Monetary Policy Statement[1]

May 1999

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

Contents

This document is also available on the Reserve Bank's website (http://www.rbnz.govt.nz).

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[1] Projections finalised on 5 May 1999. Overview and policy assessment finalised on 18 May 1999.

1 Overview and policy assessment

The Bank has decided to leave the Official Cash Rate at 4.50 percent. This decision is based on our current assessment of the likely degree of inflation pressure over the next one to two years, which is substantially unchanged from that outlined in the March *Statement*.

Our projections continue to suggest economic activity growing at around 0.7 to 0.8 percent per quarter – or about 3 percent per annum – with a mild pick-up in momentum towards the end of this year and beyond. The projected growth is still largely domestically-led, although a brighter outlook for export activity is also anticipated. The *Consensus* outlook for growth in our major trading partners has changed little since March, but global financial markets have stabilised and there appears less risk of further financial turmoil in the near future.

We estimate that the moderate growth rates which we project will absorb the current spare capacity over the next two years or so. However, as long as material spare capacity continues to exist in the economy, it will place downward pressure on general inflation. As a result, the Bank will continue to stimulate the economy with fairly easy monetary conditions.

Against the background of generally low inflation, we expect a number of one-off price increases to result in higher CPIX inflation in the second half of this year. It is our assessment that these price shifts are unlikely to precipitate generalised inflation pressures. Consequently, we do not regard it as appropriate for monetary conditions to respond. Monetary policy instead remains focused on the medium-term trends in general inflation pressure.

Since the initial setting of the Official Cash Rate on 17 March, the New Zealand dollar has appreciated by around 6 percent, leading to a firming in monetary conditions. This latter development, all other things equal, would suggest reducing the Official Cash Rate. Obviously, if the recent firming of conditions proves to be persistent, and not well-justified by the emerging data, the Bank may have to look at reducing the Official Cash Rate in the future.

Right now, though, caution appears warranted. The factors driving the recent rise in the currency are unclear. If the appreciation proves temporary, or if, perhaps, it reflects an expectation in the market of stronger trading-partner growth that is subsequently justified, a reduction in the Official Cash Rate now might soon have to be reversed. On balance, it thus appears prudent to wait, leaving the OCR unchanged, and to continue to monitor relevant information as it comes to hand.

The key risks surrounding our inflation outlook remain a stronger-than-expected rebound in household spending, and possibly weaker-than-expected growth in New Zealand's trading partners. As always, we stand ready to adjust the stance of monetary policy as appropriate, in the light of emerging information about medium-term trends in inflation.

Donald T Brash
Governor

Figure 1
Consumer price inflation
(annual percentage change)

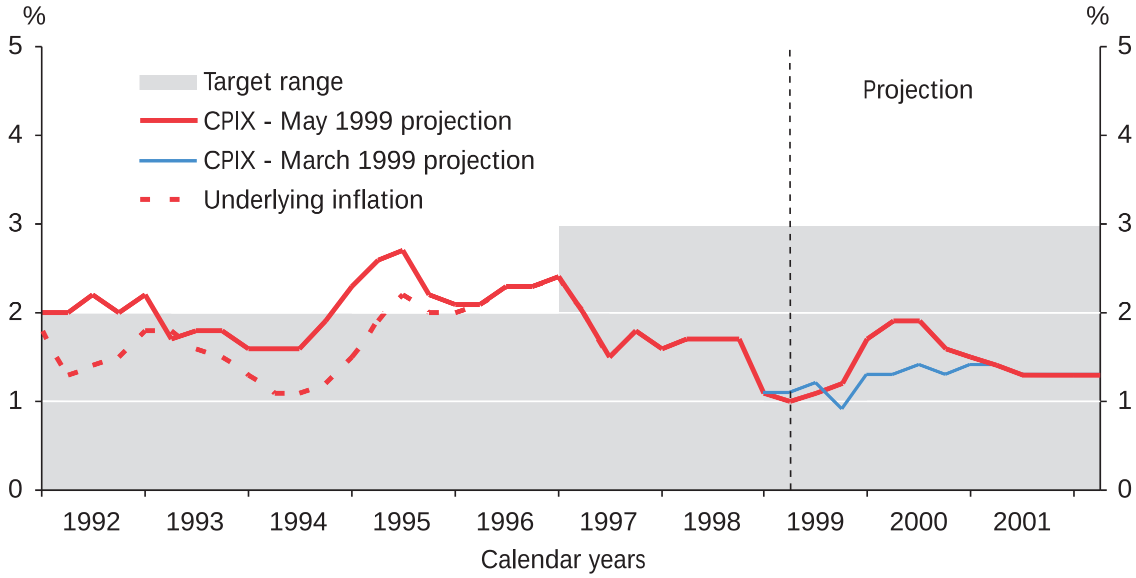


Table 1

Summary of economic projections

(Annual percentage change, unless specified otherwise)

	Actuals		Projections		
March year	**1998**	**1999e**	**2000**	**2001**	**2002**
Price measures					
CPIX	1.7	1.0	1.9	1.4	1.3
Wages	2.6	2.6	2.4	2.8	2.8
Import prices (in New Zealand dollars)	2.9	2.2	0.7	0.3	0.7
Export prices (in New Zealand dollars)	4.9	-0.5	-0.1	0.9	1.2
Monetary conditions					
Nominal MCI (year average)	700	-50	-100	-75	0
90-day rate (year average)	8.0	6.2	4.6	4.8	5.4
TWI (year average)	64.4	57.3	58.8	58.7	58.9
Output					
GDP (production, annual average % change)	2.0	-0.2	2.9	3.3	3.9
Output gap (% of potential GDP, year average)	0.5	-2.0	-1.4	-1.0	-0.2
Key balances					
Government operating balance (% of GDP, June year average)	2.6	1.8	-0.4	-0.1	0.5
Current account balance (% of GDP, year average)	-6.6	-6.5	-7.1	-6.0	-5.3
Terms of trade (annual average % change)	-0.6	-0.1	-2.9	0.6	0.7
Unemployment rate (March qtr. s.a.)	7.1	7.7	7.5	7.1	6.4
Household savings rate (% of disposable income)	-0.2	0.0	-0.3	0.1	1.2
World economy					
World GDP (annual average % change)	3.1	0.8	2.1	2.6	2.7
World CPI inflation	2.4	1.1	1.6	1.9	1.9

Quarterly projections	**Dec-98**	**Mar-99**	**Jun-99**	**Sep-99**	**Dec-99**
(quarterly percentage change, unless specified otherwise)					
CPIX	-0.1	0.2	0.4	0.7	0.4
CPIX (annual percentage change)	1.1	1.0	1.1	1.2	1.7
GDP (production, s.a.)	0.7	0.7	0.8	0.7	0.8

e = estimate
s.a. = seasonally adjusted
Notes for this table is in Appendix 4

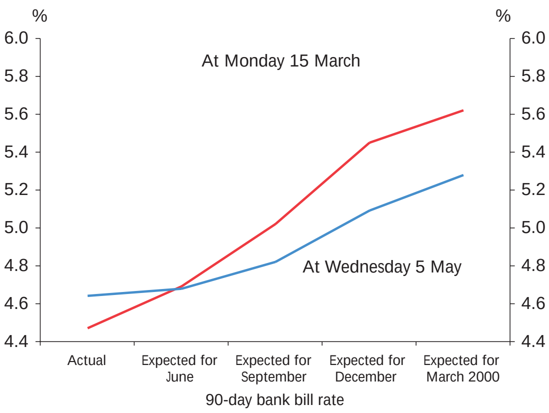
2 Implementation of monetary policy

With the release of the March 1999 *Monetary Policy Statement*, the Bank commenced using an Official Cash Rate (OCR) as the formal tool for monetary policy implementation. This chapter discusses financial market developments since the OCR was introduced, and presents a preliminary assessment of the new implementation regime.

Financial market developments since the March *Statement*

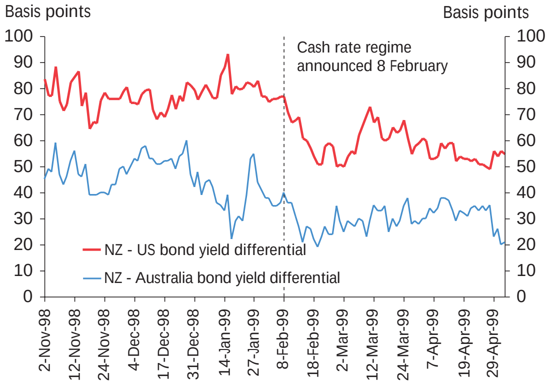
Although the first OCR setting of 4.5 percent in March was at the upper end of market expectations, the Bank's projected forward path for the MCI was flatter than anticipated. The financial market's reaction to the higher-than-expected OCR was immediate, with short-term interest rates rising. However, forward 90-day rates declined in response to the Bank's projections suggesting little need for a shift in policy over the rest of 1999. In the period since the March *Statement*, forward rates have continued to decline, although a rise in the OCR is still anticipated on average by the market by the end of 1999 (see Figure 2).

Figure 2 Current and expected 90-day bank bill rates



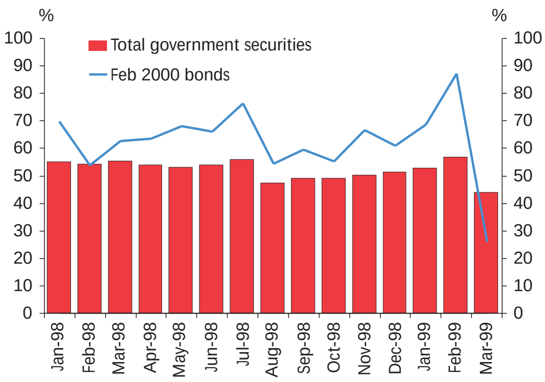
Longer-term interest rates have also been reasonably stable, with New Zealand government bond yields generally continuing to follow developments in the US and Australian bond markets. However, differentials between New Zealand yields and offshore yields fell in the days following the change to the new implementation regime (see Figure 3).

