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

November 2002

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

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<sup>1</sup> Projections finalised on 7 November 2002. Policy assessment finalised on 18 November 2002.

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# 1 Policy assessment

The Reserve Bank has decided to leave the Official Cash Rate unchanged at 5.75 per cent. In addition, the Bank's projections show no change in short-term interest rates over the period ahead – reflecting our sense that the risks for the future direction of the OCR are evenly balanced.

The new Policy Targets Agreement directs the Bank to target future CPI inflation outcomes of 1 to 3 per cent on average over the medium term. Looking ahead, current policy settings appear consistent with that objective. In essence, strong domestic demand is expected to be offset by offshore developments, keeping inflation pressures in check.

Unlike most trading partners, the New Zealand economy has performed well in 2002. Activity has continued to benefit from the surge in export earnings over the past two years and from the recent rapid population growth. To date, weak global conditions have not had as large an impact on the local economy as we might have expected.

Strong activity has left businesses with limited scope to meet increases in demand without incurring extra costs and firms have been reporting ongoing difficulties in finding skilled and unskilled labour. These pressures are contributing to higher prices in some domestic-based industries, such as services.

However, the soft international economy, falls in some commodity prices and the path of the exchange rate have produced a fall in the inflation rate for tradable items. These offsetting factors have seen annual CPI inflation remain steady at a relatively high level.

Economic growth is likely to slow over the coming year, to a little below its average, reflecting international market conditions and a moderating of the demand pressures associated with strong population growth. The rise in the exchange rate over recent months, if sustained, will also put downward pressure on inflation over the next few quarters and exert some braking effect on activity and inflation further out. From a starting point of some considerable pressure on resources, inflation pressures evident in some parts of the economy are likely to subside somewhat, although perhaps not immediately.

The new PTA provides monetary policy with a little more flexibility in the way it responds to changing economic conditions. Our intention is to operate policy in a flexible manner in order to meet our obligations under the PTA. We will continue to reassess economic developments and respond appropriately.



Alan Bollard  
Governor

## 2 Overview and key policy judgements

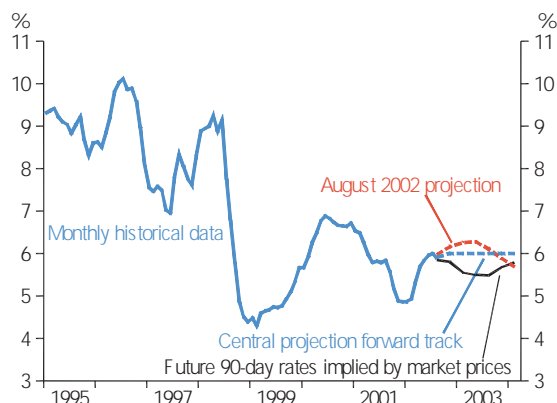
The New Zealand economy experienced a period of strong growth through the middle of this year, in contrast to many parts of the world, continuing a trend that has been evident for some time. Although the quarter-to-quarter pattern of growth has often been bumpy, the broad trend has been one of a steady acceleration of economic activity from 2½ per cent in the March 2001 year to probably a bit over 4 per cent in the current March year.

While annual growth has been accelerating since early 2001, annual CPI inflation declined in 2001 and then steadied during 2002, falling from just over 3 per cent to around a projected 2¼ per cent by March 2003. The explanation for the apparently contradictory decline in inflation while activity has accelerated lies in the composition of the CPI basket. Locally generated inflation pressures have in fact increased, as indicated by the rising path of non-tradables (mainly services) prices<sup>1</sup>. At the same time, tradables (mainly goods) inflation has been falling, largely because exchange rate depreciation gave way to appreciation a little under a year ago.

It is the outlook for these major components of the inflation process that drives policy decisions today. While domestic inflation pressures are currently a little stronger than we had been anticipating, there are still good reasons to expect that weak global economic conditions will eventually impact more forcefully on New Zealand. When that hit arrives, existing *domestic* inflation pressure will almost certainly dissipate, without any assistance from tighter monetary policy. Meantime, further exchange rate appreciation over recent months, and the lagged effects of a fall in key commodity prices in international markets, will keep tradables inflation on a downward track. Putting those developments together, monetary policy settings do not need to be altered at this point to generate a high degree of comfort that future inflation will fall within the 1 to 3 per cent target range (large unforeseen events excepted). Accordingly, in the projections accompanying this *Statement*, we depict a flat track for interest rates at around current levels (figure 1).

Driving our policy conclusion, in addition to the outlook for inflation itself, is the new Policy Targets Agreement (PTA) which came into effect with Dr Alan Bollard's appointment

Figure 1  
90-day interest rates



Source: RBNZ

as Governor in late September (see Box 1, overleaf). After further elaboration of our view of evolving inflation pressures below, we describe the influence of the new PTA.

### The outlook for inflation

The New Zealand economy is growing faster than earlier anticipated. This time last year when we were preparing our projections of the New Zealand economy, we were highly conscious of the steady depressurisation of the 'new economy bubble' in the US and Europe, and the additional overlay of fear and uncertainty engendered by the events of 11 September 2001. It seemed inevitable that New Zealand would be adversely affected by a marked slowing in international demand for our products, and we accordingly projected that growth in the year to March 2003 would slide to a mere 1½ per cent. By March of this year, we had revised that projection up to 2¼ per cent; by May to 2¾ per cent; by August to 3½ per cent; and we are now picking somewhere around 4¼ per cent. All the while, our assumptions about growth in our main export partners over the March 2003 year have been constrained to a modest (by their standards) 2½ to 3 per cent per annum.

For some time it has been the case that, when viewed from the perspective of historical relationships between the world's and New Zealand's economic fortunes, the strength of local economic activity has appeared to be unsustainable. As the gap in fortunes grows, so too does the force of the

<sup>1</sup> Those goods and services traded internationally or otherwise strongly influenced by international prices and the exchange rate (see Box 3 for more elaboration).

(continued on p 5)

## Box 1: The new Policy Targets Agreement

On 17 September 2002 the Minister of Finance and the Governor-Designate signed a new Policy Targets Agreement outlining how the Reserve Bank should conduct monetary policy over the new Governor's current term of office.

The key changes in this new PTA are that:

- the price stability target floor has been raised from 0 to 1 per cent, while the price stability ceiling remains unchanged at 3 per cent; and
- the target measure has been redefined to be "future CPI inflation outcomes ... on average over the medium term".

Overall, these changes provide a little more flexibility for monetary policy in some circumstances. In some cases, this may mean the Bank can be more gradual than previously in its monetary policy responses, which will help avoid unnecessary instability in output, interest rates and the exchange rate.

In typical circumstances, we will give most of our attention to the outlook for CPI inflation over the next three or so years. If the outlook for inflation over that period is inconsistent with the target range, then monetary policy will be adjusted. Our goal in making that adjustment will be to ensure that, in the absence of significant unforeseen events, inflation will be back within the target range in the latter half of that 3 year period.

The key test will be whether future inflation will settle *comfortably* in the 1 to 3 per cent range. If our inflation projections are too close to either edge, the risk is that it would take only a minor surprise to push inflation out of the range. In that situation, interest rate adjustments would typically be made to ensure that inflation settles comfortably inside the range over the medium term, even allowing for a reasonable range of unexpected events.

This focus on the medium-term trend means monetary policy need not react to one-off disturbances that cause the inflation rate to shift in the near term but would not be expected to disturb the medium-term trend of inflation. This is explicitly stated in section 3 of the PTA, which is written in more general terms than in the previous

agreement. In principle, a wide range of economic events could disturb the CPI in the near term without impacting on trend inflation. Though it is not the only possibility, an event which causes prices to rise while exerting a dampening effect on economic activity (or vice versa) is a likely case in point. For example, when the prices of fresh fruit and vegetables rise because of a poor agricultural season, the direct first-round impact on the CPI would be of concern to monetary policy only if it were likely to lead to increasing trend inflation. Since the weakness in agricultural production would also tend to depress overall economic activity in New Zealand, trend inflation would be likely to remain contained.

However, the increased flexibility offered by the PTA is conditional. The Bank's ability to treat temporary fluctuations in inflation more flexibly depends on the public's continuing confidence that those fluctuations do not signal the existence of an ongoing inflation problem. If inflation looks likely to move well outside the target range, or persist outside the target range for a prolonged period, then to maintain that confidence monetary policy reactions will still need to be strongly assertive. Thus, depending on circumstances, the "medium term" during which we bring inflation under control will not always be the same.

Furthermore, there can be times when a prompt response to inflationary pressure would actually help stabilise the overall economy. For example, if a serious recession appeared imminent, an easing of monetary policy would help cushion economic activity and employment, as well as weakening the downward pressure on prices. Likewise, if the economy looked to be heading into an unsustainable boom that carried the seeds of a subsequent bust, then an early tightening of monetary policy would help steady the growth path and make it more enduring.

Delivering price stability in this way helps create a predictable background against which businesses and households can make effective investment, consumption and saving decisions. This contributes to maximising sustainable economic growth in New Zealand.

*The new Policy Targets Agreement is reproduced in Appendix 6.*

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conclusion from standard analysis that it cannot last. And that has been the basis for our pessimism about our own immediate outlook, and the policy settings that have been adopted (see Box 2). Yet, not only has the projected downturn in local activity had to be pushed successively further into the future, the pace of local activity has actually accelerated over the last year. What is going on?

In essence, it seems that the combined strength of four main factors has been buffering the impact of the global economic downturn on New Zealand. Those factors are:

- the lagged effects of a long period of exchange rate weakness, which combined with
- unusually favourable international prices for our commodity exports (predominantly dairy, but also beef and wool) and good growing conditions produced a very large increase in exporters' combined incomes;
- the continued strength of the Australian economy; and
- the net demand impulse provided by the sharp turnaround in migration towards an inflow amounting to a nearly 1 per cent addition to the population each year.

The positive momentum of these four factors has in fact waned, or reversed in some cases, as expected. But it appears that the flow-through from the earlier income gains to current spending behaviour may have had more of a "slow-burn" character than we had allowed. It is only in the last six months or so that retail demand in major urban centres, such as Auckland has seen the kind of boost that was evident a year earlier in provincial centres, such as Invercargill. A major issue for any forecaster now is to judge how long the heat associated with the combustion of old fuel sources will overcome the dampening effects of more recent events.

Relevant to this, the world's economic fortunes appear to have taken a further turn for the worse, thus far with the fortuitous exception of Australia (where drought and other developments might be starting to take their toll on the prospects for continued strong growth). Over the last year our global growth assumptions have not in fact turned down much, although the expected upturn has been delayed. But we have become increasingly concerned that the character of the current period of slow growth, and in particular the very large equity market setbacks that have been underway,

is likely to be more harmful to local economic activity than would be the case in a more normal cycle.

Because much of the depressive influence of global economic conditions on New Zealand economic activity, and from there to the state of pressure on our productive resources, is still in the future, domestically-generated inflation will be slower to subside than earlier projected. In the meantime, the unexpected strength of activity over the last six months or so has actually put additional strains on our capacity to produce goods and services. Various survey measures of the pressure on labour and capital resources (reviewed extensively in Chapter 3) point to an intensification of resource use. Our most recent discussions with businesses likewise brought forth more comments on the difficulty in finding sufficient labour of sufficient quality to service the level of demand being experienced. And simply comparing recorded output growth with past trends suggests an increase in pressure is likely to have occurred, in the absence of some unmeasured exceptional rise in productive capacity.

Accordingly, if normal lags and normal relationships follow through, the upswing in core or underlying measures of inflation that we have observed over the last year or so could continue for a while yet. But we doubt that inflation will rise much, if at all, from its current level before subsiding. Helping us reach this assessment is the anticipated profile of the *headline* inflation rate. While we expect that it will take longer for domestically-generated inflation to fall back, we still anticipate that the headline inflation rate will fall noticeably through the next year. Indeed, by this time next year, we expect that the headline CPI will be close to 2 per cent. The most important reason is that the rate of inflation of tradable goods and services has already started to drop, and will drop further on account both of the appreciation of the New Zealand dollar and of the reduction in commodity prices in world markets experienced to date in 2002. A secondary but nonetheless significant reason is that we expect that the growth momentum of the economy will have passed its peak by the end of this calendar year. This should constrain the extent to which latent pressures on prices associated with a cyclically high level of resource utilisation actually feeds through to realised inflation.

