.7	-0.1
<b>Derivatives and analytical series</b>							
CPI ex food, petrol and government charges	2.4	2.7	2.7	2.8	2.7	1.9	1.3
CPI non-tradables	2.6	3.1	3.6	3.9	3.4	3.8	4.1
CPI tradables	2.5	2.5	1.6	1.8	1.7	-0.6	-0.9
CPI weighted median (of annual price change)	2.6	3.0	2.9	3.3	3.7	2.6	2.3
CPI trimmed mean (of annual price change)	2.5	2.9	2.7	3.0	2.8	1.6	1.7
Merchandise import prices (excluding petrol)	0.1	-4.6	-4.9	-9.0	-12.1	-9.8	n/a
PPI - Inputs	2.8	1.5	-2.1	-1.4	-1.3	-1.9	0.1
PPI - Outputs	3.1	2.3	-0.1	-0.1	-0.4	-0.6	0.7
Private consumption deflator	1.9	1.5	1.4	1.0	0.6	0.0	n/a
GDP deflator (derived from expenditure data)	2.3	-0.4	0.5	-1.7	-0.9	1.3	n/a
Retail trade deflator	1.9	2.0	1.3	1.5	1.8	-0.5	-0.2

CPI inflation averaged more than 2½ per cent during 2002, with a rise in non-tradables inflation offsetting the effects of a fall in imported inflation from previously high levels (see table 2). The evolution of non-tradables inflation – which represents inflation in those sectors of the economy serving mainly domestic demand, such as housing, construction and other services – is consistent with the various indicators of cyclical ‘stretch’ discussed earlier. The behaviour of non-tradables inflation over this period is very similar to that seen over previous business cycles in New Zealand, after allowing for shifts in inflation expectations over the years (figure 22).

During 2003, CPI inflation measures have declined, with annual CPI inflation falling to 1½ per cent in the year to September.<sup>7</sup> As has been the case for five consecutive quarters, the most significant upward contribution to the CPI in the September quarter came from the housing group. The continued increase in the purchase and construction of new dwellings index is the main source of this rise in the housing group. The driving force behind the decline in the aggregate CPI has been a large fall in tradables inflation, particularly over the June and September quarters, reflecting the appreciation of the exchange rate. Non-tradables inflation,

Figure 22  
Output and non-tradables inflation

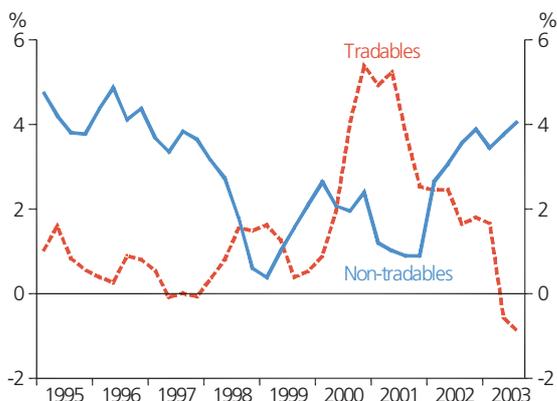


Source: RBNZ.

on the other hand, has continued to increase, reflecting ongoing strength in the domestic economy (figure 23). Non-tradables inflation has largely been underpinned by the housing components of the CPI, but non-tradables inflation after excluding these components still remains close to 3 per cent (figure 24).

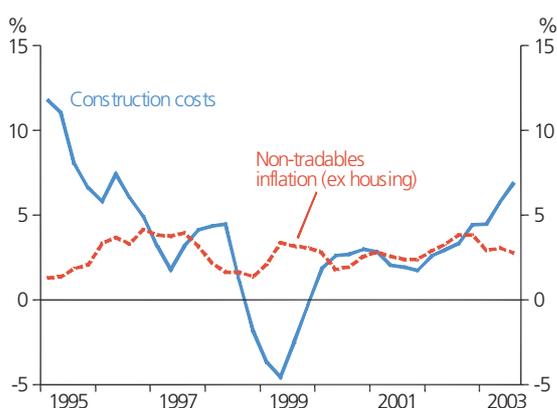
This profile for annual CPI inflation is also borne out by the various “trend” measures of inflation that we look at – such as the weighted median of annual changes, the trimmed

Figure 23  
Tradables and non-tradables inflation  
(annual percentage change)



Source: RBNZ.

Figure 24  
Non-tradables inflation  
(annual percentage change)



Source: Statistics New Zealand, RBNZ.

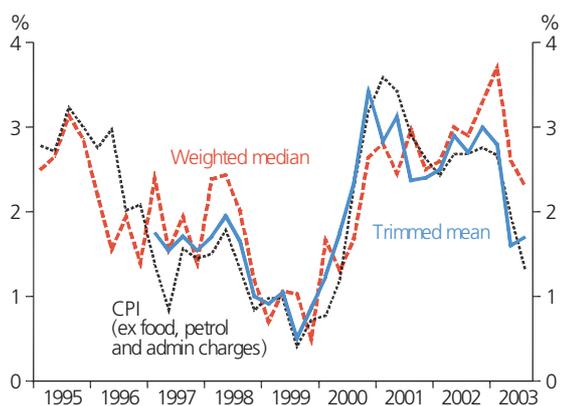
mean and the CPI excluding food, petrol and administration charges – which have also fallen over the past year (figure 25). Each of these measures provide a means of removing ‘outliers’ (or one-off influences) from the CPI data to reveal the underlying trend. However, these trend measures will continue to reflect the recent impact of the higher exchange rate on tradable prices, given its pervasive effect on a large portion of the CPI regimen.

As mentioned, the recent sharp decline in tradables inflation – reflected in an outright decrease in tradables prices over the past year – has been due primarily to the higher New Zealand dollar, which has reduced the prices of imported

goods. In addition, during the September quarter, tradables prices fell sharply following a large fall in international airfares due to heavy discounting on the trans-Tasman routes over that time.<sup>8</sup>

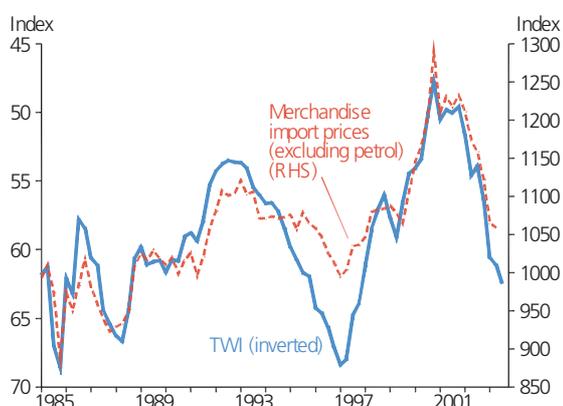
Nevertheless, there is some evidence that tradables prices have yet to fall by as much as might be expected given the extent of the exchange rate appreciation (figure 26). This could simply reflect the lags operating from the exchange rate to consumer prices. Alternatively, importers may be increasing margins rather than lowering import prices as they take advantage of the buoyant domestic economy. During the mid 1990s, tradables inflation also appears to have fallen by less than the exchange rate rise at that time would have suggested.

Figure 25  
Indicators of core inflation  
(annual percentage change)



Source: Statistics New Zealand, RBNZ.

Figure 26  
TWI and import prices



Source: RBNZ, Statistics New Zealand.

<sup>7</sup> Our expectation for the December quarter is for a 0.4 per cent rise, taking the annual inflation rate to 1.2 per cent.

<sup>8</sup> Trans-Tasman fares constitute a large proportion of the international airfares component in the CPI.

## Wages, inflation expectations and other inflation indicators

In assessing prospects for inflation, we look closely at movements in wages and salaries, surveyed inflation expectations and a range of broader inflation indicators. Wage data and inflation expectations provide a useful perspective on how the economic cycle is affecting wage and price-setting behaviour. Broader measures of prices provide further insight into the evolution of external and domestic price pressures, and their possible consequences for CPI inflation.

While some measures of wages are volatile, tight labour market conditions have seen wage movements trend upwards over the past 18 months or so, with some wage measures increasing at rates not seen since the mid-1990s. Given New

Zealand's low rate of unemployment and a prolonged period over which businesses have been reporting labour shortages, movements in wages appear to have been relatively subdued, and do not appear to have been a major independent driver of inflation.