Figure 3 10-year government bond yield differentials



Domestic buying of bonds has increased strongly, resulting in a fall in total non-resident holdings. The bulk of the fall was driven by higher domestic holdings of the February 2000 bond (see Figure 4). Since late March, high demand for that bond has pushed its yield significantly out of line with the rest of the bond curve. Year 2000 (Y2K) liquidity concerns could be pushing up demand for this bond, as it provides a highly liquid security maturing in the early part of next year.

Figure 4 Non-resident holdings of the February 2000 bond and total government securities

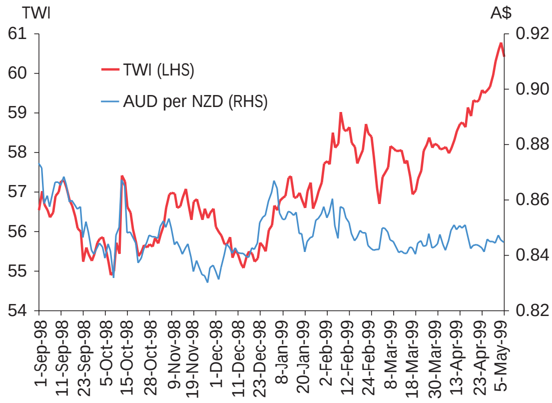


Y2K liquidity concerns have the potential to cause disruption in financial market behaviour and the availability of credit as the new year approaches. In order to minimise the risks of such disruption, at the end of April the Reserve Bank announced special contingency measures to ensure that the banking system has access to ample liquidity at the year's end.[1]

[1] Details of the announcement are available on the Bank's website: http://www.rbnz.govt.nz.

Since the March *Statement*, the trade-weighted exchange rate (TWI) has appreciated by around 6 percent, leading to a rise in the MCI of some 300 points. Several factors, some temporary and some more persistent, could explain this rise in the exchange rate. For example, the recent sale of Contact Energy – in part to offshore parties – has led to a short-term increase in demand for New Zealand dollars. At the same time, the New Zealand dollar has followed movements in the Australian and Canadian dollars closely, with little change in the bilateral exchange rate with Australia, in particular, over the past two months (see Figure 5).

Figure 5 NZ TWI and the NZ/Australian bilateral exchange rate



It is fairly common for foreign exchange markets to trade the Australian and New Zealand dollars together, at least until some country-specific event occurs. The key factor underpinning the recent appreciation of the Australian dollar appears to have been a growing perception in financial markets that commodity prices may soon begin rising. That perception itself appears to be based on a view that the outlook for Asian economies, and for the global economy more generally, has improved.

It is too early to say whether the New Zealand dollar appreciation will be sustained. Some commodity price indices appear to have reached a trough, but only crude oil prices have recovered markedly (with that recovery apparently largely attributable to supply cuts, rather than expectations of stronger demand). Moreover, those commodities that New Zealand exports in quantity – timber and pastoral products – have not been performing as well as commodities such as base metals that are more relevant to Australia. *Consensus* forecasts for Asian growth have also not changed markedly since the March *Statement*. Consequently, it is not clear whether, or to what extent, the recent strength of the New Zealand dollar will be sustained.

Since the March *Statement*, international financial markets have continued to stabilise. Sentiment towards emerging markets has improved considerably. In the US, equity prices have risen further and the domestic economy has shown continued strength. Following a gradual, but steady ascent during April, the Dow Jones Industrials price index broke through the 11,000 level in early May – apparently buoyed by growing expectations of continued growth. There remains little sign of inflationary pressure in the US, suggesting that monetary policy will be left unchanged over the near term.

Elsewhere, central banks have generally continued to loosen monetary policy. The Monetary authority in the United Kingdom cut its official rate by 25 basis points, while the European Central Bank (ECB), Switzerland, Canada and Norway cut their official rates by 50 basis points. Meanwhile, the new euro currency has depreciated over 10 percent against the US dollar since the beginning of the year, reflecting a weaker growth outlook, official rate cuts, and the Kosovo conflict.

Financial market behaviour since the introduction of the OCR

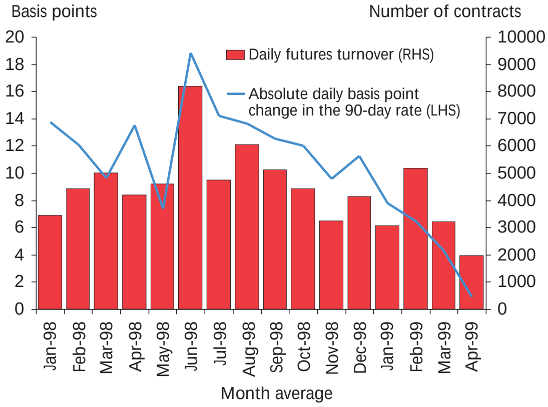
Since the introduction of the cash rate regime we have observed some marked changes in financial market behaviour, generally as expected. Although it is too soon to draw definitive conclusions, a preliminary assessment can be made.

Over the two months since the introduction of the OCR, a closer relationship between the 90-day bank bill rate and the cash rate has, as expected, been apparent. Since the March *Statement*, the difference between the cash rate and the 90-day bank bill rate has been around 15 basis points. Previously – even when there was no strong expectation of a change in the stance of monetary policy – the gap was routinely 100 points or more. With a tight relationship between the cash rate and the rest of the bill curve, traders now actively price assets off current and expected future cash rates.

Volatility in short-term interest rates has also declined considerably (see Figure 6). Since 17 March, 90-day bank bill rates have changed on average less than 2 basis points each day, down from an average of around 12 basis points in 1998. This reduced volatility appears to have reduced activity in the bank bill market and the related forward and futures markets. Overall turnover in the futures market has declined (see Figure 6), and remaining activity has moved to the longer-dated contracts.

Since the introduction of the OCR, we have also observed much weaker negative day-to-day correlation between the TWI and short-term interest rates. That is, short-term interest rates no longer rise immediately when the exchange rate falls, and vice versa. As expected, volatility in the TWI has not changed markedly since the introduction of the new regime.

Figure 6 90-day bank bill volatility and 90-day bank bill futures turnover



3 Demand

Overview

Our medium-term outlook for overall economic activity is very similar to that in the March *Statement*. We continue to see growth in New Zealand's trading-partner economies recovering gradually from low levels, with weak commodity prices persisting for some time. Domestically, recent developments in general economic activity have been very close to expectation. The easing of monetary conditions that began in December 1996 (see Figure 7) appears to be supporting growth in household and firm expenditure and net exports, in the face of slowing disposable income growth and sluggish final demand. Although surveyed business and consumer confidence is at high levels, direct indicators of activity are more subdued. On the weight of the evidence, we expect overall growth to continue at a moderate rate of around $^{3}/_{4}$ percent per quarter over the near term, and then to pick up to slightly higher rates further out.

Figure 7 Real MCI
(December 1996 quarter = 1000)

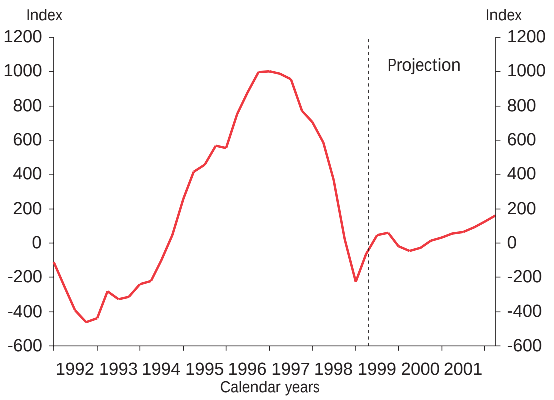
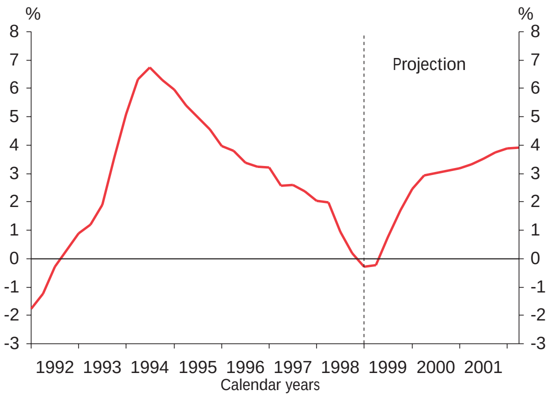


Figure 8 Real GDP
(annual average percentage change)



Trading partner economic outlook

The growth outlook for New Zealand's trading partners has remained stable overall since November. US and Australian economic indicators have generally continued to show surprising strength, and European growth looks likely to trough this year. There have been further tentative signs of recovery in the Asian countries worst-affected by the crisis of 1997 and 1998, and progress is being made on financial stabilisation in Brazil.

Despite this good news, and a growing sense that the world economic environment is becoming more robust, concerns remain about prospects for particular countries. US equity market indicators continue to reach new highs, and a correction from these heights could result in sharply slower US consumption growth, at a time when overall US growth is becoming ever more reliant on strong household spending.

