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# Monetary Policy Statement

September 2006<sup>1</sup>

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

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<sup>1</sup> Projections finalised on 8 September 2006. Policy assessment finalised on 13 September 2006.

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# 1 Policy assessment

The Official Cash Rate (OCR) will remain unchanged at 7.25 percent.

The New Zealand economy continues to show resilience. As reported in earlier statements, we have seen clear signs of easing activity and a rebalancing of demand from the domestic to the external sector since late last year. However, economic activity appears to have been stronger than expected through the first half of 2006, with the expansion of employment particularly surprising. Net exports and Government spending have contributed to the buoyancy in activity, while the easing in household consumption has been more moderate than projected. Similarly, while the housing market has slowed, it continues to exhibit momentum. We expect further dampening effects on demand from high oil prices and higher effective mortgage rates over the period ahead. But, even allowing for these effects, we see more inflation pressure than in earlier reviews.

With overall resource pressures easing more gradually than forecast, annual inflation is not expected to fall below 3 percent until late 2007. Oil price increases and the depreciation of the exchange rate earlier in the year have pushed headline annual inflation to 4 percent in the June quarter. Inflation expectations have continued to drift upwards, influenced by the rising headline inflation numbers. While second-round flow-on effects have so far been limited, this remains a risk given the persistence of demand and labour market pressures. We assume that wages and prices are not unduly influenced by the short-term peak in headline inflation.

Given the continued strength of medium-term inflation pressures, the outlook for monetary policy has become more finely balanced. With inflation now taking longer to move comfortably within the target band of the Policy Targets Agreement (PTA), there is little leeway to withstand further surprises to medium-term inflation pressures. In these circumstances, we are less confident that no further policy tightening will be required in this cycle. In this regard, we will want to be clearer about the economic situation and outlook. However, there is clearly no prospect of an OCR cut for some considerable time.



Alan Bollard  
Governor

## 2 Overview and key policy judgements

Inflation pressures have continued to abate since late 2005, but more slowly than expected. GDP growth has picked up from its lows of late 2005, and the recent data flow suggests that growth over the first half of 2006 will prove stronger than projected in our June *Statement*. Domestic demand is slowing only gradually and net exports are improving faster. As a result, overall pressure on productive capacity is abating more slowly than expected, giving a stronger medium-term inflation outlook relative to our June projections.

In the near term, headline inflation has increased due to the temporary effects of higher oil prices and the lower exchange rate. This increase was anticipated in our previous *Statement* and overstates the underlying degree of inflation pressure. Nevertheless, high headline inflation presents a material risk to medium-term inflation expectations and consequent price and wage setting behaviour.

There are significant other risks to the inflation outlook. The direction of world oil prices remains the clearest risk to inflation over the short term. Medium-term inflation risks stem from uncertainty over the future path of domestic demand and resource pressures.

We assess the balance of inflation risks to be on the upside. This reduces our leeway to withstand further inflation surprises and still meet the Bank's commitments under the Policy Targets Agreement (PTA).

### Recent developments

Growth in the March quarter was stronger than expected, partly reflecting a rebound from overstated weakness in the December quarter. Since then, a range of economic indicators have pointed to a surprising resilience in activity.

- The labour market has remained very tight over the first half of 2006, with strong gains in fulltime employment. The June quarter data showed particularly strong increases in employment in the construction and services sectors.
- The housing market is easing only gradually, with most indicators of housing activity and house price inflation holding up, and net immigration flows stabilising at a positive level. The combination of these factors has underpinned consumer confidence and sustained household spending to a greater extent than expected.
- Many indicators of business confidence have rebounded from their lows of late 2005, though these indicators still remain at subdued levels.

Economic activity is rebalancing, but in a different manner than previously expected. The net exports position has improved more rapidly. In particular, the trade data indicate a large fall in import volumes in the June quarter, continuing a trend that has been evident since late 2005. The slowdown in imports has been greater than the slowdown in domestic production, implying a significant reduction in the degree of import penetration in the economy. We have taken the view that some of the fall in the ratio of imports to domestic production will persist, reflecting a partial unwinding of the strong rise in import penetration during the upswing in domestic demand over recent years. June quarter merchandise trade data also indicate a large increase in primary export volumes, although this is less likely to be a persistent effect as it reflects a particularly good finish to the agricultural production season.

Meanwhile, domestic demand is slowing more gradually than expected as the combination of a tighter labour market, ongoing house price increases, robust credit growth and housing equity withdrawal continue to underpin household consumption. To date, the slowdown in consumption has been evident mainly in motor vehicle purchases, although

Figure 2.1  
CPI inflation  
(annual percent change)