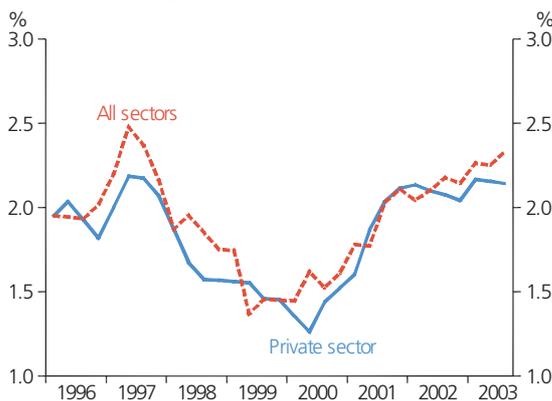
Annual growth in the Labour Cost Index (LCI) for the private sector (figure 27), which measures salary and wage rates for a fixed quantity and quality of labour, sat at 2.1 per cent in the year to September, close to a cyclical peak for this particular index, although the annual increase fell slightly in the quarter. The unadjusted LCI, which fixes the quantity of labour but does not make an adjustment for the quality of labour, also fell slightly (figure 28).

The Quarterly Employment Survey's average hourly earnings series (shown in figure 28), a relatively volatile measure of wage movements, recorded annual growth of 3.0 per cent in the September quarter, down from 4.2 per cent in the year to June. This measure is often affected by compositional changes within the labour force as neither the quantity or quality of labour is fixed in the survey. Importantly, recent rates of increase remain higher than was the case a year or so ago.

Anecdotes from our business contacts confirm that some businesses have had to pay higher wages and salaries to attract new staff. In addition, businesses report that individual wage increases to prevent staff from pursuing alternative job offers are becoming more frequent. However, these targeted increases do not appear to be feeding through into a significant lift in wages across the board. Data issued with the LCI on the distribution of wage increases (figure 29) appear to bear that conclusion out. They show that there has been a steady increase in the proportion of employees receiving larger wage increases. However, while the balance of employees receiving annual increases of 2 per cent or less has fallen over the past two years, it remains a significant proportion of the total distribution.

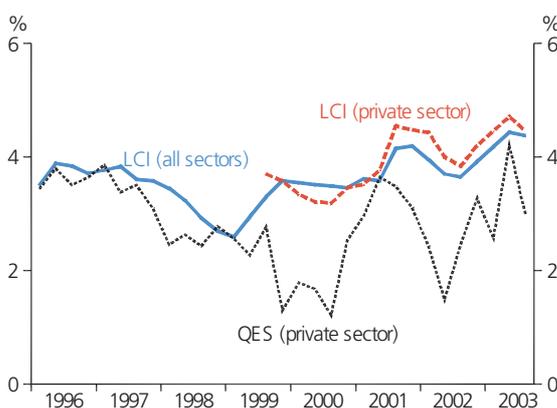
A possible limitation of the wage statistics is that they may not fully capture movements in professional fees and other incomes of those in self-employment – an area in which significant increases may have occurred over the past two years. For example, to the extent that the recent strength in construction sector activity is purported to have led to significant increases in labour charge-out rates and subcontractors' fees (many of whom are self-employed), much

Figure 27  
LCI wages  
(annual percentage change)



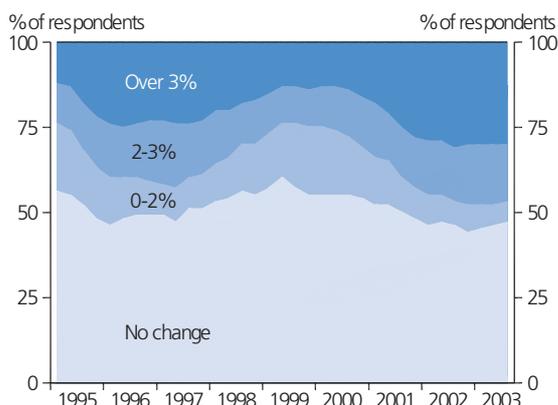
Source: Statistics New Zealand.

Figure 28  
Unadjusted LCI and hourly earnings  
(annual percentage change, the LCI series shown exclude productivity adjustments)



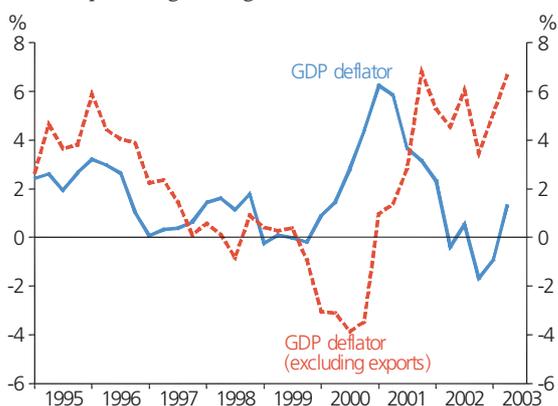
Source: Statistics New Zealand.

Figure 29  
Distribution of wage increases<sup>9</sup>



Source: Statistics New Zealand.

Figure 30  
GDP deflators  
(annual percentage change)



Source: Statistics New Zealand.

of this increase might not be reflected in the wage statistics. While data on the incomes of the self-employed are limited (and available only with a lag), data from the HLFS income supplement available as at the June 2003 quarter are consistent with a relatively strong increase in self employed incomes over the past year – with average earnings per hour worked increasing nearly 7 per cent. This is despite a probable flattening out of incomes earned by the farming sector over this period (which will also be included in this aggregate). Growth in these non-wage forms of labour costs may have contributed to the increases in construction costs, professional fees and other services costs that have helped drive the acceleration in non-tradables inflation noted earlier.

<sup>9</sup> Data do not include wage reductions.

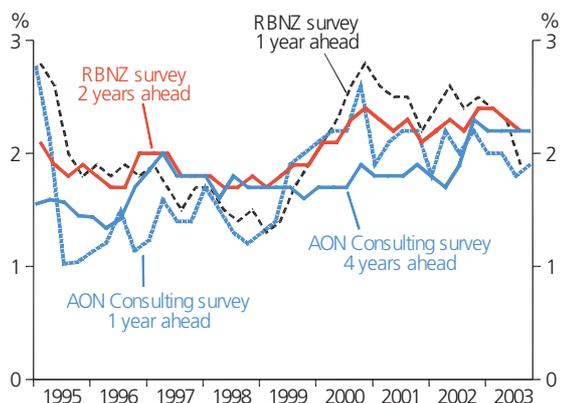
Looking at other measures of inflation, a number of non-CPI-based inflation indicators have been heavily influenced by the sharp fall in export prices over 2001 and 2002. The GDP deflator (figure 30) which is conceptually one of the broadest measures of prices in the economy, fell by 1.0 per cent in the year to March 2003. More recently, this measure has turned around, increasing 1.4 per cent in the year to June 2003. While non-CPI based inflation indicators often exhibit quarterly volatility, this latest increase appears to reflect continuing price increases in the dwellings index as well as an improvement in the terms of trade over the first half of 2003.

One measure that may give a clearer picture of domestic inflation is the GDP deflator excluding export prices. Annual rates of increase in this measure have held up at around 5 per cent for the past 18 months, highlighting the continuing domestic inflation pressures present in the New Zealand economy.

In assessing trends and future developments in inflation, we also look closely at inflation expectations. Changes in inflation expectations can have a significant bearing on wage, price and cost setting behaviour of firms and wage earners and may also affect their willingness to invest or consume. Temporary fluctuations in inflation can be of concern if they become ingrained in inflation expectations and begin to affect behaviour over the longer-term.

Most measures of inflation expectations for New Zealand have edged up since the mid-1990s, consistent with the shift in the inflation target since that time, which has led to slightly higher average rates of inflation (figure 31). The one-year-

Figure 31  
Inflation expectations



Source: AON Consulting, RBNZ.

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ahead measures have edged down over the past year as CPI inflation has fallen – these measures tend to follow actual inflation quite closely. The longer horizon measures have been a little steadier, although these measures remain noticeably higher than was the case during the 1990s. Since these longer-horizon measures may be less affected by exchange rate-related movements in inflation, they may well reflect continued pressure from strong domestic demand and the expectation that average inflation outcomes over the next few years will be higher than was the case over much of the past decade.

Pricing intentions of firms are another good indicator of future inflation developments. As measured by the National Bank Business Outlook (NBBO) survey, pricing intentions for the next three months for all sectors ticked up in the September quarter, although they remain below their long-run average. The subdued pricing intentions are being driven by retailers and manufacturers, who see the appreciation of the exchange rate as putting continued downward pressure on prices. Those in the construction sector, on the other hand, see increased pricing pressure with measured pricing intentions close to their historical highs.