Also, although the Japanese economy appears to have stabilised, largely as a result of substantial fiscal stimulus, private investment and consumption remain weak. The *Consensus* view is that Japan will succeed in arresting its recession this year. Although our assessment is that this view is reasonable, it is also clear that *Consensus* anticipates no quick turnaround in Japan's economic performance. We also see some downside risk to the *Consensus* expectation of China's growth continuing at high rates: China faces the difficult problem of maintaining domestic demand growth while addressing internal structural problems.

One recent major development in the world economic outlook of direct relevance to New Zealand has been the rise in world oil prices, from around US$10 per barrel (Dubai blend) at the start of March to around US$16 per barrel at the time of writing. This rise has been largely triggered by an OPEC-driven agreement on supply cuts. There is little sign yet of a generalised commodity price recovery, although some base metal prices have also begun to rise (see Figure 9 opposite).

Rising oil prices have increased to some degree the risk of a rise in US inflation. This risk has been present for some time due to the tight state of the US labour market, but encouragingly, generalised inflationary pressure appears still to be fairly muted.

Figure 9 US dollar commodity price indices[2]

(January 1992 month = 100)

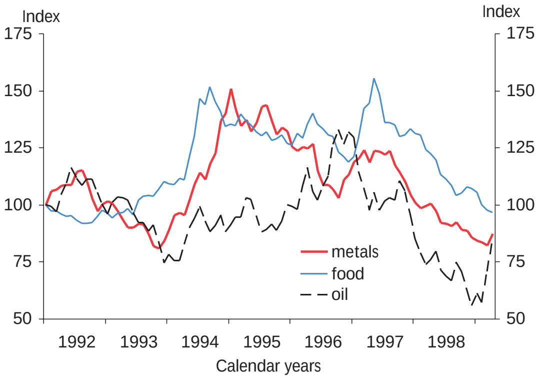
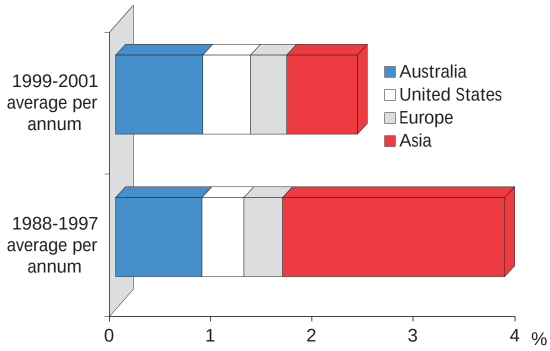


Figure 10 Regional contributions to trading-partner growth[3]



In summary, it remains our view that trading-partner growth will drive the pick-up in New Zealand economic activity rather less than it did in the recovery following the 1991-92 recession. As Figure 10 shows, growth in New Zealand's major trading partners over the next three years is expected to be much lower than its average over the ten years to 1997, and the world prices of New Zealand's commodity exports are expected to remain weak for some time.

Exports

Recent data suggest that export volume growth is returning, but the recovery is gradual and remains rather patchy. Despite the real exchange rate having been at stimulatory levels for some time, demand from key trading partners in Asia and Europe remains weak, and a continuation of adverse weather conditions is hampering the supply of pastoral exports, compounding the effects of weak world commodity prices on farm profitability.

Table 2
Trading partner GDP projections[4]

(calendar year annual average percentage change)

Country	**1998e**	**1999p**	**2000p**
Australia	4.9	3.3	3.2
United States	3.9	3.4	2.3
Japan	-2.8	-1.2	0.1
United Kingdom	2.1	0.6	2.0
Germany	2.5	1.6	2.6
Italy	1.4	1.5	2.4
France	3.2	2.3	2.7
China	7.8	7.2	7.2
Hong Kong	-5.1	-1.1	2.0
Indonesia	-13.7	-3.8	2.1
Malaysia	-6.7	0.9	3.2
South Korea	-5.8	3.2	4.2
Taiwan	4.8	4.3	4.8
Thailand	-8.0	0.5	3.0
14 country index	*0.8*	*1.9*	*2.5*

2 Sources: *The Economist*, Datastream.

3 Bars indicate the proportion of total trading-partner growth attributable to each region.

4 Based on *Consensus Forecasts* released in April.

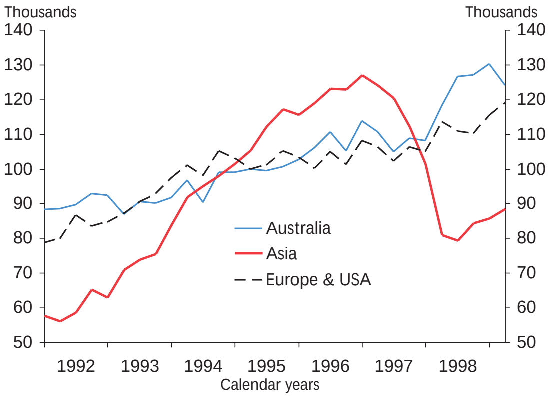
Tourism has been a notable bright spot. In particular, the number of visitors from the US, Australia, and the EU continues to grow strongly (see Figure 11). The number of visitors from Asia, too, is beginning to turn around from its low reached last year, as domestic economic conditions improve in countries such as Korea.

Volumes of goods exports, on the other hand, appear in recent months to have leveled off, after a brief recovery in the second half of last year. Pastoral exports in particular have been weak, constrained by poor supply conditions. We discuss New Zealand's recent export experience in more detail in the Box.

Over the projection period, export volumes are expected to grow at a modest pace, as overall trading-partner demand growth recovers gradually, and the lingering effects of drought and livestock health problems continue to constrain supply.

(continued on p13)

Figure 11 Visitor arrivals, by region
(quarterly seasonally adjusted)

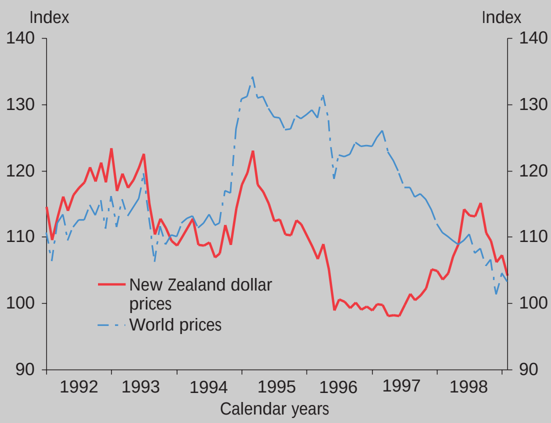


Box: New Zealand's recent export experience

Over the recent past, the export sector in New Zealand has been under strain. The overall growth of New Zealand's trading partners has slowed sharply, key markets have been disrupted by financial problems, and drought has afflicted large parts of New Zealand for two consecutive seasons. In this Box, we look at various ways in which these events have affected exporting industries. The results of our analysis suggest that those factors which could be expected to be temporary – in particular, financing constraints in key markets – have indeed turned around, while the longer-lasting effects of drought and weak commodity prices continue to take their toll. The effects of changed relative competitiveness will take some time to appear in changed patterns of trade to different countries.

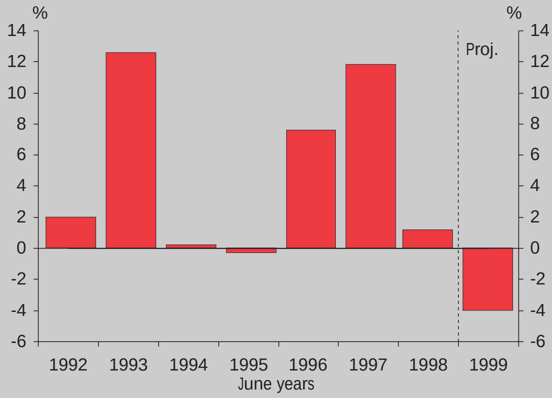
Between mid-1997 and the end of 1998, the value of New Zealand merchandise exports grew by only around 5 percent, despite a depreciation of roughly 15 percent on the TWI over the same period. This weakness was due largely to falling international prices for New Zealand's exports, which until recently have been largely offset by New Zealand dollar depreciation. Figure 12 shows that world prices for New Zealand's major export commodities have been falling steadily for the past four years.

Figure 12 ANZ commodity price indices[5]
(July 1986 month = 100)



This weakness in world commodity prices has exacerbated the impact on farm incomes of low production. New Zealand farming suffered another bout of adverse weather this season, with meat, wool and dairy production hit by drought (see Figure 13).

Figure 13 Dairy production – milk solids[6]
(annual average percent change)



Compounding the effects of the recent drought, warm and wet conditions in much of the North Island have left livestock in poor condition. Our industry contacts report that, in particular, the high incidence of facial eczema may contribute to a reduction of dairy production in the 1999/00 season. Latest forecasts by the National Centre for Climate Monitoring and Prediction indicate a continuation of La Niña weather conditions over the next six months. This typically implies wetter-than-average conditions in the North Island, and drier- than-average conditions in the South Island. As a result, pastoral production and exports are expected to remain weak for some time, especially given the lower number of breeding stock currently carried (see Figure 14 overleaf).

Since the second half of 1998, growth in volumes of non-pastoral exports has more than offset weakness in pastoral exports. Overall exports of goods and services grew by 7 percent in the second half of last year, after a fall of 4 percent in the first half. In particular, forest product export volumes grew strongly, as the Korean economy recovered from its fi-

5 The ANZ commodity price indices measure the prices of the commodities that New Zealand exports, in foreign currency and domestic currency terms.

