
Monetary Policy Statement¹

March 2002

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

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¹ Projections finalised on 1 March 2002. Policy assessment finalised on 19 March 2002.

1 Overview and policy assessment

The Reserve Bank has decided to increase the Official Cash Rate from 4.75 per cent to 5 per cent.

In the last few months of 2001, we reduced the Official Cash Rate by 100 basis points despite a domestic economy which was weathering the international downturn well. We did this partly because we expected the negative confidence effects of the events of 11 September to damage both the global and New Zealand economies, and partly because it had become clearer that, even before the events of 11 September, the world economy was weaker than previously expected. Both led us to expect downwards pressure on inflation. Indeed, in November we reduced interest rates by a little more than our projections suggested might be necessary, on the grounds that the risks in the international economy seemed clearly biased to the downside.

But we also noted in November that it was "conceivable that the combination of a stronger underlying performance of the New Zealand economy and a global slowdown that blows over rather more quickly than now expected will require a reversal of recent interest rate cuts in the not-too-distant future."

In the event, the performance of the New Zealand economy has indeed been stronger than we expected, and the risks to the global economy also look less threatening. Economic activity in the United States has picked up more quickly than most observers expected late last year, and the Australian economy looks robust.

Not that the global economy as a whole looks particularly strong. On the contrary, it seems likely that on average our trading partners will grow only moderately this year, and significant risks remain. The Japanese economy continues to have major difficulties, the US recovery could stumble over the high level of debt already accumulated, and global equity markets remain vulnerable to further weakness. But on balance these risks appear less than they did four months ago.

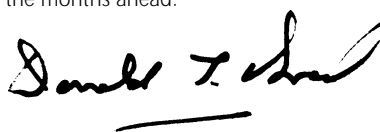
Locally, the domestic economy has been surprisingly buoyant. After a brief pause in October, retail spending has been strong. Visitor arrivals have also recovered quickly. Turnover in the housing market has been high, and residential investment has surged. Employment growth has been strong, and unemployment is close to its lowest level in 13 years. Although we are still expecting relatively slow growth in investment spending this year – a delayed response to the sharp downturn in business confidence which followed 11 September – it now

seems likely that investment too will be stronger than we expected in November. Imports have recently been very strong, confirming that domestic demand is relatively robust.

The reasons for the economy's holding up well are fairly clear. Both consumer and business confidence have bounced back to pre-11 September levels. Interest rates have been at low levels for several months. While the exchange rate has strengthened a little recently, it has been well below most estimates of its long-term equilibrium value for about two years. And in recent months there has been a sharp turnaround in net migration, from a net outflow of some 10,000 per annum to a net inflow of between 35,000 and 40,000, at an annual rate, now. Even though the composition of current net immigration is rather different from that in the mid-nineties, we still judge that in the short-term this net inflow of people will increase demand by rather more than it increases supply, thus adding to inflationary pressure.

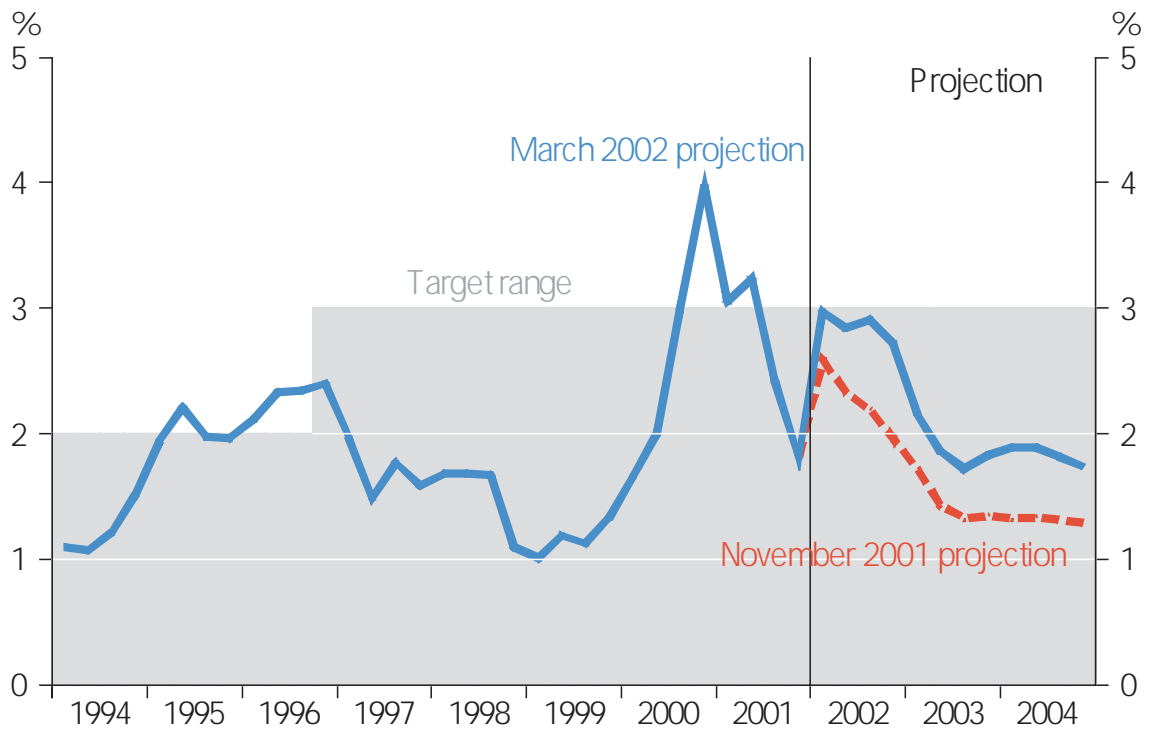
Looking forward, it seems clear that, if things evolve as now seems likely, there will be a need for higher interest rates if inflationary pressures are to be contained. The economy is already operating at close to full capacity, and indications are that pressures will grow further in the absence of some increase in interest rates. Headline inflation has been at or above the top of our inflation target for much of the last 18 months, and for a number of reasons that seems likely to continue to be true for most of this year. Some of the causes of this relatively high inflation relate to matters to which monetary policy should not react (such as the increased tax on petrol, and the weather-related increase in the price of fruit and vegetables). But the risk is that this prolonged period of inflation near the top of the inflation target may lead people to adjust their inflation expectations upwards, making the task of controlling future inflation more difficult.

Even after today's decision, monetary conditions remain stimulatory. Today's increase in the Official Cash Rate simply represents some withdrawal of monetary stimulus, much of which was put in place as insurance against risks which have now receded. At the moment it seems likely that there will need to be some further reduction in monetary stimulus over the months ahead.



Donald T. Brash
Governor

Figure 1
Consumer price inflation²
(annual percentage change)



² The measure shown is annual underlying inflation until the September quarter 1997, annual CPIX inflation from the December 1997 quarter until the June 1999 quarter, and annual CPI inflation thereafter (adjusted to exclude interest and section prices from the September 1999 quarter to the June 2000 quarter).

Table 1

Summary of economic projections

(Annual percentage change, unless specified otherwise)

March year	Actuals	Projections			
	2001	2002	2003	2004	2005
Price measures					
CPI*	3.1	3	2 ¹ / ₄	2	1 ³ / ₄
Wages	3.1	3 ¹ / ₄	3 ¹ / ₄	2 ³ / ₄	2 ¹ / ₂
Import prices (in New Zealand dollars)	7.4	-3	-1 ¹ / ₂	2	1 ¹ / ₂
Export prices (in New Zealand dollars)	20.1	-8 ³ / ₄	-5 ¹ / ₄	2 ³ / ₄	1 ³ / ₄
Monetary conditions					
90-day bank bill rate (year average)	6.6	5 ¹ / ₄	6	6	5 ¹ / ₂
TWI (year average)	50.4	50 ¹ / ₄	52 ¹ / ₄	54 ¹ / ₄	56 ¹ / ₄
Output					
GDP (production, annual average % change)	2.7	3	2 ³ / ₄	2 ¹ / ₄	2 ¹ / ₂
GDP (production, March qtr to March qtr)	1.0	3 ¹ / ₂	3	2	2 ¹ / ₂
Output gap (% of potential GDP, year average)	0.3	³ / ₄	¹ / ₂	0	- ¹ / ₂
Labour market					
Total employment	2.3	2 ¹ / ₄	2	1 ³ / ₄	1 ¹ / ₄
Unemployment rate (March qtr, s.a.)	5.4	5 ¹ / ₄	5 ¹ / ₄	5 ¹ / ₄	5 ¹ / ₄
Labour productivity (annual average % change)	1.3	1 ¹ / ₂	³ / ₄	¹ / ₄	1
Key balances					
Government operating balance (% of GDP, year to June)	1.2	1	2 ¹ / ₄	2 ³ / ₄	2 ³ / ₄
Current account balance (% of GDP, year to March)	-4.8	-3 ¹ / ₄	-4 ³ / ₄	-4 ¹ / ₂	-4
Terms of trade (annual average % change)	3.6	3 ¹ / ₄	-7	¹ / ₄	¹ / ₂
Household savings rate (% of disposable income, year to March)	-3.7	-2 ³ / ₄	-4 ¹ / ₂	-3 ³ / ₄	-4
World economy					
World GDP (annual average % change)	3.5	1	2 ¹ / ₂	3 ¹ / ₂	3 ¹ / ₂
World CPI inflation	2.3	1	1 ¹ / ₂	2	2 ¹ / ₄
Quarterly projections					
	Jun-01	Sep-01	Dec-01	Mar-02	Jun-02
CPI (quarterly percentage change)	0.9	0.6	0.6	0.9	0.7
CPI (annual percentage change)	3.2	2.4	1.8	3.0	2.8

e = estimate.

s.a. = seasonally adjusted

* This series is annual CPIX 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).

Notes for this table are in Appendix 5

2 The current economic situation

Introduction

Monetary policy over the past 12 months has been adjusted in response to a sharp slowdown in economic activity in most of New Zealand's trading partners. In a series of five steps, we reduced the Official Cash Rate from 6.5 per cent in March 2001 to 4.75 per cent in November. Underlying these interest rate reductions was a view that weaker demand conditions abroad would ultimately dampen inflation pressures in New Zealand, providing scope for lower interest rates. The downside risks to global and domestic activity intensified following the events of 11 September and were a particular consideration behind both our unscheduled 50 basis point interest rate cut in late September and the further 50 basis point cut announced in our *Monetary Policy Statement* in November.

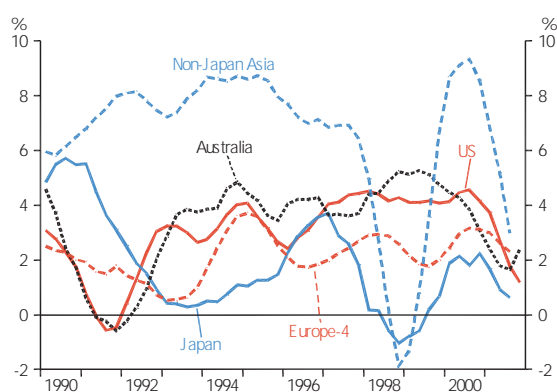
We made no further adjustment to the OCR at our interim review in January, adopting a more neutral tone in regard to future changes. The evidence since November has suggested that activity and prices in the export sector are being affected by soft international demand conditions, as expected. However, domestic demand has been showing greater strength than we expected and there appears to be little surplus productive capacity. Although GDP growth for the September quarter was weaker than expected, much of that weakness appears to have been connected with the unusually dry winter and is likely to have been reversed in subsequent months. Since the September quarter, most components of domestic demand, especially household consumption, appear to have held up surprisingly well, while tourism activity has posted a sharp recovery after a pronounced dip immediately following 11 September.

Developments abroad

Growth in the global economy slowed markedly in 2001, with the first synchronised downturn in the US, Euroland, Japan and the rest of Asia since 1974 (figure 2). Weaker activity in the US, especially in the technology sector, was instrumental in reducing the overall volume of international trade and transmitting the slowdown to other economies, most notably those in Asia. Confidence was further undermined by the terrorist attacks in the US in September, which led to another, albeit short-lived, fall in international share prices and which

appears, at least temporarily, to have been an additional setback to a recovery in many economies. The negative impact on the aviation and travel industries has been evident in most countries. In response to weaker activity, most central banks eased monetary policy throughout 2001, with additional interest rate cuts implemented following 11 September.

Figure 2
Export partners' growth³
(annual average percentage change)



Economic data to hand in the new year indicate that the US economy is beginning to recover. Last year's fall in industrial production has stabilised, while consumer and business confidence have recovered much of the ground lost following 11 September. Stronger orders for capital goods and continued strength in the housing market also bode well for recovery. Indicators of activity outside the manufacturing sector are also becoming more positive.

There have also been some encouraging signs from the Eurozone economies over the past couple of months. Manufacturing sector data are more upbeat, at least in Germany, which has had a lift in industrial production.