(continued on p 7)

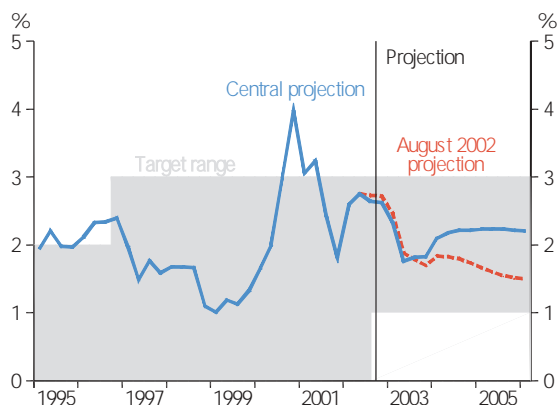


## Implications of the new PTA for the current policy assessment

The second factor particularly relevant to our policy view – the new Policy Targets Agreement – influences current policy judgements in one very direct way, and in another more subtle way. Under the new PTA, the current situation requires less policy pressure before inflation is unarguably consistent with the 1 to 3 per cent target band.

As explained in Box 1, we are called on to target the forward-looking medium-term average inflation rate. In the context of a situation where the *current* rate of inflation is somewhat high relative to the target band, but we have substantial confidence that inflation will fall back in the relatively near future, it is the *forward* picture that is the more important. As already indicated and as depicted in Figure 3, the forward picture is one of inflation becoming increasingly consistent with the target band even after allowance for inevitable uncertainty around the central track.

Figure 3  
Consumer price inflation  
(Annual percentage change)



Source: RBNZ. See p 27 for series definition.

Even with a medium-term view, how quickly inflation slows matters. A drawn-out slowdown in the inflation path could itself affect the future medium-term average inflation rate. The main mechanisms through which this could happen are that the fall-back in inflation is so slow that any reasonable definition of “medium-term inflation” is affected, and/or that inflation expectations, and through them pricing behaviour, are affected. While we most certainly do not dismiss either

possibility, we do not see particularly strong threats from these quarters right now. The headline inflation rate is actually expected to subside quite quickly. Moreover, inflation expectations are likely to be shaped by the headline rate as much as – if not more than – by domestic inflation pressures. For these reasons, we believe that we are moderately safe in assuming that inflation expectations will remain well controlled. That confidence is buoyed by the fairly muted reaction of surveyed inflation expectations to the recent history of above-average inflation outcomes.

In addition, the behaviour of the exchange rate is at the margin more likely to help avoid a need for interest rate increases than to create such a need. At the time of writing, the exchange rate had appreciated relative to the level used in the projections reported in this *Statement*, and exchange rate appreciation is already expected to be a prominent factor in generating a fairly rapid reduction in the headline rate of inflation. The chance of further appreciation relative to that allowed for in our projections is amplified by the possible emergence of a correction to a long-standing over-valuation of the US dollar.

Finally, it is worth noting that real economy stability is a factor that we are directed to consider by the new PTA, as was indeed the case under the previous PTA. In the current circumstances, how does such a consideration enter the policy equation? In broad terms, because the overall profile for inflation over the next two to three years will primarily be shaped by the path of external demand for New Zealand’s products, there is a high degree of consistency between policy directed at inflation management and concerns for real economic stability. Holding interest rates unchanged in roughly neutral territory, rather than increasing rates to guard absolutely against the risk of unexpectedly high inflation outcomes, reduces the chance that both policy and external demand might end up pushing in the same (negative) direction. Likewise, should sluggish external demand turn out worse than expected, all other things being equal, monetary policy would ease to keep inflation within the target range, helping to buffer the impact on the real economy.

### 3 Current economic situation

#### Introduction

The recent run of strong economic growth continued in the second quarter with a 1.7 per cent lift in GDP, taking growth for the 12 months to June 2002 as a whole to 3.5 per cent. The June quarter lift in GDP was due mainly to higher export volumes, but growth in the economy over the past year has reflected a sharp expansion in domestic spending as well as higher exports.

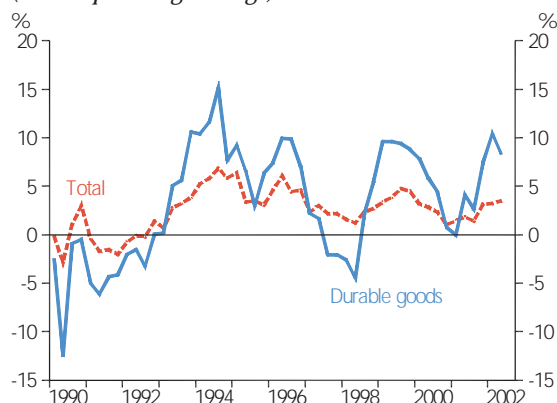
The strong rise in activity has seen the economy continue to draw heavily on its available productive capacity. Surveyed capacity utilisation has remained at above average levels over the past year and there has also been sustained evidence of shortages of both skilled and unskilled labour. Prices for some domestically-produced goods and services now appear to be reflecting this accumulated demand pressure. Inflation in the 'non-tradables' component of the CPI (which comprises much of the services sector) has lifted sharply over the past year and that acceleration continued in the September quarter. However, the impact on the CPI has been largely mitigated by an ongoing fall in tradables sector inflation in response to a weak world economy, lower prices for some commodities and the stabilisation (and recent appreciation) of the exchange rate following its earlier sharp fall.

#### Domestic demand

Domestic demand has lifted sharply over the past 12 months driven by an expanding population and a healthy gain in household income. Private consumption grew by 3.5 per cent in the year to June 2002 – almost double the growth seen in the previous June year. Household confidence in the future has been at high levels, encouraging households to spend rather than save higher incomes. Demand for 'large ticket' items has been particularly strong, with private consumption of durable goods increasing by over 8 per cent in the year to June 2002 (figure 4). Retail sales data for the period until August point to further solid growth in the September quarter.

The lift in household spending has not been restricted to consumer goods. Commensurate with a population gain of around 37,000 people over the past year due to net migration, a marked increase in employment, and strong household confidence, the number of houses sold in the 12 months to

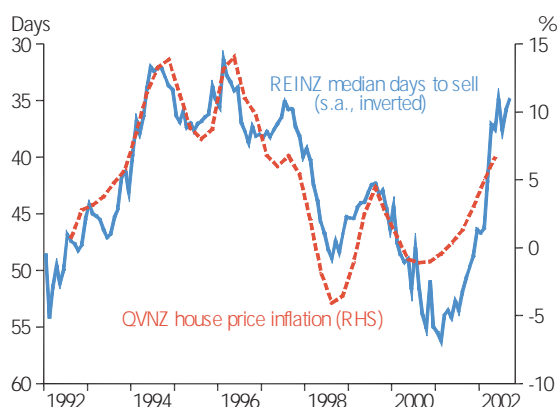
Figure 4  
Private consumption  
(annual percentage change)



Source: Statistics New Zealand

September 2002 was up 35 per cent. Housing construction has also shown significant gains, with residential investment up over 18 per cent in the year to June 2002. However, even this increase in the supply of housing has not been enough to meet the higher demand, leading to increases in house prices and falls in the median number of days for a house to be sold (figure 5).

Figure 5  
Median days to sell and house price inflation



Source: Real Estate Institute of New Zealand, Quotable Value New Zealand

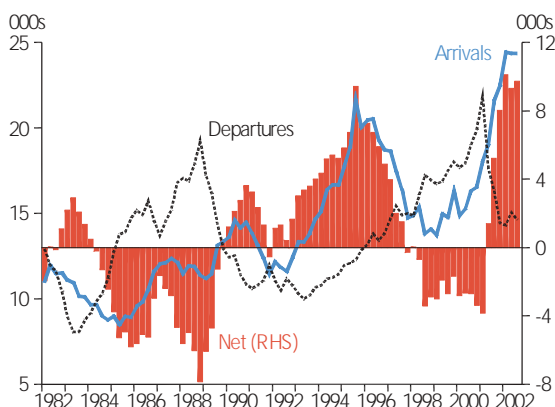
The volume of household credit grew by 8.6 per cent in the year to September 2002, up from 6.5 per cent in the previous September year. Most of the acceleration was due to lending for housing and is consistent with the increase in activity in both the housing and construction markets. Notwithstanding low interest rates, the growth in credit has

been more subdued to date than in previous housing cycles, suggesting a little more reluctance on the part of households to increase gearing or debt-to-income ratios.

Some recent indicators suggest that household spending, while still robust, may now be shifting to a more moderate growth path, although there are few straws in the wind to suggest a *marked* fall in activity. The trend growth in retail sales has eased a little over recent months, and both house sales and building consents have edged off their cyclical highs, although such volatility is not unusual in these markets even during a period of expansion. A more modest rise in employment over the September quarter than has been seen over the past year could also foreshadow a slowing in household demand, although job ads heading into the December quarter have risen sharply.

A number of factors would be consistent with some of the heat coming out of household demand. After two years of very buoyant conditions, agricultural sector incomes appear to be moderating, which may be starting to constrain expenditures in some rural economies. And while the move to strong net migration (figure 6) has fuelled demand over the past 12 months, the strong growth associated with the transition to a higher rate of growth in the population may be starting to dissipate now that activity has shifted to a higher level.

**Figure 6**  
**Net permanent and long-term migration**  
*(per quarter, seasonally adjusted)*



Source: Statistics New Zealand

Unlike household demand, spending by the business sector on new buildings and capital has not grown markedly over the past year – business investment spending for the

year to June 2002 was almost unchanged on a year earlier. Investment in some sectors, such as agriculture, appears to have been very strong, but the overall flat profile for investment activity is somewhat surprising given generally robust demand elsewhere in the economy. Throughout the 1990s, and in common with the pattern seen in many other countries, investment, as a *share* of total output, rose sharply as firms increased their expenditure on equipment for their production processes. In other countries, higher rates of gross investment have been attributed to increased rates of depreciation (and/or increased rates of obsolescence in the capital stock) – a factor which may help explain higher rates of investment in New Zealand over this period. But a remaining puzzle is why, despite indications that strong economic growth over the past year has been eating into surplus productive capacity, we have not seen a renewed surge in business investment at the economy-wide level.

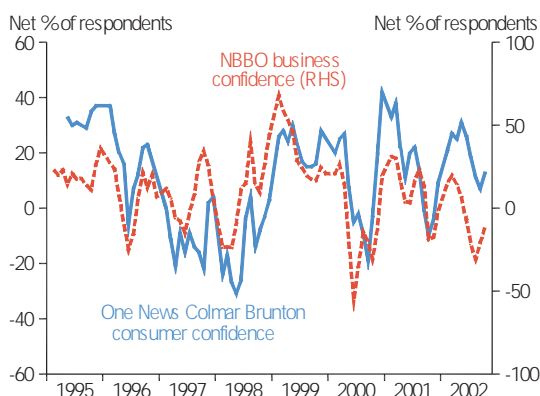
One explanation may be that business investment spending has been constrained by pessimism regarding future economic prospects. Despite a robust growth performance over the past year, firms' expectations for the future may have been dampened by ongoing weakness in the global economic environment. Our business contacts have spoken of a reluctance to take on significant capacity-enhancing investment because of concerns, either by themselves or their international parent companies, over economic prospects going forward. Some concerns have also been noted about the future path of the exchange rate, which could potentially undermine the viability of additional investment activity within the tradables sector. Another possibility, sometimes noted by our business contacts, may be that some New Zealand firms have been concentrating their investment spending in Australia, given a desire to develop that market.

A competing explanation might be that the various measures of capacity utilisation are providing misleading signals about the extent to which productive capacity has been depleted by recent strong growth, and hence the pressures for extra investment that may have been created. Increased efficiencies in the use of capital and/or greater factor productivity may be allowing companies to meet higher demand without running into the bottlenecks that may have characterised previous economic cycles. While this is a plausible argument, a range of indicators has been pointing to pressure on productive capacity for an extended period.

Moreover, inflation pressures in some sectors have accelerated over the past year, much in line with what might be expected during a period of pressure on available capacity. Consequently, it is not clear that this argument holds up at the economy-wide level.

An interesting development relating to domestic demand in recent months has been the divergence that has developed between surveyed business and consumer confidence (figure 7). While business confidence has declined since the start of the year, consumer confidence has remained rather more robust, consistent with strong demand from that sector. The divergence could perhaps reflect the greater direct exposure of firms to global economic trading conditions and the recent sharp rise in the exchange rate (which would tend to impact on confidence in the tradables sector, but not necessarily that of most households).