6 Source: New Zealand Dairy Board.

Figure 14 Stock numbers – sheep and cattle[7]

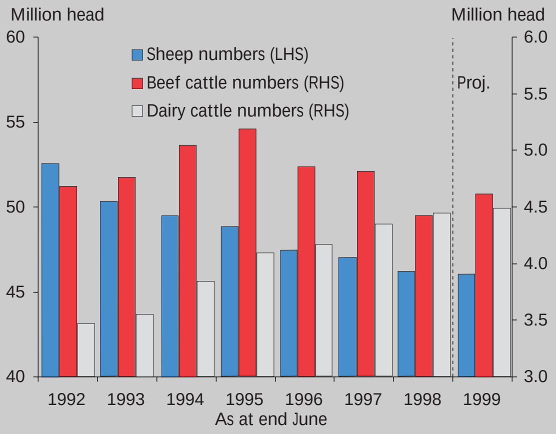


Figure 15 Export volumes of forest products, beef, and lamb

(quarterly seasonally adjusted; March quarter 1997 = 100)

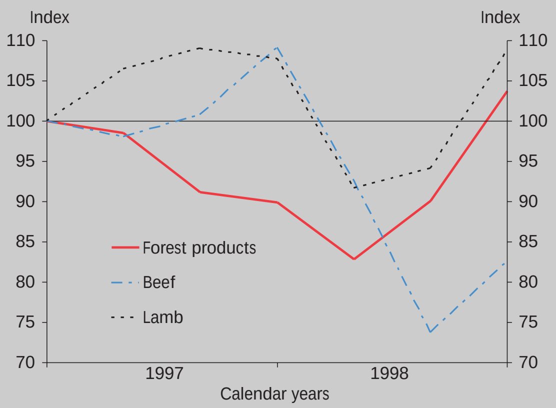
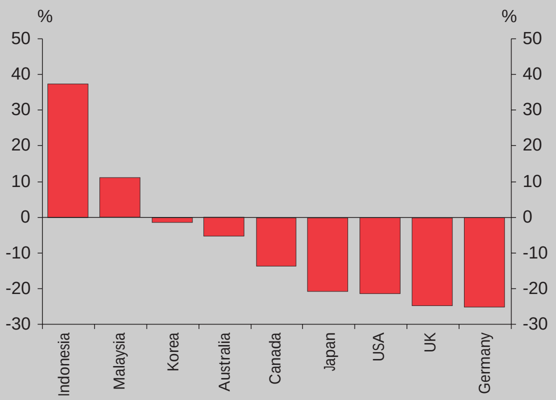


Figure 16 Real exchange rate movements against selected countries[8]

(percentage change between June 1997 and December 1998 quarters)



7 Source: Meat and Wool Economic Service

8 Source: IMF. Real exchange rates calculated using relative CPIs..

nancial crisis of early 1998 (see Figure 15). As discussed in the text, visitor arrivals also grew strongly, and this growth should continue this year in the lead-up to special events such as the America's Cup, millennium celebrations, and the Sydney Olympics.

However, indications are that overall export volume growth has slowed slightly since the end of last year. As we look ahead, it seems likely that the patchy performance of the export sector will continue for some quarters. Although the temporary effects of trade-financing difficulties on the forestry sector now look to have been resolved, the trading-partner economic environment remains fairly weak, and unfavourable weather continues to take its toll on pastoral production.

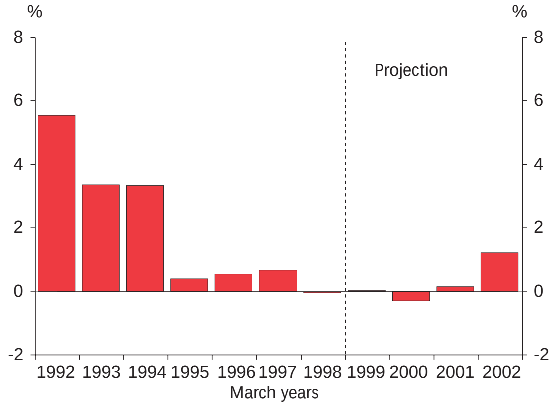
The depreciation of the New Zealand dollar against the currencies of the US and Europe has boosted growth in tourism from those countries, and that stimulus appears likely to continue for some time. Manufactured export volumes have yet to respond in a major way, as the bulk of those exports are sold into Australia, against whose currency the New Zealand dollar has been stable. Against New Zealand's Asian trading partners, the New Zealand dollar has actually *appreciated* (see Figure 16), with this implied fall in competitiveness exacerbating the adverse effect of low demand. It will be some time before the effects of these movements in relative competitiveness appear in changed export patterns.

Household expenditure

Recent information suggests that the pick-up in consumption growth and housing market activity in the second half of last year may be abating, as the stimulatory effects of the removal of car tariffs, tax cuts, the AMP demutualisation, and sharp falls in mortgage rates wear off. Trend growth in retail sales and house sales is slowing, and our business contacts report demand growth softening a little in recent months.

We expect continued moderate growth in household consumption and residential investment over the medium term. Real disposable income is projected to grow at fairly modest rates through the projection period, with consumption growth matching fairly closely. As a result, the household savings rate is expected to remain fairly flat at its current low levels (see Figure 17).

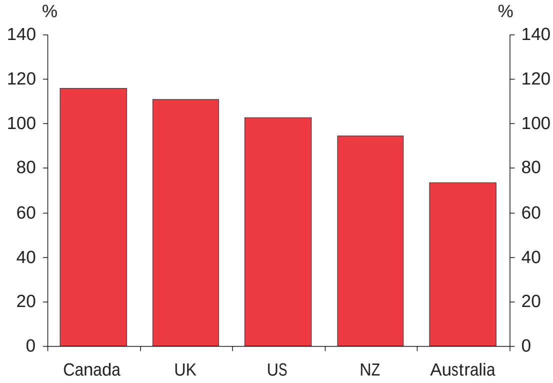
Figure 17 Household savings rate
(percentage of disposable income)



The debt-to-disposable income ratio of New Zealand households has now risen to a level similar to that in comparable countries (see Figure 18). To the extent that the 1993-97 consumption surge was driven by the 'catch-up' of household debt to levels comparable to those in other countries, consumption growth in the period ahead may be more restrained. Moreover, the growth in net household wealth seen in 1993-97 appears now to have tailed off (see Figure 19), further acting to restrain consumption growth over the projection period.

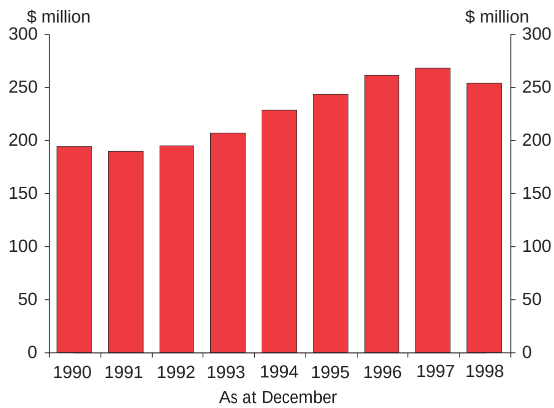
The fall in interest rates last year significantly changed the rates of return households can earn on some of the saving options that are open to them. Our industry contacts report that households are actively pursuing savings vehicles perceived to offer higher yields: flows into commercial property syndicates and managed funds, for example, are growing strongly, while saving in banks is flat.

Figure 18 Household debt-to-disposable-income ratios
(as at end of 1997 calendar year)[9]



We expect residential building activity to continue to recover gradually through 1999. In our assessment there remains little pressure to build new dwellings, despite the low level of mortgage interest rates. Substantial net emigration – currently running at an annual rate of almost $^1/_2$ a percent of the population – continues, and the incentive to build created by strongly rising house prices is absent.

Figure 19 Net household wealth[10]



9 Source: OECD (Canada, UK, and US), RBNZ (New Zealand), and Reserve Bank of Australia (Australia).

10 Source: RBNZ.

Business investment

Business investment was flat through the middle of 1998, but strengthened later in the year, and indications are that the mild recovery in investment is continuing (see Figure 20). As demand recovers further this year, we expect investment to rise in order to ease emerging capacity constraints. Re-stocking is also expected to contribute to demand growth this year, as firms reverse the substantial de-stocking seen last year during the economic trough (see Figure 21).

Figure 20 Real business investment
(quarterly seasonally adjusted)

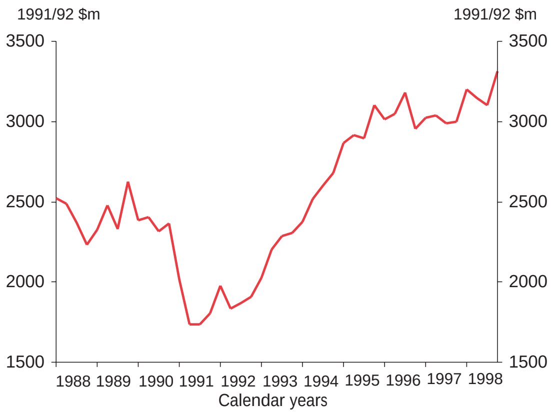
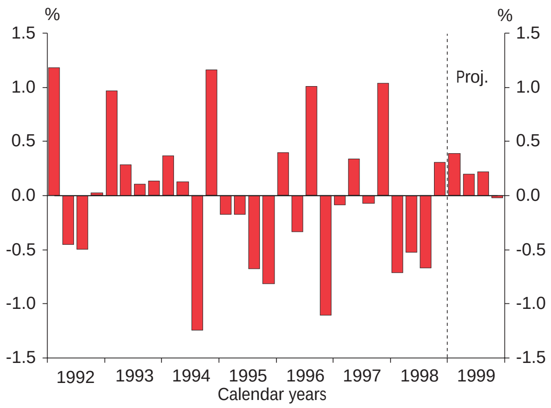


Figure 21 Stockbuilding contribution to quarterly GDP growth
(seasonally adjusted percentage points)



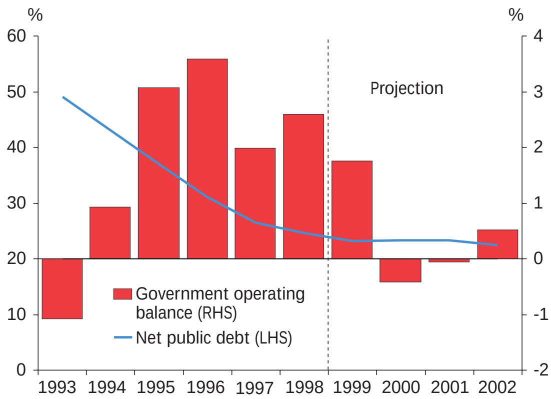
Our business contacts continue to report considerable expenditure on information technology, both hardware and software, only some of which is Y2K-related. Businesses express confidence that their systems are Y2K-compliant. We see no strong reason to make a material adjustment, either upwards or downwards, to our medium-term projection on account of Y2K. However, we may see some moderate stock-building in the fourth quarter of 1999, and some run-down in stocks in the first quarter of 2000, as businesses seek to position themselves for the New Year.