Most economic indicators from Japan provide little optimism for a sustained recovery in that economy, while the recent Standard and Poor's credit rating downgrade of the Japanese banking system has highlighted the overhang of a very high level of non-performing loans. Household consumption remains weak, with expectations of continuing falling prices and increasing unemployment discouraging spending. Some commentators have suggested that Japan could experience

³ Source: Datastream. See also Table 3, p. 20.

a mild cyclical recovery over the months ahead, given some positive indications for industrial production in areas such as semi-conductors.

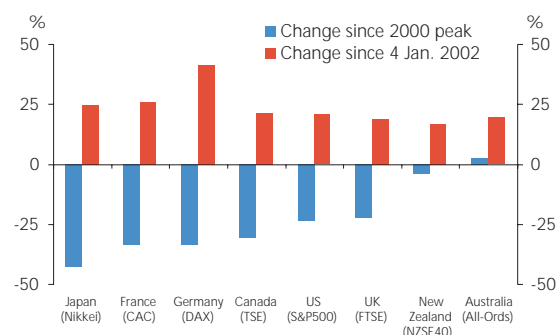
Japanese financial markets reflect perceptions of serious economic and financial risks. While the Japanese economy has under-performed the rest of the world for several years, recent events – the downgrading of the credit ratings on both corporate and sovereign debt, and the potential impact of reforms – have triggered fresh concern about the health of the financial sector. As a result, the yen has recently fallen to levels last seen during the Asian crisis, and the major equity indices have touched 18-year lows in the last month or so.

In non-Japan Asia, recent activity data have generally remained soft, with little evidence of a sustained turnaround in production in the technology sector, the sector behind the rapid fall in the region's exports during 2001. However, a recovery in this sector is widely expected and growth forecasts for most countries in the region have been revised up. Activity has been robust in Korea and appears to have remained relatively strong in China, but a concerted turnaround in the region's growth appears to hinge largely on the path of the US economy.

Closer to home, the Australian economy, like New Zealand's, has weathered the global slowdown and the aftermath of 11 September surprisingly well. Like New Zealand's, Australia's export sector is starting to feel the effects of reduced demand and weaker prices in world markets. But recent strength in housing construction has acted as a fillip for the domestic economy and consumer and business confidence have been recovering. There have also been some very positive indicators of the likely path of business investment over 2002.

Trends in financial markets in the last four to five months embody the view that the global economic outlook will improve over the coming year. Equity markets and global commodity prices have recovered strongly since 11 September, though they are still well off their highs of two years ago (figure 3). Short-term interest rates have risen as the market has begun to anticipate the possibility of a tightening of monetary policy worldwide as early as the middle of this year.

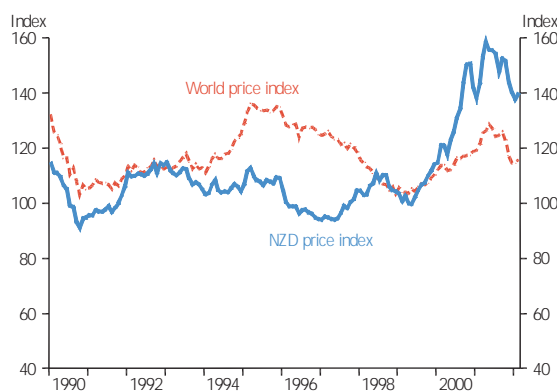
Figure 3
Equity market developments⁴
(to 11 March 2002)



The tradables sector

Centre-stage in our economic projections published in the November *Monetary Policy Statement* was an outright fall in export sector incomes over the coming year. Historical relationships between trading partner growth and commodity prices led us to expect a sharp fall in our commodity prices throughout 2001, but aggregate prices for our export commodity exports remained surprisingly resilient through most of the year (figure 4). An analysis of individual commodity types shows that this resilience was by no means universal (figures 5,6). Prices for forestry products, aluminium and hides and skins fell during 2001, much in line with normal cyclical patterns. In contrast, beef, lamb and seafood prices, remained at high levels. Dairy prices, which rose strongly

Figure 4
Prices of New Zealand commodity exports⁵



⁴ Source: Bloomberg

⁵ Source: ANZ Banking Group Ltd.

Figure 5
Selected commodity prices⁶
(world price terms, 1995m1=100)

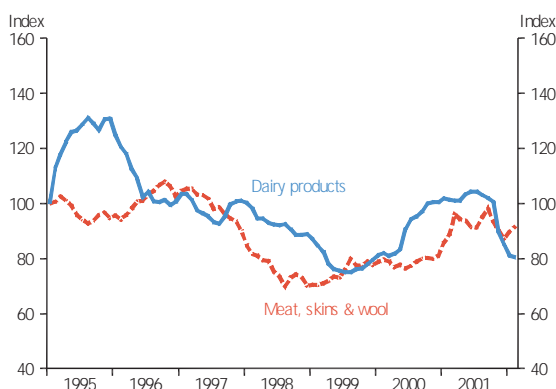
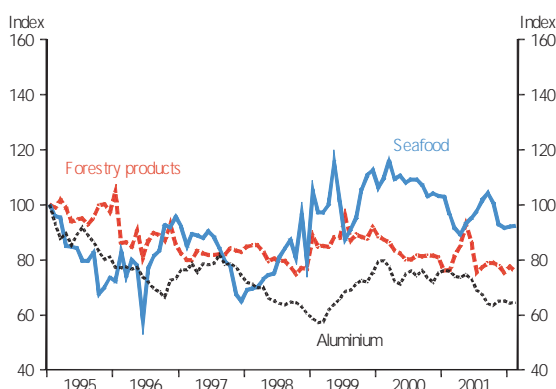


Figure 6
Selected commodity prices⁷
(world price terms, 1995m1=100)



during 2000, assisted by a range of supply-side factors, remained resilient through most of 2001, before falling away sharply in the December quarter.

Initial price weakness in wholesale dairy markets in Europe and the United States was compounded by decisions in both regions to increase production subsidies in response to that weakness. Reflecting the importance of dairy products in total exports, the decline in dairy prices implies a significant fall in New Zealand's aggregate export prices. As at February, the ANZ World Commodity Price Index was around 8 per cent lower than in September of last year. The associated fall in aggregate commodity export prices occurred a little earlier than we had assumed in our November projections, but there are, to date, limited grounds to believe that prices are set to

fall by more than we were assuming at that time. Indeed, commodity prices rose slightly in both January and February.

The softer global environment is having a braking effect on the demand for New Zealand's exports. Export volumes fell over the September quarter and provisional data on export earnings suggests there has been a fall over the six months to December as a whole. Unfavourable world market conditions appear to have led some primary exporters to build up inventories in lieu of selling products at lower prices. Recent unseasonable weather conditions have also affected primary export volumes as, for example, farmers hold stock on-farm to take advantage of good feed conditions.

Growth in non-commodity manufactured exports also lost momentum over 2001, with export volumes to some countries showing an outright decline. Some of that weakness may be due to production constraints associated with the winter electricity crisis. However, as discussed in Box 1, weak demand conditions are probably responsible for the weakness in manufactured exports, which has occurred notwithstanding the low New Zealand dollar.

⁶ Source: ANZ Banking Group Ltd.

⁷ Source: ANZ Banking Group Ltd.

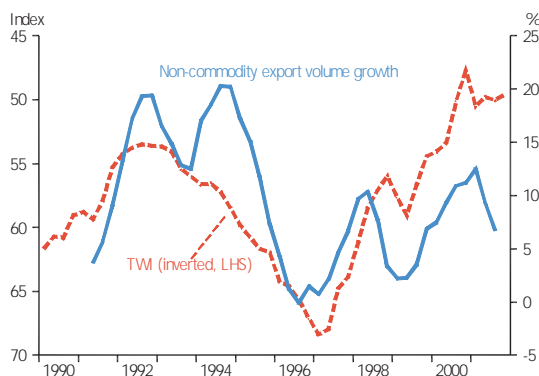
Box 1

Recent performance of non-commodity manufactured exports⁸

Recent *Statements* have noted the relatively weak performance of non-commodity manufactured exports over the past couple of years or so. Despite the fall in the exchange rate over 1997-2000, export volumes of these products have shown much more modest growth than was seen following the exchange rate depreciation in the early 1990s. In this box, we take a closer look at non-commodity manufactured (NCM) exports and show that at least some of the recent weakness can be explained in terms of weaker demand conditions in New Zealand's major markets.

Figure 7 charts growth in volumes of New Zealand's NCM exports alongside the exchange rate (represented by the TWI, on an inverted scale). Following exchange rate depreciation in the early 1990s, volumes of NCM exports posted strong growth. Conversely, export growth slowed quickly as the New Zealand dollar appreciated in the mid-1990s. However, in 1999 and 2000, the export volume

Figure 7
Non-commodity manufactured exports and the TWI⁹
(export growth: annual average percentage change)



⁸ Non-commodity manufactures (NCMs) are differentiated from commodity manufactures primarily by the degree of transformation or value-added. NCM exports represent about 23 per cent of total merchandise exports by value. Items covered include machinery, electrical equipment, processed food, carpets and textiles and processed chemicals.

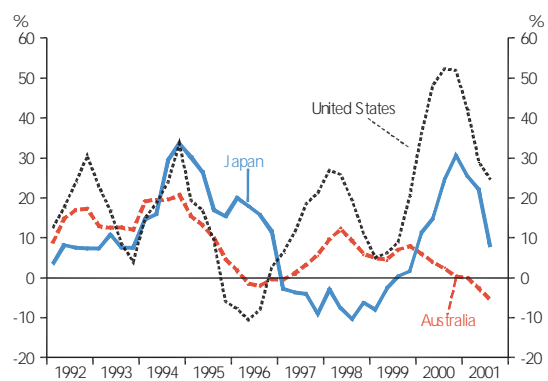
⁹ Source: RBNZ, Statistics New Zealand

response to large falls in the exchange rate appears to have been more moderate. The more muted response of volumes in spite of competitiveness gains initially suggested that reductions in the exchange rate have had a less potent effect on volume growth than was previously the case.

However, the downturn in global demand that started around mid-2000 is likely to have been an important factor behind the modest expansion of exports. To help identify the impact of weaker trading partner demand, in this box we break down NCM exports by their major destination markets.

Figure 8 charts the growth in the volume of NCM exports to Australia, Japan and the United States¹⁰, while figure 9 shows the New Zealand dollar exchange rate against the currencies of those countries. The NCM data are those available up to the September quarter of 2001. Since the last quarter of 2000, NCM export volume growth to each of New Zealand's major trading partners has fallen sharply.

Figure 8
Volume of non-commodity manufactured exports by destination¹¹
(annual average percentage change)

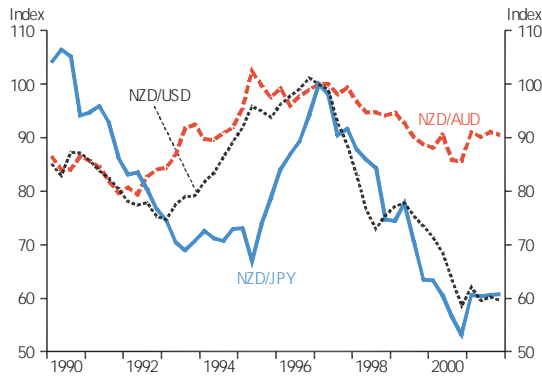


These trends correlate quite well with growth conditions in each country. Weak export growth to the Japanese market can be attributed in part to the very sharp fall in industrial production there over the past year, which will have affected

¹⁰ NCM exports to Australia, Japan and the United States comprise approximately 60 per cent of total NCM exports.

¹¹ Source: Statistics New Zealand, RBNZ calculations

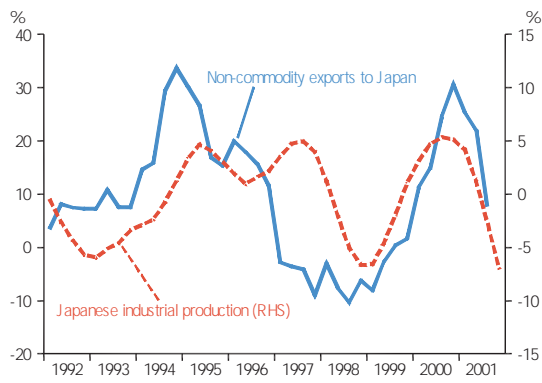
Figure 9
Key New Zealand dollar
exchange rates¹²
(Re-based to 1997q1=100)



demand for products sold to that country (figure 10). In contrast, in the mid-1990s, when NCM export sales to Japan performed much more strongly, Japanese industrial production was expanding. Of course, the sharp fall in the NZD/JPY exchange rate early in the 1990s may have played a role in boosting NCM export demand at that stage, although it is worth noting that the NZD/JPY exchange rate has been at rather lower levels over the past two years. The lower exchange rate is no doubt one factor that has helped exporters achieve some volume growth in Japan despite what has clearly been a very weak market.