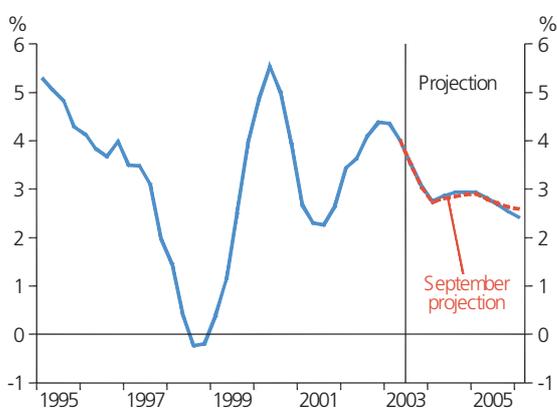
## 4 The macroeconomic outlook

### Overview

This chapter – and the accompanying tables in the Appendix – sets out an updated projection of economic conditions. The scenario presented here is a useful way of establishing, in broad terms, how we think the major forces impacting on the economy might evolve over the next year or so. That creates a backdrop for thinking about appropriate monetary policy settings. As always, the economic outlook is subject to a range of uncertainties and is contingent on a number of key assumptions and judgements.

This chapter also describes an outlook of GDP growth around, or just below, trend over the next few years. As in our September projections, domestic demand is the main driver of growth, as household consumption and residential investment continue to be supported by population gains and further employment growth. In contrast, the export sector remains under pressure from a strong exchange rate and a weak, albeit improving, global economy. Since our September *Statement*, the near-term outlook for domestic demand has improved. However, the exchange rate has appreciated further and export volumes look weaker than previously expected. The negative effect of the higher exchange rate on export incomes is, however, to a large extent offset by higher world export prices. Nonetheless, the outlook for the export sector remains subdued throughout the entire projection horizon. Overall, the GDP growth outlook is little changed (figure 32).

Figure 32  
GDP growth  
(annual average percentage change)



Source: Statistics New Zealand, RBNZ calculations.

On its own, the weak export sector is insufficient to completely contain domestic demand pressures on inflation.

In order to keep CPI inflation within the 1 to 3 per cent target range over the projection horizon, our indicative forward path for interest rates becomes less stimulatory, as policy responds to persistent inflationary pressures in the domestic sector. The near-term profile for headline inflation has been, and will continue to be, influenced by movements in the exchange rate. Inflation temporarily falls further in the last quarter of 2003 reflecting the recent exchange rate appreciation, and rises further out as the temporary effects of the exchange rate appreciation dissipate. The indicative forward path for interest rates responds to the persistent element of inflation resulting from underlying strength in the domestic economy, not to these temporary movements in inflation.

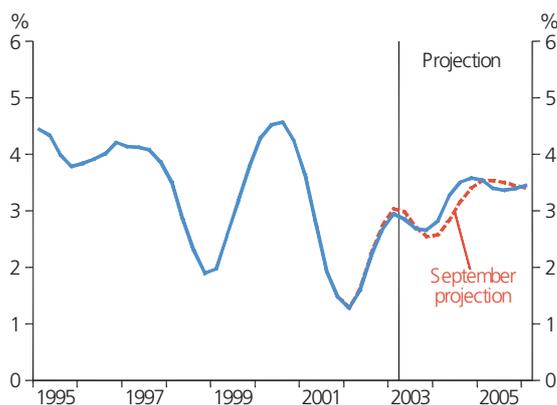
### The world economy

Our view on the outlook for New Zealand's main trading partners is largely based on forecasts and other analyses of individual country prospects made by forecasters in the countries in question. A useful benchmark for the growth outlook of our 12 main trading partners is *Consensus Forecasts*, a structured survey of the main forecasters in the various countries. Most of our focus is on understanding the channels through which the international economy is likely to influence activity and prices in New Zealand, the risks and uncertainties around the growth outlook, and the key structural issues that may be affecting trading partners.

Since our September projections, the outlook for New Zealand's main trading partners has continued to improve, as discussed in Chapter 3. Optimism surrounding the outlook is now reflected in stronger economic data in a number of countries. Growth in the US has been stronger than many anticipated, driven by continued strength in household consumption and increased business investment in equipment and software. Further growth is expected in the near term. Current monetary and fiscal policy settings in many countries are supportive of growth. The large degree of spare capacity, particularly in the US, will help keep inflation pressures contained as the economy recovers, which means that interest rates are expected to remain stimulatory for some time. Although risks around the continuity of the global recovery remain, external commentators are increasingly focusing on the prospects of a sustained recovery. This has been reflected

in upward revisions to *Consensus Forecasts* (figure 33). Current *Consensus Forecasts* are for a relatively moderate-paced recovery over 2003 and 2004 (see table 3). The US is generally expected to be the engine of growth, with prospects for the global recovery linked to the recovery in the US. Europe is expected to be particularly slow to recover.

Figure 33  
Trading partner growth  
(annual average percentage change)



Source: Consensus Economics Inc, RBNZ calculations.

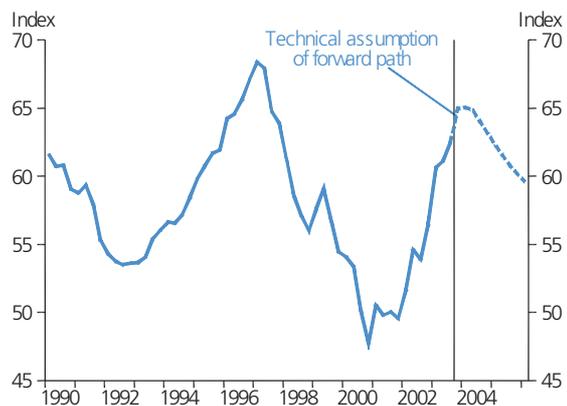
The risks around this outlook lie in both directions. As discussed above, business investment in the US has shown signs of improving, despite the large degree of spare capacity. Looking forward, it is possible that business investment will continue to surprise on the upside as businesses become increasingly confident about the prospects for a sustained recovery. This would provide additional support for the global

economy. However, significant structural issues remain for the US, and many of our other trading partners, which could continue to hamper the global recovery. For example, the high US current account deficit and associated indebtedness may limit the pace of expansion.

## Tradables sector activity and prices

The decline in export incomes from their peak in 2001 is expected to continue in the near term, as domestic currency export prices decline and export volumes remain weak.

Figure 34  
Trade weighted exchange rate



Source: RBNZ.

Table 3  
Forecasts of export partner growth\*  
(calendar year; annual average percentage change)

Country	2000	2001	2002	2003f	2004f
Australia	2.9	2.6	3.6	2.5	3.8
United States	3.8	0.3	2.4	2.9	4.2
Japan	2.8	0.4	0.2	2.4	1.3
Canada	5.3	1.9	3.3	2.0	3.0
Eurozone**	3.5	1.6	0.9	0.5	1.7
United Kingdom	3.8	2.1	1.7	2.0	2.6
Asia ex-Japan***	8.5	1.8	5.0	4.3	5.8
12 country index	4.2	1.5	2.7	2.7	3.6

\* Source: Consensus Economics Inc.

\*\* Includes Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal and Spain.

\*\*\* Includes China, Hong Kong, Malaysia, Singapore, South Korea, and Taiwan.

The outlook for export prices measured in domestic currency depends on the outlook for the exchange rate and world export prices. The exchange rate has appreciated by more than was assumed in our September projections. In line with recent practice, we assume that the trade-weighted exchange rate remains at its recently attained level (around 65 on the TWI) until the middle of 2004, before falling back gradually toward its long run trend (figure 34). Relative to our September assumption, the exchange rate depreciation is now assumed to occur a little more gradually (see Box 2).

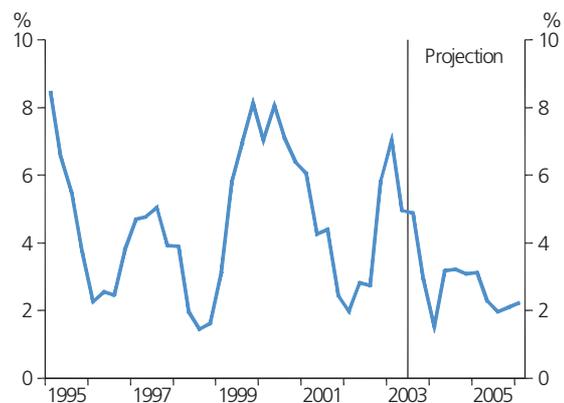
World export prices have been stronger than expected over recent quarters, and indicators such as the ANZ world commodity price index and CBA commodity prices suggest this strength will continue in the near term. The outlook for many individual commodity markets, such as lamb and dairy, remains reasonably good, although forestry is an exception. These positive factors lead us to project higher world export prices over the next few years than assumed in the September projections.