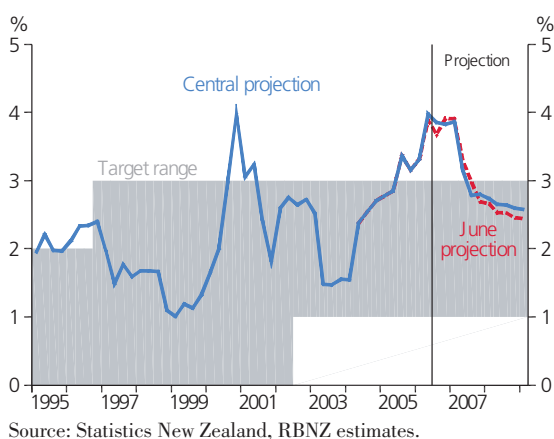
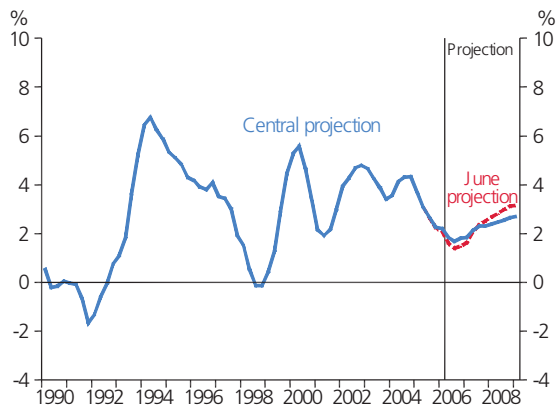


Figure 2.2

GDP growth

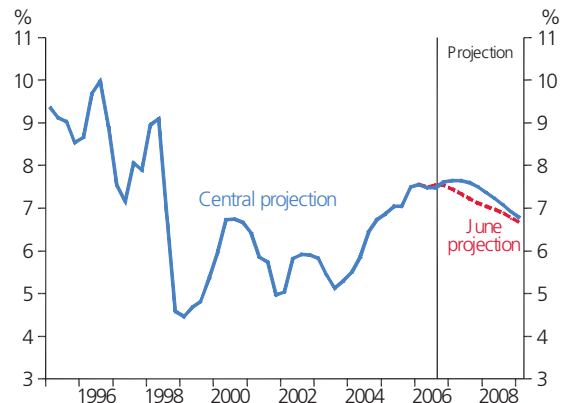
(annual average percent change)



Source: Statistics New Zealand, RBNZ estimates.

Figure 2.3

90-day interest rates



Source: RBNZ.

June quarter retail trade data suggest the beginnings of a broader softening in household spending.

Since our June assessment, the net effect of recent data is for a stronger growth outlook over 2006. Accordingly, our projections incorporate a higher starting point for the output gap.

Recent inflation outturns have been broadly in line with our forecasts<sup>1</sup> and partly reflect the persistence of resource pressures. Importantly, however, the current headline CPI inflation rate has been temporarily boosted by recent increases in world oil prices and the sharp fall in the exchange rate over the first half of 2006. As such, the headline rate overstates the underlying level of inflation. Various measures of 'core' inflation are sitting at around 3 percent (see box 1).

The key focus for monetary policy is the medium-term inflation outlook. Our projection is for CPI inflation to return comfortably below 3 percent by early 2008. Relative to our June *Statement*, medium-term inflation pressures are now abating more gradually.

### Policy judgements

The emerging outlook leaves little margin for error in terms of the Bank's obligations under the PTA. The slow abatement of inflation pressures means that annual headline CPI inflation is not expected to return below 3 percent until late 2007 and will not be comfortably below 3 percent until early 2008. This continues a pattern of upside surprises to medium-term inflation that has occurred since our April 2006 OCR *Review*. The initial sharp slowdown of activity that we saw in late 2005 has not continued into 2006. We have seen a significant improvement in net exports, and domestic demand has not moderated to the extent forecast, leaving overall activity and resource pressures at higher-than-expected levels. The policy implication has been that we have pushed out the timetable for an easing in the OCR. The financial markets, observing the same data flow, have increasingly come to the same conclusion.

The risks around the medium-term inflation outlook are skewed to the upside. The external economic outlook, while threatened by the slowdown in the US housing market, also has a number of upside risks, such as the momentum in China's expansion, the recovery in Europe, and the improving outlook for Australia. With regard to domestic activity, the outlook could weaken if the profitability of firms deteriorated further in the wake of ongoing adverse shocks to energy and other input prices, or if we saw a sharp deterioration in export prices. On the upside, however, the exchange rate could potentially go through another significant weakening phase, and domestic demand and activity could

<sup>1</sup> A recent comparison of RBNZ forecasts against consensus over 2003-2005 shows that the Bank has outperformed the average of consensus on inflation over this period. See September 2006 RBNZ *Bulletin*.

## Box 1

### Measures of core inflation

CPI inflation is often subject to significant short-term fluctuations as a result of temporary shocks, such as those arising from sharp movements in oil prices. During these times, such as now, core inflation measures can be a useful further guide for monetary policy as they attempt to abstract from temporary shocks and measure the component of inflation that is sustained over time.

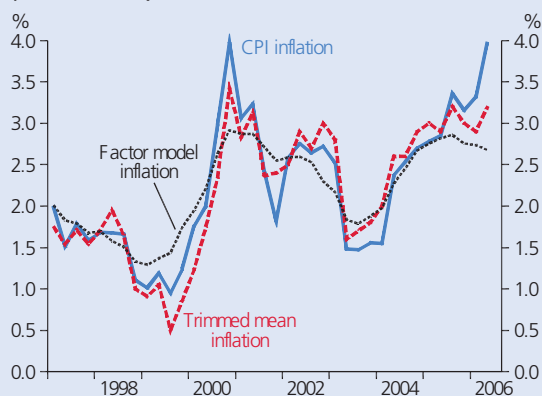
There are different ways to measure core inflation. One approach is to permanently exclude certain items that tend to exhibit volatile price movements. For example, a regularly cited core inflation measure for the US is the CPI ex-energy and food series. Another approach is to use statistical techniques which filter out the price movements that are deemed volatile or unrepresentative. The Bank has examined a range of core inflation measures against various criteria such as: how well the measure picks up persistent changes in inflation; how smooth the measure is; and whether it is an unbiased predictor of CPI inflation. This research will appear in a forthcoming issue of the Reserve Bank *Bulletin*.