Given Australia's reasonably robust economic performance over recent times, an outright contraction in NCM export volumes to that market initially appears more difficult to

Figure 10
Non-commodity manufactured
exports to Japan¹³
(annual average percentage change)

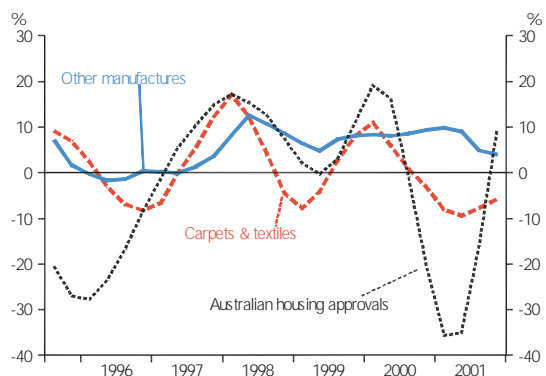


¹² Source: RBNZ.

¹³ Source: Datastream, Statistics New Zealand, RBNZ calculations.

explain. However, some areas of Australian economic activity — including retail sales of consumer durables and construction — underwent a significant slowdown in the wake of the 2000 Olympics and the introduction of the GST. Fluctuations in the residential construction cycle over 2000/01 are likely to be part of the reason for New Zealand's softer export performance in areas such as carpets, textiles and building products. Based on past correlations (figure 11), the recent sharp upturn in residential construction and consumer spending should now be starting to show up in the export data — it will be interesting to see whether data beyond the September 2001 quarter reveal an improvement.

Figure 11
Non-commodity manufactured
exports to Australia¹⁴
(annual average percentage change)



Exports of NCM to the US market have also grown more slowly over the past year, but some growth has been achieved. Two considerations may be relevant here. First, the New Zealand dollar has declined markedly relative to the US dollar — more so than relative to either the yen or Australian dollar. Secondly, despite the slowdown in US GDP growth, US consumer spending has remained remarkably robust over the past year. Accordingly, demand for some NCM products may have remained reasonably strong despite the overall softening in the US economy.

It remains possible that the underlying response of NCM export volumes to the low New Zealand dollar has been weaker than on previous occasions. Recent work by the Bank suggests that, even after allowing for weaker demand, NCM exports have been surprisingly weak. Previous

¹⁴ Source: Datastream, Statistics New Zealand

Statements have provided a number of reasons why that might be the case, including uncertainty about the sustainability of recent exchange rate trends, and greater competition from third countries as trade barriers have come

down. But, armed with the benefit of hindsight, it appears that much of the reason for weak NCM export performance has simply been weak demand.

Turning to the tourism sector, overseas visitor arrivals fell sharply over October and November in the wake of the 11 September terrorist attacks. However, a strong rebound in arrivals during December and January points to a fairly rapid recovery in the sector. Feedback from the industry regarding activity over the coming months is quite positive, with reports of relatively strong forward bookings. Indeed, bookings are apparently stronger than last year, especially from some non-Japan Asian countries. However, reduced airline capacity on some routes to New Zealand may constrain the ability of the sector to resume sustained growth in the short term.

In analysing the performance of the tradables sector, a key issue is the extent to which import-substituting production has increased in response to the fall in the New Zealand dollar that took place during 1997-2000. A rise in the cost of imported consumer goods and services due to a lower exchange rate may reduce demand for products produced overseas whilst increasing demand for locally produced alternatives. The extent to which substitution effects are able to occur will depend partly on the breadth and depth of local industries, i.e. whether local production capability exists to respond to the price signals.

There is some evidence that local production has been boosted by the lower exchange rate. Import penetration — the share of imports in GDP — rose steadily from the late 1980s and throughout most of the 1990s. But since 1997, when the exchange rate first began to fall, import penetration has fallen perceptibly, as a larger share of domestic expenditure has been met through local production (figure 12).

Some of this increased production can be traced directly to the tourism sector. New Zealanders have chosen to holiday domestically rather than travel abroad. Consistent with this, Statistics New Zealand's Accommodation Survey shows occupancy levels remained higher than might have been expected on the basis of the dip in visitor arrivals in October and November (figure 13).

Figure 12
Import penetration¹⁵
(Imports relative to gross output, excluding imports of frigates)

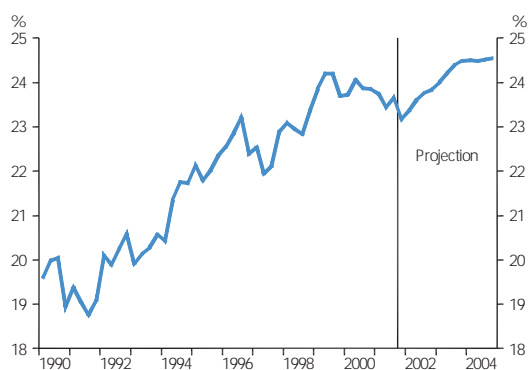
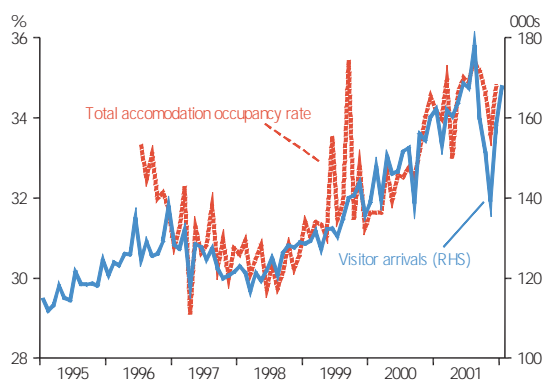


Figure 13
Tourism activity¹⁶
(seasonally adjusted)



But even when services are excluded from the measure of imports, import penetration still appears to have fallen, suggesting additional import substitution in the manufacturing sector. This is despite a widely held view that the scope for adjustment has been limited by the demise of import-substituting businesses in the face of substantial rationalisation over the past two decades.

¹⁵ Source: Statistics New Zealand, RBNZ calculations and projections.

¹⁶ Source: Statistics New Zealand

Meeting more domestic demand from local production helps explain why import volumes over the past year have grown only modestly. However, import data suggest a turnaround recently. Some of the increase in imports appears to have been capital goods — signifying continued underlying strength in investment — but imports of consumer goods have also risen sharply in the new year. This is likely to reflect an element of re-stocking following unexpectedly strong retail sales in the December quarter. Some of the increase can also be attributed to used vehicle imports undertaken ahead of the imposition of new frontal impact standards.

Domestic activity

Overall, demand appears to have strengthened quite considerably in recent months. Our November projections made allowance for a temporary setback to household spending and a more protracted setback to business investment expenditures as a result of the confidence shock caused by 11 September, together with the flow-on effects of weaker international trading conditions. The evidence to date, which is somewhat limited in the case of business investment expenditures, suggests that these setbacks have been much more modest than our projections allowed for.

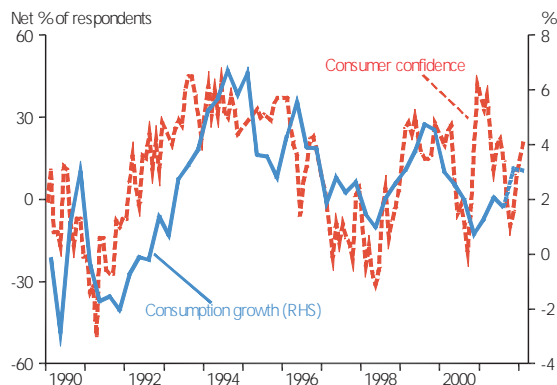
Household consumption expenditure grew modestly over the September quarter, propelled in part by strong sales of motor vehicles. Retail spending paused temporarily after 11 September, with no growth during October, but sales subsequently rebounded sharply in both November and December, resulting in a substantial rise in expenditure for the December quarter as a whole. Higher spending was evident in both urban and rural areas and was also quite broadly based across the different categories of retail expenditure. January retail sales showed further solid growth and our business contacts also continue to note relatively strong sales activity in the new year.

This strength in consumption raises the question as to how much represents ‘catch-up’ after the dip in October, how much may be attributable to temporary factors, and how much is due to ‘fundamentals’ (such as stronger activity elsewhere in the economy). Temporary factors may indeed be playing a part. Some retailers have noted that the unusually wet summer led to unseasonably strong retail spending, as

consumers opted to shop in lieu of normal summer activities. And recent sales of motor vehicles may have been boosted in advance of new safety standards being implemented on used imported vehicles (which are expected to boost prices).

However, the strength in spending is also consistent with surveys of consumer confidence, such as the WestpacTrust McDermott Miller Survey, which show consumer confidence to have remained resilient over the December quarter, notwithstanding international events. Similarly, while the One News Colmar Brunton confidence series dipped during October, by January the series had regained all of its lost ground (figure 14). A lift in the rate of wage increases over the past year, and a substantial increase in employment in the December quarter — corroborative evidence of a bounce-back in activity — will have helped to fuel the extra spending through higher salary and wage incomes.

Figure 14
Confidence and consumption¹⁷
(Consumption: annual percentage change)

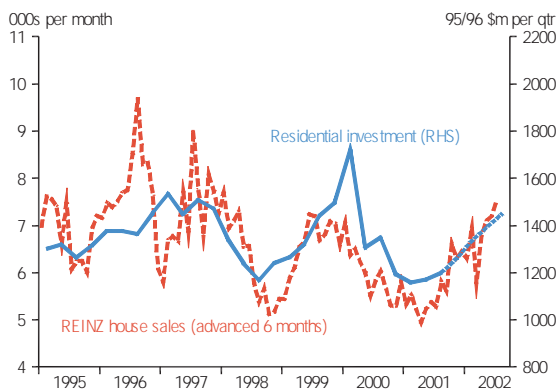


While forward indicators of primary sector incomes are less assured, incomes in the agricultural sector remain at relatively high levels and may be continuing to feed demand. More generally, the decline in interest rates last year, together with strong net migration over recent months, is providing support for household spending. A rise in housing construction activity, which typically correlates with a rise in spending on large ticket items such as furnishings, is also likely to have been a driver of recent stronger sales.

¹⁷ Source: One News/Colmar Brunton Survey, Statistics New Zealand

Lower interest rates and an increased rate of population growth brought about by net migration are no doubt behind a significant rise in house sales and new residential investment activity (figure 15). Activity levels (both sales and construction) remain lower than at some times in the 1990s, but anecdotal evidence suggests that a lot of the surplus capacity in the housing construction sector has been used up in some regions. Builders expect that activity in some areas of the country will remain strong in the foreseeable future, with some backlogs reported. The stronger activity is now having some impact on house prices, which rose by around 2.5 per cent in the six months to December.

Figure 15
House sales and residential investment¹⁸
(seasonally adjusted)



Gauging the path of business investment in the wake of the international slowdown and last year's terrorist attacks in the US is complicated by the long lead times between when investment decisions are made and the time the investment actually occurs (and shows up in the statistics). Moreover, recent data on actual investment have been extremely volatile. Investment spending fell during the September quarter, after a substantial rise in the first half of the year, but stocks of investment goods increased sharply. Based on past experience, this appears to be a statistical timing issue, with investment spending in the December quarter likely to have picked up sharply as investment goods held temporarily in the distribution chain were installed into the productive sector. Such a pattern was seen earlier in 2001.

¹⁸ Source: Real Estate Institute of New Zealand, Statistics New Zealand

Our November projections assumed that investment spending would fall away during the middle part of 2002, reflecting decisions taken in late 2001 to defer expenditure. Indicators over the past few months suggest that such a fall, if it occurs, will be more modest than we allowed for. Although surveyed business confidence and investment intentions (relating to the next 12 months) dropped immediately following 11 September, they have since regained much of their lost ground, providing little basis for thinking that investment plans have been scaled back appreciably (figures 16 and 17). Likewise, businesses contacted early in the new year were, in general, not looking to reduce investment over the next 12 months.