Despite higher world export prices, domestic currency export prices are expected to continue to fall in the near term as a result of recent strength in the exchange rate, and to recover from the middle of next year as the exchange rate is assumed to depreciate. Domestic currency export prices are projected to remain well below the peaks achieved during 2000. Consequently, export sector incomes remain more constrained than in recent years, providing a significant brake on the pace of expansion elsewhere in the economy, and more so than in our September projections.

Export volume growth is expected to decline from the pace seen recently, and to remain relatively subdued over the next few years (figure 35). This reflects the strong exchange rate and still weak, albeit improving, global demand. Export volumes are projected to be weaker than assumed in our September *Statement*, reflecting the higher assumed exchange rate and weaker export volumes recently, as discussed in Chapter 3.

Our forecasts for primary sector exports rely heavily on the advice of various primary sector agencies and companies. Their views on the outlook for the primary sector take into account detailed factors like climatic conditions, stocks and productivity, and conditions in individual markets. Based on these views, the outlook for primary sector exports is expected to be weaker than in our September projections throughout

Figure 35  
Export volume growth  
(annual average percentage change)



Source: Statistics New Zealand, RBNZ calculations.

the projection horizon. Agricultural exports fell by more than we expected following the drought last summer, largely because of a fall in dairy exports. We expect agricultural exports to partially recover from this fall in the near term. However, forestry exports are expected to remain weak for some time, reflecting a relatively soft global market and the higher exchange rate, which is expected to dissuade some production.

In contrast, export volumes of manufactured goods have recorded good growth recently. This may be because many of our manufactured goods are exported to Australia. The Australian economy has performed much better than those of most of our other trading partners, and the New Zealand dollar has eased against the Australian dollar during 2003. Nevertheless, the exchange rate remains strong and is putting downward pressure on prices, and therefore profitability is under some pressure. In addition, competition from foreign competitors is intense. Taking into account these factors, we are expecting only modest growth in manufactured export volumes.

Exports of services are assumed to remain relatively flat over the projection period, somewhat weaker than assumed in our September projection. As in our September projection, we expect tourism to continue to recover from the SARS-induced fall earlier this year. Strength in the trans-Tasman market will also support exports of services in the near term. However, the exchange rate is now higher, and we have allowed for the exchange rate to have a similar effect on exports of services as it appeared to have in mid-1990s. Our

## Box 2: The projected exchange rate path

The exchange rate, while an important influence on the evolution of economic activity and inflation, is inherently difficult to forecast. Because of this difficulty, the Reserve Bank does not forecast the trade weighted index (TWI) in a traditional sense. Instead, the Bank's projected paths for the TWI are 'technical assumptions' which assume that the TWI will gradually revert back to its presumed long-run trend (which has occasionally been adjusted).

The technical assumptions used by the Reserve Bank are only one approach to developing a TWI projection. An alternative to this approach would be to assume that the exchange rate will remain at its current level throughout the entire projection period. However, in the past our assumptions regarding the TWI have proven more accurate than forecasts that assume no change. Another alternative would be to adopt exchange rate forecasts from another forecaster. In practice, however, the performance of the Reserve Bank's projections has proved very similar to that of private sector forecasters in New Zealand (as surveyed by *Consensus Forecasts*).<sup>10</sup> Hence while the Reserve Bank will continue to review its forecasting practices, the current approach is viewed as providing reasonable exchange rate forecasts and as being at least as sound as the possible alternatives. This can be seen in table 4 which shows that the accuracy of the Reserve Bank's projections is similar or better than the alternative projections methods considered here.

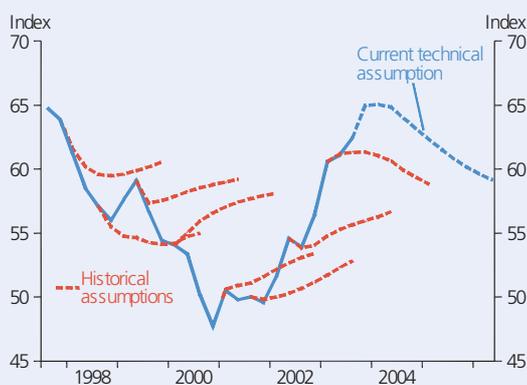
Over a full exchange rate cycle, the use of our technical assumptions to 'forecast' the TWI should produce unbiased estimates of the TWI to the extent that the assumption regarding the long-run trend is correct. However, depending

on the nature of the exchange cycle, forecast errors may occur in the same direction for prolonged periods. This can be seen in figure 36.

In our most recent projections, the level of the TWI is held constant for three quarters, followed by a more gradual return to its long run trend than in previous projections. This reflects our reading of current near-term risks to the exchange rate, which appear to be towards continued strength, as well as evidence suggesting a slightly slower return to trend over a 'typical' cycle than previously embedded in our projections.

The slower projected return of the TWI to equilibrium is also consistent with the work of Cashin and McDermott (2001), which suggested a slower reversion to trend than our previous assumption.<sup>11</sup> Under the latest assumption, most of the reversion to trend occurs over a two-year period. While the assumed exchange rate path appears consistent with the evidence, it remains a purely technical assumption, and not a forecast. We will continue to review our assumptions accordingly.

Figure 36  
RBNZ TWI forecasts  
(Three quarter intervals)



Source: RBNZ.

Table 4  
TWI Forecast Accuracy: (June 1997 to September 2003)  
(Percentage deviations from actual TWI)

Forecast Horizon	RBNZ Projections	Size of errors	
		Consensus Forecasts	No-change Forecasts
One quarter	5	6	6
One year	11	10	12
Two years	15	14	16

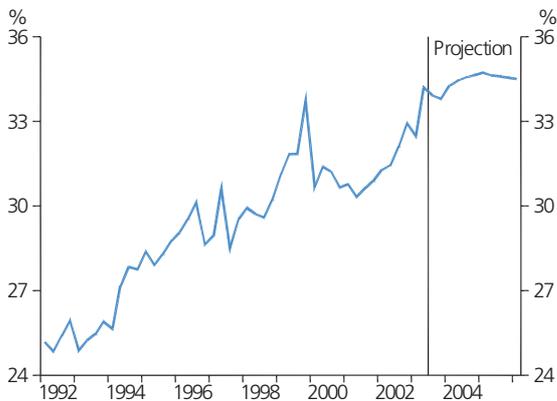
<sup>10</sup> *Consensus Forecasts* survey individual bilateral exchange rates from which an implicit forecast of the TWI can be derived.

<sup>11</sup> See Cashin, P., and C. J. McDermott (2001), 'An unbiased appraisal of purchasing power parity', IMF Working Paper, W/01/196.

projection is also consistent with weaker foreign student numbers following the recent fall.

Import volume growth is expected to continue to exceed GDP growth over the next year, reflecting ongoing strong growth in domestic demand. Thereafter, import volume growth eases, as the exchange rate depreciates and domestic demand growth begins to slow (figure 37).

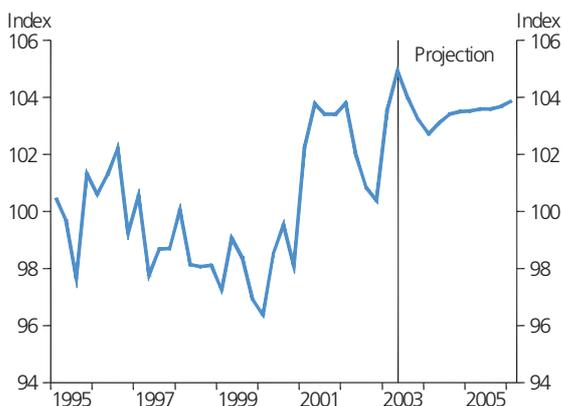
**Figure 37**  
Imports  
(% of GDP)



Source: Statistics New Zealand, RBNZ calculations.

The profile for projected import prices reflects our exchange rate assumption – import prices are assumed to decline further in the near term, and increase later in the projection horizon. Export prices are expected to ease by a little more than import prices, resulting in a projected decline in the terms of trade, albeit to a lesser extent than in the September projection (figure 38). Combined with growth in

**Figure 38**  
Goods and services terms of trade



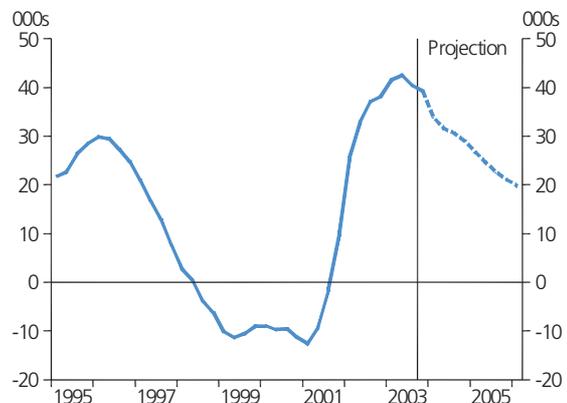
Source: Statistics New Zealand, RBNZ calculations.

import volumes that outpaces that of exports, the surplus on the goods and services account is expected to decline. This leads to a further widening in New Zealand's current account balance over the coming year to a trough of around 6.1 per cent of GDP.