Fiscal outlook

Our fiscal forecasts are based on the Treasury's *December Economic and Fiscal Update*, with adjustments made for differences between respective macroeconomic projections and for the impact that the sale of Contact Energy will have on the government operating balance and on government debt levels.[11]

We expect the government operating balance to remain close to zero throughout the projection period, except for a temporary rise in the surplus this fiscal year as a result of the gain on the sale of Contact Energy. Net public debt is projected to fall to around 23 percent of GDP as at the end of the 1998/99 fiscal year, and to remain at that level through the projection period.

Figure 22 Government operating balance and net public debt
(percentage of nominal expenditure GDP)



As at 30 June (net public debt); year ended June (operating balance).

11 Only the gain on the sale of Contact Energy in excess of its book value will affect the operating balance, while government debt will be reduced by the total sale proceeds, assuming, as we have done, that the Government uses the proceeds to pay off government debt. We have used the announced price of $3.10 per share for the purposes of estimating the effect of the public float on the government accounts.

4 Meeting the demand

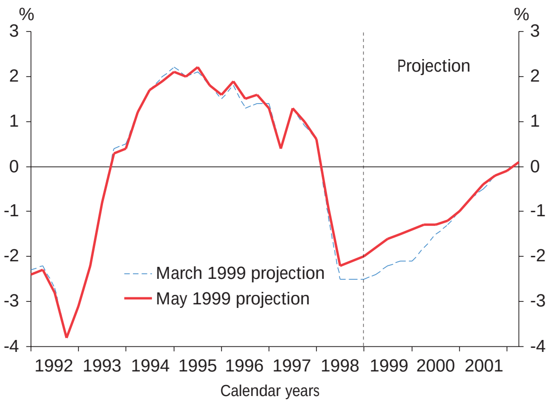
Productive capacity

Although recent data on overall economic activity have been very close to expectation, we now believe there is slightly less spare capacity currently in the economy. We estimate the negative output gap to be about 2 percent of GDP, as against the $2^1/_2$ percent in the March *Statement*. This revision is the result of stronger-than-expected survey data on capacity utilisation, which reduces our estimate of the unused resources in the manufacturing sector.

We continue to project the economy's sustainable growth rate based on the expected growth of productive capital, the labour force, and their overall productivity. As business investment picks up and the net inflow of migrants gradually returns to positive levels through the projection period, we anticipate the sustainable growth rate to rise to around 3 percent per annum. As overall economic activity is projected to grow at a rate a little higher than potential, a gradual absorption of the spare capacity is anticipated (see Figure 23).

The gradual closure of the negative output gap implies diminishing downward pressure on general inflation. Our projection for CPIX inflation is discussed in more detail in the following chapter.

Figure 23 Output gap
(percentage of potential GDP)



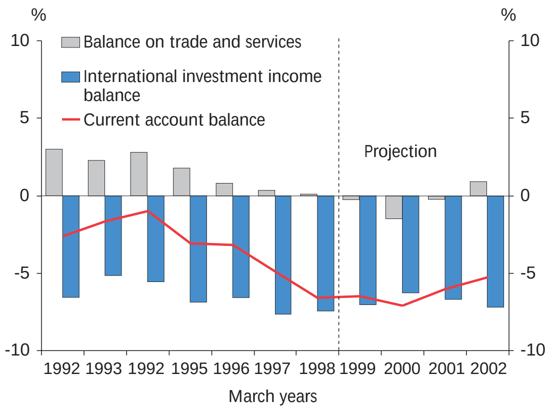
Balance of payments

The latest result for the current account balance showed a fairly sharp improvement in the deficit, to around 6 percent of GDP for the year to December 1998. This improvement was driven largely by the weaker profitability of foreign-owned NZ corporates, and improved returns from NZ-owned firms operating offshore. There was little improvement in the trade and services balances.

Over the near term, the annual current account deficit is likely to return to around 7 percent of GDP, mainly as a result of an expected deterioration in the merchandise trade balance. As discussed in Chapter 3, adverse supply conditions are expected to continue to hamper pastoral export volumes. Imports are projected to pick up with the recovery in domestic expenditure, and the importation of a second frigate will temporarily lift the deficit by around $^1/_2$ a percent of GDP. Finally, the terms of trade have recently deteriorated as import prices have been driven up by the rise in international crude oil prices, and export prices continue to languish.

Over the projection period, the current account deficit is forecast to diminish at a very gradual pace, reaching $5^1/_2$ percent of GDP by the end of the period (see Figure 24). The ongoing, fairly sizeable, deficit reflects our projection that investment by households, businesses and government will in each case continue to run ahead of savings by those sectors, by some margin, over the medium term.

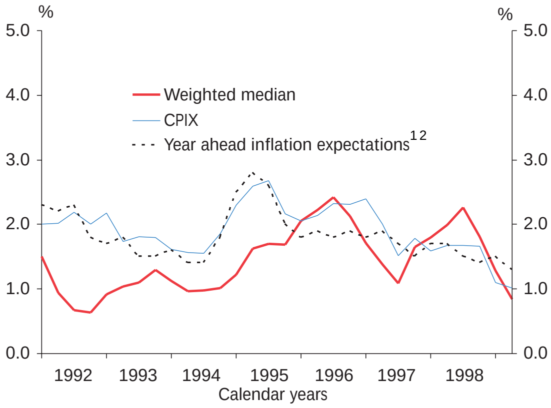
Figure 24 Current account components
(percentage of GDP)



5 Inflation

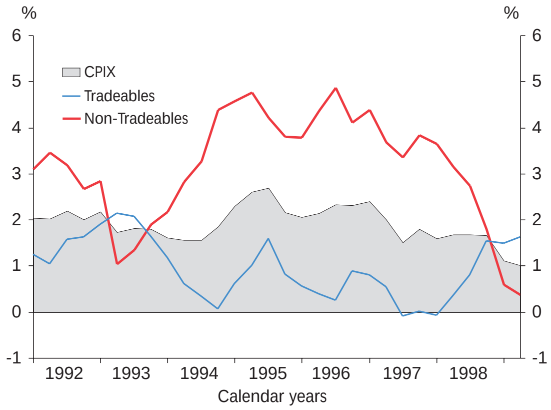
CPIX inflation continues to trend downwards gradually, confirming our assessment that spare capacity has been present in the economy for several quarters. Other factors keeping downward pressure on inflation include increased competitive pressure in certain industries as a result of structural change, and flat-to-falling import and export prices (apart from oil). Alternative measures of consumer inflation, and inflation expectations, show the same downward trend as CPIX (see Figure 25).

Figure 25
Measures of consumer inflation and inflation expectations
(annual percentage change)



The CPIX increased 0.2 percent in the March quarter, taking annual CPIX inflation to 1.0 percent. Tradeables and non-tradeables prices both increased by 0.2 percent for the quarter. Annual non-tradeables inflation, at 0.4 percent for the year to March, is now below tradeables inflation, at 1.6 percent (see Figure 26).

Figure 26 Tradeables and non-tradeables inflation
(annual percentage change)



12 RBNZ survey of inflation expectations.

Notable features of the March quarter CPIX result included the following:

- Housing-related items fell further, reflecting last year's subdued housing market.
- Petrol prices fell again, reflecting increased competitive pressure in petrol retailing.
- Food prices rose sharply, as a result of the summer drought restricting the supply of fresh fruit and vegetables.
- International airfares increased on a seasonally-adjusted basis, consistent with announced increases in trans-Tasman fares.

Near-term outlook

The dominant feature of the near-term CPIX outlook is the one-off price-level increases we expect in local authority rates, and in the prices of electricity and petrol.

- Large increases in local authority rates have been proposed by most of the larger city councils, in most cases because of a government-mandated change in accounting practices requiring that councils budget for depreciation on their fixed assets. As a result, we expect rates as measured by the CPI to increase by around 5.5 percent in the September quarter. This estimate is subject to some risk, as very few proposed rate increases have been settled.
- One of the country's larger electricity retailers recently increased electricity prices by around 11 percent to customers in Wellington, Auckland, and Christchurch. These increases took effect on 20 April.
- We expect large increases in international crude oil prices since the end of March to feed through into retail petrol prices, from around the middle of the June quarter. However, the impact is likely to be dampened to some extent by (1) the fact that the crude oil component is only around 30 percent of the retail price; (2) the recent rise in the value of the New Zealand dollar against the US dollar; and (3) the fact that the rapid *fall* in crude prices last year did not appear to have been passed through fully to retail prices by March this year.