**Figure 7**  
Consumer and business confidence

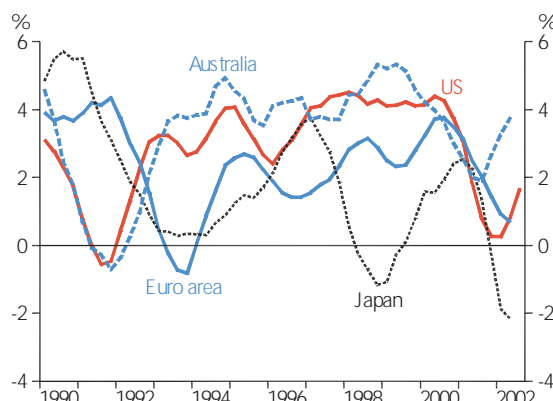


Source: National Bank of New Zealand, One News/Colmar Brunton Poll

## External developments

Growth in economic activity in most of New Zealand's trading partners has recovered only modestly over the past year (figure 8). The flow of international indicators has generally been disappointing over recent months, with data for the US and the Eurozone pointing to weaker recoveries than expected. Other than housing activity, which has remained surprisingly robust, momentum in the US economy has been slowing, with softer production, weak employment and investment spending and declines in consumer confidence. Most data suggest that recovery in the Eurozone

**Figure 8**  
Export partner growth  
(annual average per cent change)

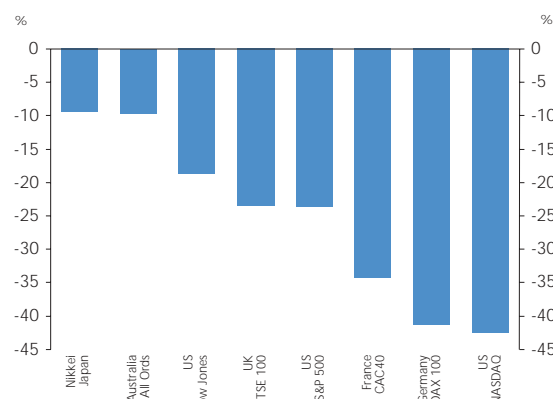


Source: Datastream

is proving even weaker than previously thought, with the decline in global equity markets over the past year acting as a major blow to activity.

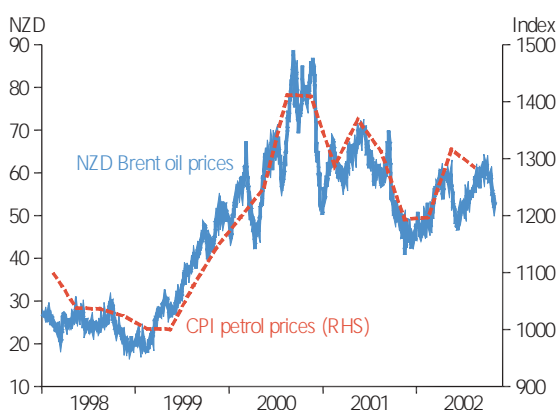
The US and European equity markets have fallen sharply over the past six months (figure 9). Although markets have rallied recently, it would be premature to take this as a signal of a more fundamental pick-up in economic conditions generally. Indeed, heightened risk aversion remains evident in financial markets, with corporate spreads having widened, posing a constraint to business investment. Markets have contemplated the prospect of a possible conflict between the US and Iraq, which has also weighed on sentiment. This possibility has contributed to a sharp lift in crude oil prices since the beginning of the year, although oil prices have slipped back somewhat over the past month. Figure 10 shows the path of oil prices over this period, measured in New Zealand dollars.

**Figure 9**  
Fall in international equity prices since January 2002



Source: Datastream

Figure 10  
New Zealand Dollar oil prices and CPI petrol prices



Source: Datastream, Reuters, Statistics New Zealand

The Japanese economy also remains very weak. Despite earlier indications that Japan's export sector was undergoing some cyclical recovery, export growth appears to have peaked. In addition, domestic demand remains very subdued, with rising unemployment, falling nominal wages, and persistent deflation in the price level all acting to curb consumer spending.

Export growth in most countries in non-Japan Asia has accelerated in 2002, reinforced by intra-regional linkages across domestic economies, a comparatively robust consumer sector in the US economy (in contrast to other sectors) and stimulatory domestic macroeconomic policies. However, this momentum may be starting to wane, with signs that export activity is being affected by weak activity in other world regions, with Singapore's economy being particularly sharply affected.

Despite weak global economic conditions, the Australian economy continues to experience strong growth in an expansion that is now over a decade long. Domestic demand has been particularly robust, with strong retail and residential investment growth over the past year, as well as a marked fall in unemployment. Like New Zealand, Australia is a user rather than producer of information technology and communications equipment, and has had a comparatively low exposure to the global downturn in these sectors. However, drought conditions are placing considerable pressure on some rural areas, and weaker growth in the economy as a whole is anticipated.

Continued signs of weakness in most economies has led to a marked revision in expectations about monetary policy.

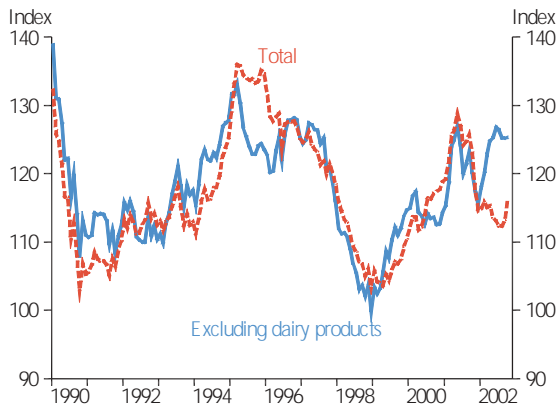
Earlier in the year, markets and forecasters had envisaged that short-term interest rates in many countries would begin to move up during 2002 as a cyclical recovery began. With economic data in most countries, including the US and Eurozone, having generally disappointed, those expectations have dissipated. Indeed, attention has increasingly turned to the prospect of further interest rate reductions to stimulate domestic and global economies (with the Federal Reserve undertaking a 50 basis point reduction in early November). Long-term interest rates in most countries - especially the US - have fallen further over recent months as markets have increasingly contemplated that short-term interest rates will remain low for an extended period and/or the prospect of reductions in policy interest rates in some countries.

## Tradables sector activity

Weak global demand conditions over the past 12 months have begun to weigh on export receipts, which are no longer showing the rapid growth evident over the past two years. Prices for some primary products, such as dairy produce, have fallen sharply on world markets over 2002 and these declines are now being reflected in softer export earnings. Whereas a fall in the exchange rate over 1999 and 2000 acted to boost New Zealand dollar export prices received over the past couple of years, the recent appreciation of the currency is providing further downward pressure on prices. Since the start of the year, the New Zealand dollar has appreciated by around 8 per cent on a TWI basis and at the time of writing was up around 13 per cent on a year ago.

Primary sector prices have not, however, shown the marked declines that have usually been associated with a sharp fall in global industrial activity. Commodity prices, according to the ANZ commodity price index, have fallen by around 10 per cent from their peak in the middle of 2001, but this decline was seen primarily in dairy products. If dairy products are excluded from the index, commodity prices actually remain near their 2001 peaks (figure 11). Prices for products such as lamb, wool, some forestry products and kiwifruit have been among those to increase in world markets over recent months, notwithstanding the weak international climate. Market-specific factors appear to be at work, including limited global supplies in the case of lamb, reduced

Figure 11  
New Zealand commodity prices - world price terms  
(July 1986 = 100)

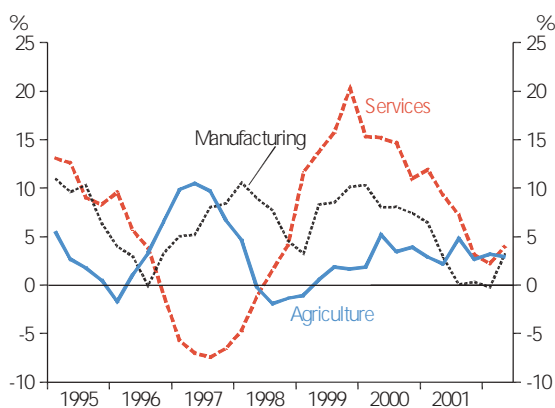


Source: ANZ Banking Group Ltd

supply due to the Australian drought in the case of wool, and strong housing market conditions in the case of some forestry products. More recently, dairy prices have regained some of the ground lost earlier in the year, with the EU recently reducing its subsidy on milkpowder, a factor that drove prices down earlier this year. Dairy prices remain well down on a year ago, however, and given their importance to New Zealand's export basket, represent a significant dent to returns that will continue over the months ahead.

After a relatively strong performance in the past 12 months (figure 12), growth in the volume of exports appears to be waning. Volumes continued to post a solid rise in the June quarter, but much of that increase was connected with the unwinding of agricultural stocks accumulated earlier in

Figure 12  
Export volumes by sector  
(Annual average percentage change)



Source: RBNZ

the season in response to a marked fall in market prices and will not be sustained. Some manufactured exports have continued to fare well – exports of building products for example have benefited from the strong housing sectors in both the US and Australia. However, volumes of some manufactures have been under pressure, consistent with difficult international trading conditions, and preliminary data for the September quarter were disappointing. In general, manufacturers' export intentions remain positive, but do not imply rapid growth in exports over the coming months. Although services exports – which are dominated by tourism – rebounded following the 11 September disruption, growth in visitor arrivals has stalled recently.

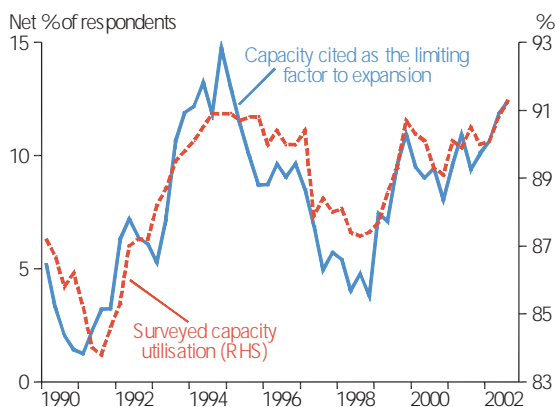
Within this broad picture, prospects for New Zealand's exports to Australia also appear to have shifted quite markedly over recent months, with the cross rate against the Australian dollar continuing to appreciate to levels not seen since the mid-1990s. Some of our business contacts have noted that this trend, if sustained, will dampen export competitiveness within that market. The reasons for this sharp appreciation are not entirely clear, especially in light of the continued strong performance of both economies. To some extent, recent perceptions that Australia's growth performance may be held back over the current year by drought conditions may be playing a role.

Strong growth in export earnings over the past couple of years has contributed to a significant rise in the trade balance of the current account, but the trade balance now appears to be narrowing again. Apart from the slowing in export receipts, recent import volumes have been quite strong, in large part due to the strength of the domestic economy. Imports of consumption goods have been particularly strong over the past 12 months, consistent with strong growth in household spending. Imports of capital goods, on the other hand, have been relatively subdued, reflecting the muted growth in business investment noted earlier.

## The balance of pressure on resources

The cyclical upswing in economic activity evident over the past two years has absorbed much of the economy's surplus productive capacity and drawn heavily on the supply of labour. Under these circumstances, the prospect of higher inflationary pressure emerges as demand begins to outstrip supply in both factor and product markets. Firms may increasingly find it difficult to meet orders or may be able to do so only by incurring additional costs (such as paying overtime or having to hire less skilled or less experienced staff). Strong demand for products may encourage a widening in margins and higher production costs may also become reflected in consumer prices. Our current reading of the indicators of cyclical pressures points to an economy that has become a little more stretched in recent times, consistent with stronger price increases in some parts of the economy.

**Figure 13**  
Indicators of capacity



Source: New Zealand Institute of Economic research

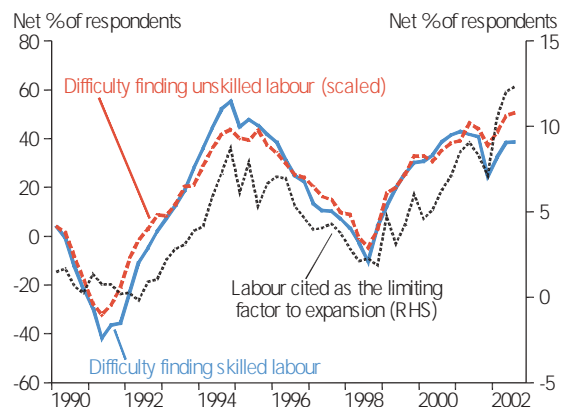
We examine a range of measures of capacity utilisation when assessing the intensity with which plant and equipment is being used. Most of these indicators have been at historical highs for some time, and have moved up a little further recently (figure 13). In particular capacity utilisation – derived from firms' own assessment of the extent to which they might increase production without incurring a rise in unit costs – continued to shift up in the September quarter.

To what extent should these trends be interpreted as evidence that inflationary pressures are building in the economy? It is sometimes suggested that the economy's

capacity to meet demand may be greater than a historical reading of the various survey indicators would suggest, with many firms choosing to utilise equipment more intensively than in the past for reasons of greater efficiency. Monetary policy needs to remain alert to the possibility that current readings of capacity utilisation may be overstating the degree of pressure on resources. However, we are wary of overplaying this conclusion at present. First, recent inflation outcomes do not appear to have been any lower than history may have led us to believe – non-tradables sector inflation, for example, has accelerated over the past year, consistent with indicators of capacity utilisation (and labour shortages). Second, a range of other indicators corroborate trends in the capacity utilisation measure. Fewer firms are reporting demand to be a factor limiting an increase in production, while more are reporting supply constraints as an impediment to production.