Overall, the Bank favours a statistical-based approach for measuring core inflation over the exclusion-based approach. Two measures in particular are preferred: a trimmed mean of CPI inflation (where the largest and

smallest 5 percent of annual price movements are excluded at each quarter); and a dynamic factor measure (where the common variation in the disaggregated price series is measured).

As shown in figure 2.4, the preferred measures suggest that core inflation is around 3 percent. While these measures are significantly below the 4 percent headline inflation rate, they indicate that underlying inflation remains at high levels, near the top of the Bank's 1-3 percent target range.

Figure 2.4  
CPI and core inflation measures  
(annual rate)



Source: Statistics New Zealand, RBNZ estimates.

be more robust than forecast. The upside could be further exacerbated by the ongoing fiscal expansion that is projected to occur over the next few years. The persistent strength in the housing and labour markets suggests to us that more resilient domestic demand is the dominant medium-term risk. The economic data flow over the coming period will help to clarify this picture.

The risks around short-term inflation outcomes also appear weighted to the upside. The path for oil prices is probably the most uncertain element, although the risk here is two-sided. A clearer upside risk is the potential for the downward trend in manufactured goods prices of recent years to reverse, as the Chinese economy ceases to be able to absorb higher commodity input costs. The starting point for headline CPI inflation complicates the picture somewhat.

While the current inflation rate overstates core inflation pressures and is only expected to remain at these levels temporarily, it adds to the risk of second-round spillover effects on price and wage setting behaviour, particularly given the ongoing tightness of the labour market.

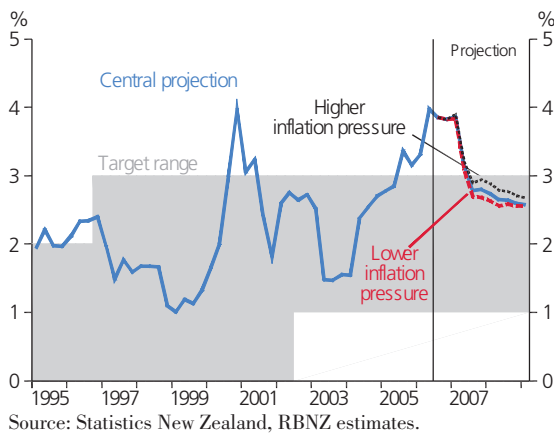
The PTA requires future inflation to be within 1-3 percent on average over the medium term (section 2b). We interpret this as requiring CPI inflation to be comfortably within the 1-3 percent target band over the second half of a three year forecasting horizon. The PTA also requires us to avoid unnecessary volatility in output, interest rates and the exchange rate (section 4b). In the aftermath of the weak second half of 2005, concerns about a potential hard landing warranted caution against further policy tightening. However, it is now becoming clear that the

late 2005 situation understated the trend rate of economic growth. Consequently, our ability to comfortably achieve the medium-term price-stability objective has been eroded.

It is useful to illustrate these current asymmetric inflation and monetary policy risks using alternative scenarios (figures 2.5 to 2.7). A more gradual and drawn-out slowdown in domestic demand, for instance, resulting from ongoing strength in the housing and labour markets, could hold up domestic inflation pressures at higher levels. In these circumstances, inflation would run a material risk of breaching the PTA, and would require further policy tightening.

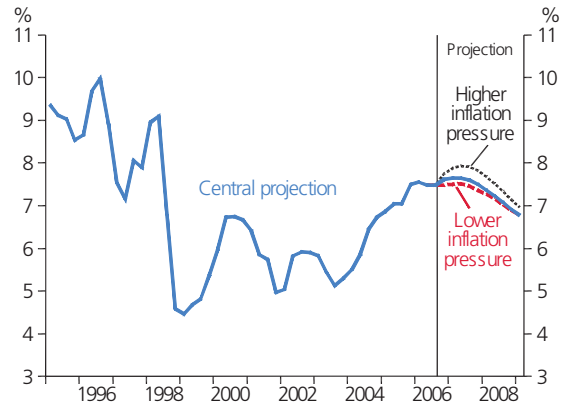
In contrast, if domestic and global activity were to prove weaker than expected, and if oil prices were to fall away more rapidly, then our projections would have inflation returning comfortably inside the target band by late 2007. This would reduce the possibility of any further monetary policy tightening.