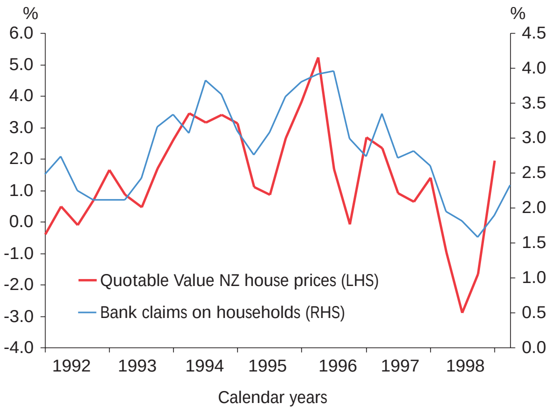
Abstracting from these near-term price-level shifts, we continue to see the trend towards greater competitiveness in the petrol-retailing and electricity industries keeping downward pressure on prices over the medium term.

In addition to these specific shocks, a recent pick-up in housing lending growth, and the return of housing market activity to solid levels, suggest that the prices of housing services will stabilise over the near term, before picking up a little later this year.

The end of the summer drought is expected to ease supply constraints in horticulture, allowing fresh fruit and vegetable prices to fall back.

The large falls in mortgage rates over the past six months have contributed to headline inflation falling below zero for the year to March. As new mortgages and rolled-over existing mortgages continue to be written at lower rates, we expect to see annual headline inflation remain below zero for much of this year. Of course, this development is irrelevant for the stance of monetary policy, which targets CPIX inflation.

Figure 27 House prices and bank claims on households
(quarterly percentage change)



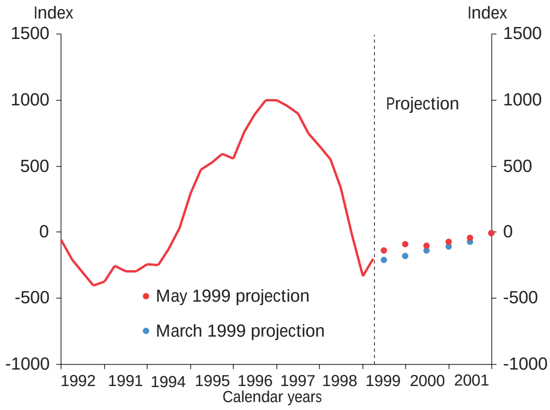
Medium-term outlook

Our medium-term outlook for inflationary pressure remains roughly unchanged from our March *Statement*. We continue to see the balance of inflationary pressure over the medium term as downward. In particular, we do not expect the near-term rise in inflation due to the one-off price-level increases already mentioned to feed into generalised inflationary pressure. Competitive pressure and the slack state of demand are likely to minimise second-round effects.

As the downward pressure on inflation gradually dissipates over the medium term, we project trend CPIX inflation to stabilise around $1^1/_4$ percent per annum.

Given our view of the outlook for inflation, we see stimulatory monetary conditions as appropriate currently and for some quarters ahead (see Figure 28). By about the end of the projection period, we expect the output gap to be close to zero, and the recovery of international commodity prices to have begun. We project monetary conditions to begin gradually tightening a little before this time, anticipating the attenuation of downward pressure on inflation.

Figure 28 Nominal MCI
(December 1996 quarter = 1000)



6 Uncertainties

The projection discussed in the previous chapters is our 'central' projection – in other words, our assessment of the most likely path for the economy given all the information to hand. In this chapter, we discuss the risks that we consider most important for the inflation projection, and therefore for the appropriate path of monetary conditions. Certain areas of the projection are subject to more risk than others, and are therefore more deserving of careful monitoring as events unfold.

The two risks identified in our March *Statement* – that of trading-partner growth turning out weaker than projected, and that of household expenditure growth turning out stronger than projected – remain salient. Our assessment is that the risks around our inflation projection are evenly balanced. In March, the risk of weaker world growth was seen as being due to the possibility that macroeconomic imbalances in the US economy could lead to a sudden slowdown in growth, and due to fragility in Asian and other emerging markets still being present. Since March, US equity prices, already very high compared to earnings, have risen further. As discussed in Chapter 3, although we have seen further encouraging signs of recovery in some Asian countries and financial stabilisation in Brazil, Japan continues to struggle to maintain momentum, and the outlook for China seems subject to some downside risk. We still believe the risk of weaker world economic growth to be material.

Likewise, information since March has offered little indication, supportive or otherwise, of the validity of our view that higher household debt ratios will keep household expenditure growth relatively restrained over the next few years. As discussed in Chapter 3, recent information suggests a slowing in the trend growth rate of household expenditure, but it is still too early to tell whether this slowing will last beyond the near term. Consumer confidence measures continue to run at levels consistent with fairly strong rates of consumption growth.

A third risk to the inflation outlook – though one much less material than those discussed above – arises in connection with the one-off near-term price level increases in certain items expected later this year. As noted in Chapter 5, our assessment is that these relative price movements will not 'spill over' into generalised inflation, because of the current competitive pricing environment. We have therefore set monetary policy so as to 'look through' the temporary rise in inflation, and focus on the medium-term outlook of mild downward inflationary pressure.

However, we are conscious of the risk that inflation expectations may be affected by the observation of a rise in CPIX inflation, or that cost structures in the economy may be so materially lifted that increased generalised inflation is the result. In this circumstance, we would need to tighten monetary policy, relative to the central projection, to contain this generalised inflation.

To monitor this risk, the Bank will pay particular attention to surveyed measures of inflation expectations and pricing intentions, for early warning of potential spillovers. We emphasise, though, that we do not see the risk as material, and doubt that any necessary policy adjustment would be large. Our simulations suggest that, relative to our central projection, a tightening of only 50 to 75 MCI points would eventually be warranted in the event of inflation expectations being influenced by the temporary rise in CPIX inflation, even if the Bank were to take several quarters to recognise that fact.

Appendix 1: Chronology

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

1999

17 March: The Reserve Bank released its twenty-first *Monetary Policy Statement*. The news release accompanying the *Statement* is reproduced in Appendix 2.

26 March: Production GDP figures were released showing that the New Zealand economy grew 0.7 percent in the December 1998 quarter, and fell by 0.3 percent for the year to December 1998.

20 April: The March 1999 quarter CPI was released. The CPIX rose 0.2 percent in the quarter, and rose 1.0 percent over the year to March.

21 April: The Reserve Bank announced that it would leave the Official Cash Rate unchanged at 4.5 percent.

26 April: The Reserve Bank announced that it would ensure that ample liquidity is available if there is a heavy Y2K- related demand for notes at the end of the year, and would lend unsecured if necessary. The statement is reproduced in Appendix 2.

Appendix 2: Reserve Bank statements on monetary policy

The following are reports or texts of official statements on monetary policy issues made by the Bank during the period under review in this *Monetary Policy Statement*.

4.5 per cent

17 March 1999

The Reserve Bank today set the first Official Cash Rate (OCR) at 4.5 per cent.

This came with the release of the March 1999 *Monetary Policy Statement*.

Reserve Bank Governor Don Brash today said: "The domestic economy is now recovering relatively robustly. However, it will be some time before slack built up in the economy over the last year or so has been used up, so downward pressure on inflation will continue for a while yet.

"For this reason, monetary policy can continue to support the recovery, and today's OCR is intended to be broadly consistent with current relatively easy monetary conditions. As well, we do not see any need for a material change in the stance of policy for some quarters ahead.

"There are some important risks. Inflationary pressures could turn out to be stronger if households respond to low interest rates by spending even faster than predicted, largely by taking on more debt.

"On the other hand, a marked slow down in the US economy - perhaps triggered by a fall in US share prices - or further difficulties in Japan would reduce inflation pressures.

"As required by the Policy Targets Agreement, the Reserve Bank will adjust monetary policy with the aim of keeping CPIX inflation above zero and below 3 per cent. The next OCR review will take place on 21 April," Dr Brash concluded.

OCR unchanged at 4.5 per cent

21 April 1999

(no further statement)

RBNZ outlines Y2000 contingency plan

26 April 1999

The Reserve Bank today announced special contingency measures so that the banking system will not be threatened in the unlikely event that there is an extreme demand for cash as Y2000 approaches.

The Reserve Bank has previously put on record that there is no reason for people to take their savings out of banks, but if they do so, the banking sector will cope.

Reserve Bank Deputy Governor Rod Carr said today: "If there is an irrational and extreme demand for cash in the last few weeks of 1999, the Reserve Bank will ensure that there are enough bank notes. In addition, I can announce today that the Reserve Bank will lend, unsecured if necessary, the banks the money to buy those additional bank notes."

Details of these contingency plans to provide credit are attached.

"Releasing these plans provides certainty to the banks and their customers about how the situation will be handled later in the year. The fact that we will be willing to lend unsecured to the banking system is a clear sign of the Reserve Bank's confidence in the soundness of the New Zealand banking system in the Y2000 period," Dr Carr concluded.