Turning to the labour market, shortages of skilled and unskilled labour have been apparent for some time and are widely recounted in our discussions with businesses across a wide range of industries. Strong net migration inflows, and an increase in the proportion of those of working age choosing to participate in the labour force, may have helped to alleviate labour shortages to some degree. However, activity has also proven stronger than generally expected and labour shortages have intensified over the past six months (figure 14).

**Figure 14**  
Skill shortages and labour as a limiting factor  
(Seasonally adjusted)



Source: New Zealand Institute of Economic research

### Box 3: The composition of consumer price inflation

Although annual CPI inflation outcomes have remained slightly above the 2½ per cent mark over most of the past year – showing little clear trend – there has been a marked shift in the nature of the price movements driving the aggregate CPI movements.

In order to provide perspective on the sources of inflation, the Bank splits the CPI into both a ‘tradables’ and ‘non-tradables’ series. Tradables covers those items in the CPI that tend to be imported, have a large imported content or whose local production faces significant direct trading competition from abroad. In practice, most goods covered by the CPI are included in this group. Non-tradables includes those items produced domestically, with little direct foreign competition. This group consists mainly of services and utilities, with relatively few goods in it.

The Bank’s estimate of inflation in the tradables component of the CPI has fallen from an annual rate of 3.8 per cent in the year to September 2001 to 1.6 per cent in the year to September 2002. Conversely, the annual rate of inflation for non-tradable items has accelerated from 0.9 per cent for the year to September 2001 to 3.6 per cent in the year to September 2002. Although inflation

rates for either of these two groups may occasionally be distorted by large or unusual movements in a small number of particular items, estimates of the ‘trend’ component of each of these series confirms the conclusion that tradables inflation is falling, while non-tradables inflation is picking up (figure 15)<sup>2</sup>.

Two factors are likely to be leading the fall in tradables inflation. First, price increases associated with the fall in the New Zealand dollar during 1999 and 2000, which were evident last year, appear to have now largely dissipated. Indeed, there was some evidence in the September quarter CPI of outright falls in prices for some individual tradable items, possibly due to the exchange rate’s latest rise. In addition, the sharp increases in commodity prices in world markets, which have driven up the price of some food items over the past two years, have largely (although not entirely) abated, reducing local price pressure from this source. While strong domestic trading conditions may have had an impact on the pricing of tradable items, it appears that the exchange rate and international price effects (such as the recent fall in dairy prices) are sufficient to explain the path of tradables inflation over the past year.

The non-tradables inflation measure covers rentals, construction costs, insurance, domestic airfares, utilities and

**Table 1**  
Price inflation for selected CPI services components: September quarter 2002

Component	Quarterly	Annual
Medical and health services	2.2	6.7
Electricity	1.5	6.1
Expenses of dwelling purchase*	1.2	5.3
Vehicle servicing and repairs	0.6	3.8
Household services	1.0	3.5
Local authority rates	2.5	3.4
Leisure and recreation services	0.5	3.4
Purchase and construction of new dwellings**	0.6	3.3
Personal services	0.4	2.8
Rented dwellings	0.8	2.3
Water and refuse charges***	3.5	n/a

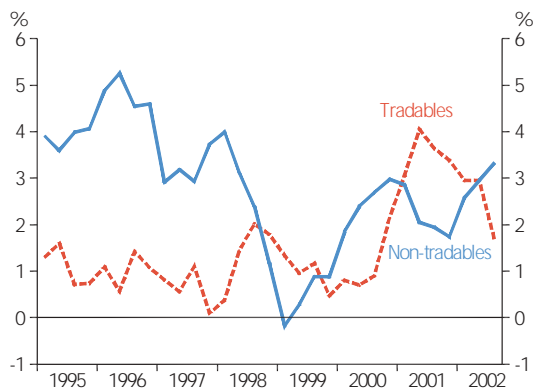
\* Comprises professional services and real estate services.

\*\* The cost of constructing a new dwelling and of making additions and alterations.

\*\*\* Water and refuse charges is a new category in the 2002 regimen, and so we cannot yet calculate the annual percentage change.

<sup>2</sup> An example of such distortions was the move to income-related rentals for Housing New Zealand tenants in early 2001, which resulted in a sharp fall in the non-tradables series (which includes rentals) at that time. The weighted median series of tradables and non-tradables filter ‘outlying’ price movements to provide a better fix on the ‘trend’ or ‘persistent’ components of inflation in each of these respective groups.

**Figure 15**  
**Weighted median inflation**  
*(Annual percentage change)*



Source: Statistics New Zealand, RBNZ calculations

a range of other services consumed by households. The recent acceleration in inflation in this series is consistent with the strength in domestic economic activity over the past year, including within particular sectors such as construction, housing, retailing and other service sectors that comprise the 'non-tradables' group (see table). Since labour is often the key ingredient of many services, it is possible that the acceleration in non-tradables inflation reflects higher labour costs associated with a tight labour market, although the formal wage statistics have remained relatively subdued.

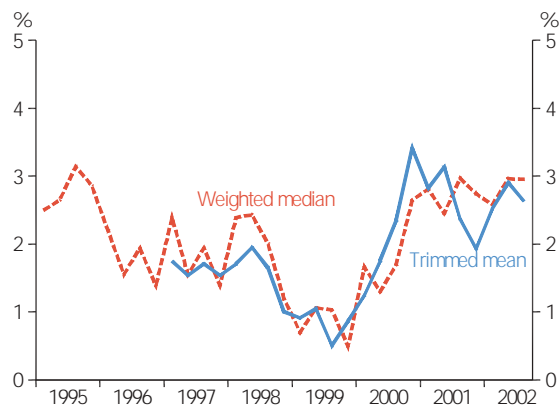
## Inflation developments

Although annual CPI inflation outcomes have been relatively steady over recent quarters – averaging around 2.6 per cent – there has been a marked change in the composition of inflation across different sectors of the economy. Inflation in the price of tradable items has fallen away sharply since the middle of last year, but there has been an equally sharp pick-up in the inflation rate of non-tradable goods and services, consistent with strong economic activity (see box 3).

In the September quarter 2002, the CPI increased by 0.5 per cent, taking the annual rate of increase down from 2.8 per cent to 2.6 per cent<sup>3</sup>. The latest result suggests CPI inflation (as a whole) may be starting to fall. However, the Bank also looks at a variety of indicators of trend or persistent inflation that are constructed by filtering 'outliers' from the CPI data to give an idea of the central tendency in inflation over time. Two such measures include the weighted median of annual changes in CPI items and the trimmed mean of the annual changes of those items. The weighted median remained steady at around 3 per cent over the June and September quarters, while the trimmed mean of annual changes fell from 2.9 to 2.6 per cent (figure 16). An alternative perspective on the more durable components of inflation – derived by excluding food, energy and administered charges from the CPI data – remained steady over the two quarters at

<sup>3</sup> Looking to the December quarter we expect the CPI to rise by around 0.5 per cent, giving an annual rise of 2.6 per cent.

**Figure 16**  
**Indicators of core inflation**  
*(Annual percentage change)*



Source: Statistics New Zealand, RBNZ calculations

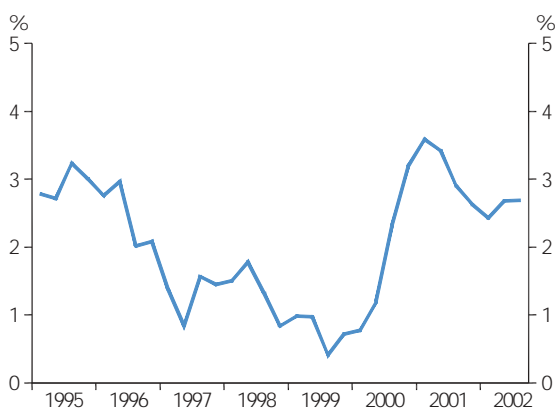
around 2.7 per cent (figure 17, overleaf). In sum, we interpret these measures as providing only weak evidence that aggregate inflation pressures are beginning to ease.<sup>4</sup>

<sup>4</sup> An alternative indicator of consumer prices – the private consumption deflator from the national accounts – has shown much weaker movements over the past year than the CPI, despite being based largely on the same data. The measure has increased by just 1.1 per cent over the past year. This divergence may be due to the different weights accorded to items in the two indices and/or the use of various estimation techniques that can introduce volatility into the consumption deflator. The divergence could also potentially indicate a weaker underlying trend for inflation. However, similar divergences have occurred in the past and have not generally provided meaningful signals about the future evolution of inflation pressures, measured across a range of indices. At this stage therefore, we are not placing much weight on this result, but are continuing to search for causes of the divergence.

Table 2  
CPI, CPI derivative series and other price measures  
*Annual percentage changes*

	Mar	2001 Jun	Sep	Dec	Mar	2002 Jun	Sep
<b>CPI</b>	<b>3.1</b>	<b>3.2</b>	<b>2.4</b>	<b>1.8</b>	<b>2.6</b>	<b>2.8</b>	<b>2.6</b>
Food	4.8	6.0	6.6	6.7	5.3	4.1	2.3
Housing	-0.5	-0.6	-0.6	-0.7	2.3	2.8	3.0
Household operations	2.0	2.2	2.5	1.4	1.5	2.7	2.9
Apparel	1.4	1.5	2.1	2.0	1.2	1.7	1.2
Transportation	4.1	5.5	1.0	-1.4	0.6	0.9	1.2
Tobacco and alcohol	9.6	6.8	3.7	3.5	3.3	3.8	3.6
Personal and health	5.6	4.4	4.5	4.3	3.7	4.1	4.5
Recreation and education	1.9	2.0	2.2	1.5	2.1	2.5	2.3
Credit services	-0.4	-6.9	-7.7	-8.5	-5.9	0.0	2.3
<b>Derivatives and analytical series</b>							
CPI ex food, petrol and government charges	3.6	3.4	2.9	2.6	2.4	2.7	2.7
CPI non-tradables	1.2	1.0	0.9	0.9	2.6	3.1	3.6
CPI tradables	4.9	5.2	3.8	2.5	2.5	2.5	1.6
CPI weighted median (of annual price change)	2.8	2.5	3.0	2.7	2.6	3.0	3.0
CPI trimmed mean (of annual price change)	2.8	3.1	2.4	1.9	2.5	2.9	2.6
Merchandise import prices (excluding petrol)	5.6	5.5	1.2	-4.4	0.1	-4.4	n/a
Private consumption deflator	2.6	2.9	1.7	0.8	1.2	1.1	n/a
GDP deflator (derived from expenditure data)	6.2	5.8	3.7	3.2	2.2	-0.9	n/a

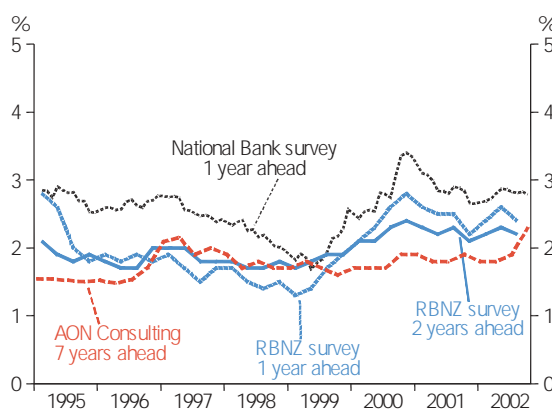
Figure 17  
CPI ex-food, energy and administered charges  
*(Annual percentage change)*



Source: Statistics New Zealand, RBNZ calculations

In assessing current sources of inflation pressure and reaching a view on inflation prospects, we pay considerable attention to trends in inflation expectations. A rise in inflation expectations has the potential to reinforce an increase in inflation through its impact on price-setting behaviour and wage demands as well as households' and firms' propensities to spend and invest. Similarly, a fall in inflation expectations may help to reinforce a fall in inflation. Recognising that no one single survey measure is a reliable gauge of inflation

Figure 18  
Expectations of inflation  
*(Annual percentage change)*

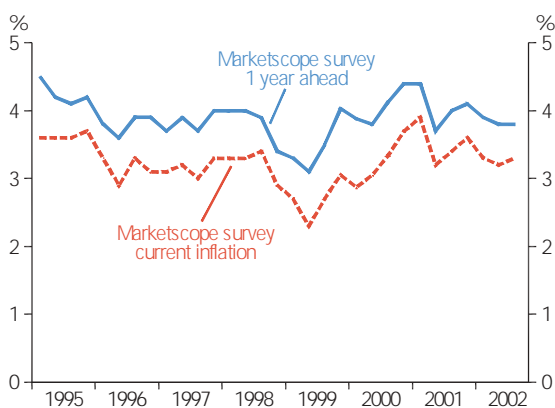


Source: National Bank of New Zealand, RBNZ, AON Consulting New Zealand Ltd

expectations, we look at a range of surveyed inflation expectations. These measures include those from the Bank's Marketscope survey (which covers households), the Reserve Bank's survey of expectations (covering business groups), the National Bank Survey of Business Opinion (businesses) and the AON survey (which covers economists' long-term expectations for inflation).