**Figure 2.5**  
Alternative scenarios: CPI inflation



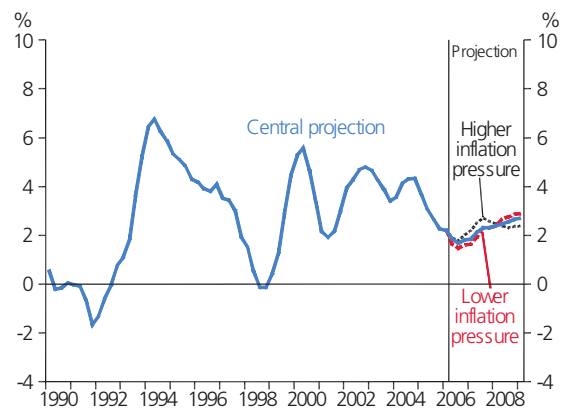
Source: Statistics New Zealand, RBNZ estimates.

**Figure 2.6**  
Alternative scenarios: 90-day interest rates



Source: RBNZ.

**Figure 2.7**  
Alternative scenarios: GDP growth  
(annual average percent change)



Source: Statistics New Zealand, RBNZ estimates.

## Box 2

### Recent monetary policy decisions

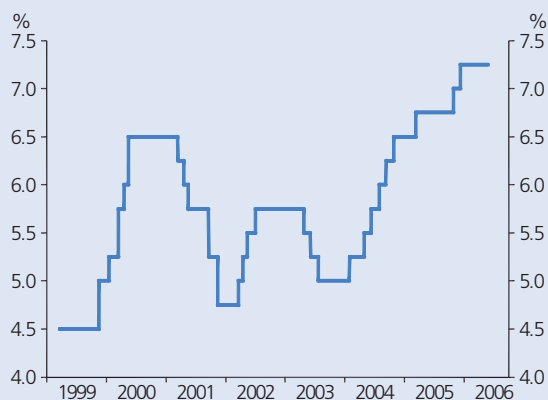
The OCR currently stands at 7.25 percent, 225 basis points higher than when the tightening cycle commenced in early 2004. The degree of policy tightening required has been greater than anticipated, by either the Bank or the financial markets. The initial increases in the OCR reversed the precautionary policy easing of 2003 which occurred in response to uncertain global conditions. Developments at the time included the outbreak of SARs, sharp declines in global equity markets, declines in domestic business confidence, drought in some parts of the country and electricity shortages. While, in hindsight, the reduction in the OCR may have been unnecessary, at the time the Bank's actions were seen as appropriate given the significant risks being faced by the household and business sectors.

Over the remainder of 2004 and through 2005, the increases in the OCR were in response to economic activity exceeding the economy's productive capacity and the resulting increase in medium-term inflation pressures. These pressures were particularly concentrated in the housing and construction sectors. The strength in domestic activity, underpinned by the strong housing market and falling unemployment, continued for considerably longer than expected and resulted in non-tradables inflation persisting at high levels. The rapid rise in oil prices in 2005 added to short-term inflation pressures and also introduced a further medium-term inflation risk via higher inflation expectations. The most recent OCR increases in response to these pressures were 25 basis point increases in both October and December 2005.

Statistical releases subsequent to the end-2005 tightening showed weaker-than-expected activity in the second half of 2005, raising some questions about the appropriateness of the tightening and prompting a softer policy tone in the March 2006 statement. Our policy commentary at that time suggested that the next OCR change was likely to be downwards. This policy view contributed to the significant depreciation of the exchange rate through March/April 2006.

Moving into the second quarter of 2006, economic indicators started to point to stronger underlying activity in the first half of 2006. This trend was recognised in our June and July reviews with policy comments tending to defer the time at which OCR reductions might be expected. The markets also recognised this trend in the form of a flattening interest rate yield curve. The emerging resilience of activity in 2006 made it clear that the OCR increases of late 2005 had indeed been appropriate.

Figure 2.8  
Official Cash Rate



Source: RBNZ.

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## 3 The recent economic situation

### Overview

The New Zealand economy grew strongly between 2000 and 2004. Over this period, growth in domestic demand increasingly exceeded growth in the economy's productive capacity. Consequently, much of the increase in domestic demand was met by imports. The New Zealand dollar rose to high levels during this period, contributing to import growth and a marked deterioration in New Zealand's current account deficit.

Over 2005 GDP growth slowed, coming to a virtual halt in the second half of the year. This slowing in growth reflected a rebalancing in the economy, with domestic demand softening and net exports recovering as imports fell. However, the slowing in GDP growth in late 2005 appears to have overstated the degree of underlying weakness in the economy, as evidenced by a return to stronger GDP growth in early 2006.

The persistent strength of domestic demand and the resulting build up of resource pressures has seen non-tradables inflation lingering above 4 percent since 2004. More recently, tradables inflation has increased due to a lower exchange rate and strength in petrol prices, which have also been spilling over into the prices of other goods and services. These additional temporary pressures have seen headline inflation rising to very high levels, reaching 4 percent in the June quarter.

### Global economic developments

Growth in our trading partner economies remained robust in the early part of 2006. A moderation in US growth has been offset by strength in other economies, particularly in Australia and parts of Asia.

At the same time, inflation in our trading partner economies has risen. This is mainly due to higher oil prices, with some economies also experiencing pressure on productive resources. Strong activity and heightened inflation concerns have prompted central banks in many economies to raise official interest rates:

- GDP growth in the US slowed in the June quarter due to soft consumer spending and a fall in business investment.