Figure 16
Business confidence¹⁹

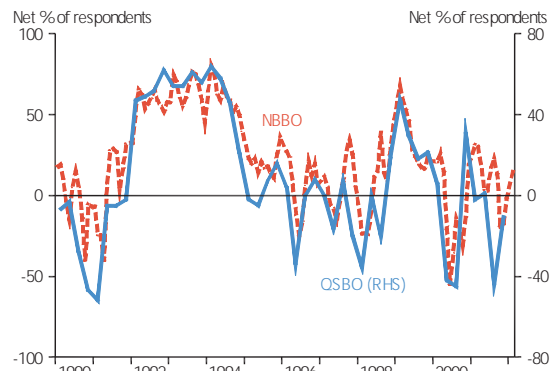
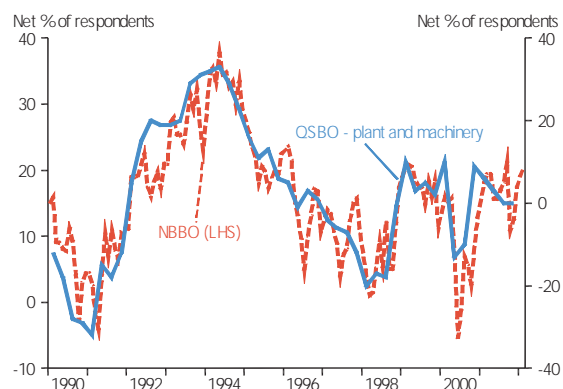


Figure 17
Investment intentions²⁰

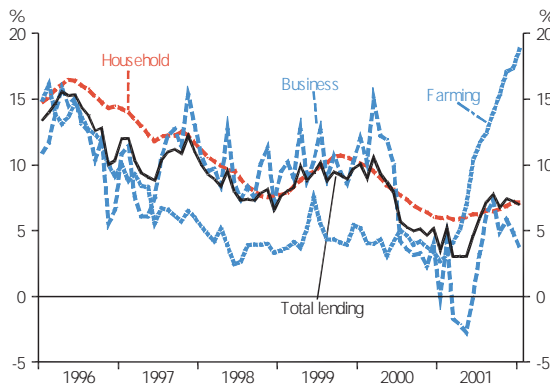


¹⁹ Source: New Zealand Institute of Economic Research, National Bank of New Zealand

²⁰ Source: New Zealand Institute of Economic Research, National Bank of New Zealand

Spending patterns are only partly evident in credit growth, which has remained relatively subdued over the past year (figure 18). Recent household sector credit trends have yet to mirror the pick-up in consumption activity and stronger housing sector activity evident since late last year. Household credit has grown at an annual rate of about 7 per cent over the past two years, more or less in line with the underlying rate of growth in household incomes. Recent monthly growth rates have remained moderate, although feedback from lenders in advance of the statistics suggests a possible acceleration in lending for housing over the past month or so. In contrast, lending for farming purposes has surged over the past year — reflecting the strong performance of that sector and strong activity in the rural property market. Lending to the rest of the business sector has been growing again after dipping early last year.

Figure 18
Sectoral lending growth²¹
(annual percentage change)

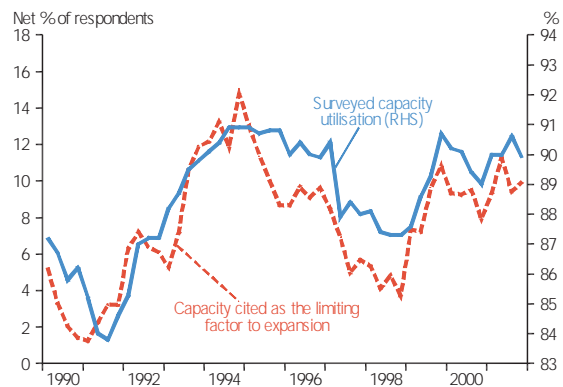


The balance of pressure on resources

While official estimates of December quarter GDP are not yet available, economic activity since the unexpectedly-weak September quarter appears to have been stronger than we allowed for in our November projections. Our estimates of the output gap — which are obtained by comparing current output with its trend — are in positive territory and higher than our corresponding estimates in November.

However, direct indicators of the degree of pressure on the economy's productive resources provide mixed signals about the extent to which that pressure may have changed recently (figure 19). Surveyed capacity utilisation eased slightly in the December quarter, though remained well above its average level. And the percentage of firms citing capacity constraints as the main factor limiting an expansion in activity was lower than at the beginning of the year, although it had risen slightly during the quarter.

Figure 19
Indicators of capacity²²

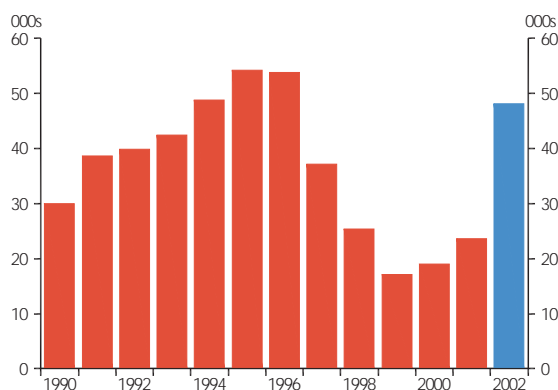


In the labour market, conditions have tightened considerably over the past two years, with a declining unemployment rate and an increased balance of firms reporting difficulty in finding both skilled and unskilled labour. However, some of this pressure may have abated over recent times. Net migration picked up considerably during 2001, providing a boost to the working age population (figure 20). While increases in foreign students have made up a substantial portion of net migration, fewer departures of New Zealanders and an increase in arrivals of those under the 'general skills' category is adding to the labour supply. Indeed, the estimated labour supply increased sharply over the December quarter, producing a small rise in the unemployment rate despite stronger employment. At the same time, there was a sizeable drop in the proportion of firms reporting difficulty in finding skilled labour during the December quarter.

²¹ Source: RBNZ

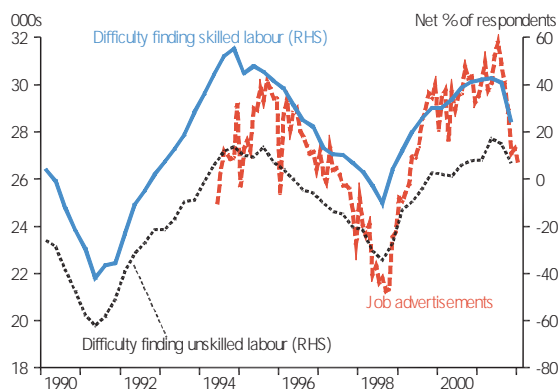
²² Source: New Zealand Institute of Economic Research

Figure 20
Labour Supply²³
(annual additions to working age population)



Moreover, the ANZ's Job Advertisement series has fallen sharply over the past six months, although the cause of the decline is not entirely clear. Recent inflows to the working age population due to net migration may be making jobs easier to fill, leading to less repeat advertising, consistent with some easing in labour market pressures. While fewer job ads might perhaps signify weaker labour demand, this was not borne out by the sharp rise in employment in the December quarter nor by recent strong employment intentions in the National Bank's Business Outlook survey. A rebound in job

Figure 21
Indicators of labour market tightness²⁴
(seasonally adjusted)



²³ Source: Statistics New Zealand. 2002 number is an RBNZ projection

²⁴ Source: ANZ Banking Group Ltd, New Zealand Institute of Economic Research

ads in February might suggest that the reduction in labour market pressure was temporary.

Overall, it seems reasonable to conclude that the labour market remains relatively tight by historical standards (figure 21) with the unemployment rate still close to its lowest level in 13 years. Many of our business contacts continue to note substantial difficulties in locating the right kinds of staff, particularly in some rural regions of the country. While in some cases those shortages seem to be pressuring wages, most companies report that wage pressures remain moderate.

Inflation developments

In general, the inflation indicators we monitor (see Table 2) are not suggesting a marked change in core inflation pressures in the economy — there is no conclusive evidence that the persistent elements of inflation are accelerating but nor are there signs that they are falling away. Most indicators point to core inflation pressures that are consistent with inflation outcomes toward the upper end of the 0 to 3 per cent target band.

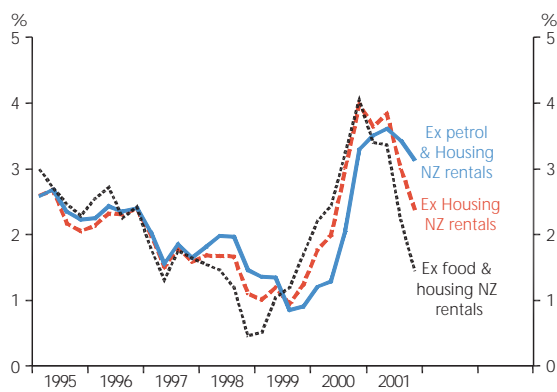
Annual headline CPI inflation, which spiked to 4 per cent in the year to December 2000 following higher fuel and tobacco prices, fell to 1.8 per cent in the year to December 2001. However, the increase in the year to December was distorted by the move in March 2001 to income-related rentals for Housing New Zealand tenants (which reduced the CPI by around 0.6 per cent in the March 2001 quarter), along with reductions in petrol prices throughout 2001. Adjusting the CPI to exclude the effects of changes in petrol prices and rentals produces an adjusted CPI inflation rate that is slightly above 3 per cent (figure 22).

Figure 22 also illustrates the extent to which higher food price inflation over the past year has underpinned annual CPI inflation outcomes. The annual movement in the CPI adjusted to exclude food and rentals rose by just 1.4 per cent in the year to December. Significant increases in most categories of food prices — but especially meat and dairy products and fruit and vegetables — saw the food group contribute around 1 percentage point to the annual movement in the CPI. Higher food prices reflect a range of factors, including strong international prices (in the case of meat and dairy products) and climatic factors (in the case of fruit and vegetables). The

Table 2
CPI, CPI derivative series and other price measures
(annual percentage change)

	Jun	2000 Sep	Dec	Mar	2001 Jun	Sep	Dec
CPI	2.0	3.0	4.0	3.1	3.2	2.4	1.8
CPI ex food	2.4	3.2	4.1	2.7	2.6	1.5	0.8
CPI ex petrol	1.3	2.1	3.3	2.9	3.0	2.8	2.5
CPI ex rents and petrol	1.3	2.1	3.3	3.5	3.6	3.4	3.1
CPI non-tradables	2.1	2.0	2.4	1.2	1.0	0.9	0.9
CPI non-tradables ex rents	2.1	2.0	2.4	2.4	2.3	2.2	2.1
CPI tradables	2.0	4.1	5.4	4.9	5.2	3.8	2.5
Tradables ex petrol	0.6	2.3	4.1	4.7	4.9	4.7	4.0
CPI weighted median (of annual price change)	1.3	1.7	2.6	2.8	2.4	3.0	2.7
CPI trimmed mean (of annual price change)	1.7	2.3	3.4	2.8	3.1	2.4	1.9
PPI: inputs	5.9	8.4	10.7	8.0	8.1	6.2	1.8
PPI: outputs	4.2	6.0	6.9	5.9	6.1	4.7	2.6
Merchandise import prices (excluding petrol)	8.3	13.2	16.7	5.6	5.5	1.2	n/a
Private consumption deflator	1.6	2.7	3.7	2.5	2.9	1.7	n/a
GDP deflator (derived from expenditure data)	1.6	2.7	4.7	5.6	6.2	4.1	n/a

Figure 22
CPI derivative series²⁵
(annual percentage change)



fall in the exchange rate during 2000 has also contributed to the higher food prices, including generic categories such as groceries.

The 0.6 per cent increase in the CPI in the December quarter was driven by large increases in a few important items (mainly food and airfares), partly offset by a marked fall in petrol prices. However, there still appears to be a core of inflation pressure arising from price increases in a disparate range of other items. As has been the case over most of the past two years, around two thirds of all items in the CPI (by expenditure

weight) increased in price during the December quarter. However, the contribution of these increases to the overall movement in the CPI has been falling (with a few major items dominating the overall CPI movement).

Annual CPI inflation is expected to have been higher in the year to March 2002 than we thought in November. Inflation is expected to rise from 1.8 per cent in the year to December 2001 to 3 per cent. Part of that increase reflects the dropping out from the annual calculation of the reduction in Housing New Zealand rents in the March 2001 quarter. But the recent sharp rise in fruit and vegetable prices, and stronger contributions from electricity, airfares, used cars and insurance, pointing to March quarter CPI inflation of around 0.9 per cent, compared with our earlier forecast of 0.6 per cent.

Tradables prices increased by 0.3 per cent over the December quarter and 2.5 per cent over the year to December, with the movement in the December quarter held down by lower petrol prices. The annual tradables ex-petrol series is considerably higher than a year earlier, with much of the increase due to higher food prices. However, upward pressure on tradables prices due to the fall in the exchange rate in 2000 appears to be dissipating, though movements in some items may still reflect pressure from this source. Non-tradables inflation was 0.7 per cent over the December quarter, and 0.9 per cent in

²⁵ Source: Statistics New Zealand, RBNZ calculations.