At least as far as their profile is concerned, these measures paint a broadly similar picture of expectations compared to

Figure 19  
Expectations of inflation



Source: Marketscope

our various trend or persistent measures of inflation. Inflation expectations are noticeably higher than their respective lows in 1999 (figures 18 and 19) which coincided with the trough in annual CPI inflation. Higher inflation rates over the past 2 years have had some impact on expectations of inflation going forward, but current expectations do not appear to be significantly different from levels observed over a longer time period.<sup>5</sup> However, on most measures, expectations of inflation have remained somewhat higher than *actual* CPI inflation, suggesting some lingering scepticism among households and businesses that inflation is likely to remain at current levels and/or that current inflation is really as low as the official CPI measure suggests.

On balance, these trends suggest that underlying expectations have not been significantly disturbed by the period of relatively high inflation during 2000 and 2001. But at the same time, there is little evidence to suggest that expectations are dropping away quickly. Inflation expectations continue to be heavily influenced by observed CPI inflation outcomes.

Understanding the behaviour of labour costs is also important in assessing inflation pressures and prospects in the economy. Over recent years, the Bank's understanding of labour costs is that they have tended to follow movements in prices rather than being an independent driver of inflation

outcomes. However, during a period of marked labour shortages, the potential exists for higher wage costs to exert some pressure on prices via their impact on firms' cost structures.

Private sector wage growth, as measured by the Quarterly Employment Survey (QES), has been very subdued over most of the past year, indicating weaker growth in wages than our reading of the current cyclical position of the labour market would suggest (figure 20). In interpreting that trend, we have been mindful that compositional changes in employment across and within different industries can cause volatility in this measure, reducing its value as an indicator of momentum in wages. However, there was a relatively sharp increase in this measure in the quarter covered by the August survey, taking the increase to around 2.8 per cent for the past year. This is more in keeping with our conception of wage movements over the period. Although the latest result could indicate wage pressures are accelerating, we are cautious about drawing that conclusion at this stage given volatility in the series.

Figure 20  
Private sector wage growth  
(annual percentage change)

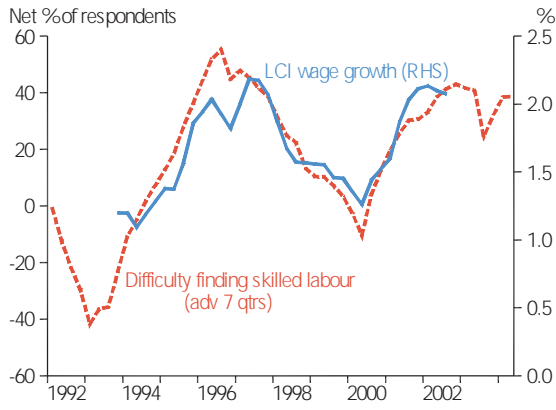


Source: Statistics New Zealand

Another indicator of salaries and wages, also shown in figure 20, is the Labour Cost Index (LCI), which unlike the QES measure, is calculated using a fixed sample of occupations. The LCI is constructed by excluding any wage movements that firms attribute to productivity improvements. Typically the LCI shows limited variance across an economic cycle. However, over the past year, the private sector component of the LCI has risen in excess of 2 per cent,

<sup>5</sup> The possible exception is the AON measure of 7 year-ahead inflation expectations, which is a measure of expectations among economists. The recent increase in expectations may be related to the introduction of the new PTA and the modification of the inflation target band.

Figure 21  
Skill shortages and annual wage growth



Source: NZIER, Statistics New Zealand

consistent with the cyclical peaks seen during the mid-1990s. The LCI is thus certainly consistent with other measures of labour market pressure (figure 21) and suggests that the tightness of the labour market is indeed flowing through to wages.

## 4 The macroeconomic outlook

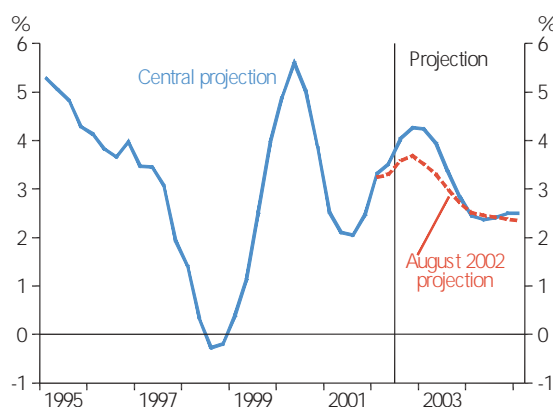
This chapter – and the accompanying tables of Appendix 1 – sets out a projection of economic conditions that has assisted the policy judgements described earlier in this document. Monetary policy decisions are not based mechanically off any particular projection of the economy, but take into account a range of other judgements, some of which are not easily represented numerically. Chapter 2 has provided a flavour of the wider policy context and some of the key issues considered as part of our recent policy deliberations. However, laying out a central scenario for the economy is useful for establishing, in broad terms, how we think the major forces impacting on the economy over the next year or so might evolve and what they might mean for the shape of monetary policy.

The overall picture presented here is one whereby the accumulated demand pressures discussed in the previous chapter subside steadily over the next two years, with growth in GDP slowing over the coming year (figure 22). Weak global economic activity progressively acts to brake demand. Other factors that have been stimulating demand over the past two years, including rapid population growth, are also projected to wane. The assumption of a relatively shallow recovery profile for global activity means that weak external demand operates throughout the entire projection horizon.

On the basis of little change in monetary policy settings, the projection points to a reasonable likelihood that average inflation outcomes over the next few years will remain within the new 1 to 3 per cent target range. Projected CPI inflation drops fairly quickly from recent levels (figure 3, chapter 2) as the recent rise in the exchange rate adds additional downward pressure to tradables sector inflation, particularly over the coming year<sup>6</sup>. Inflation then remains well within the inflation target band as domestic demand pressures ease, producing a more balanced cyclical position.

How might our projections for monetary policy be compared with those presented in the August *Monetary Policy Statement*? There are a number of factors to consider. On the economic front, as described in Chapter 3, we start with an economy that has, if anything, been running somewhat hotter in recent times than our August projections assumed,

Figure 22  
GDP  
(annual average percentage change)



Source: Statistics New Zealand, RBNZ calculations

which might otherwise suggest the need for additional policy pressure. However, our assumptions for the world economy are again somewhat weaker, which provides a partial offset. We have also taken a favourable view of the role of competitive pressures, and uncertainty about the outlook for demand, seen in business confidence surveys and investment behaviour, in restraining pricing pressures, at least in the tradables sector.

In addition, the interest rate path in our August projections was predicated on returning inflation to a slightly lower average level over the medium term (consistent with the then 0 to 3 per cent target applying under the previous Policy Targets Agreement). The new PTA, on the other hand, directs monetary policy to target average inflation of between 1 to 3 per cent over the medium term. Reducing inflation to the levels projected in August (all else equal) would require a little more monetary policy pressure than is projected here. On balance, then, our assessment is that inflation is likely to remain within the new target band with little change to monetary policy settings over the next 12 months.

Financial market prices and surveys of market analysts over the past month or so have revealed little expected change in the Official Cash Rate. Most analysts were expecting no change to the OCR in the November Statement, while market prices indicate some probability is now being placed on a cut to the OCR by mid 2003.

<sup>6</sup> As is our standard practice, we continue to make the assumption that the exchange rate returns gradually towards its long-run equilibrium. This is purely an assumption and does not purport to be a forecast of the exchange rate.

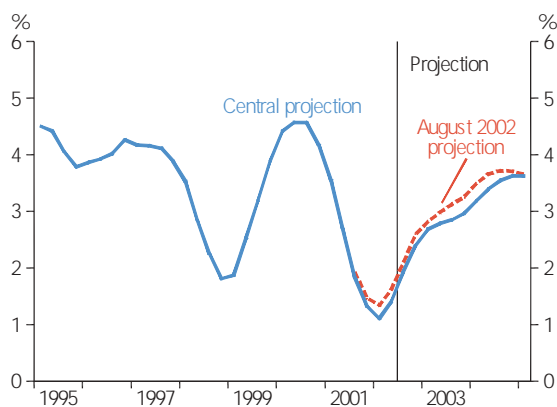
## The world economy

In establishing the outlook for growth in New Zealand's main trading partners, we make recourse to a range of external forecasts and analyses of individual country prospects. But rather less focus is placed on any particular set of forecast growth numbers, and more on the channels through which the international economy is expected to influence activity and prices locally. While we regularly use *Consensus Forecasts* for growth in New Zealand's 14 main trading partners to help establish a benchmark for our projections, we attempt to form a view on the balance of risks around these forecasts and reflect that judgement in the projections and policy deliberations.

In these projections, we have again adopted an outlook for trading partner growth that is a little weaker when compared against current *Consensus Forecasts*, reflecting our assessment that the balance of risks to the global growth outlook remains on the downside (figure 23). We are now looking at a global growth cycle that bottomed earlier this year and is deeper than the corresponding downturn in 1991/92. Growth is only projected to get back to trend by 2004, implying a relatively protracted recovery cycle by historical standards and only a gradual re-absorption of excess capacity evident in most of our trading partners. It bears emphasising that our assumptions for trading partner activity continue to reflect a recovery profile over the next few years, not a scenario of a renewed deceleration in activity.

In adopting this outlook, we have been particularly mindful of the risks attaching to the US economy in particular. Consumption and housing activity in the US has held up

Figure 23  
Forecast of export partner growth  
(Annual percentage change in real GDP of NZ's main export partners)



Source: Consensus Economics Inc, RBNZ calculations.

surprisingly well to date, but sustained weakness in equity markets poses a risk to the continuity of strong household expenditure that may not be fully reflected in current forecasts. Household demand may be further undermined by current difficulties in the corporate sector, which are likely to influence employment prospects. Recognition of these risks saw the Federal Reserve undertake a further 50 basis point interest rate reduction in early November.

We have also borne in mind current uncertainties around the outlook for the Australian economy (see box 4). That economy has shown continued strength, but the nature of trans-Tasman interconnections – both through trade and other channels – means that a shift in fortunes could have a greater impact on the New Zealand economy than would be the case for most other trading partners.

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

Country	2000	2001	2002f	2003f
Australia	3.0	2.7	3.7	3.5
United States	3.8	0.3	2.4	3.0
Japan	2.4	-0.3	-0.9	0.9
Canada	4.5	1.5	3.4	3.4
Europe-4**	3.2	1.6	1.0	2.0
Asia ex-Japan***	8.5	1.8	4.9	5.3
14 Country index	4.2	1.3	2.6	3.2

\* Source: Consensus Economics Inc.

\*\* Includes Germany, France, Italy and the United Kingdom.

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

## Box 4: How Resilient is the Australian economy?

Despite fragility in the current global economic recovery, the Australian economy has been enjoying robust growth in its eleventh year of expansion. The latest *Consensus Forecasts* for our largest trading partner predict GDP growth this year of 3.7 per cent and 3.5 per cent for 2003. Given the obvious importance of the Australian economy for New Zealand, we briefly consider the reasons for this continued resilience, and more importantly, the potential downside risks to Australia's near-term growth prospects.

So what has stopped Australia succumbing to the global downturn so far?

- As a user rather than a producer of information technology and communications equipment, Australia had relatively low exposure to the 2001 downturn in tech investment and demand.
- Fortuitously, domestic income was shored up by Australia's competitive exchange rate and an improvement in the terms of trade.
- Accommodative monetary and stimulatory fiscal policy has supported strong residential investment and other interest rate-sensitive components of domestic demand.
- The Australian equity market has not had the big rise and fall in values seen elsewhere, and the modest decline in share prices this year has had only minor adverse wealth effects and impacts on confidence.
- Business investment also revived this year on the back of higher levels of confidence.
- All these factors more than offset a decline in net exports associated with a weak external environment and strong domestic demand.

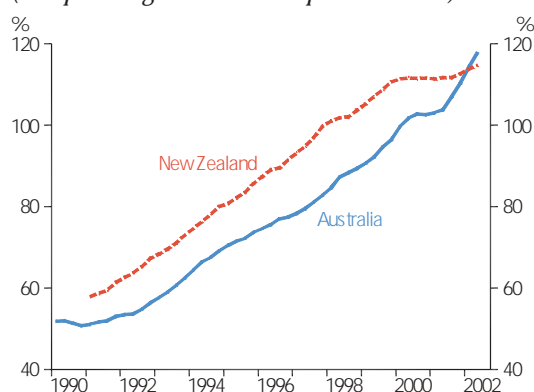
Consumer spending is expected to remain robust into 2003, while the labour market has shown signs of recent improvement. The monthly National Australia Bank (NAB) survey in Australia showed a further improvement in business conditions and confidence (now at 3-year highs), lending further support to the optimistic outlook vis-à-vis our other OECD trading partners. However, tempering this short-term outlook are a number of potential downside risks to the Australian economy.