Despite this slowing, core inflation rose to 2.7 percent. After increasing the Fed funds rate at its June meeting (the seventeenth consecutive increase in the current cycle), the Federal Open Markets Committee left official rates on hold in August, noting that a soft activity outlook was expected to keep inflationary pressures in check. However, the Committee was conscious of the lingering upside inflation risks stemming from high oil prices and resource pressures.

- Activity in Australia has remained robust with gains in employment, an improvement in the housing market, and continued strength in business investment. Growth has been strongest in resource-rich states such as Western Australia and Queensland, but has also been improving in other states. As in the US, rising oil prices and ongoing pressure on capacity have seen increased underlying inflation in Australia. This prompted the Reserve Bank of Australia to lift its cash rate to 6 percent in August.
- Domestic activity in Japan has remained solid, with continued strength in consumption and business investment spending. Activity has now improved to the point where the Bank of Japan is moving away from its zero interest rate policy of the past six years.
- Activity has remained robust in China and other parts of non-Japan Asia as strong global demand continues to support export growth. However, high oil prices are adding to cost pressures, prompting a number of central banks in the region to increase official rates. While measured inflation has remained low in China to date, the People's Bank of China has tightened monetary policy to try to avoid an overheating of the economy.
- Solid household spending supported activity in the Eurozone and the United Kingdom in early 2006. Both the Bank of England and the European Central Bank increased rates in August in response to inflation pressures.

## Tradables sector activity

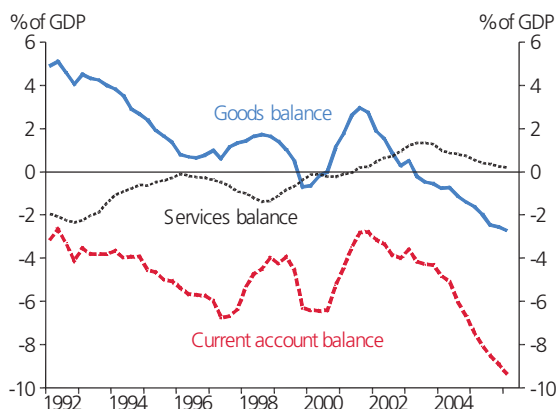
The past year saw a significant weakening in New Zealand's trade position. This was primarily a result of the high New Zealand dollar which, combined with robust domestic demand, led to very strong import growth. At the same time, strength in the New Zealand dollar also contributed to subdued export growth. These conditions resulted in the current account deficit widening to 9.3 percent of GDP in the March 2006 quarter.

Subsequently, however, there have been signs of a recovery in the external sector, with import levels easing and some lift in exports. Further, the environment for net exports has improved following the decline in the New Zealand dollar. After reaching a peak in December 2005, the New Zealand dollar fell sharply over the first half of 2006. And although the currency has recently experienced a partial recovery, it remains well below its highs of late 2005.

Export sector growth was subdued over 2005 due to the impact of the high New Zealand dollar and poor agricultural conditions. This weakness has started to abate in early 2006:

- Some improvement in primary exports has been seen in early 2006. For instance, forestry exports have risen in response to stronger international prices. Meat exports have also risen recently as a period of herd rebuilding has given way to an increase in slaughter levels. In the dairy sector production has risen following improved growing

**Figure 3.1**  
Annual current account, goods and services balances

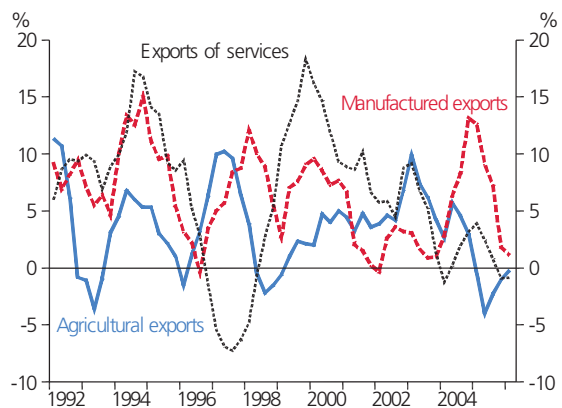


Source: Statistics New Zealand.

conditions in the autumn and this is likely to result in higher primary export volumes in the June quarter.

- While growth in manufactured export volumes slowed sharply over 2005, export volumes have remained robust in recent years. However, returns to exporters have fallen due to the high New Zealand dollar and strong international competition. The environment for manufactured exports has now improved following the fall in the New Zealand dollar in early 2006.
- Visitor arrivals and exports of services were relatively subdued over the past year as the strong New Zealand dollar eroded the relative price advantage of New Zealand compared to alternative destinations. However, there has been a modest increase in international visitor levels in the first half of 2006, and the lower New Zealand dollar indicates improved prospects for the tourism sector.

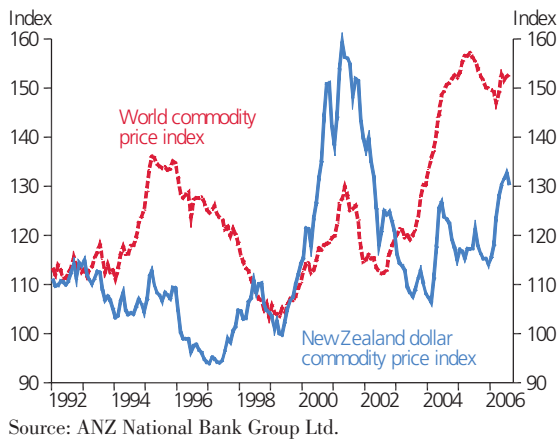
**Figure 3.2**  
Export volumes  
(annual average percent change)



Source: Statistics New Zealand.