## Domestic spending

Domestic demand has recorded strong growth over the past few years. Rapid growth in the population has boosted household consumption and residential investment, and rising incomes have continued to provide support. We expect some easing in domestic demand growth over the projection horizon. The strong exchange rate is expected to reduce farm incomes, which will lead to slower growth in household incomes. Population growth is expected to continue, albeit at slower rates than seen recently as net immigration slows. The outlook for domestic demand is quite dependent on our assumptions for population growth.

**Figure 39**  
Net migration  
(annual total)



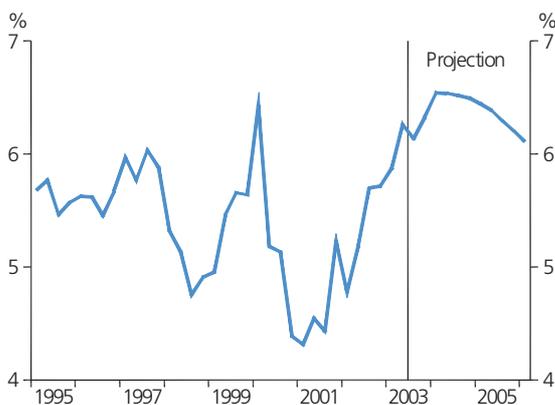
Source: Statistics New Zealand, RBNZ calculations.

Strong net immigration over recent years has been the result of both increasing arrivals and falling departures. Our projections incorporate a slowing in net immigration through fewer arrivals and increased departures (figure 39). We have been expecting net immigration to ease for some time, and recent data suggest that immigration is beginning to slow broadly as we expect. However, the increase in departures has occurred slightly earlier than we allowed for in our September projections. As we noted in our September *Statement*, there is a risk that departures may show a sharp

turnaround if people have delayed overseas travel, in response to terrorist attacks for example. We could also see a lot of recent migrants leaving again, particularly students who may have finished their studies. Although we now believe the recovery in departures may be occurring earlier than we allowed for in September, we have not changed our view on the magnitude of that recovery. The risk that departures increase more sharply than we have allowed for remains, and may rest partly on how global economic conditions unfold.

Strong population growth has boosted residential investment growth, and near-term indicators such as house sales and dwelling consents suggest that residential investment will increase further over the next few quarters. As we have mentioned in previous *Statements*, we are seeing widespread reports of capacity constraints in the construction industry and expect the resulting backlogs of work to hold residential investment up at relatively high levels throughout 2004. By 2005, slowing population growth is likely to reduce the demand for new houses, which will see residential investment decline from its cyclical peaks (figure 40).

**Figure 40**  
Residential investment cycle  
(% of GDP)



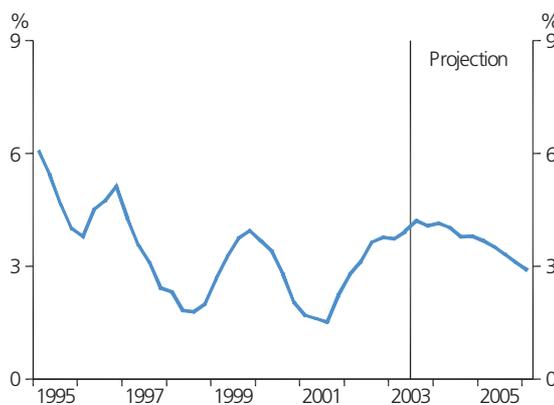
Source: Statistics New Zealand, RBNZ calculations.

In the near term, we expect household consumption growth to remain relatively strong (figure 41). Previously, we expected the fall in consumer confidence earlier this year associated with SARS, the electricity crisis and the Iraq war, to detract from consumption growth in the near term. However, recent indicators such as retail trade have been stronger than expected, and the increase in consumer confidence is consistent with stronger per capita consumption.

A stronger than expected terms of trade, employment growth, very low rates of unemployment, increased housing wealth and a strong residential investment cycle also lead us to expect stronger consumption growth. These factors mean that household consumption is projected to be stronger than in our September *Statement*. Further out in the projection period, per capita consumption growth is expected to slow, as interest rates become less stimulatory and household income growth moderates. Together with slowing population growth, this will reduce growth in household consumption.

The risks to household spending continue to lie in both directions. The pace at which a cooling in the export sector feeds through to household demand is one source of risk. For example, outside Northland, activity in most regions appears to remain relatively strong, and it is possible that rising rural property prices may be offsetting the effect of falling farm incomes. This could provide greater support for

**Figure 41**  
Real consumption growth  
(annual average percentage change)



Source: Statistics New Zealand, RBNZ calculations.

spending than we have allowed for, although this could also mean a sharper contraction in household spending at a later date. Conversely, as previously noted the recent pick-up in permanent and long-term departures could be the start of a stronger trend than we have allowed for, which could significantly lower our assumptions for net migration inflows and lead to weaker growth in domestic demand. Box 3 provides a further discussion of the uncertainties around the strength of household consumption.

Business investment growth has picked up recently, and indicators such as business confidence and firms' investment

### Box 3: Consumption and wealth

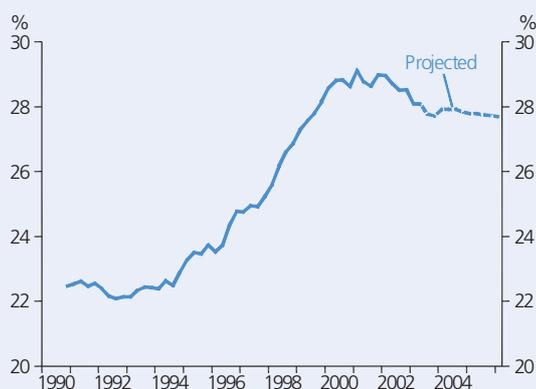
Our projections for the year to March 2004 incorporate relatively strong growth in household consumption. Over this period the saving rate declines from around -4 per cent in 2003 to around -6 per cent in 2004. It is possible that the forecast slowing in disposable income does not lead to an equivalent slowing in household consumption because of wealth effects from recent increases in house prices. An interesting question to ask is whether household debt positions look sustainable following the projected decline in the household saving rate. If household debt positions are not sustainable, there could be downside risk to our consumption projection.

Over the last 20 years, the ratio of household consumption to net wealth has been increasing (figure 42). Part of that increase is likely to reflect an adjustment to an increased ability to borrow following financial deregulation in the 1980s. However, this ratio has declined slightly in the last few years with household wealth increasing faster than household consumption. Our projections are consistent with this ratio remaining relatively constant at its current level over the next few years. This is a deviation from the upward trend that has occurred, and there is a risk that the fall over the last few years will be reversed, or that the ratio of consumption to wealth may resume an upward trend. This could happen through stronger household consumption – for example, if the wealth gains of the last few years influence consumption with a delay.

In aggregate, households are unable to ‘spend’ wealth in the same manner they spend current income –

households are unable to realise house price gains en-mass. In practice, this means that wealth-driven rises in consumption are typically financed through existing financial savings or through recourse to debt. As discussed in Chapter 3, the household debt-to-income ratio has increased substantially over the past decade and has been rising sharply again over the past year, taking the debt ratio to new highs. While households may remain comfortable about increasing debt levels in an environment where house prices are continuing to rise, at some point the appetite to take on further debt (which must be financed out of current income) could start to wane. This would have a bearing on the consumption to wealth ratio (and indeed on the prospects for further gains in wealth driven by higher house prices).

Figure 42 Household consumption as a percentage of net wealth



Source: Statistics New Zealand, RBNZ calculations.

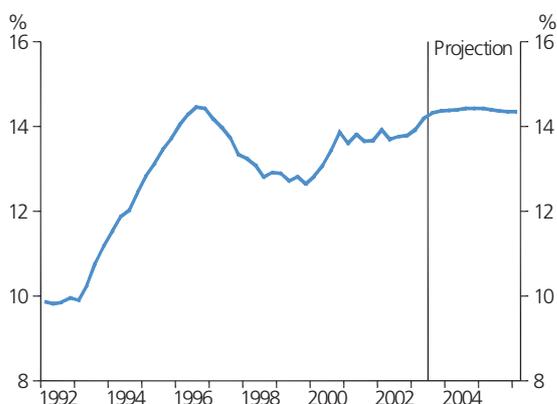
intentions suggest that this increase may continue. This is supported by discussions with our business contacts, with most firms reporting an intention to continue investing at around current levels. As discussed in Chapter 3, the value of consents for non-residential buildings appears to be trending up, and we expect this to lead to an increase in non-residential construction activity in the near term. In aggregate, we expect business investment to grow at a modest rate over the next few years. This will see business investment remain relatively

constant as a share of GDP, at historically relatively high levels (figure 43).