Figure 23
CPI inflation measures²⁶
(annual percentage change)

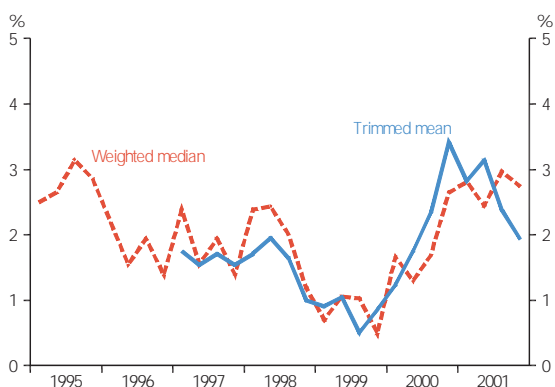
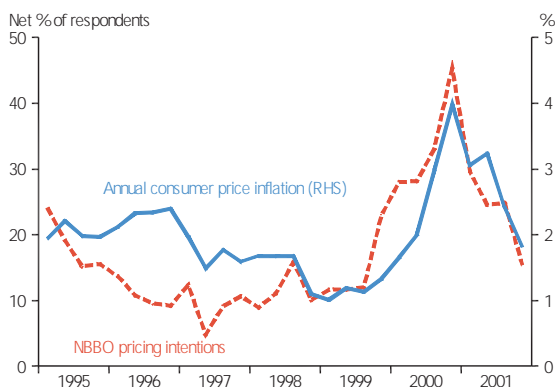


Figure 24
Inflation and pricing intentions²⁷



the year to December. This annual percentage change is considerably lower than the rate seen through late 1999 and 2000 but it was pushed down by the rental policy change. The annual tradables ex-petrol series and non-tradables ex-rents series are both considerably higher, at 4.7 per cent and 2.2 per cent respectively, showing the downwards influence of these special factors on recent inflation outcomes.

Measures of the central tendency of CPI inflation, such as the weighted median and the trimmed mean, continue to present a mixed picture of core inflation pressures (figure 23). The former measure was 2.7 per cent in the year to December, slightly up on the result for the previous calendar year, whereas the latter measure was 1.9 per cent, down from 3.4 per cent a year earlier. Taken together, these measures do not provide a convincing case that core inflation pressures are abating,

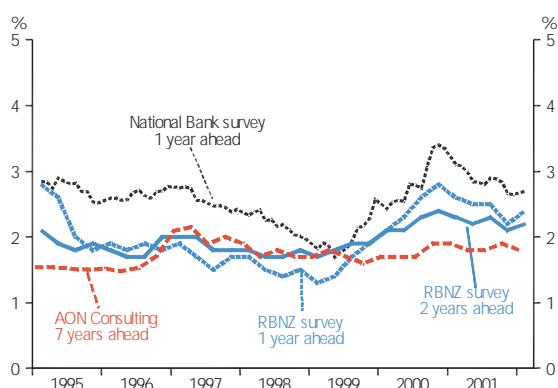
although neither do they point to a generalised acceleration in inflation.

Forward indicators of persistent inflation pressures are also providing a mixed view. Surveys of business pricing intentions, such as the National Bank Business Outlook and NZIER Quarterly Survey of Business Opinion surveys, showed a marked fall during 2001 in the balance of respondents expecting to raise prices in the near future (figure 24). That decline is likely to have reflected the dissipation of price pressures associated with the earlier exchange rate depreciation. Inflation expectations also appear to have been relatively stable over recent months (figure 25), despite the sharp spike in headline inflation and the extended period of headline inflation near or above the top of the inflation target range.

Expected profitability — a potential indicator of profit margins — also increased in the latter part of 2001. However, with trading conditions for some domestic businesses in the December quarter seemingly stronger than expected, this may be a reflection of an expected volume-driven rise in profits, not necessarily an increase in margins.

Producer price inflation has eased substantially over recent times. The Inputs Index rose 1.8 per cent in the year to December while the Outputs Index rose by 2.6 per cent. The

Figure 25
Expectations of inflation²⁸



²⁶ Source: RBNZ calculations, Statistics New Zealand.

²⁷ Source: National Bank of New Zealand, Statistics New Zealand.

²⁸ Source: National Bank of New Zealand, RBNZ, AON Consulting New Zealand Ltd.

annual rates of increase in both indices are well down from their peaks in 2000 as commodity price and exchange-rate-related cost and price pressures have eased. Although the latest result is consistent with higher profit margins, this appears to be due primarily to movements in some raw commodity prices, rather than a broad-based widening in producer margins.

Measures of wages and salaries provide a similarly mixed picture of current trends in labour costs. The annual rate of increase in both official measures of private sector labour costs has lifted over the past year, consistent with the tighter labour market and continued evidence of labour shortages (see Box

3 in Chapter 3). The Quarterly Employment Survey measure of private sector wages, which reached 3.5 per cent in the year to May 2001, eased slightly to 3.3 per cent in the year to November, with a relatively weak quarterly outturn. Inflows to the labour force arising from net migration may possibly be helping to contain wage pressures, although the volatile nature of the QES wage measures means that this may not indicate a turning point. In contrast, the Labour Cost Index measure of private sector salaries and wages has continued to creep upwards. The annual rate of increase is up from 1.5 per cent in the year to December 2000 to 2.2 per cent in the year to December 2001.

3 The macroeconomic outlook

Introduction

In our November *Statement*, we noted that the economy appeared to be facing some pressure on its productive resources following relatively strong growth in the first half of last year. Looking forward, however, *Consensus* forecasts suggested that growth in our trading partners would remain below trend for a sustained period, dampening some of the good fortune recently enjoyed by the export sector. And we allowed for a significant setback to domestic spending and tourism activity brought about by a shock to confidence following the 11 September terrorist attacks. The economy was expected to take a subdued growth path, unwinding much of the accumulated inflationary pressure that may have built up during 2001. By 2003, inflation was expected to have fallen back to around the middle of the target band, with no real assistance required from monetary policy.²⁹

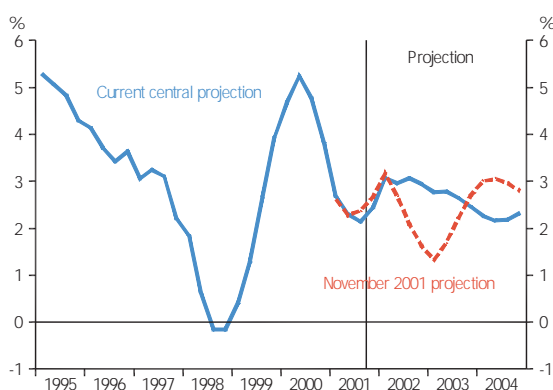
Our updated inflation projections are not so sanguine. We retain, as a starting point, the view that the economy's productive resources are relatively stretched. But looking ahead, activity is expected to be rather stronger than we were projecting in November (figure 26). This partly reflects the removal of much of the allowance we had made for confidence-related setbacks to consumer and business spending in the wake of 11 September, given our assessment

that these have been much less severe than we first feared. In addition, some fundamental drivers of activity — notably, population growth — are proving stronger than we thought in November, adding to demand.

Correspondingly, our projections now show a rising track for interest rates over the next 18 months as monetary policy responds to the prospect of excess demand pressures and reverts to less stimulatory settings. Higher interest rates look likely to be required in order to prevent a rise in persistent inflation pressures and to gradually return inflation toward the middle of the 0 to 3 per cent target band.

Market analysts also appear to be becoming more upbeat about the prospects for the New Zealand economy. Following the November *Statement*, the market was generally expecting rates to stay on hold until the second half of 2002. The recent improvement in economic indicators has led the market to bring forward the expected timing of interest rate increases (figure 27). Most analysts now expect at least one 25 point increase by May. On average, markets have recently been expecting around 100 basis points of tightening by the end of this year.

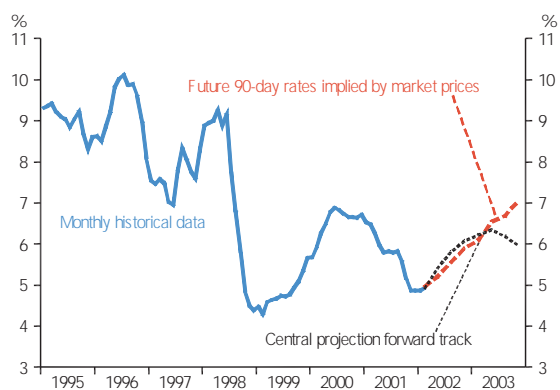
Figure 26
GDP³⁰
(annual average percentage change)



²⁹ Our November projections did not fully incorporate the additional 50 basis point reduction in the Official Cash Rate that we undertook when releasing the *Monetary Policy Statement*. Hence the November projections were based on somewhat higher interest rates than those used as the 'starting point' for these projections.

³⁰ Source: Statistics New Zealand, RBNZ projections

Figure 27
90 day interest rates³¹



As well as interest rate markets, equity markets provide a steer on the optimism that markets feel towards growth prospects. The NZSE40 index rose by 8 per cent last year, against a global average fall of around 12 per cent. Notably, the strong rebound in equities since the post-11 September

³¹ Source: RBNZ

low has been widespread across sectors, including those with a direct exposure to the tradables sector.

Before proceeding to describe them, it is worth emphasising the conditionality of the projections presented in this chapter (and summarised in table 1 and appendix 4 of the document). The projections represent just one possible path for the economy based on a large amount of statistical and anecdotal information, technical assumptions and judgements. Stronger or weaker outcomes can easily be envisaged, many with a similar probability to the one presented here. The risks surrounding alternative outcomes are the subject of the next chapter.

The World Economy

Chapter 2 discussed recent developments in the world economy and pointed to clear signs of recovery in the US and Europe with a more uncertain picture elsewhere. Current *Consensus* forecasts for export partner growth suggest a relatively slow recovery in activity over the next two years by historical standards. Compared to the October release of *Consensus* forecasts — the basis of our November projections — there has been little net change in expectations for aggregate trading partner growth in 2002 (figure 28). A large downward revision to the forecast growth rate for Japan has

been offset by an upward revision to the outlook for the United States and some Asian economies.

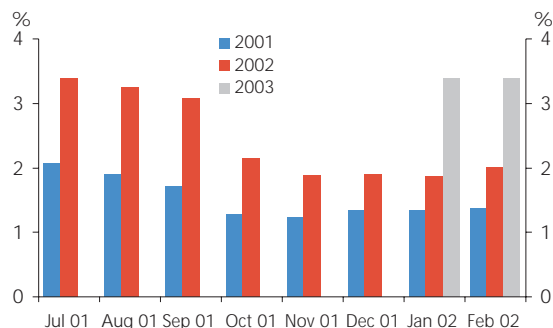
Our estimate of the aggregate output gap for our 14 main trading partners is firmly in negative territory at present and, based on *Consensus* forecasts, looks set to remain there over the coming year before a relatively slow recovery gradually uses up surplus productive capacity.

Developments in the US will be pivotal. Though most analysts agree that a recovery is underway, there is considerable uncertainty remaining about the timing and likely durability of recoveries within individual countries. There is also considerable uncertainty about its likely strength. Private consumption spending has been surprisingly resilient over the past few quarters and is therefore unlikely to provide the cyclical acceleration typical of past recoveries. High levels of indebtedness in the private sector and the continued strength in the US dollar are among the structural factors that may constrain the pace of recovery. It remains to be seen whether the recent collapse of Enron — and the associated concerns raised about corporate accounting standards and reported profitability — will provide a further setback to confidence.

A number of financial market indicators suggest that recovery may be fairly subdued across a range of countries. While equity prices have increased in the last few months, they remain significantly lower than they were at the start of the easing cycle last year, which is historically unusual. Past episodes of policy easings in the last decade have typically produced a rise in equity markets of between 10 and 15 per cent, on average, a year after the easings began. By contrast, today, many equity indices remain lower than a year ago.

Similarly, the risk premium on corporate bonds has remained very high over the last two years, consistent with record default rates. The relationship between credit spreads and US growth has been consistently strong — and inverse — for decades. While recent months have seen a slight narrowing in credit spreads, junk bond spreads remain at near-record highs, suggesting relatively slow US growth for some time to come. Higher credit spreads may in part reflect the relatively heavy reliance on debt financing among many US businesses over the past two years, which has seen a rise in leverage within the corporate sector.

Figure 28
Consensus forecasts of export partner growth³²
(annual average percentage change in GDP of NZ's main export partners)



³² Source: Consensus Economics Inc., RBNZ calculations.

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

Country	1999	2000	2001e	2002f	2003f
Australia	4.8	3.1	2.4	3.2	3.6
US	4.1	4.1	1.1	1.6	3.6
Japan	0.7	2.2	-0.3	-1.1	0.7
Canada	5.1	4.4	1.4	1.4	3.8
Europe-4 [†]	2.0	3.1	1.9	1.5	2.7
Asia ex-Japan [°]	6.7	8.6	1.5	3.9	5.7
14 country index	3.8	4.2	1.4	2.1	3.4

* Source: Consensus Economics Inc.

[†] Includes Germany, France, Italy, and the United Kingdom

[°] Includes China, Hong Kong, Malaysia, Singapore, South Korea and Taiwan

With these caveats and uncertainties in mind, the projection in this chapter proceeds on the basis of the *Consensus* forecast numbers, as shown in Table 3.