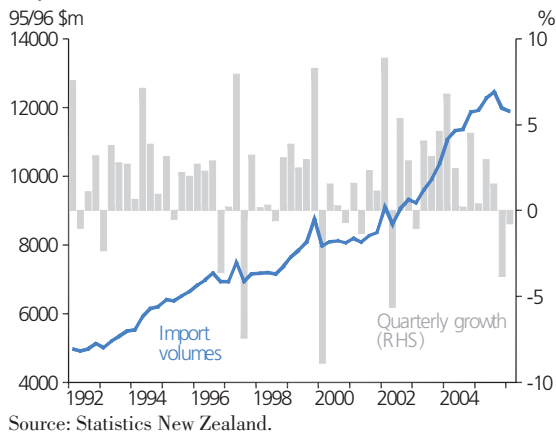
In addition to some recovery in export volumes, export prices have remained robust. Despite having fallen from their 2005 peaks, international prices for our main commodity exports remain at high levels (figure 3.3), with recent gains in meat and forestry prices. This has provided continued support for exporter incomes, with the lower exchange rate providing an additional boost for New Zealand dollar returns.

**Figure 3.3**  
ANZ commodity prices



With domestic resources highly stretched in recent times, strong levels of domestic demand have been met by imports. However, import levels have fallen since late 2005. These declines in imports have been heavily centred on passenger motor vehicles, but declines have also occurred in capital equipment, services and intermediate goods (see box 3). Recent merchandise trade figures indicate a further decline in imports in the June quarter.

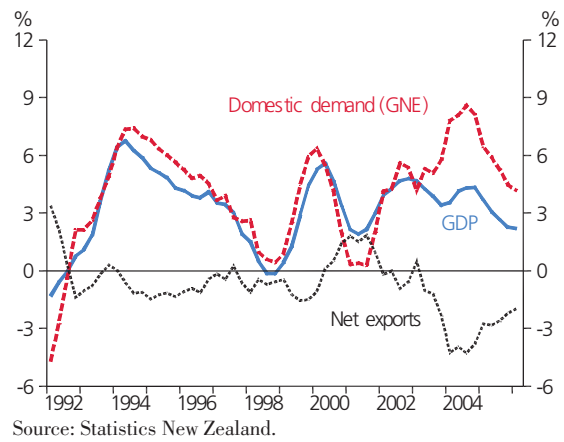
**Figure 3.4**  
Import volumes



### Domestic demand

Economic activity over the past four years has been characterised by weakness in the external sector that was more than offset by ongoing strength in domestic demand (figure 3.5). The external sector has experienced some recovery in recent times, and domestic demand has slowed. The aggregate level of economic activity has slowed, but remains at a relatively high level.

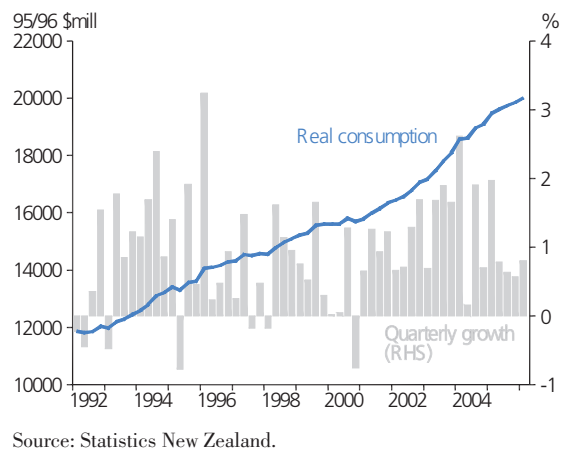
**Figure 3.5**  
Real gross domestic product, domestic demand and net exports  
(annual average percent change)



After rising to very high levels in recent years, household spending has started to slow (figure 3.6). To date, this slowing in consumption has been most evident in falling automotive purchases, although the une quarter retail trade figures point to a broadening slow down. High petrol prices and continued increases in effective mortgage rates have eroded households' disposable income and are likely to have contributed to the slowing in household spending.

To date, however, though consumption slow down has been relatively modest as household spending has continued to be supported by strong growth in labour incomes and gains in housing related wealth.

**Figure 3.6**  
Real consumption spending



### Box 3

#### Reduced import penetration

The fall in imports since late 2005 has been greater than the slowing seen in overall GDP growth, indicating that the import penetration ratio has fallen (figure 3.7). A lower import penetration ratio indicates that domestic demand has shifted away from imports towards domestically produced goods and services. Consistent with this, domestic resource pressures have eased only moderately since late 2005, despite the slowing in domestic demand over the same period.

The decline in import penetration in recent quarters has been spread across most import categories, with a particularly sharp decline in automotive purchases. There have also been declines in import penetration rates for spending on capital equipment, services and intermediate goods. In contrast, import penetration among consumer goods has actually increased slightly (figure 3.8).