### Fiscal policy

Our projections of the fiscal position and the contributions of the government’s fiscal operations on economic activity are based primarily on the May Budget, which projected a stable outlook for fiscal policy. However, we have also taken into

**Figure 43**  
Business investment  
(% of GDP)



Source: Statistics New Zealand, RBNZ calculations.

account stronger than expected growth in taxation revenues in 2003. In the absence of any offsetting increase in expenditures, this increase could give rise to a more contractionary fiscal impulse in these projections. However, as foreshadowed in the Budget and from its more recent comments, the Government has signalled the likelihood of policy changes in the 2004 Budget over and above those formally incorporated into the May Budget.

The projections presented here assume some additional spending takes place in 2004/05 – consistent with comments in the May Budget that policy changes could be undertaken to reduce the surplus by less than ½ per cent of GDP. In the absence of formal announcements and details, our assumptions are purely indicative at this stage and incorporate no additional information. The net effect from this extra spending is that fiscal policy has a mildly stimulatory impact on the economy during 2004/05. We have not assumed additional increases in spending in the outer years of the projections, although that remains a possibility.

## Inflation and monetary policy

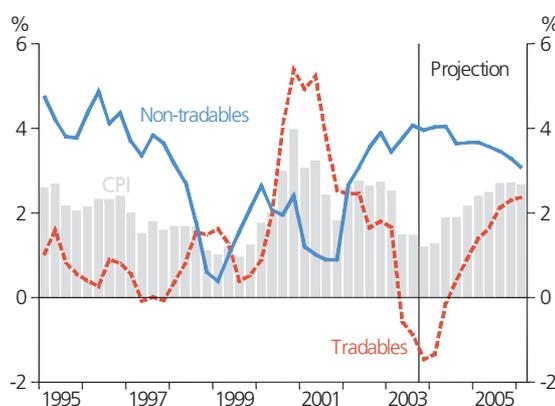
Stronger near-term domestic demand relative to our September projection has increased the pressure on domestic resources. As discussed in Chapter 3, a range of cyclical indicators suggest that resources in the economy are stretched. Over the projection period, GDP growth is expected to ease, and this will help reduce the pressure on resources. At the

same time, productive capacity in the economy is projected to grow more slowly, as migration adds to the labour force at a slower rate. On balance, the degree of stretch in the economy is projected to decline over the next few years, producing more moderate inflation pressures as reflected in a decline in non-tradables inflation.

On average over the projection period, CPI inflation is projected to remain within the 1 to 3 per cent target range. In the near term, strong domestic demand and capacity constraints in the domestic economy continue to place upward pressure on prices for non-tradable goods and services. Annual non-tradables inflation is expected to remain at around 4 per cent until the middle of 2004, stronger than we allowed for in our September projection. The indicative forward path for interest rates becomes less stimulatory over the projection period, in response to this persistent element in inflation. The less stimulatory stance for monetary policy and slowing GDP growth contribute to an easing in non-tradables inflation.

The near-term profile for CPI inflation is temporarily affected by our assumption for the exchange rate. The recent appreciation of the exchange rate continues to place downward pressure on CPI inflation by reducing the prices of tradable goods. This sees annual CPI inflation fall below the levels in our September projection over the next few quarters. Tradable goods inflation begins to pick up once the exchange rate stops appreciating and begins to depreciate (figure 44).

**Figure 44**  
CPI, tradables and non-tradables inflation  
(annual percentage change)



Source: Statistics New Zealand, RBNZ calculations.

# Appendix 1<sup>1</sup>

## Summary tables

Table A

### CPI inflation projections and monetary conditions

(CPI is in percentage changes)

		CPI* Quarterly	CPI** Annual	TWI	90-day bank bill rate
1997	Sep.	0.3	1.8	64.8	8.1
	Dec.	0.6	1.6	63.9	7.9
1998	Mar.	0.5	1.7	61.2	9.0
	Jun.	0.3	1.7	58.5	9.1
	Sep.	0.3	1.7	57.1	6.8
	Dec.	0.6	1.1	56.0	4.6
1999	Mar.	-0.1	1.0	57.6	4.5
	Jun.	0.2	1.2	59.1	4.7
	Sep.	0.5	0.9	56.7	4.8
	Dec.	0.4	1.2	54.4	5.4
2000	Mar.	0.2	1.8	54.1	6.0
	Jun.	0.7	2.0	53.4	6.7
	Sep.	0.7	3.0	50.1	6.7
	Dec.	1.4	4.0	47.7	6.7
2001	Mar.	1.2	3.1	50.5	6.4
	Jun.	0.9	3.2	49.8	5.9
	Sep.	0.6	2.4	50.0	5.7
	Dec.	0.6	1.8	49.6	5.0
2002	Mar.	0.6	2.6	51.6	5.0
	Jun.	1.0	2.8	54.6	5.8
	Sep.	0.5	2.6	53.9	5.9
	Dec.	0.6	2.7	56.4	5.9
2003	Mar.	0.4	2.5	60.6	5.8
	Jun.	0.0	1.5	61.1	5.4
	Second Half Average	$\frac{1}{2}$	$1\frac{1}{4}$	$63\frac{3}{4}$	$5\frac{1}{4}$
2004	First Half Average	$\frac{1}{2}$	$1\frac{1}{2}$	65	$5\frac{3}{4}$
	Second Half Average	$\frac{1}{2}$	2	$63\frac{1}{2}$	$5\frac{3}{4}$
2005	First Half Average	$\frac{3}{4}$	$2\frac{1}{2}$	62	6
	Second Half Average	$\frac{3}{4}$	$2\frac{3}{4}$	$60\frac{1}{2}$	6
2006	First Half Average	$\frac{1}{2}$	$2\frac{3}{4}$	$59\frac{1}{2}$	6

#### Quarterly projections

2002	Dec.	0.6	2.7
2003	Mar.	0.4	2.5
	Jun.	0.0	1.5
	Sep.	0.5	1.5
	Dec.	0.4	1.2
2004	Mar.	0.5	1.3

(1) Notes for these tables follow on page 34.

\* This series is quarterly underlying inflation until the September quarter 1997, quarterly CPI inflation, excluding credit services, from the December 1997 quarter until the June 1999 quarter, and quarterly CPI inflation thereafter.

\*\* This series is annual underlying inflation until the September quarter 1997, annual CPI inflation, excluding credit services, from the December 1997 quarter until the June 1999 quarter, and annual CPI inflation thereafter (adjusted by Statistics New Zealand to exclude interest and section prices from the September 1999 quarter to the June 2000 quarter).

Table B

## Composition of real GDP growth

(Annual average percentage change, unless specified otherwise)

March year	Actuals					Projections				
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Final consumption expenditure										
Private	4.5	2.2	2.5	3.8	1.7	2.8	3.8	4	3 1/2	3
Public authority	1.4	8.8	-2.1	7.3	-2.1	3.9	5.0	2 1/4	2	2
Total	3.8	3.7	1.4	4.6	0.8	3.1	4.1	3 1/2	3 1/4	2 3/4
Gross fixed capital formation										
Market sector:										
Residential	4.9	3.0	-14.0	22.8	-15.7	3.3	23.3	15 1/2	6	-1 1/2
Business	4.8	-4.0	-0.3	1.9	9.5	5.2	3.3	7	3 3/4	2 3/4
Non-market government sector	13.6	8.5	-1.6	16.2	-16.6	4.9	10.0	3 3/4	3 1/4	0
Total	5.7	-0.9	-4.1	8.6	-0.6	4.7	8.6	8 3/4	4 1/4	1 1/4
Final domestic expenditure	4.2	2.7	0.2	5.4	0.5	3.4	5.0	4 3/4	3 1/2	2 1/4
Stockbuilding (1)	-0.4	-0.1	-0.5	1.2	-0.4	0.3	-0.4	0	1/4	1/4
Gross national expenditure	3.7	2.5	-0.2	6.6	0.1	3.7	4.6	4 3/4	3 1/2	2 1/2
Exports of goods and services	4.7	3.9	3.1	7.0	6.1	2.0	7.0	1 1/2	3	2 1/4
Imports of goods and services	6.5	2.6	2.1	11.5	-0.4	2.4	9.4	8 1/2	4 3/4	2 1/4
Expenditure on GDP	3.2	2.9	0.1	5.2	2.2	3.5	3.9	2 1/2	3	2 1/2
GDP (production)	3.5	1.5	0.4	4.9	2.7	3.4	4.4	2 3/4	3	2 1/2
GDP (production, March qtr to March qtr)	2.1	0.1	2.4	6.1	1.0	4.1	4.0	2 3/4	2 3/4	2 1/4
Potential output	3.6	2.9	2.5	2.6	2.8	3.1	3.3	3 1/4	3 1/4	3 1/4
Output gap (% of potential GDP, year average)	1.5	0.1	-2.0	0.2	0.1	0.4	1.5	3/4	1/2	-1/4

(1) Percentage point contribution to the growth rate of GDP.