Tradables sector activity

Our projections continue to incorporate a contraction in export receipts over the coming year, brought about by an outright fall in New Zealand dollar export prices, which outweighs continued modest growth in export volumes. Despite very recent evidence that export prices in world markets have stabilised, some further weakness is assumed over the months ahead.

Our technical assumption of a gradual appreciation of the exchange rate also acts to dampen projected export prices in New Zealand dollar terms. The prospect of some tapering-off in exporters' incomes, brought about by weaker prices, is expected to provide a mild braking effect on domestic demand over the projection period. Later on, as the terms of trade begin to recover with the global upturn, export sector incomes are expected to accelerate again, though at a much slower pace than in the past couple of years. Overall, with the exchange rate assumed to be rising, export prices in New Zealand dollars are expected to rise much more modestly than was the case over the 1999-2001 period.

Despite a contraction in global trade flows over the past year, New Zealand is expected to continue to maintain modest growth in export volumes over the projection period. On the assumption of no major climatic disruptions, primary export volumes are assumed to increase gradually over the next few

years, while manufactured exports are also projected to post modest growth in aggregate. The forecast recovery in trading partner growth over the next 12 months should be positive for export demand, helped somewhat by exchange rate stimulus (but to a decreasing extent given the assumed exchange rate appreciation over the projection period).

In the wake of 11 September, the willingness on the part of many international travellers to visit countries such as New Zealand and Australia appears to have been quickly restored. Our outlook for the exports of services is accordingly somewhat stronger than in our November projections.

On the imports side of the ledger, as discussed in Chapter 2, there is now some evidence that production in some import-competing sectors of the economy has been boosted by the low New Zealand dollar over the past three years. Although the durability of that trend remains to be tested, these projections incorporate a starting point of lower import penetration than in the November projections. The assumption of a rising exchange rate means that the import penetration ratio rises gradually throughout the forecast period, although it remains lower than in our previous projections.

Domestic spending

While the contribution to growth from the external sector remains relatively constrained in these projections, we now see a stronger contribution to growth coming from domestic demand. Household consumption activity during 2002 is expected to be stronger than in the November projections

with the recent bounce-back in consumer confidence, strong employment growth in the latter part of last year and last year's decline in interest rates all acting to underpin demand. Our projections continue to portray a relatively rapid rise in residential investment over the coming year, before growth settles down on a more modest path.

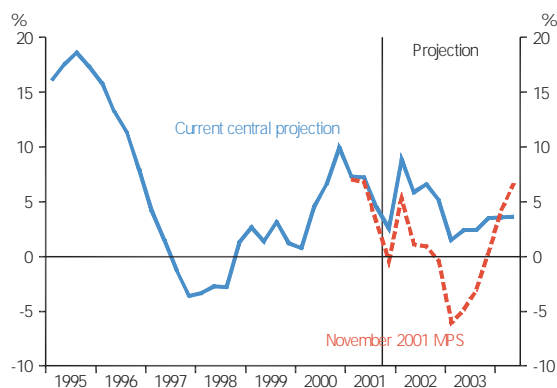
Recent growth in the population has been significantly stronger than we expected, fuelled by a sharp turnaround in net migration, and is expected to provide support to both residential investment and consumption. A high proportion of students in net arrivals means that the flow-on effects to both consumption spending and housing demand may be more muted than in previous immigration cycles. Some flow-on is nevertheless expected given the magnitude of the recent population surge and our assessment that it has been a factor behind the recent lift in activity in regions such as Auckland (see box 2, overleaf).

In November, we projected business investment expenditure to decline by around 6 per cent over the 2002/03 year as businesses paused in their investment plans because of the more uncertain global climate in the wake of 11 September. This projected fall in investment activity, which represented a significant change from our earlier projections, had a substantial dampening effect on the outlook for growth in GDP. As discussed in Chapter 2, business confidence has proven more resilient than we anticipated, and recent import data and our discussions with businesses are not pointing to an imminent fall in investment activity. In arriving at our revised outlook for investment, we have removed much of the 'negative confidence' effect assumed in November. Some residual negative effect has been retained as it seems likely that investment plans in a few sectors (including tourism) will have been disrupted to some degree by last year's events (figure 29).

Overall, while our investment track is stronger than in November, it remains relatively subdued. In part, that reflects the gradual withdrawal of monetary policy stimulus built into these projections. In part, it also reflects the weak outlook for external sector demand in the near-term, which is expected to dampen the export sector's willingness to invest.

In developing projections of domestic sector activity, a key issue concerns the pace at which a fall in export incomes —

Figure 29
Business investment³³
(annual average percentage change)



as is projected for the coming year — will impact domestic demand. One view is that consumption and investment activity in rural economies could slow quickly in the face of lower incomes, if confidence is shaken by a fall in returns, and households and businesses are unwilling to sustain expenditure by dipping into savings. An alternative viewpoint holds that much stronger balance sheets and bank balances in the sector, following very strong earnings over the past two years, could help sustain demand for an extended period, even if current incomes weaken. While there is uncertainty as to which of these two views is correct, it should be noted that our projections are assuming the middle ground, with the projected fall in incomes having *some* braking effect on domestic demand over the next two years.

Fiscal policy

In line with our normal practice, our projection of the fiscal position is based on the Treasury's latest forecasts (those prepared for the December 2001 *Economic and Fiscal Update*) adjusted for recent outturns and our updated macroeconomic outlook. The operating balance is projected to remain in surplus throughout the projection period, with the surpluses reaching 2.7 per cent of GDP by the 2003/04 fiscal year. This is a slightly stronger outlook than in our previous projections, reflecting our more robust outlook for domestic demand.

Taken alone, the operating balance is not a complete guide to the degree of contractionary or expansionary pressure that

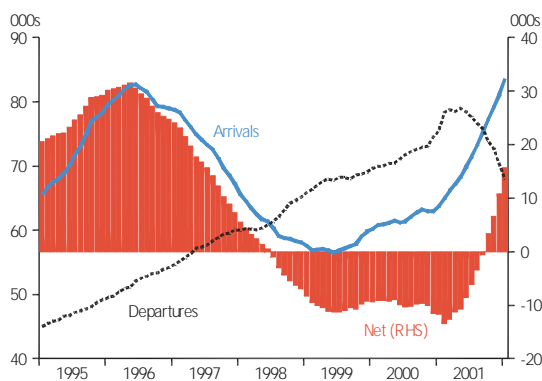
³³ Source: Statistics New Zealand, RBNZ projections

Box 2

An update on net migration

Our November *Statement* noted the marked turnaround in net migration over the past 12 months. That turnaround has become more significant. The latest data indicate net inflows into New Zealand of around 16,000 people (boosting the population by around 0.4 per cent) in the year to January 2002 (figure 30).³⁴ In the immediate future, this number looks set to move higher as monthly gains continue to substantially outweigh losses.

Figure 30
Net migration³⁵
(annual total)



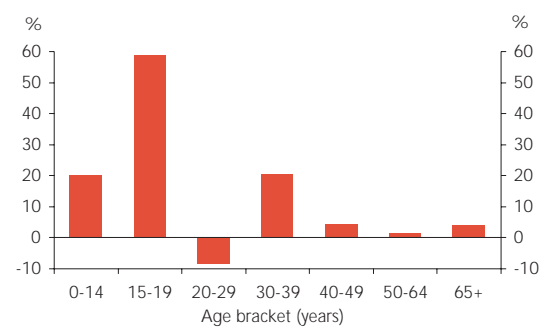
By far the most significant factor has been a sharp increase in foreign students coming to New Zealand to study, as evidenced by an age-breakdown of net arrivals (figure 31). This follows some changes to the regulations relating to student permits. But net arrivals of those of working age who are not students — and therefore likely to enter the workforce — also seem to be picking up. This reflects a sharp fall in departures of New Zealanders looking to work abroad over the past six months, a rise in the numbers of New Zealanders returning home and a high level of immigrant approvals granted under the 'general skills'

³⁴ This figure is the balance of long term arrivals and departures. Long-term arrivals include migrants intending to stay in New Zealand for 12 months or longer. Long-term departures include New Zealand residents departing for an intended period of 12 months or more plus overseas visitors departing after a stay of 12 months or longer.

³⁵ Source: Statistics New Zealand

category. Strong growth in the working age population recorded in the December quarter Household Labour Force Survey can be traced in part to this trend, which may also explain a drop in the proportion of employers indicating difficulty in finding skilled labour.

Figure 31
Net migration by age group³⁶
(Net arrivals as a percentage of total – year to December 2001)



The outlook for migration flows is muddled by the unusually dramatic scale of the turnaround and our lack of complete understanding of their drivers. Recent approvals, both for foreign students and others seeking residency, suggest continued strength in arrivals over the months ahead. The longer-term outlook is less clear. Both migration policy and economic considerations will play a role, but the outlook for these influences is itself uncertain.

Whether the recent drop in departures will be sustained is especially unclear. In part, it appears to have been a response to more difficult economic conditions abroad recently, and to reduced international employment opportunities in particular sectors, such as the IT industry. Changes in Australian immigration policy, which led to very high departures in early 2001, may also still be influencing the current pattern of flows. And security considerations are likely to have dampened departures following 11 September. How these factors pan out over the months ahead remains to be seen.

Owing to New Zealand's small size, shifts in net migration can have a significant influence on population growth and a major bearing on the balance of pressure on productive

³⁶ Source: Statistics New Zealand

resources.³⁷ In the longer run, migrants are likely to add to both supply and demand in roughly equal measure, but there is the potential for demand pressures to dominate in the short-run as the expansion in population places pressures on the housing market, the productive capital stock and other infrastructure. In the absence of excess supply, the economy is unlikely to be able to provide this capacity immediately and some inflation pressures may arise in the interim.

In these projections, net migration is assumed to add a little more to demand over the coming year than it does to supply. That assumption has been made in light of the very sharp pace at which migration has turned around and our expectation that the migrants will add to the demand for dwellings and other infrastructure in addition to their demand for other goods and services. Given the high component of students in arrivals, the demand effects may prove proportionately more muted than might normally be

³⁷ In larger countries, 'natural' increases — the balance of births and deaths — tend to be the dominant influence on population growth.

the case. However, the sheer number of students suggests that some demand effects can be expected, coming, for example, through the demand for rented accommodation. The turnaround in net arrivals of those other than students, if sustained, will also act to underpin demand. Of course, a consequence of the recent strength in student arrivals is that the boost to the labour force for any given level of net migration may be weaker than otherwise.

Clearly, the effects of higher inflows on demand and supply will depend on the timing and durability of the migration flows. Our projections currently assume that the level of annual net migration peaks during 2002 at around 30,000 people (boosting the population by around 0.8 per cent) before gradually returning to its long-run average of around 10,000. This is a stronger outlook in the short term than in the November projections, but the longer-run assumption is similar. The assumed slowing in net migration beyond the current year, and the likelihood that inflows continue to be heavily dominated by students, are thus crucial assumptions in these projections.

government's fiscal activities may be exerting on the economy in any particular period. Capital expenditures, which are not captured within the operating balance, also exert an influence on aggregate demand. Indeed, fiscal policy during the 2001/02 financial year appears to be providing stimulus to the economy, reflecting a relatively sharp increase in capital expenditures (and notwithstanding the operating surplus). Looking ahead, fiscal policy has a more neutral effect in the outer years of our projections (based on the Treasury's latest forecasts).

Inflationary pressure

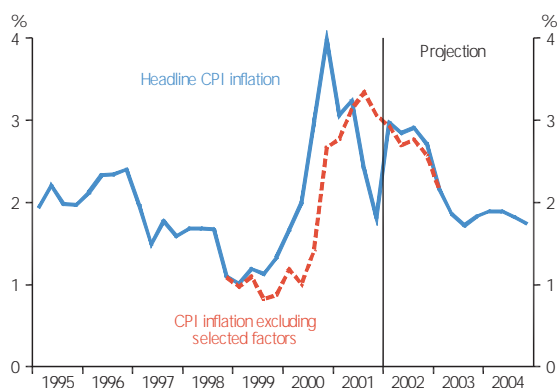
As noted in Chapter 2, we now think that annual CPI inflation is likely to have moved up to 3 per cent in the March 2002 quarter, reflecting a number of special factors, including a jump in fruit and vegetable prices during the quarter. While fruit and vegetable prices are likely to drop back to some degree over the coming months, some other factors, along with the recently announced petrol tax, are expected to keep the annual inflation rate near 3 per cent in the June quarter.

Many of the influences on the near-term CPI outlook can be described as 'special' factors not amenable to a monetary policy response. However, our current assessment of the influences on growth in the economy suggests that, in the absence of a gradual increase in interest rates over the next 18 months, utilisation of the economy's productive resources is likely to intensify, causing a rise in 'core' or 'persistent' inflation pressures. That outlook is despite making an allowance in the projections for an increase in the economy's ability to meet demand resulting from the recent faster growth in the working age population.