Firstly, drier than normal growing conditions in some parts of Australia are expected to detract from farm production, exports and related industries. In its most recent Statement on Monetary Policy in November, the RBA noted that the drought could possibly reduce GDP growth by between 0.5 to 1.0 percentage points over the coming year. The last major drought in 1994/95 reduced GDP by 0.6 percentage points.

Second, the current boom in the housing market is causing some unease. Spurred by rapid rises in house prices, approximately half of all new mortgage lending has been for investment rental properties. The annual percentage change in house prices this year in major urban centres is as follows: Sydney 22%; Brisbane 21%; Melbourne 19%; and Perth 11%. The central concern focuses on what a possible boom/bust housing cycle would imply for household wealth and the flow-on effects to consumption.

Third, the currently high levels of household debt to disposable income (see figure 24), may eventually prompt a moderation in consumer spending if households seek to restore their balance sheets to more prudent gearing levels, particularly if house prices weaken and/or confidence in the Australian economy declines.

Figure 24  
Household debt  
(as a percentage of nominal disposable income)



Source: RBNZ, RBA

In relation to confidence, consumers have started to become more circumspect, with global issues weighing heavily. The Westpac-Melbourne Institute index of consumer sentiment fell 5.7 per cent in October, the third

fall in the past four months. The index has fallen 12 per cent since the peak in March. The slump in sentiment since March reflects mainly overseas issues like weak equity markets, disappointing economic news, and tensions over Iraq. The Bali bombing, which occurred after the latest survey was taken, will likely further depress consumer sentiment in November. Declining consumer confidence could manifest in reduced spending further out.

At this point, the 'negatives' emanating from the global economy would not appear to outweigh the 'positives' of the strong domestic economy. However, as Australia's exports are highly leveraged against global consumption demand, any significant decline in US consumer spending and Asian demand would adversely affect Australia and hence prompt a reconsideration of the balance of risks. Reinforcing this external risk is the possibility of an

appreciation in the Australian dollar over the next year or so, on the back of a weakening US dollar. A significant appreciation in the Australian dollar could be expected to weaken export growth and potentially weaken business confidence, with associated flow-on effects to domestic demand.

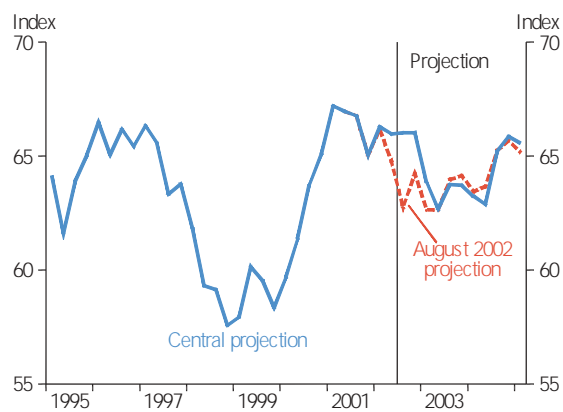
Until quite recently, the Reserve Bank of Australia had indicated that strong domestic demand might otherwise lead to firmer monetary policy, were it not for ongoing global uncertainty. However, in its November statement on monetary policy, the RBA noted the real possibility of a more pessimistic scenario for global growth, the negative impact of the drought, and the possibility of some slowing in domestic demand, suggesting policy will remain accommodative for the time being.

## Tradables sector activity and prices

The significant stimulus to economic activity generated by the export sector over the past three years continues to dissipate in these projections. Indeed, export revenues over the coming 12 months are expected to register a modest fall with further (slower) growth in export volumes more than offset by further falls in export prices received. A weak world economy has already seen substantial falls in some export prices in world markets over the past 12 months – most notably for dairy products – and these lower spot prices are gradually showing up in export revenues.

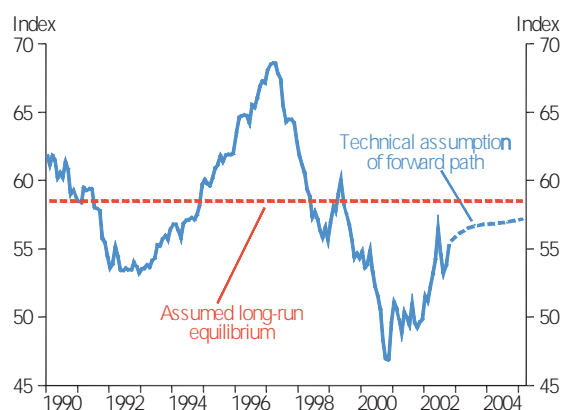
Some further decline in aggregate export prices has been allowed for in these projections over the next 12 months (figure 25) to reflect the more protracted period of weakness in trading partner activity. But we have also taken account of the fact that prices for some primary products, such as lamb, wool, some forestry products and Kiwifruit, are remaining fairly resilient against the international downturn, due to a range of market-specific considerations. Our technical assumption of a rising exchange rate (figure 26) also translates into some downward pressure on (New Zealand dollar) export prices over the projection horizon, especially in the near-term. However, the assumed global recovery is reflected in an improvement in average prices received later on in the

Figure 25  
World export prices



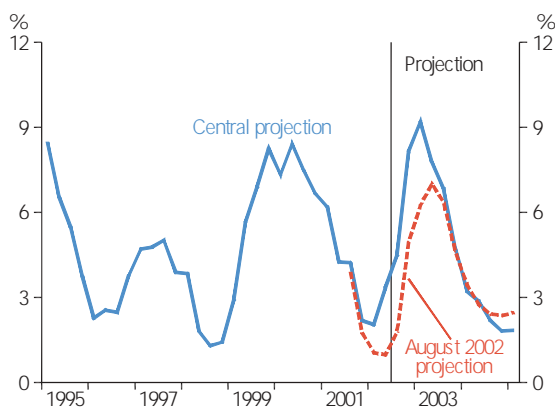
Source:RBNZ

Figure 26  
TWI



Source:RBNZ

Figure 27  
Export volume growth  
(annual average percentage change)



Source: Statistics New Zealand, RBNZ calculations

projection period. As discussed below, the recent and projected softening in export prices has an important bearing on our view of domestic activity.

We continue to project a marked slowing in the pace at which export volumes expand over the next two years (figure 27). In broad terms, the major driver of this trend is the prolonged weakness in trading partner activity and the impact of the recent (and assumed) appreciation of the New Zealand dollar. The higher exchange rate is projected to dampen tradables sector activity and, at the margin, shift demand towards imports and away from production of import substitutes.

The cycle in export volume performance appears relatively pronounced, although it should be noted that export growth over the past few quarters somewhat overstates our perception of the underlying momentum in exports. Primary exports over the first half of 2002 were higher than 'usual' as exporters had held back shipments in the face of initial weakness in export prices, while exports of services rebounded during the same period following the disruptions caused by the 11 September terrorist attacks last year. Allowing for this, projected export volume growth over the next two years is rather weaker than over the past two years.

As is our normal practice, we continue to rely heavily on the advice of primary sector agencies and companies when preparing our export forecasts. Their views on primary export prospects take into account detailed factors like climatic conditions, stocks and productivity, as well as individual market demand conditions. Our reading of this information points

to modest growth in aggregate primary export volumes over the next two years, but it should be emphasised that the influence of factors like climatic conditions on the outlook can change rapidly. No major climatic disruptions to primary production are assumed in these projections, but the risk must be acknowledged, especially given recent dry conditions in some South Island regions (such as South Canterbury and Marlborough) over recent times.

These projections also incorporate slower growth in exports of manufactured goods and services than has been seen lately. Although some manufactured exports have performed well recently, partly related to the strength of the housing and consumer sectors in Australia and the United States and a relatively favourable exchange rate, we expect weak trading partner activity and the stronger exchange rate to constrain further expansion. Provisional data for manufactured exports in the September quarter are consistent with this weaker profile. Exports of services are also projected to take a weaker growth path, consistent with slower income growth in many of New Zealand's visitor-source countries, which will continue to constrain discretionary spending on tourism. Although there is considerable debate and uncertainty at present as to whether security concerns following the recent terrorist attacks will promote or dampen visitor numbers to countries such as New Zealand, these projections do not assume a significant effect either way.

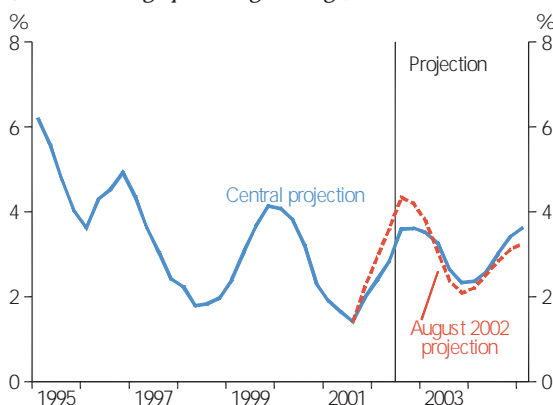
## Domestic spending

In these projections, growth in domestic spending also dissipates over the next 18 months, but somewhat less abruptly than in the export sector (see figures 28 and 29). Considerable momentum has built up in some parts of the domestic economy following several years of strong export sector activity and strong population growth leading to a sharp expansion in demand and the reinforcing linkage of a corresponding rapid rise in employment. Residential investment and housing market activity have shown particular strength and near-term indicators suggest activity is likely to hold up over the immediate future. Household confidence indicators generally remain at 'above-trend' levels and recent strong consumption of high-ticket durable items suggests that spending is likely to hold up for some time yet.

However, looking out over the coming year, we expect some slowing in the growth of domestic spending. The imminent softening in export incomes across a range of export industries, together with more modest growth in export production, can be expected to exert a gradual braking effect on domestic demand through a variety of channels. These include the flow-on effect of slower employment growth emanating from the export sector and allied industries, slower growth in discretionary incomes as primary sector incomes ease and a reduced propensity for investment given less robust external demand. However, the braking effect from export incomes must be placed in perspective. Although the impulse to the local economy from strong export earnings has gone, we are projecting most of the lift in revenues that has occurred over the past couple of years to be sustained over the projection horizon. Annual export revenues have risen around 30 per cent over the past two years, but are projected to fall by around 5 per cent over the next 12 months or so.

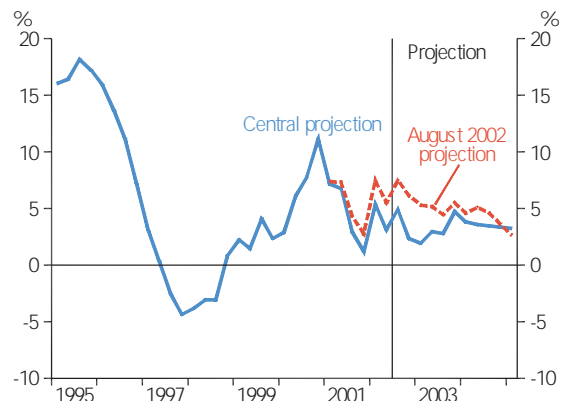
While the projections set out in the appendix provide a plausible track for the components of domestic demand, there is, of course, considerable uncertainty over the speed with which each of these channels operates. As noted in Chapter 2, a scenario whereby demand remains persistently strong for a longer period can easily be envisaged. Good economic conditions over the past couple of years have enabled many businesses and households to accumulate additional wealth via strong incomes, which could sustain the momentum in demand for some while longer. For example, the most recent feedback from our business contacts within some provincial economies suggests that despite a less assured outlook for

**Figure 28**  
Consumption growth  
(Annual average percentage change)



Source: Statistics New Zealand, RBNZ calculations

**Figure 29**  
Business investment growth  
(annual average per cent change)

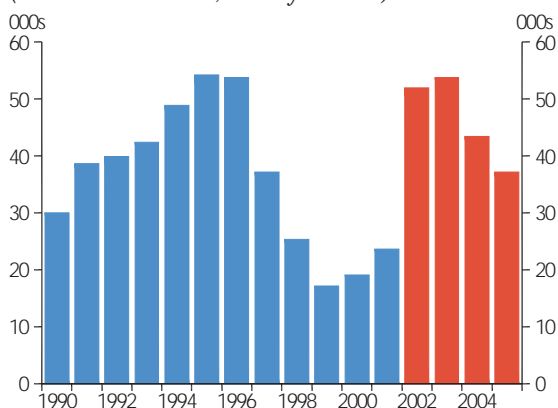


Source: Statistics New Zealand, RBNZ calculations. 2002-2005 figures are based on RBNZ projections.

parts of the primary sector over the coming year, there is as yet little strong indication that activity is beginning to wane markedly.