Two factors that have contributed to recent falls in import penetration are easing domestic capacity constraints and the high New Zealand dollar in late 2005:

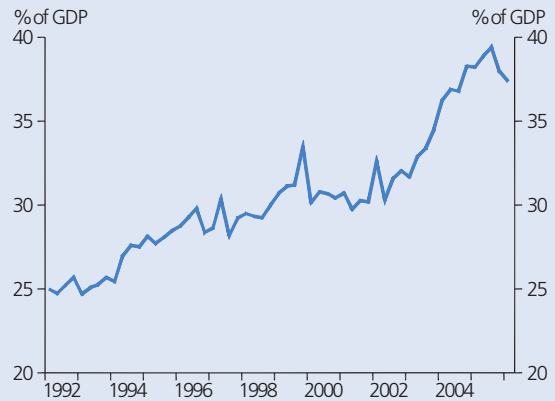
- In recent years, capacity constraints have meant that demand for some goods has spilled over into higher imports. As demand for these products has eased, imports levels have reduced more than proportionately compared to overall demand.
- Over 2005 the high New Zealand dollar prompted businesses to bring forward spending on imported capital equipment, and households to bring forward spending on durables. Imports of such goods could

have been expected to decline even if the exchange rate had not fallen.

The lower New Zealand dollar in the first half of 2006 has increased the relative costs of imports, and this may now also be affecting import penetration.

Figure 3.7

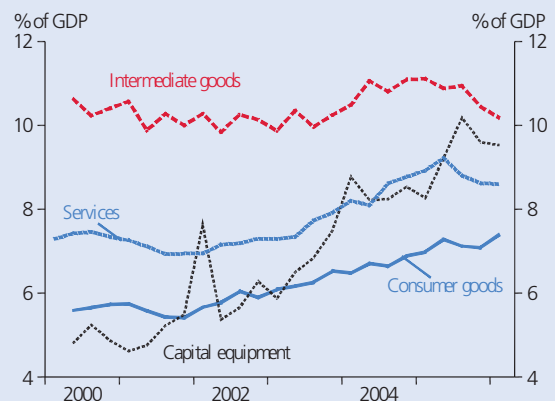
#### Import penetration ratio



Source: Statistics New Zealand.

Figure 3.8

#### Import penetration ratio by category



Source: Statistics New Zealand.

Activity in the housing market has slowed over the past year (figure 3.9). However, data have shown a stabilisation in housing market activity in recent months – the decline in house sales seen over 2005 has been arrested; and issuance of residential consents has stabilised (figure 3.10). Further, net immigration (a key determinant of housing demand) has remained positive.

House price inflation has remained at relatively high levels. On average, house prices (as measured by Quotable Value Ltd) rose by 12 percent in the year to March (figure 3.11). The implied gains in housing-related wealth have

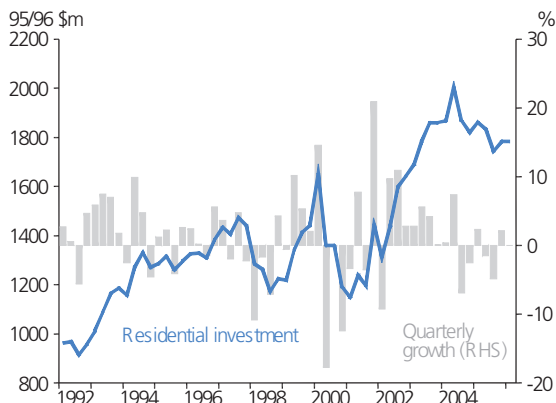
been a key source of support for household spending in recent years.

Australia and the UK have also experienced strong house price inflation during the current cycle. At its peak, house price inflation in all three countries exceeded 20 percent (figure 3.11). In Australia and the UK, however, house price inflation has subsequently fallen sharply. In contrast, New Zealand house prices are still rising by around 10 percent per annum two years after the peak in house price inflation and despite higher interest rates in New Zealand. This persistent housing cycle reflects ongoing net demand for housing, arising from sustained positive levels of net immigration.

Business investment has also weakened. But with domestic activity slowing, rather than stopping, and with persistent stretch in the labour market, business investment has experienced only a gradual slowdown to date. Plant and machinery investment fell in the March quarter, while other components of business investment spending have generally remained robust.

Figure 3.9

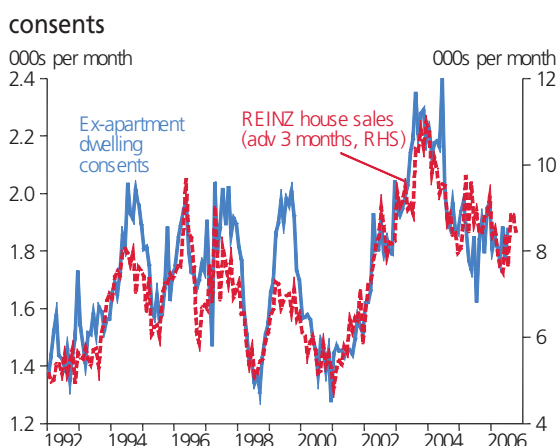
Real residential investment



Source: Statistics New Zealand.