Table C

## Summary of economic projections

(Annual percentage change, unless specified otherwise)

March year	Actuals								Projections		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	
<b>Price measures</b>											
CPI*	2.0	1.7	1.0	1.7	3.1	2.6	2.5	1 1/4	2 1/2	2 3/4	
Labour costs	2.0	1.9	1.6	1.4	1.6	2.1	2.2	2	2	2	
Import prices (in New Zealand dollars)	-4.6	2.9	2.7	11.2	7.4	-2.9	-9.0	-5 1/2	5 3/4	5	
Export prices (in New Zealand dollars)	-6.3	4.2	-0.6	9.9	20.6	-3.5	-15.3	-7 1/2	5 1/2	4 3/4	
<b>Monetary conditions</b>											
90-day rate (year average)	9.0	8.0	6.2	5.2	6.6	5.4	5.9	5 1/4	5 3/4	6	
TWI (year average)	66.4	64.4	57.3	56.1	50.4	50.3	56.4	63 1/2	63 1/2	60 1/2	
<b>Output</b>											
GDP (production, annual average % change)	3.5	1.5	0.4	4.9	2.7	3.4	4.4	2 3/4	3	2 1/2	
GDP (production, March qtr to March qtr)	2.1	0.1	2.4	6.1	1.0	4.1	4.0	2 3/4	2 3/4	2 1/4	
Output gap (% of potential GDP, year average)	1.5	0.1	-2.0	0.2	0.1	0.4	1.5	3/4	1/2	- 1/4	
<b>Labour market</b>											
Total employment	1.2	0.0	0.6	1.4	2.3	3.5	1.5	3	1 1/2	1	
Unemployment rate (March qtr, s.a.)	6.5	7.2	7.2	6.3	5.4	5.2	4.9	4 1/2	4 3/4	5	
Trend labour productivity (annual % change)	1.0	1.3	1.5	1.5	1.4	1.3	1.1	1	1 1/4	1 1/2	
<b>Key balances</b>											
Government operating balance (% of GDP, year to June)	1.9	2.5	1.7	1.3	1.2	1.9	1.7	3 1/4	3 1/2	3 1/2	
Current account balance (% of GDP, year to March)	-6.1	-5.5	-4.3	-6.7	-4.1	-2.3	-4.0	-5 3/4	-6	-6	
Terms of trade (OTI measure, annual average % change)	-0.8	-1.0	-0.4	-0.2	4.4	4.1	-6.2	- 1/2	-2 1/2	0	
Household savings rate	-3.0	-4.0	-4.8	-0.8	-4.4	-3.7	-4 1/4	-5 3/4	-6	-6	
(% of disposable income, year to March)											
<b>World economy</b>											
World GDP (annual average % change)	4.1	3.5	2.0	4.3	3.6	1.3	3.0	2 3/4	3 1/2	3 1/2	
World CPI inflation	2.2	2.2	1.1	2.0	2.7	1.4	2.2	1 1/4	1 1/2	1 3/4	

s.a. = seasonally adjusted

\* This series is annual CPI inflation, excluding credit services, until the June 1999 quarter, and annual CPI inflation thereafter (adjusted by Statistics New Zealand to exclude interest and section prices from the September 1999 quarter to the June 2000 quarter).

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## Notes to the tables

CPI	Consumers Price Index. Quarterly projections rounded to 1 decimal place.
TWI	RBNZ. Nominal Trade Weighted Index of the exchange rate. Defined as a geometrically-weighted index of the New Zealand dollar bilateral exchange rates against the currencies of Australia, Japan, the United States, the United Kingdom, and the euro.
90-day bank bill rate	RBNZ. Defined as the interest yield on 90-day bank bills. Forecasts rounded to the nearest quarter per cent.
World GDP	Reserve Bank definition. 14-country index, export weighted. Projections based on <i>Consensus Forecasts</i> . Seasonally adjusted.
World CPI inflation	RBNZ definition and estimate. TWI trading partners' CPI inflation (euro-zone proxied by Germany), weighted by TWI weights. Projections based on <i>Consensus Forecasts</i> .
Import prices	Domestic currency import prices. <i>Overseas Trade Indexes</i> .
Export prices	Domestic currency export prices. <i>Overseas Trade Indexes</i> .
Terms of trade	Constructed using domestic-currency export and import prices. <i>Overseas Trade Indexes</i> .
Private consumption	<i>System of National Accounts</i> .
Public authority consumption	<i>System of National Accounts</i> .
Residential investment	RBNZ definition. Private sector and government market sector residential investment. <i>System of National Accounts</i> .
Business investment	RBNZ definition. Total investment less the sum of non-market investment and residential investment. <i>System of National Accounts</i> .
Non-market investment	RBNZ definition. The <i>System of National Accounts</i> annual nominal government non-market/market investment ratio is interpolated into quarterly data. This ratio is used to split quarterly expenditure GDP government Investment into market and non-market components.
Final domestic expenditure	RBNZ definition. The sum of total consumption and total investment. <i>System of National Accounts</i> .
Stockbuilding	Percentage point contribution to the growth of GDP by stocks. <i>System of National Accounts</i> .
Gross national expenditure	Final domestic expenditure plus stocks. <i>System of National Accounts</i> .
Exports of goods and services	<i>System of National Accounts</i> .
Imports of goods and services	<i>System of National Accounts</i> .
GDP (production)	<i>System of National Accounts</i> .
Potential output	RBNZ definition and estimate. Refer to Conway, P. and B. Hunt, (1997), 'Estimating Potential Output: a semi-structural approach', <i>Reserve Bank of New Zealand Discussion Paper, G97/9</i> .
Output gap	RBNZ definition and estimate. The percentage difference between real GDP (production, seasonally adjusted) and potential output GDP.
Current account balance	<i>Balance of Payments</i> .

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Total employment	<i>Household Labour Force Survey.</i>
Unemployment rate	<i>Household Labour Force Survey.</i>
Household savings rate	<i>Household Income and Outlay Accounts.</i>
Government operating balance	Historical source The Treasury. Adjusted by the RBNZ over the projection period.
Labour productivity	The series shown is the annual percentage change in a trend measure of labour productivity. Labour productivity is defined as GDP (production) divided by HLFS hours worked.
Wages	Private sector all salary and wage rates. <i>Labour Cost Index.</i>
Quarterly percentage change	$(\text{Quarter}/\text{Quarter}_{-1} - 1) * 100$
Annual percentage change	$(\text{Quarter}/\text{Quarter}_{-4} - 1) * 100$
Annual average percentage change	$(\text{Year}/\text{Year}_{-1} - 1) * 100$

Source: Unless otherwise specified, all data conform to Statistics New Zealand definitions, and are not seasonally adjusted.

Rounding: Unless otherwise specified, all projection data are rounded to the nearest quarter per cent.

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## Appendix 2

# Chronology

Listed below are recent events of particular relevance to monetary policy and inflation.