Another factor behind our expectation that growth in consumption spending and residential investment activity will ease over the projection period is the return to more normal growth rates following the surge in demand that has been created by the sharp acceleration in population growth over the past 12 months. In principle, a shift to higher rates of population growth involves a step increase in residential investment and consumption activity that initially shows up as an acceleration in growth in these components of expenditure. In the short term at least, this extra demand may outstrip the contribution to productive capacity offered by the corresponding rise in the working age population. However, while expenditures may be sustained at the new higher levels in the future, observed growth rates can be expected to fall back following the initial surge in activity. At this point, the demand and supply effects of migration are likely to come more into balance. How long this process takes to occur is again subject to uncertainty – these projections imply that the rise in residential investment still has somewhat further to run – but it is reasonable to believe that recent high growth rates will not be sustained over the entire projection period. As a working assumption, these projections continue to assume that net immigration falls gradually over the next three years from its peak of around 37,000 persons in the past year, leading to weaker growth in the working age population (figure 30). Were it instead to

Figure 30  
Working age population  
(Annual net additions, March year basis)



Source: Statistics New Zealand, RBNZ calculations

be maintained at this high level over the next few years, it is likely that domestic demand would show greater momentum.

Recent strong growth in the New Zealand economy, relatively high rates of capacity utilisation and increased difficulty in finding labour might otherwise be expected to produce a surge in business investment over the next two years. However, these projections allow for only modest growth in investment activity over the next few years. The dominant factors here are the projected slowdown in export sector incomes, together with an allowance for increased risk aversion on the part of companies toward investment expenditures given the more indifferent global economy. Investment policies for many New Zealand companies are at least partly determined by international parents and the current downturn in investment spending world-wide, and greater risk aversion by investors, is likely to continue to act as a brake on domestic capital expenditure. Although projected weak growth in capital expenditure will reduce demand pressures in the economy over the next few years, it will also reduce the rate at which the economy's capacity to produce grows. Accordingly, the weak contribution to demand growth from investment does not contribute much to reducing inflation pressures in these projections.

## Fiscal policy

Our projections of the fiscal position and the contributions of the government's fiscal operations on economic activity are based on the Treasury's forecasts prepared ahead of the July election. The operating balance as a percentage of GDP

is projected to grow steadily throughout the projection period. After taking into account capital spending, which is not included in the operating balance measure, the government's operations continue to exert a mild contractionary influence on economic activity over the projection period as a whole, with overall growth in government activities lagging growth in the other components of domestic demand.

## Inflation, monetary policy and risk factors

In these projections, the pressure on productive resources that has accumulated over the past couple of years following sustained growth in activity is projected to subside steadily over the next two years, driven initially by slower growth in external demand. Momentum in the domestic economy is also projected to slow, but at a more gradual pace than in the export sector, with some components of activity, such as residential investment, continuing to post robust growth over the year ahead.

Against this background, we project the tradables component of CPI inflation to continue to fall back, as has been the trend over the past year. The sharp rise in the exchange rate over 2002 is expected to reinforce downward pressure on tradables sector prices over the next few quarters, although the degree to which prices are affected is an ongoing source of uncertainty. Strong activity in parts of the retail sector for example could lead some retailers and suppliers to rebuild margins, rather than lowering prices in response to the firmer exchange rate. However, in general, competitive pressures in the tradables sector appear to remain intense, which we assume will limit the scope for price increases. Feedback from our business contacts suggests a reluctance on the part of major retailers to tolerate price increases from suppliers. In addition, excess supply conditions in many of New Zealand's trading partners implies limited pressure from higher import prices and may well provide opportunities for local suppliers to obtain products from abroad at lower cost.

Inflation in the non-tradables sector (which encompasses the services sector, utilities and residential construction) is projected to fall away more gradually as weaker external activity percolates through to the broader economy. The pressures created by the sharp uplift in demand associated

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with the recent strong rise in the population are also projected to abate gradually. However, this projection remains conditional on a number of key assumptions. These include the assumption that population growth due to migration stabilises and eases gradually over the next few years and that inflation expectations and pricing behaviour within the non-tradables sector remain well 'anchored' despite the acceleration in inflation in this sector over the past year.

Taking the outlook for tradables and non-tradables inflation together, CPI inflation outcomes in these projections drop fairly quickly from current levels without much assistance from monetary policy. Despite our assessment that pressure on the economy's resources may have intensified over 2002, reflecting stronger than expected growth, short-term interest rates remain on a flat path over the entire projection period. This projection reflects the extent to which the non-policy sources of demand are expected to abate over the next two years. Our previous projections were predicated on maintaining inflation within the 0 to 3 per cent range, consistent with the previous PTA. However, on the basis of the new PTA and the new 1 to 3 per cent medium-term target for inflation, these projections do not have inflation tracking down quite as far over the next few years as those projections did. This difference also helps explain the slightly lower interest rate profile than that published in August (figure 29).

The projections presented here represent one plausible path for the economy, but divergences can be easily envisaged. Given the assumptions about the exchange rate, our projections for tradables sector inflation hinge to a large extent on the notion that competitive pressures quickly translate the higher exchange rate and weaker demand conditions into more modest price rises for the consumer. But the path of the exchange rate – as well as its ultimate influence on prices – is highly uncertain. The exchange rate has appreciated markedly over the past 12 months with current levels already surpassing assumptions contained in projections made over the past year. Our projections employ a technical assumption,

which has the Trade Weighted Index rising smoothly toward some notion of equilibrium given its current starting value. In reality, as has been shown over the past year, the actual path of the exchange rate is highly unlikely to adopt as smooth a path and there is the capacity for much larger movements than we have allowed for. Any divergences could produce a markedly different profile for economic activity in both the tradables sector and the wider economy, with implications for inflation. In addition, the direct price effects of the exchange rate – which would be too difficult to predict even if the forward path of the exchange rate were known – could be significantly different than those projected here.

Our assessment of the risks around the global outlook at present implies that economic activity could potentially weaken to a greater extent than is reflected in our projections. That, in turn, would potentially see the emergence of greater excess capacity in the economy, causing inflation to fall away more quickly than these projections show. However, given the outlook sketched for real activity, these projections make a number of assumptions about the behaviour of pricing dynamics in the economy over the next few years. We assume inflation expectations have not been unduly affected by the recent acceleration in non-tradables inflation so that non-tradables inflation does not 'persist' for long in the face of more moderate demand conditions. While the most recent wage indicators have been more in line with our expectations (after the surprisingly subdued movements in some measures over the past year) we maintain the assumption that the labour market makes a benign contribution to inflation over the next few years. This is despite our projections that labour market conditions, for the most part, will remain relatively buoyant over the projection period.

Should each or any of these judgements turn out to be incorrect, then monetary policy might well have additional work to do over the next few years, even assuming our projections for economic activity are broadly indicative.

# Appendix 1<sup>1</sup>

## Summary tables

Table A

### CPI inflation projections and monetary conditions

(CPI is in percentage changes)

		CPI*	CPI**	TWI	90-day bank bill rate
		Quarterly	Annual		
1996	Mar.	0.6	2.1	64.2	8.7
	Jun.	0.8	2.3	64.6	9.7
	Sep.	0.3	2.3	65.6	10.0
	Dec.	0.6	2.4	67.1	8.9
1997	Mar.	0.2	2.0	68.4	7.5
	Jun.	0.3	1.5	68.0	7.2
	Sep.	0.6	1.8	64.8	8.1
	Dec.	0.5	1.6	63.9	7.9
1998	Mar.	0.3	1.7	61.2	9.0
	Jun.	0.3	1.7	58.5	9.1
	Sep.	0.6	1.7	57.1	6.8
	Dec.	-0.1	1.1	56.0	4.6
1999	Mar.	0.2	1.0	57.6	4.5
	Jun.	0.5	1.2	59.1	4.7
	Sep.	0.4	1.1	56.7	4.8
	Dec.	0.2	1.3	54.4	5.4
2000	Mar.	0.7	1.7	54.1	6.0
	Jun.	0.7	2.0	53.4	6.7
	Sep.	1.4	3.0	50.1	6.7
	Dec.	1.2	4.0	47.7	6.7
2001	Mar.	-0.2	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
2003	Second Half Average	$\frac{1}{2}$	$2\frac{3}{4}$	$54\frac{3}{4}$	6
	First Half Average	$\frac{1}{4}$	2	$56\frac{1}{4}$	6
2004	Second Half Average	$\frac{1}{2}$	$1\frac{3}{4}$	$56\frac{3}{4}$	6
	First Half Average	$\frac{1}{2}$	$2\frac{1}{4}$	$56\frac{3}{4}$	6
	Second Half Average	$\frac{1}{2}$	$2\frac{1}{4}$	57	6

#### Quarterly projections

2002	Mar.	0.6	2.6
	Jun.	1.0	2.8
	Sep.	0.5	2.6
	Dec.	0.6	2.6
2003	Mar.	0.3	2.3

<sup>(1)</sup> Notes for these tables follow on page 30.

\* 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			
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005				
Final consumption expenditure														
Private	3.6	4.4	2.2	2.4	4.1	1.9	2.4	3 1/2	2 1/4	3 1/2			2 1/4	3 1/2
Public authority	4.9	1.5	8.8	-2.1	7.1	-2.5	0.4	2 1/2	3 1/2	2 1/4			3 1/2	1 1/4
Total	3.9	3.7	3.7	1.3	4.8	0.9	1.9	3 1/4	2 1/2	3 1/4			2 1/2	3
Gross fixed capital formation														
Market sector:														
Residential	0.8	4.9	3.0	-14.0	22.7	-15.6	3.2	14	8 3/4	5 1/4			8 3/4	5 1/4
Business	15.9	3.1	-3.9	2.2	2.9	7.1	5.4	2	3 3/4	3 1/4			3 3/4	3 1/4
Non-market government sector	7.6	28.6	8.7	-15.9	9.9	-6.9	5.1	2 3/4	7	3 1/4			7	3 1/4
Total	10.9	5.7	-0.8	-4.1	8.4	-0.5	4.9	4 3/4	5 1/4	3 3/4			5 1/4	3 3/4
Final domestic expenditure	5.4	4.1	2.7	0.2	5.5	0.6	2.6	3 1/2	3 1/4	3			3 1/4	3
Stockbuilding <sup>(1)</sup>	-0.1	-0.4	-0.1	-0.4	1.2	-0.4	0.1	- 1/2	1/4	1/4			1/4	1/4
Gross national expenditure	5.2	3.7	2.6	-0.2	6.7	0.2	2.7	3	3 1/2	3 1/4			3 1/2	3 1/4
Exports of goods and services	2.3	4.7	3.8	2.9	7.3	6.2	2.0	9 1/4	3 1/4	1 3/4			3 1/4	1 3/4
Imports of goods and services	6.9	6.5	2.6	2.0	11.4	-0.4	2.1	6 3/4	6 1/4	4			6 1/4	4
Expenditure on GDP	3.7	3.2	2.9	0.0	5.4	2.3	2.6	3 3/4	2 1/2	2 1/2			2 1/2	2 1/2
GDP (production)	4.1	3.5	1.4	0.4	4.9	2.5	3.3	4 1/4	2 1/2	2 1/2			2 1/2	2 1/2
GDP (production, March qtr to March qtr)	4.1	2.1	0.0	2.4	6.1	0.7	4.1	4	2 1/2	2 1/2			2 1/2	2 1/2
Potential output	4.0	3.6	2.8	2.4	2.5	2.7	3.1	3 1/4	3 1/4	3			3 1/4	3
Output gap (% of potential GDP, year average)	1.7	1.6	0.2	-1.8	0.5	0.3	0.5	1 1/2	3/4	1/4			3/4	1/4

<sup>(1)</sup> 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				
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Price measures</b>										
CPI*	2.1	2.0	1.7	1.0	1.7	3.1	2.6	2 1/4	2	2 1/4
Labour costs	1.9	2.0	1.9	1.6	1.4	1.6	2.1	2	2	1 3/4
Import prices (in New Zealand dollars)	-1.3	-4.6	2.9	2.7	11.2	7.4	-2.9	-5	2	1 3/4
Export prices (in New Zealand dollars)	-3.5	-6.3	4.2	-0.6	9.9	20.6	-3.5	-11 1/2	-2 1/4	3
<b>Monetary conditions</b>										
90-day rate (year average)	8.8	9.0	8.0	6.2	5.2	6.6	5.4	6	6	6
TWI (year average)	62.2	66.4	64.4	57.3	56.1	50.4	50.3	55	56 3/4	57
<b>Output</b>										
GDP (production, annual average % change)	4.1	3.5	1.4	0.4	4.9	2.5	3.3	4 1/4	2 1/2	2 1/2
GDP (production, March qtr to March qtr)	4.1	2.1	0.0	2.4	6.1	0.7	4.1	4	2 1/2	2 1/2
Output gap (% of potential GDP, year average)	1.7	1.6	0.2	-1.8	0.5	0.3	0.5	1 1/2	3/4	1/4
<b>Labour market</b>										
Total employment	4.4	1.2	0.0	0.6	1.4	2.3	3.5	2	1 1/2	1 1/4
Unemployment rate (March qtr, s.a.)	6.2	6.5	7.2	7.2	6.3	5.4	5.3	5	5	5
Trend labour productivity (annual % change)	0.7	1.0	1.3	1.5	1.4	1.3	1.3	1 1/4	1 1/4	1 1/4
<b>Key balances</b>										
Government operating balance (% of GDP, year to June)	3.5	1.9	2.5	1.7	1.3	1.2	2	1 3/4	2 1/4	3
Current account balance (% of GDP, year to March)	-5.6	-6.1	-5.5	-4.1	-6.6	-4.6	-2.1	-3 1/4	-4	-4 1/4
Terms of trade (annual average % change)	-2.2	-0.8	-1.0	-0.4	-0.2	4.4	4.1	-4 1/2	-4 3/4	- 1/4
Household savings rate (% of disposable income, year to March)	-3.5	-2.5	-4.5	-4.2	-5.2	-3.7	-2 1/4	-4	-4	-4 1/4
<b>World economy</b>										
World GDP (annual average % change)	3.9	4.2	3.5	1.9	4.4	3.5	1.1	2 3/4	3 1/4	3 1/2
World CPI inflation	2.6	2.2	2.4	0.9	2.0	2.8	1.1	2	1 3/4	2

s.a. = seasonally adjusted

\* This series is annual CPI inflation 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.