Figure 32 shows our projections of headline CPI inflation, both with and without some recent temporary influences. By construction, our projections for monetary conditions are consistent with annual inflation gradually reverting towards 1½ per cent. As shown in figure 1 of the document, this reversion occurs more slowly than in the November projections³⁸

³⁸ Our published projections show annual CPI inflation at 1.7 per cent in the final year of the projection period. However, they are consistent with inflation falling back to 1½ per cent in the following year.

Figure 32
Inflation³⁹
(annual percentage change)



Two factors are driving this slower rate of decline in inflation. First, as already noted, domestic economic activity is somewhat stronger than in the November projections, leading to more intensive use of productive resources during the initial part of the projection period. Secondly, our projections assume that the higher near-term inflation outcomes have *some* impact on both wage and price setting behaviour, reinforcing the inflation pressure. Note, however, that we have taken a 'middle-of-the-road' view of such pressures and have assumed that inflation expectations (and hence pricing behaviour) remain reasonably well anchored despite the prospect of higher inflation outcomes.

In these projections, the exchange rate is assumed to appreciate gradually over the next few years, moving back towards some notion of longer-run equilibrium or fair value. This is a technical assumption, not a forecast of its actual likely path. The rising exchange rate is, however, assumed to contribute some of the downward pressure on inflation incorporated in our projections. Were it not to occur, then larger increases in interest rates might be required.

Perhaps surprisingly, projected near-term private sector wage movements are a little *weaker* than in our previous projections – peaking at an annual rate of around 3½ per cent. This follows recent indications of slightly more subdued wage pressures than have previously appeared likely. Further out, wage movements have been assumed to decline a little more slowly than in the November projections, reflecting a slightly tighter labour market (on average) and some degree of response to the higher near-term inflation outcomes. However, in our projections — and consistent with our understanding of current patterns of behaviour — labour costs are not a major driver of inflation. Inflation seems to be driven more by product market conditions than growth in labour costs.

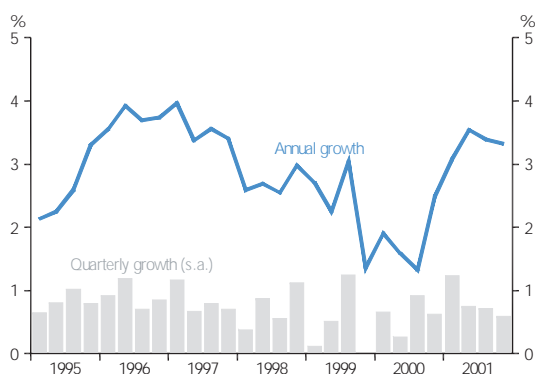
³⁹ Source: Statistics New Zealand, RBNZ. Selected factors include changes in petrol prices from early 1999 to the December quarter 2001, tobacco excise tax increases measured in the June and September quarters of 2000, Housing NZ rental reductions measured in the March quarter of 2001, and the petrol tax increase implemented during the March quarter of 2002.

Box 3

Wage patterns in New Zealand

Movements in wages and salaries are among the many indicators of inflation that we monitor. While a traditional 'cost-push' view of inflation sees wage developments *leading* price inflation, our current thinking is that wages in New Zealand have in recent years tended to *lag* movements in the CPI. However, the potential always exists for wage inflation to exert an independent influence on price inflation. An acceleration in wage inflation due to a tightening labour market or a rise in inflation expectations has the potential to spill-over into prices along the lines of the traditional cost-push view. Currently, most annual wage inflation measures remain around the level they reached in the middle of 2001. At that time, the increase in wage inflation was driven largely by a tight labour market, and, to a much lesser extent, by workers vying for higher wages to compensate them for the spike in consumer prices that had occurred over the previous few quarters. Figure 33 shows that, while annual wage growth rates remain higher than in recent years, the last few quarterly numbers suggest that the rate of increase may be slowing.

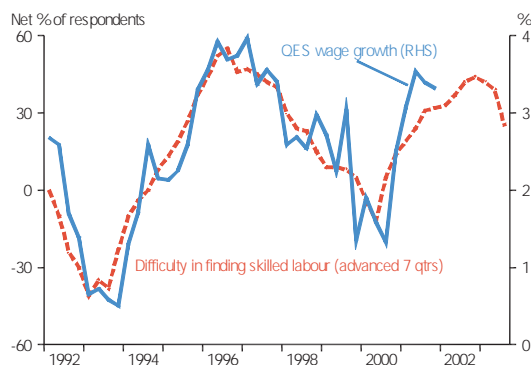
Figure 33
Private sector wage growth⁴⁰
(annual percentage change)



Are wage pressures really abating, or were the most recent wage numbers just aberrations? One of the best indicators of wage inflation has historically been surveyed skill shortages. As figure 34 shows, the acceleration in wages

during 2001 was somewhat quicker than can be explained by the skill shortages measure alone. However, the relationship with skill shortages seems to be reasserting itself.

Figure 34
Skill shortages and annual wage growth⁴¹



Recent surveys indicate that it is becoming easier for firms to find skilled staff – possibly due to the turnaround in net migration discussed in this chapter. Consequently, surveyed skill shortages now suggest that annual wage growth is likely to hold at around its current rate for the next twelve months, before declining during 2003.

Nevertheless, the labour market remains tight. It has been suggested that some private sector workers may use recent high profile public sector wage agreements as a benchmark for negotiating their own wage agreements. However, to date we are not aware of any such spill-over occurring, and are projecting wage growth to moderate shortly as inflation pressures subside.

⁴⁰ Source: Statistics New Zealand

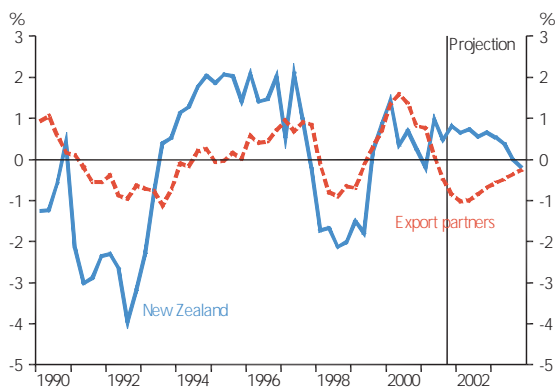
⁴¹ Source: New Zealand Institute of Economic Research, Statistics New Zealand

4 Policy Issues

These are unusual times for the New Zealand economy. For the first time in a long time, New Zealand might not sink into recession in response to below-par performance by our trading partners.

The extent to which our trading partners have underperformed their trend rates of growth is comparable to that experienced during previous global downturns, which have generally seen the New Zealand economy follow suit, often in an exaggerated fashion. Although it is unlikely that we have yet felt the full effects of the slowing in demand that began in the US in mid-2000, as shown in figure 35 (which compares New Zealand's output gap with the aggregate output gap of our export partners), our reading of the recent cycle is that utilisation of the country's resources hasn't slackened to any significant extent since we recovered from the Asian economic crisis. This is why monetary policy in New Zealand has been 'tighter' than in many other countries, despite having been eased over the past year.

Figure 35
New Zealand and export partners' business cycles⁴²
(output gaps as a per cent of GDP)



Weaker-than-normal boost from abroad

Given that a US economic recovery seems to be underway, with attendant benefits for the economies of Europe and non-Japan Asia, it might seem surprising to suggest that the full effects of the global downturn are yet to be felt here. However, lags between events abroad and their effect in New

Zealand tend to be quite long. Four features of the current situation make us cautious about assuming that the worst is definitely behind us.

First, the commodity price cycle has been atypical. New Zealand's export prices in world markets – for dairy and meat products in particular – held up well after the growth momentum of our trading partners slackened. Our good fortune in this area no doubt owed a lot to the fact that the downturn in US growth was dominated by shrinking expenditure on capital goods, especially IT and communication goods. Being a producer of foodstuffs and other basic commodities, we did not benefit as much from the IT boom of the 1990s, but we avoided the worst of the downside. However, world prices for our commodities could not and did not remain entirely immune from slowing income growth abroad. The last six months have seen significant falls in our commodity prices. These have occurred so late in the global income cycle that the falls have been virtually coincident with the beginnings of the recovery in the international economy.

The nature of the recent business cycle in the US — with investment in high technology activities being prominent both in the expansion and slow-down phases — brings us to the second reason for caution. Ongoing robust consumer expenditure kept the US out of deep recession (and indeed by some standards the US may never have actually experienced a recession). A significant acceleration of consumer expenditure from this point is therefore unlikely. A rapid upswing in corporate spending is also unlikely, given the extent of under-utilised capital still evident, and given a range of financial and balance sheet constraints facing the average US firm. Thus, while the US recovery appears to be well established, it promises to be mild rather than vigorous.

Third, there may well be an echo of the shock events of 11 September yet to be felt. A reasonable rule of thumb for the lag between decisions being made on investment expenditure and investment goods actually being brought into production is four to five quarters. Even though it appears that consumer expenditure was not affected by the terrorist shock for long, and tourists are back in substantial numbers, a period of relative softness in investment spending in the later part of 2002 should not be ruled out.

⁴² Source: RBNZ

Fourth, Japan's economy remains in poor shape. To be sure, a brief cyclical recovery might be seen shortly, but the underlying situation contains many features that will be a major barrier to sustained strong growth for some time to come.

All in all, the external world is unlikely to boost New Zealand's growth to the extent that has been typical in previous upswing phases.

Pressure on resources and the inflation outlook

Subdued international growth will tend to mitigate domestic inflation pressures. However, as already noted, the New Zealand economy does not have substantial spare capacity, and domestic growth momentum is already quite strong. These features make New Zealand stand out from many other countries. Australia shares the feature that the pace of economic activity held up through the global slowdown (helped by a weak exchange rate also), but they appear to have a little more headroom to grow before hitting capacity constraints. The absence of spare capacity on this side of the Tasman and the surprising robustness of growth have kept enough inflation pressure in place to warrant noticeably higher interest rates here than in trading partner countries. Mounting pressure on remaining spare capacity may warrant an early reversal of cuts in interest rates that were, to some extent, insurance against shocks that would cause under-use of the nation's resources and resultant disinflation.

It has to be acknowledged that there is considerable uncertainty over the extent to which pressures on the economy's productive capacity will spillover into actual inflation. Getting a good reading on what is likely to happen to inflation is proving rather difficult. As discussed earlier in this *Statement*, those measures of inflation that provide the most direct reading on the more persistent components of the inflation process give little cause for alarm. Non-tradables inflation has been running a little above the mid-point of the target range, but that is to be expected (on average, non-tradables inflation generally runs above tradables inflation). And wage growth has been relatively modest in view of the low level of the unemployment rate by recent historical standards.

On the other hand, some indicators of the central tendency of inflation have for some time been suggesting that inflation has been running close to the upper edge of the inflation target range. And, once allowance has been made for the temporary fall in inflation associated with last March quarter's change in government rental policy, headline inflation has clearly been running at a rate barely consistent with the inflation target range.

How does one reconcile these conflicting signals? And what do these signals mean for the future? The main point of reconciliation relates to the large fall in the exchange rate experienced between early 1997 and late 2000, a fall that at the time had an unusually small effect on the prices of tradable goods and services. What appears to have happened is that the "pass-through" of exchange rate changes has been much more drawn out than usual, with much of that pass-through being evident in tradables price inflation during 2001.

With the pace of tradables inflation slackening (as was evident later in 2001) as more time elapses since the exchange rate stopped depreciating, the extent to which headline inflation reverts to the mid-point of the inflation target range depends on whether the domestic sources of inflation remain well controlled. It is this issue that is at the heart of the policy judgement being made right now.

Consistent with the recent measures of non-tradables inflation and wage growth, our business contacts have been reporting that wage demands remain moderate, notwithstanding the above-average difficulties firms have been experiencing in finding enough labour.

Similarly, despite the squeeze on profit margins that appeared to be associated with exchange-rate-related increases in imported costs, business contacts do not currently report substantial pressures to increase prices.

Both these factors give some cause for comfort that the quietly but steadily growing intensity of utilisation of the economy's productive capacity will not quickly spill over into inflation. But nor does it seem reasonable to assume that inflation will remain at bay as pressures grow. This is especially the case given the now quite lengthy period of high headline inflation experienced since the end of 2000, when exchange rate pass-through combined with increased tobacco taxes and petrol prices to push that measure through 3 per cent. The longer

that headline inflation remains high, the greater the risk that people's perception of the inflation "norm" will be affected, and the more likely it is that pressure on productive capacity will spill over into higher prices.

Thus, although we recognise some cause for comfort on the inflation front, caution suggests that we should not be sanguine about mounting pressure on productive resources. That headline inflation now appears unlikely to fall much below 3 per cent until towards the end of 2002 adds to the need for caution, even though one-off factors are again involved. The scenario set out in Chapter 3 suggests the need for a moderate tightening of interest rates; leaning on the side of caution suggests the same course of action.