Appendix 3: Summary Tables[1]

Table A

CPIX inflation projections and monetary conditions

(CPIX is in percentage changes)

		CPIX	TWI	90-day bank bill rate	MCI	
		Annual			Nominal	Real
1995	Mar.	2.6	59.8	9.4	475	425
	Jun.	2.7	60.8	9.1	525	450
	Sep.	2.2	61.7	9.0	600	575
	Dec.	2.1	61.9	8.5	550	550
1996	Mar.	2.1	64.2	8.7	750	750
	Jun.	2.3	64.6	9.7	900	875
	Sep.	2.3	65.6	10.0	1000	1000
	Dec.	2.4	67.1	8.9	1000	1000
1997	Mar.	2.0	68.4	7.5	950	1000
	Jun.	1.5	68.0	7.2	900	950
	Sep.	1.8	64.8	8.1	750	775
	Dec.	1.6	63.9	7.9	650	700
1998	Mar.	1.7	61.2	9.0	550	575
	Jun.	1.7	58.5	9.1	325	375
	Sep.	1.7	57.1	6.8	-25	25
	Dec.	1.1	56.0	4.6	-325	-225
1999	First Half Average	1.1	58.3	4.5	-150	0
	Second Half Average	1.4	58.7	4.6	-100	25
2000	First Half Average	1.9	58.6	4.6	-100	-25
	Second Half Average	1.5	58.7	4.8	-75	25
2001	First Half Average	1.4	58.8	5.0	-50	50
	Second Half Average	1.3	58.9	5.4	0	100

1 Notes for these tables are in Appendix 4

Table B

World outlook

(Annual average percentage change, unless specified otherwise)

	Actuals						Projections			
March year	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999e**	**2000**	**2001**	**2002**
World GDP	2.7	3.4	4.4	4.1	4.2	3.1	0.8	2.1	2.6	2.7
World CPI inflation	2.7	1.9	2.2	2.4	2.6	2.6	1.4	1.2	1.8	1.9
Domestic										
Import prices	6.7	-2.7	-1.8	-0.7	-3.4	0.8	3.5	-0.3	0.6	0.6
Export prices	9.3	-1.2	-2.1	-2.8	-4.2	0.1	3.4	-3.3	1.3	1.3
Terms of trade	2.4	1.5	-0.3	-2.2	-0.8	-0.6	-0.1	-2.9	0.6	0.7
March quarter										
World 90-day rate (level, %)	3.6	3.7	6.5	5.7	5.5	5.5	5.0	5.0	5.3	5.3
World bond rate (level, %)	6.7	6.2	8.0	6.4	6.8	5.6	5.1	5.3	5.6	5.6

e = estimate

Table C

Composition of real GDP growth

(Annual average percentage change, unless specified otherwise)

	Actuals						Projections			
March year	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999e**	**2000**	**2001**	**2002**
Final consumption expenditure										
Private	0.3	3.4	6.0	4.2	3.8	3.1	1.5	1.8	1.9	2.3
Public authority	3.0	-1.1	-0.7	3.3	2.4	6.4	-1.1	5.9	-1.0	3.0
Total	0.9	2.4	4.6	4.0	3.5	3.7	1.0	2.6	1.3	2.4
Gross fixed capital formation										
Market sector:										
Residential	2.8	17.1	12.2	-0.1	4.0	1.7	-15.8	1.8	4.2	6.1
Business	5.3	20.3	16.1	12.0	2.4	0.1	5.1	8.4	5.8	4.6
Non-market government sector	-3.1	8.5	37.0	14.4	29.8	6.9	-7.2	2.1	4.8	4.9
Total	3.7	18.2	17.2	9.4	6.2	1.5	-1.4	6.2	5.4	4.9
Final domestic expenditure	1.3	5.1	7.0	5.1	4.1	3.2	0.5	3.4	2.2	3.0
Stockbuilding [1]	0.7	1.1	0.0	-0.7	-0.5	0.2	-1.0	0.8	0.3	0.1
Gross national expenditure	2.0	6.2	6.9	4.3	3.6	3.4	-0.5	4.2	2.5	3.1
Exports of goods and services	2.5	7.9	8.4	2.6	3.8	3.6	1.5	4.9	4.1	5.1
Imports of goods and services	7.4	8.0	14.3	7.2	7.0	4.8	2.7	6.2	1.1	2.4
Expenditure on GDP	0.8	6.2	5.3	2.9	2.6	3.0	-0.9	3.7	3.6	4.0
GDP (production)	1.2	6.3	5.4	3.8	2.6	2.0	-0.2	2.9	3.3	3.9
GDP (production, March qtr to March qtr)	2.0	7.0	4.6	3.8	1.2	1.0	1.2	3.1	3.7	3.8
Potential output	1.5	2.8	3.7	3.8	3.3	2.7	2.2	2.4	2.9	3.0
Output gap (% of potential GDP, year average)	-3.0	0.3	1.9	1.9	1.2	0.5	-2.0	-1.4	-1.0	-0.2

e = estimate
[1] Percentage point contribution to the growth rate of GDP.

Table D

Household income and consumption

(Annual average percentage change)

	Actuals						Projections			
March year	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999e**	**2000**	**2001**	**2002**
Compensation of employees	2.4	4.4	6.4	5.9	6.1	3.6	2.0	2.0	4.0	4.6
Entrepreneurial income	-2.4	13.5	8.7	10.6	1.3	2.5	-0.5	3.6	4.0	4.8
Other income	-2.1	3.1	1.9	7.3	4.4	1.4	0.9	3.1	4.0	4.6
Total income	0.3	5.2	5.4	7.0	4.9	2.8	1.3	2.6	4.0	4.6
Less income tax	3.0	6.0	7.2	6.7	1.9	0.6	-5.5	0.6	4.2	4.6
Nominal disposable income	-0.4	5.0	4.9	7.1	5.7	3.4	3.1	3.0	4.0	4.6
Consumption deflator	1.7	1.7	2.0	2.5	1.8	1.0	1.3	1.5	1.6	1.3
Real disposable income	-2.0	3.2	2.9	4.4	3.8	2.4	1.7	1.5	2.3	3.3
Real household consumption	0.3	3.2	6.0	4.3	3.7	3.1	1.6	1.9	1.9	2.2
Household savings rate [1]	3.4	3.3	0.4	0.5	0.5	-0.2	0.0	-0.3	0.1	1.2

e = estimate

[1] Percentage of disposable income.

Table E

Fiscal accounts

($billion)

	Actuals						Projections			
June year	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999e**	**2000**	**2001**	**2002**
Revenue										
Direct taxation	16.6	17.6	19.8	21.3	20.5	21.3	20.5	21.3	22.3	23.6
Indirect taxation	9.2	10.1	10.4	11.0	11.4	11.7	11.8	12.2	12.6	13.1
Non-tax revenue	4.0	2.5	3.4	2.8	2.9	2.6	4.1	2.4	2.5	2.5
Total revenue	29.8	30.2	33.6	35.1	34.8	35.6	36.3	35.9	37.4	39.2
Total expenses	31.4	29.6	30.4	31.7	33.0	34.2	35.5	36.8	37.9	39.1
Revenue less expenses	-1.6	0.5	3.2	3.3	1.8	1.4	0.8	-0.9	-0.5	0.1
Net surplus attributable to SOEs and Crown entities	0.8	0.2	-0.6	0.0	0.1	1.2	1.0	0.5	0.5	0.5
Operating balance	-0.8	0.8	2.7	3.3	1.9	2.5	1.7	-0.4	-0.1	0.6
(% of nominal expenditure GDP)	-1.1	0.9	3.1	3.6	2.0	2.6	1.8	-0.4	-0.1	0.5
Net public debt (as at June 30)	37.1	35.4	32.6	28.6	25.3	24.1	23.1	24.1	25.1	25.3
(% of nominal expenditure GDP)	49.1	43.0	37.0	31.0	26.4	24.6	23.2	23.2	23.3	22.5

e = estimate

Table F

Investment

(Annual average percentage change)

	Actuals						Projections			
March year	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999e**	**2000**	**2001**	**2002**
Plant and machinery	15.6	25.8	19.4	11.1	2.2	9.8	6.0	9.1	5.6	4.3
(excluding computers)	*14.6*	*25.0*	*13.7*	*6.5*	*-3.1*	*2.2*	*-0.5*	*6.9*	*4.6*	*4.2*
Transport equipment	25.4	21.0	11.0	3.6	12.7	-22.8	1.3	13.2	5.8	1.1
Commercial buildings	2.1	26.0	26.9	26.4	-2.5	-4.2	6.1	9.1	7.4	7.8
Other	-30.7	-7.5	-7.4	6.8	-4.9	-5.2	3.0	-9.2	2.3	7.1
Market sector business investment	5.3	20.3	16.1	12.0	2.4	0.1	5.1	8.4	5.8	4.6
(excluding computers)	*4.3*	*19.6*	*12.9*	*9.7*	*-0.2*	*-5.1*	*1.5*	*7.0*	*5.3*	*4.7*
Market sector residential investment	2.8	17.1	12.2	-0.1	4.0	1.7	-15.8	1.8	4.2	6.1
Total market sector investment	4.6	19.4	15.0	8.7	2.8	0.5	-0.3	7.0	5.5	4.9
Government (non-market) investment	-3.1	8.5	37.0	14.4	29.8	6.9	-7.2	2.1	4.8	4.9
Total investment	3.7	18.2	17.2	9.4	6.2	1.5	-1.4	6.2	5.4	4.9
(excluding computers)	*3.0*	*17.5*	*15.0*	*7.4*	*4.0*	*-2.2*	*-4.2*	*4.8*	*4.9*	*5.0*