### 2002

- 14 August      The Reserve Bank released its thirty-fifth *Monetary Policy Statement*, leaving the Official Cash Rate unchanged at 5.75 per cent. The news release accompanying the *Statement* is reproduced in Appendix 4.
- 22 August      Finance Minister Michael Cullen announced that Dr Alan Bollard will be appointed as the Governor of the Reserve Bank. The accompanying news release is reproduced in Appendix 4.
- 17 September      Finance Minister Michael Cullen and Governor Alan Bollard sign a new Policy Targets Agreement. The accompanying news release is reproduced in Appendix 4, while the new Policy Targets Agreement is reproduced in Appendix 6.
- 27 September      Production GDP figures were released showing that the New Zealand economy grew by 1.7 per cent in the June quarter of 2002.
- 2 October      At the intra-quarter review, the Reserve Bank left the Official Cash Rate unchanged at 5.75 per cent. The accompanying news release is reproduced in Appendix 4.
- 15 October      CPI statistics were released for the September quarter showing that the CPI increased by 0.5 per cent over the quarter, and by 2.6 per cent in the year to September 2002.

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## Appendix 3

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

Agrifarm Machinery Ltd	Port Otago Ltd
Aoraki Development Trust	Radiola Corporation
Ashburton Implement Services	Robinson Industries Ltd
Bayley Corporation Limited	Scott Technology Ltd
Beca Group Limited	Sinclair Knight-Merz Limited
BP Oil NZ Ltd	Skellerup Industries Ltd
Briscoes (New Zealand) Limited	Skope Industries Limited
Cadbury Confectionery Ltd	Southern Institute of Technology
Canterbury Development Corporation	Southland Times Co Ltd
Canterbury Flour Mills Ltd	Tachikawa Forest Products (NZ) Ltd
Cerebos Greggs's Limited	TDC Sawmills Ltd
Chubb New Zealand Limited	Telecom New Zealand Ltd
Circa Engineering and Marine Ltd	The Farmers Trading Company Ltd
Clough Agriculture	Timaru Herald Ltd
Collins Mitre 10 Ltd	Titan Plant Services Ltd
Criterion Group Limited	Unilever Australasia Ltd
Culham Engineering Company Ltd	Whangarei District Council
Dan Cosgrove Ltd	Wickliffe Limited
Donaghys Industries Limited	Wilson Chemicals Ltd
Federated Farmers Southland Inc	
Fletcher Challenge Forests Limited	
Foodstuffs(Auckland) Limited	
Invercargill City Council	
John Crean & Co. Ltd	
Kmart New Zealand	
La Grouw Corporation Ltd	
Landbase Trading Society Ltd	
Long Plastics Ltd	
LV Martin & Son Ltd	
Lyttelton Engineering Limited	
Lyttelton Port Company Limited	
McVicar Timber Group Ltd	
Meat & Wool Innovation Ltd	
Meritec Limited	
Michael Hill International Ltd	
Nissan New Zealand Limited	
New Zealand Light Leathers Limited	
Otago Furniture Ltd	
Polson Higgs & Co	

In addition to our formal meetings with the organisations listed above, contact was also made with major banks and a range of other companies and 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

#### Reserve Bank pauses, OCR held at 5.75 per cent

*14 August 2002*

The Reserve Bank today left the Official Cash Rate unchanged at 5.75 per cent.

Reserve Bank Acting Governor Rod Carr commented " Since our *May Statement*, prospects for the international economy have become increasingly clouded, with sharp falls in equity markets and heightened investor nervousness in the US and elsewhere. Although the New Zealand economy has performed well over the past year, the odds of an international slowdown have increased, which would have adverse consequences for the performance of the New Zealand economy.

" This renewed global uncertainty occurs at a time when the outlook for inflation has been of concern. Indicators of core inflation have edged up to around 3 per cent following a sustained period of higher-than-average pressure on the country's productive resources.

" Gauging the extent to which the path for inflation will be affected by recent global developments is no easy task. Quite plausibly, the impact of recent global developments will remove much of the existing upwards pressure on inflation. But, conversely, the economy may continue to grow at a pace that maintains pressure on resources. Indeed, some of the recent drivers of strong domestic economic activity, including the sharp turnaround in net immigration, may not dissipate rapidly even in the event of softer international conditions.

" Monetary policy involves carefully weighing the competing risks. On balance, we feel that current global developments, recent falls in export prices, an exchange rate higher than on average last year, and the lagged effects of the interest rate increases earlier this year are likely to dampen inflation pressures sufficiently going forward. In May it looked likely that further increases in interest rates would be required over the coming year to keep inflation within the target band, but that prospect now looks less likely. That was also the judgement we were coming to at our last OCR review in July, albeit for somewhat different reasons.

" We will continue to monitor global markets and the local economy, and assess the inflation outlook. For now, the prudent response is to pause, and to watch and wait," Dr Carr concluded.

#### Media Statement released by Finance Minister Michael Cullen

*22 August 2002*

The Secretary to the Treasury, Dr Alan Bollard, is to be appointed the next Reserve Bank Governor, Finance Minister Michael Cullen announced today.

Dr Bollard was nominated by the non-executive directors of the Reserve Bank Board and the nomination has been accepted by the government.

" Although I am obviously very pleased that the Board has chosen someone of such high ability, it was with mixed feelings that I accepted their recommendation because it means I will lose Dr Bollard as Secretary to the Treasury," Dr Cullen said.

" He has been enormously successful in changing the culture of the Treasury into a more open and outward looking organisation and was always a pleasure to work with."

Confirmation of Dr Bollard's appointment will be subject to the conclusion of a contract of employment and to the negotiation of a new Policy Targets Agreement. The government wants monetary policy outcomes to move closer to those of Australia.

" I am confident Dr Bollard and I will be able to negotiate a PTA which is satisfactory to each of us and to the broader financial and business community and which will serve New Zealand well," Dr Cullen said.

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Dr Bollard was appointed as Secretary to the Treasury in February, 1998. He was Chairman of the New Zealand Commerce Commission from 1994 and before that, was Director of the New Zealand Institute of Economic Research - a position he held for seven years.

He has also worked as an economist in a variety of positions in Britain and the South Pacific.

## New Policy Targets Agreement *17 September 2002*

### Joint Press Statement by Finance Minister Michael Cullen and incoming Reserve Bank Governor Alan Bollard

The Finance Minister and the incoming Governor of the Reserve Bank today signed a new Policy Targets Agreement (PTA), which sets out specific targets for achieving and maintaining price stability.

The most significant change is that the Reserve Bank is required to take a forward looking, medium-term approach to achieving price stability. This gives the Bank more flexibility to decide how it responds to shocks in the economy and inflation variations around the target.

The new PTA raises the bottom of the inflation target to 1 per cent, while retaining the 3 per cent upper limit and includes a statement of the Government's broader economic goals.

Dr Cullen said: "The Government's aim has always been to avoid unnecessary instability in output, interest rates and the exchange rate. That objective was explicitly included in the PTA I signed in 1999 with the previous governor. I believe the changes inserted in this PTA will make it easier for the bank to achieve this goal.

"The agreement is broadly as the markets have been anticipating and is consistent with the publicly stated advice of expert commentators. I expect it to be well-received by the financial markets and by other stakeholders in the economy."

Dr Bollard said: "This PTA acknowledges the way monetary policy has and will evolve. As inflation expectations have become steadily better anchored, so monetary policy has become more flexible, and this trend will continue, as signalled in this PTA.

"Price stability is the Reserve Bank's 'primary function', but we also seek to avoid 'unnecessary instability in output, interest rates and the exchange rate.' The shift to an inflation target 'on average over the medium term' allows us to better achieve this. This helps economic growth, which, we all agree, New Zealand needs, by enhancing predictability and confidence and, by that, savings and productive investment. The raising of the bottom of the band brings the overall target more in line with New Zealand's inflation outcomes in recent years and those in other countries.

"In addition, today I am releasing the text of a letter that I intend to send to the Minister once I have begun my duties as Governor. This lays out how I wish to manage my relationship with the Minister, recognising the particular need for the Bank to be operationally independent and yet also for the Bank and the Government to keep each other informed," Dr Bollard concluded.

Dr Cullen added that the new PTA sits well alongside the framework for the improved accountability mechanisms recommended by the Svensson Review and legislated for in the Reserve Bank Amendment Bill currently before Parliament. The bill strengthens the Reserve Bank Board's role within the Bank and enhances the Bank's independence.

The bill retains the Governor as a member of the Board but removes him as chairman in favour of a non-executive chair, and requires that the Board issue its own annual report assessing the performance of the Governor.

The text of the letter referred to above is reproduced overleaf.

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17 September 2002  
Hon Dr Michael Cullen  
Treasurer  
Parliament Buildings  
Private Bag  
WELLINGTON

Dear Michael,

On assuming the responsibility as Governor of the Reserve Bank I thought it would be useful to outline how I envisage various important relationships evolving.

To contribute to the effective conduct of overall economic policy it would be useful to build on the existing relationship between the Reserve Bank and The Treasury in sharing information. In addition I would like to establish a regular dialogue with you on economic developments and ensure that I remain fully briefed on the development of Government policies which potentially impact on the formulation and implementation of monetary policy consistent with the Policy Targets Agreement. It is also important to ensure that there is a shared understanding of the way in which the Policy Targets Agreement impacts on the formation and implementation of monetary policy.

It is both my obligation and intention to consult with a wide range of sources in the public and private sectors in forming my opinion as to the appropriate monetary conditions consistent with maintaining stability in the general level of prices.

The Reserve Bank also has a broader range of operational and policy functions. To the extent you have a responsibility in these areas, the Bank will provide timely briefings and reports on matters of importance to you.

I believe that we should agree that we should inform each other of the release of material into the public domain that may be likely to cause public comment on matters of mutual interest. We should take care to ensure such material is not inconsistent with maintaining the independence and credibility of the Bank.

Yours sincerely  
Dr Alan E Bollard  
Governor

## OCR stable at 5.75 per cent *2 October 2002*

The Reserve Bank today left the Official Cash Rate unchanged at 5.75 per cent.

Reserve Bank Governor Alan Bollard commented "The New Zealand economy has shown solid growth over the past year with both domestic and export activity proving robust. Growth over the June quarter of 2002 was a little stronger than we expected.

"However, growth among our trading partners has continued to track at relatively modest levels. This was anticipated to some extent in the Bank's August *Monetary Policy Statement*, but recent developments in financial markets suggest that any sustained recovery offshore could take longer to occur than previously thought. The soft international backdrop is expected to dampen New Zealand's growth outlook over the coming year.

"Reflecting the balance of these factors, the overall outlook has evolved broadly in line with expectations. Inflation still appears likely to edge downwards over the next year or so. The focus of monetary policy is now on keeping inflation securely within the range mandated in the Policy Targets Agreement on average over the medium term. Given this, the Bank sees no urgency to adjust interest rates at this time. This should assist in ensuring that we also avoid unnecessary instability in output, interest rates and the exchange rate and that economic growth prospects are maximised, given our current outlook," Dr Bollard concluded.

The next OCR announcement comes with the release of the *Monetary Policy Statement* on 20 November 2002.

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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

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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