Balance of risks

As always, it pays to ask: where is our assessment of the outlook most likely to go wrong? In the current circumstances, we assess the risks to be mildly to the upside, but not to the extent that a more aggressive increase in interest rates than depicted in the projections in Chapter 3 would be warranted.

As discussed, one of the reasons for increasing interest rates — effectively taking back some of the insurance put in place in November — is caution about the ability of inflation to remain under control while inflation pressures grow slowly. It is not our central view that inflation expectations will become unanchored. Nor is it our central view that inflation pressures will grow quickly. Both of these are (inter-related) possibilities that will need careful watching. It will be especially important to keep an eye on the nature and persistence of the recent

rapid turnaround in migration, and its effects on existing housing and productive capacity. On previous occasions, large-scale sustained immigration has been a distinct source of inflation pressure. At this stage, we have not allowed for a sustained period of strong net migration. Box 2 in Chapter 3 discusses the nature of this issue.

At the same time, while some of the factors that made us worry about the global economy have become less prominent, others remain largely unresolved. The Japanese economy is rife with structural problems, including in the crucial financial sector. And there remain imbalances within the US economy that contain the potential for a contraction in the pace of spending, particularly if households and companies choose to reduce debt in the face of any renewed uncertainties about current asset valuations.

There have been many occasions when we have noted the need to watch developments closely for clues as to how the situation will unfold. That need is no less now than on other occasions. As we move forward, we will be continually reassessing our view and adjusting our assessment of the degree of monetary policy adjustment required to achieve our price stability goal. It could easily be the case that the actual path of short term interest rates will be different (either higher or lower) than is projected in this *Statement*. But it is not always the case that in times of uncertainty being slow to adjust interest rates is the proper course. With interest rates already on the stimulatory side of neutral, and the economy's resources already stretched, slowness to increase interest rates would risk generating the need for a stronger response later, with the instability that would go with that.

Appendix 1

Chronology

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

2001

14 November The Reserve Bank released its thirty-second *Monetary Policy Statement*, reducing the Official Cash Rate by 0.5 per cent from 5.25 to 4.75 per cent. The news release accompanying the *Statement* is reproduced in Appendix 3.

21 December Production GDP figures were released showing that the New Zealand economy grew by 0.2 per cent in the September quarter.

2002

17 January CPI statistics were released for the December quarter showing that the CPI increased by 0.6 per cent over the quarter, and 1.8 per cent over the year to December 2001.

23 January At the intra-quarter review, the Reserve Bank left the Official Cash Rate unchanged at 4.75 per cent. The accompanying news release is reproduced in Appendix 3.

Appendix 2

Companies and organisations contacted by RBNZ staff during the projection round

Air New Zealand Limited	Milburn New Zealand Ltd
Auckland International Airport Limited	Nelson Pine Industries Ltd
Barfoot and Thompson Limited	New Zealand Tourism Board
Bay of Plenty Fruitpackers Association Ltd	New Zealand Wool Board
Christchurch International Airport Limited	Paper Plus New Zealand Ltd
Destination Queenstown	Ports of Auckland Limited
Downer Construction (NZ) Ltd	Port of Tauranga Ltd
Employers & Manufacturers Association (Northern) Inc.	Prepared Foods Limited
Federated Farmers of New Zealand Inc	Real Estate Institute of New Zealand
Fisher & Paykel Appliances Limited	Restaurant Brands New Zealand Limited
Fletcher Building Limited	Retail Merchants Association of New Zealand Inc
Fonterra Co-operative Group Ltd	Sealord Group Ltd
Harcourts Group Limited	The Warehouse Limited
Interlock Industries Group Limited	Wenita Forest Products Ltd
Kirkcaldie & Stains Ltd	Wrightson Limited
L.V. Martin & Son Limited	- <i>plus a number of government departments, economic re- search agencies, and industry organisations.</i>
Mainfreight Limited	
Registered Master Builders Federation of New Zealand Incorporated	

Appendix 3

Reserve Bank statements on monetary policy

Official Cash Rate cut to 4.75 per cent

14 November 2001

The Reserve Bank today cut the Official Cash Rate by half a per cent from 5.25 per cent to 4.75 per cent.

Reserve Bank Governor Don Brash commented "A good deal has changed since our last assessment in August. Even before the tragic events of 11 September, the world economy was slowing quite rapidly. The events of 11 September exacerbated that slowdown by dealing a blow to business and consumer confidence around the world, and led us to cut interest rates by half a per cent on 19 September.

"The slowdown in the international economy is already affecting the New Zealand economy and will continue to do so. Export prices are now falling across a wide front, while nervousness about air travel is having an adverse impact on the growth of tourism. Business confidence has declined markedly, and we are expecting investment spending to slow. The economy has already slowed quite sharply and is likely to continue growing rather slowly in the immediate future. This will exert downwards pressure on inflation.

"New Zealand enters this period of slow international growth in a relatively strong position with demand pressures on productive resources still evident in some areas. However, the slowdown in growth expected over the coming year should see these pressures abate, with inflation expected to fall back to around the middle of the target band.

"Monetary policy is now set to accommodate quite a bit of additional weakening in the global environment. That reflects our judgement about the risks that lie ahead. But the uncertainty in the present situation is very considerable, and it is not inconceivable that the current slowdown will prove to be short-lived.

"We will be monitoring all of the information as it becomes available, and will be constantly vigilant as to the outlook for inflation," Dr Brash concluded.

The Reserve Bank is next scheduled to review the Official Cash Rate on 23 January 2002.

OCR unchanged at 4.75 per cent

23 January 2002

The Reserve Bank today left the Official Cash Rate unchanged at 4.75 per cent.

Reserve Bank Governor Don Brash commented "This decision reflects a balancing of risks between a domestic economy that seems rather more buoyant than we expected at the time of the November 2001 *Monetary Policy Statement* and continuing weakness offshore.

"As expected in November, growth in the economies of our trading partners has continued to be sluggish. Notwithstanding a widespread expectation that a global recovery is imminent, there remains a material risk that the situation could deteriorate further. The outlook in Japan is of particular concern. Commodity prices for New Zealand's exports have fallen quite substantially, and rather earlier than expected.

"However, domestically, a combination of factors suggests that activity is currently running quite strongly. Consumer spending appears more buoyant than expected previously, and indications are that business investment is also holding up better than expected. The housing market has strengthened in recent months, and the labour market continues to be relatively tight. As

foreshadowed in November, CPI inflation for the year to March 2002 is likely to be well above 2 per cent, which would become a concern if any resultant increase in inflation expectations were reflected in price and wage setting behaviour.

“These factors are pushing inflation in opposite directions. In the weeks and months ahead, the Bank will be watching closely to detect which set of pressures is beginning to predominate,” Dr Brash concluded.

Appendix 4¹

Summary tables

Table A
CPI inflation projections and monetary conditions
 (CPI is in percentage changes)

		CPI* Quarterly	CPI** Annual	TWI	90-day bank bill rate
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	First Half Average	³ / ₄	3	51 ¹ / ₂	5 ¹ / ₄
	Second Half Average	1/2	2 ³ / ₄	52	6
2003	First Half Average	1/2	2	53 ¹ / ₄	6 ¹ / ₄
	Second Half Average	1/2	1 ³ / ₄	54 ¹ / ₄	6
2004	First Half Average	1/2	2	55 ¹ / ₂	5 ³ / ₄
	Second Half Average	1/2	1 ³ / ₄	56 ¹ / ₄	5 ¹ / ₂

⁽¹⁾ Notes for these tables are in Appendix 5.

* This series is quarterly underlying inflation until the September quarter 1997, quarterly CPIX inflation 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 CPIX inflation 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	3.8	2.3	2.2	4.0	1.6	2 1/2	3	2	2 3/4
Public authority	4.9	1.7	8.2	-1.1	4.9	-2.2	2 1/4	1 1/4	4 1/4	1 1/2
Total	3.9	3.3	3.7	1.4	4.2	0.7	2 1/2	2 1/2	2 1/2	2 1/4
Gross fixed capital formation										
Market sector:										
Residential	0.8	6.1	2.1	-15.1	21.8	-15.9	-1	19	8	3 1/2
Business	15.9	4.2	-3.3	2.7	0.8	7.3	8 3/4	1 1/2	3 1/2	3 1/2
Non-market government sector	7.5	29.6	8.5	-13.5	8.1	-4.2	4 1/2	4 1/4	2	1 1/2
Total	10.8	6.8	-0.7	-3.8	6.5	-0.1	6 1/4	5 1/2	4 1/2	3 1/4
Final domestic expenditure	5.3	4.1	2.7	0.3	4.7	0.6	3 1/4	3 1/4	3	2 1/2
Stockbuilding ⁽¹⁾	-0.1	-0.4	0.0	-0.6	1.4	-0.4	-1/2	1/4	0	0
Gross national expenditure	5.1	3.6	2.6	-0.4	6.1	0.2	2 1/2	3 1/2	3	2 1/2
Exports of goods and services	2.3	4.6	3.5	2.5	6.8	6.8	1 3/4	3 1/4	3 1/4	3 1/4
Imports of goods and services	6.9	6.6	2.8	2.2	11.2	0.4	1/2	4 3/4	5 1/2	3 1/4
Expenditure on GDP	3.7	3.1	2.8	-0.3	4.8	2.1	3	3	2 1/4	2 1/2
GDP (production)	4.1	3.1	1.9	0.4	4.7	2.7	3	2 3/4	2 1/4	2 1/2
GDP (production, March qtr to March qtr)	4.1	1.8	0.4	2.7	5.6	1.0	3 1/2	3	2	2 1/2
Potential output	4.0	3.6	3.0	2.5	2.5	2.6	2 3/4	2 3/4	3	2 3/4
Output gap (% of potential GDP, year average)	1.9	1.4	0.3	-1.8	0.2	0.3	3/4	1 1/2	0	-1/2

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

Appendix 5

Notes to the tables

CPI	Consumers Price Index. Forecasts rounded to the nearest quarter per cent.
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. Forecasts rounded to the nearest whole number.
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</i> , G97/9.
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> .

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	Defined as GDP (production) divided by HLFS hours worked. This series is smoothed by taking a four-quarter moving average.
Wages	Private sector ordinary time average hourly earnings. <i>Quarterly Employment Survey.</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 forecast data is rounded to the nearest half.

Appendix 6

The Official Cash Rate chronology

Date	Change in OCR (basis points)	OCR rate (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

Appendix 7

Policy Targets Agreement

This agreement between the Treasurer and the Governor of the Reserve Bank of New Zealand (the Bank) is made under sections 9 (1) and 9 (4) of the Reserve Bank of New Zealand Act 1989 (the Act), and shall apply for the balance of the Governor's present term, expiring on 31 August 2003. It replaces that signed on 15 December 1997.

In terms of section 9 of the Act, the Treasurer and the Governor agree as follows:

1. Price stability

Consistent with section 8 of the Act and with the provisions of this agreement, the Bank shall formulate and implement monetary policy with the intention of maintaining a stable general level of prices, so that monetary policy can make its maximum contribution to sustainable economic growth, employment and development opportunities within the New Zealand economy.

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 12-monthly increases in the CPI of between 0 and 3 per cent.¹

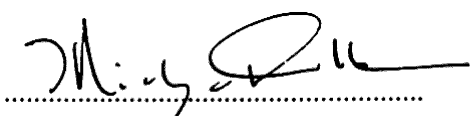
3. Unusual events

- a) There is a range of events that can have a significant temporary impact on inflation as measured by the CPI, and mask the underlying trend in prices which is the proper focus of monetary policy. These events may even lead to inflation outcomes outside the target range. Such disturbances 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 shall react in a manner which prevents general inflationary pressures emerging.

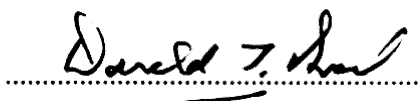
4. Implementation and accountability

- a) The Bank shall constantly and diligently strive to meet the policy target established by this agreement.
- b) It is acknowledged that, on occasions, there will be inflation outcomes outside the target range. On those occasions, 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 comes back within that range.

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- c) 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.
- d) The Bank shall be fully accountable for its judgments and actions in implementing monetary policy.



Hon Michael Cullen
Treasurer



Donald T Brash
Governor
Reserve Bank of New Zealand

DATED at Wellington, this 16th day of December 1999

¹ Statistics New Zealand introduced a revised CPI regime from the September quarter, 1999. Until the June quarter 2000, 12-monthly increases in the CPI will be calculated by comparing the new CPI series with the old CPI series adjusted by removing the impact of changes in interest rates and section prices. This adjustment is calculated by Statistics New Zealand. (Refer to the RBNZ's November 1999 *Monetary Policy Statement*, p 8, for details.)