2003

- |              |   |
|--------------|---|
| 4 September  | The Reserve Bank released its thirty-ninth <i>Monetary Policy Statement</i> , leaving the Official Cash Rate unchanged at 5.0 per cent. The news release accompanying the <i>Statement</i> is reproduced in Appendix 4. |
| 26 September | Production GDP figures were released showing that the New Zealand economy grew by 0.2 per cent in the June quarter of 2003.   |
| 15 October   | CPI statistics were released for the September quarter of 2003 showing that the CPI increased by 0.5 per cent over the quarter, and by 1.5 per cent in the year to September 2003.                                      |
| 23 October   | At the intra-quarter review, the Reserve bank left the Official Cash Rate unchanged at 5.0 per cent. The accompanying news release is reproduced in Appendix 4.   |

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## Appendix 3

# Companies and organisations contacted by RBNZ staff during the projection round

Air New Zealand Ltd	NZ Council of Trade Union
Aldwin Page (Kiwi Care) Ltd	New Zealand Light Leathers Limited
Aluminium Diecasting Limited	NZ Timber Industry Federation
Amcor Kiwi Packaging Ltd	NZ Tourism Board
ANZ Banking Group (New Zealand) Ltd	Otago Furniture Co Ltd
Aoraki Development Trust	Pan Pacific Forest Products Limited
Auckland Chamber of Commerce	Polson & Higgs & Co Ltd
ASB Bank Limited	Port of Napier Ltd
Bank of New Zealand	Port Otago Limited
Bedpost (New Zealand) Ltd	Primeport New Zealand (Timaru) Ltd
Brigstone New Zealand Ltd	Printstock Products Ltd
Building Industry Authority	Richmond Ltd
Caltex Oil NZ Ltd	Steelbro (NZ) Ltd
Chequer Corporation Ltd	Talbot Plastics Ltd
Circa Marine & Industrial Ltd	TDC Sawmills Ltd
Comalco New Zealand Ltd	Telecom New Zealand Limited
Culham Engineering Co Ltd	Tumu Timbers Ltd
Dan Cosgrove Ltd	UDC Finance Limited
David Shaw Furniture Ltd	Vodafone New Zealand Ltd
Davin Industries Ltd	Weldwell (NZ) Ltd
DB Breweries Limited	Westpac Banking Corporation (New Zealand Division)
Donaghys Industries Limited	Williams & Kettle Limited
Education New Zealand Trust	Wyatt Wilson Print Limited
Fairfax New Zealand Ltd	
GL Bowron & Co Ltd	
J Ballantyne & Co Ltd	
James Wren & Co Ltd	
Lyttelton Engineering Ltd	
Lyttelton Port Company	
Mc Mullen Wing Ltd	
Medallion Foods Ltd	
MiTek New Zealand Ltd	
Mitsubishi New Zealand Ltd	
Mitsui & Co (NZ) Limited	
Moore Gallagher Ltd	
National Bank of New Zealand Ltd	
Natural Gas Corporation	
Norsewear of New Zealand Ltd	
Northland Port Corporation (NZ) Ltd	

In addition to our formal meetings with the organisations listed above, contact was also made with other organisations for feedback on business conditions and particular issues relevant to our policy deliberations.

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## Appendix 4

### Reserve Bank statements on monetary policy

#### OCR unchanged

*4 September 2003*

The Reserve Bank has decided to leave the Official Cash Rate unchanged at 5 per cent.

Speaking at the release of the Bank's September 2003 *Monetary Policy Statement* Reserve Bank Governor Alan Bollard said "New Zealand has enjoyed an extended period of strong economic growth. Signs that growth is slowing, which will reduce inflationary pressures, have led us to cut the OCR on several occasions this year, adding stimulus to the economy.

"Our latest assessment is that the economy is continuing to cool, although not as sharply as previously thought. Exports remain under pressure, due to the higher exchange rate and a relatively slow global recovery. But domestic activity is stronger than expected with sentiment improving now that events such as SARS and the electricity shortages have dissipated. Ongoing population growth has been fuelling a sharp rise in residential and construction activity throughout the country and has supported household spending. While population growth looks likely to slow, sharp increases in property prices and a backlog of demand in the construction sector have the potential to maintain inflation pressure in the domestic economy for some time yet.

"Current monetary policy settings are consistent with medium-term inflation remaining comfortably within the target range, with the risks to inflation balanced. Although imported inflation is currently weak due to the higher exchange rate, inflation pressures remain robust across a range of domestic industries, especially housing and construction.

"Looking forward, there is a possibility that the current strength in the domestic economy proves stronger and more enduring than we are anticipating. Conversely, further appreciation of the exchange rate could potentially exert an even greater braking effect on the external sector. We will closely monitor the balance of pressures across these two sectors and their implications for the medium term inflation outlook as we update our policy outlook over the months ahead."

#### OCR unchanged at 5.0 per cent

*23 October 2003*

The Reserve Bank has left the OCR unchanged at 5.0 per cent, this being consistent with inflation outcomes within the Bank's target range.

As noted in our September *Monetary Policy Statement*, the New Zealand economy has been enjoying strong economic growth, with robust domestic demand countering weaker conditions in parts of the export sector. Strong inflation pressures are evident in some industries, although these pressures have to date been largely offset by weaker imported inflation.

In saying that, the Bank reiterates that its headroom to absorb additional inflation pressures over the medium term is limited.

The current market expectations of interest rates appear broadly consistent with this view as currently reflected in financial market prices. The Bank will continue to assess activity and inflation pressures accordingly, as new information comes to hand.

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## Appendix 5

### The Official Cash Rate chronology

Date	Change in OCR (basis points)	OCR (per cent)
17 March 1999	OCR introduced	4.50
21 April 1999	No change	4.50
19 May 1999	No change	4.50
30 June 1999	No change	4.50
18 August 1999	No change	4.50
29 September 1999	No change	4.50
17 November 1999	+ 50	5.00
19 January 2000	+ 25	5.25
15 March 2000	+ 50	5.75
19 April 2000	+ 25	6.00
17 May 2000	+ 50	6.50
5 July 2000	No change	6.50
16 August 2000	No change	6.50
4 October 2000	No change	6.50
6 December 2000	No change	6.50
24 January 2001	No change	6.50
14 March 2001	- 25	6.25
19 April 2001	- 25	6.00
16 May 2001	- 25	5.75
4 July 2001	No change	5.75
15 August 2001	No change	5.75
19 September 2001	- 50	5.25
3 October 2001	No change	5.25
14 November 2001	- 50	4.75
23 January 2002	No change	4.75
20 March 2002	+ 25	5.00
17 April 2002	+ 25	5.25
15 May 2002	+ 25	5.50
3 July 2002	+ 25	5.75
14 August 2002	No change	5.75
2 October 2002	No change	5.75
20 November 2002	No change	5.75
23 January 2003	No change	5.75
6 March 2003	No change	5.75
24 April 2003	-25	5.50
5 June 2003	-25	5.25
24 July 2003	-25	5.00
4 September 2003	No change	5.00
23 October 2003	No change	5.00

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## Appendix 6

# Policy Targets Agreement

This agreement between the Minister of Finance and the Governor of the Reserve Bank of New Zealand (the Bank) is made under section 9 of the Reserve Bank of New Zealand Act 1989 (the Act). The Minister and the Governor agree as follows:

1. Price stability

- a) Under Section 8 of the Act the Reserve Bank is required to conduct monetary policy with the goal of maintaining a stable general level of prices
- b) The objective of the Government's economic policy is to promote sustainable and balanced economic development in order to create full employment, higher real incomes and a more equitable distribution of incomes. Price stability plays an important part in supporting the achievement of wider economic and social objectives.

2. Policy target

- a) In pursuing the objective of a stable general level of prices, the Bank shall monitor prices as measured by a range of price indices. The price stability target will be defined in terms of the All Groups Consumers Price Index (CPI), as published by Statistics New Zealand.
- b) For the purpose of this agreement, the policy target shall be to keep future CPI inflation outcomes between 1 per cent and 3 per cent on average over the medium term.

3. Inflation variations around target

- a) For a variety of reasons, the actual annual rate of CPI inflation will vary around the medium-term trend of inflation, which is the focus of the policy target. Amongst these reasons, there is a range of events whose impact would normally be temporary. Such events include, for example, shifts in the aggregate price level as a result of exceptional movements in the prices of commodities traded in world markets, changes in indirect taxes, significant government policy changes that directly affect prices, or a natural disaster affecting a major part of the economy.
- b) When disturbances of the kind described in clause 3(a) arise, the Bank will respond consistent with meeting its medium-term target.

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4. Communication, implementation and accountability

- a) On occasions when the annual rate of inflation is outside the medium-term target range, or when such occasions are projected, the Bank shall explain in Policy Statements made under section 15 of the Act why such outcomes have occurred, or are projected to occur, and what measures it has taken, or proposes to take, to ensure that inflation outcomes remain consistent with the medium-term target.
- b) In pursuing its price stability objective, the Bank shall implement monetary policy in a sustainable, consistent and transparent manner and shall seek to avoid unnecessary instability in output, interest rates and the exchange rate.
- c) The Bank shall be fully accountable for its judgements and actions in implementing monetary policy.



Hon Dr Michael Cullen  
Minister of Finance



Dr Alan E Bollard  
Governor Designate  
Reserve Bank of New Zealand

Dated at Wellington this 17<sup>th</sup> day of September 2002