e = estimate

Table G

Trade volumes and the current account

	Actuals						Projections			
March year	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999e**	**2000**	**2001**	**2002**
Trade volumes										
(Annual average percentage change)										
Exports of goods	0.6	6.9	7.2	0.8	6.8	6.5	-0.2	4.7	4.0	4.8
Exports of services	9.5	11.3	12.5	8.1	-4.6	-5.9	7.7	5.6	4.6	6.1
Total exports	2.5	7.9	8.4	2.6	3.8	3.6	1.5	4.9	4.1	5.1
Imports of goods	8.1	12.1	15.6	7.0	7.5	5.6	2.1	7.7	0.6	2.2
Imports of services	5.1	-5.3	9.1	8.2	5.0	1.8	5.5	0.2	3.2	3.0
Total imports	7.4	8.0	14.3	7.2	7.0	4.8	2.7	6.2	1.1	2.4
Current account										
($ billion March year annual total)										
Merchandise trade balance	3.4	3.1	2.1	0.9	0.9	1.3	1.4	-0.2	1.0	1.9
Services balance	-1.7	-0.9	-0.6	-0.1	-0.6	-1.2	-1.7	-1.3	-1.2	-1.0
Investment income balance	-3.9	-4.5	-6.0	-6.0	-7.3	-7.3	-6.9	-6.5	-7.1	-8.0
Transfers balance	0.9	1.5	1.8	2.4	2.3	0.8	0.7	0.7	1.0	1.2
Current account [1]	-1.3	-0.8	-2.6	-2.9	-4.7	-6.5	-6.5	-7.3	-6.4	-5.9
(% of nominal production GDP)	-1.7	-1.0	-3.1	-3.2	-4.9	-6.6	-6.5	-7.1	-6.0	-5.3
(% of nominal production GDP ex migrants' transfers)	-2.6	-2.3	-4.7	-5.5	-6.4	-6.8	-6.7	-7.4	-6.4	-6.0

e = estimate
[1] Errors in adding up the current account are due to rounding.

Table H

Labour market

	Actuals						Projections			
March year	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999e**	**2000**	**2001**	**2002**
Change in labour force:										
Natural increase (000's)	22.5	23.4	24.6	25.2	19.0	19.0	19.1	18.3	18.4	18.3
Net migration (000's)	2.8	6.5	9.2	13.0	9.1	-0.2	-5.3	-4.4	-2.2	3.0
Increase in participation (000's)	-13.8	28.2	9.4	30.5	0.4	-4.4	-10.3	5.9	11.2	10.4
Total change in labour force (000's)	11.6	58.1	43.2	68.7	28.5	14.4	3.4	19.8	27.3	31.7
March quarter:										
Population of working age (000's)	2624	2671	2723	2781	2824	2853	2874	2895	2919	2952
Labour force participation rate (%)	63.2	64.3	64.7	65.8	65.8	65.6	65.3	65.5	65.9	66.2
Total labour force (000's)	1660	1718	1761	1830	1858	1872	1876	1896	1923	1955
Total employment (000's)	1490	1555	1639	1711	1731	1732	1723	1746	1779	1820
Annual growth (%)	1.6	4.4	5.4	4.4	1.2	0.0	-0.5	1.3	1.9	2.3
Unemployment (000's)	170	163	122	119	127	141	153	150	144	134
Unemployment rate	10.2	9.5	6.9	6.5	6.8	7.5	8.1	7.9	7.5	6.9
Unemployment rate (s.a.)	9.8	9.1	6.6	6.2	6.5	7.1	7.7	7.5	7.1	6.4
Total hours worked										
Annual growth (%)	3.4	3.8	6.6	4.8	-2.1	-0.6	1.7	1.2	1.7	1.8
Labour productivity										
Annual growth (%)	-0.9	1.7	-0.4	-0.5	0.9	2.1	-0.3	2.1	1.8	2.1
QES private sector wages ($ per hour)	14.1	14.3	14.6	15.1	15.7	16.1	16.6	16.9	17.4	17.9
Annual growth (%)	0.7	1.4	2.1	3.7	4.0	2.6	2.6	2.4	2.8	2.8

e = estimate

Appendix 4: Notes for the tables

CPIX	Consumers Price Index excluding Credit Services. *Consumers Price Index.*
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, and the United Kingdom, and against the euro.
90-day rate	RBNZ. Defined as: The interest yield on 90-day bank bills.
Nominal MCI	RBNZ. Defined as: $\{(90day\text{-}r_0) + (1/2)*[\log_n(TWI) - \log_n(TWI_0)]*100\}*100 + 1000$ where 90day and TWI are nominal rates and r_0 and TWI_0 are corresponding averages of daily rates for the December 1996 quarter, where $r_0 = 8.91$ and $TWI_0 = 67.11$.
Real MCI	RBNZ. Defined as: $\{(R90day\text{-}R_0) + (1/2)*[\log_n(RTWI) - \log_n(RTWI_0)]*100\}*100 + 1000$ where R90day and RTWI are the estimated real 90day interest rate and the real TWI exchange rate. R90day is calculated as the nominal 90-day rate less the annual (four-quarter) inflation rate in the CPIX. RTWI is calculated as the TWI multiplied by New Zealand's GDP deflator (interpolated from annual data) and divided by the trade-weighted average of GDP deflators of our trading partners. R_0 and $RTWI_0$ are base levels for the December 1996 quarter, where $R_0 = 6.5$ and $RTWI_0 = 1$ (normalised). All input numbers are rounded to one decimal place.
World GDP	Reserve Bank definition. 14-country index, export weighted. Projections based on *Consensus Forecasts*. 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 *Consensus Forecasts*.
Import prices	Domestic currency import prices. *Overseas Trade Indexes.*
Export prices	Domestic currency export prices. *Overseas Trade Indexes*.
Terms of trade	Constructed using domestic-currency export and import prices. *Overseas Trade Indexes.*
World 90-day rate	RBNZ definition and estimate: 80:20 weighted combination of US and Australian 90-day interest rates. Projections based on *Consensus Forecasts*.
World bond rate	RBNZ definition and estimate: 80:20 weighted combination of US and Australian 10-year interest rates. Projections based on *Consensus Forecasts.*
Private consumption	*System of National Accounts.*
Public authority consumption	*System of National Accounts.*
Residential investment	RBNZ definition: Private sector and government market sector residential investment. *System of National Accounts.*
Business investment	RBNZ definition: Total investment less the sum of non-market investment and residential investment. *System of National Accounts.*
Non-market investment	RBNZ definition: The *System of National Accounts* 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. *System of National Accounts.*
Stockbuilding	Percentage point contribution to the growth of GDP by stocks. *System of National Accounts.*

Gross national expenditure	Final domestic expenditure plus stocks. *System of National Accounts.*
Export of goods and services	*System of National Accounts.*
Imports of goods and services	*System of National Accounts.*
GDP (production)	*System of National Accounts.*
Potential output	RBNZ definition and estimate. Refer to: Conway, P. and B. Hunt, (1997), 'Estimating Potential Output: a semi-structural approach', *Reserve Bank of New Zealand Discussion Paper*, G97/9.
Output gap	RBNZ definition and estimate: The percentage difference between real GDP (production, seasonally adjusted) and potential output GDP.
Compensation of employees	*Household Income and Outlay Accounts.*
Other income	*Household Income and Outlay Accounts.*
Nominal disposable income	*Household Income and Outlay Accounts.*
Consumption deflator	*System of National Accounts.*
Real disposable income	*Household Income and Outlay Accounts.*
Real household consumption	*System of National Accounts.*
Household savings rate	*Household Income and Outlay Accounts.*
Direct taxation	Historical source: The Treasury. Defined as total personal taxation, total company taxation and total withholding taxes. Adjusted by the RBNZ over the projection period.
Indirect taxation	Historical source: The Treasury. Adjusted by the RBNZ over the projection period.
Non-tax revenue	Historical source: The Treasury. Adjusted by the RBNZ over the projection period.
Total expenses	Historical source: The Treasury. Adjusted by the RBNZ over the projection period.
Net surplus attributable to SOEs and Crown entities	Historical source: The Treasury. Adjusted by the RBNZ over the projection period.
Government operating balance	Percentage of nominal GDP (expenditure), June year.
Net public debt	Historical source: The Treasury. Adjusted by the RBNZ over the projection period.
Plant and machinery investment	RBNZ definition: Market sector plant and machinery investment. *System of National Accounts.*
Plant and machinery investment (excluding computers)	RBNZ definition: Market sector plant and machinery investment excluding computer investment. *System of National Accounts.*
Transport equipment	RBNZ definition: Market sector transport equipment investment. *System of National Accounts.*
Commercial buildings	RBNZ definition: Market sector non-residential building investment. *System of National Accounts.*
Other investment	RBNZ definition: Market sector other construction and land improvement investment. *System of National Accounts.*
Total market investment	RBNZ definition: The sum of total business investment and total residential investment. *System of National Accounts.*

Total investment	*System of National Accounts.*
Total investment (excluding computers)	Total investment less computer investment. *System of National Accounts.*
Export of goods	*System of National Accounts.*
Export of services	*System of National Accounts.*
Import of goods	*System of National Accounts.*
Import of services	*System of National Accounts.*
Merchandise trade balance	*Balance of Payments.*
Services balances	*Balance of Payments.*
Investment income balance	*Balance of Payments.*
Transfers balance	*Balance of Payments.*
Current account balance	*Balance of Payments.*
Natural increase	Defined as the change in the population of working age minus net migration.
Net migration	Net arrivals of working age (15-64). *External Migration.*
Participation rate	*Household Labour Force Survey.*
Labour force	*Household Labour Force Survey.*
Total employment	*Household Labour Force Survey.*
Unemployment rate	*Household Labour Force Survey.*
Total hours worked	*Household Labour Force Survey.*
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. *Quarterly Employment Survey*.
House prices	Average house price index, Quotable Value New Zealand.
Construction costs (residential)	RBNZ estimate: component of the Housing Group, *Consumers Price Index*.
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.