Figure 3.10

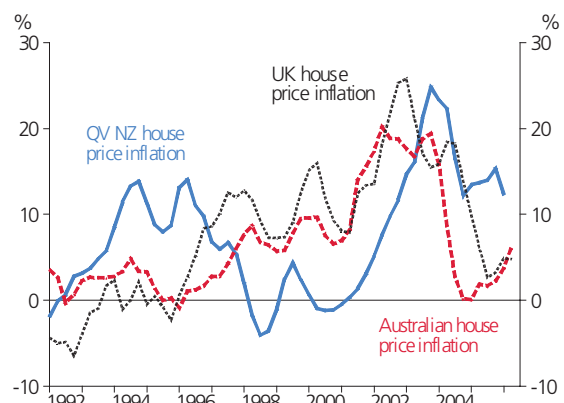
REINZ house sales and ex-apartment building consents



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

Figure 3.11

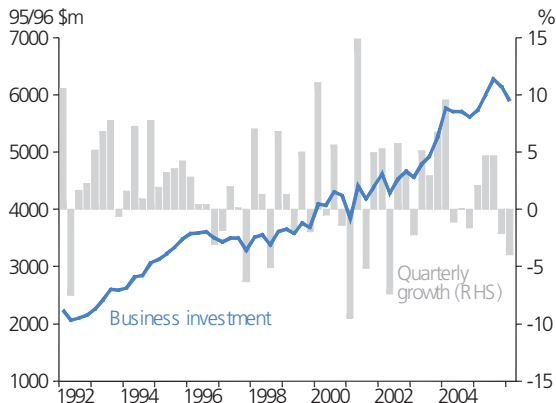
House price inflation in New Zealand, Australia and the United Kingdom (annual percent change)



Source: Quotable Value Ltd, Datastream.

Figure 3.12

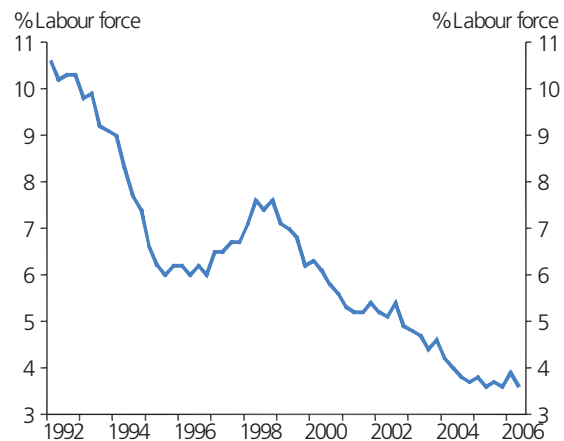
Real business investment



Source: Statistics New Zealand.

Figure 3.14

Unemployment rate



Source: Statistics New Zealand.

Productive capacity

With domestic activity slowing, resource pressures have eased over the past year. However, the reduction in resource pressures has been more gradual than expected. This is because the overall level of demand has eased only moderately, and much of this weaker demand is occurring through lower imports, rather than through reduced demand for domestically produced goods and services. Other indicators of resource pressures also suggest that, while overall pressures have not intensified in 2006, they have not materially abated either (figure 3.13).

Continued pressure on domestic resources is particularly evident in the labour market. Unemployment fell back to a 20-year low in the June quarter, and pockets of skill shortages still persist.

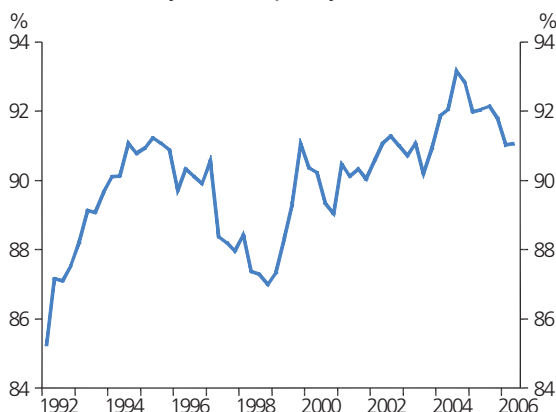
The labour market and wages

Despite softening domestic activity, employment growth has been very strong and the labour market remains tight. As a result, wage growth is running at high levels and providing a significant boost to household incomes. The unadjusted Labour Cost Index (LCI) showed that private sector wages and salaries rose 5.3 percent in the year to June. Adjusting for the effect of promotions, LCI wage growth remains at historically high levels of around 3 percent per annum, broadly consistent with the degree of tightness in the labour market.

Strong wage growth and the relative ease of finding a job has seen labour force participation rising to record levels (figure 3.16, overleaf). Over the past year there have been

Figure 3.13

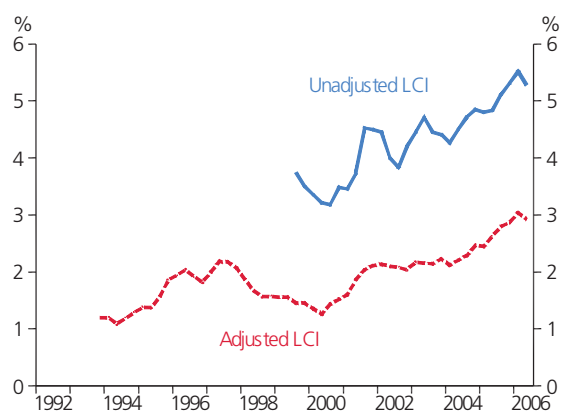
QSBO economy-wide capacity utilisation



Source: NZIER.

Figure 3.15

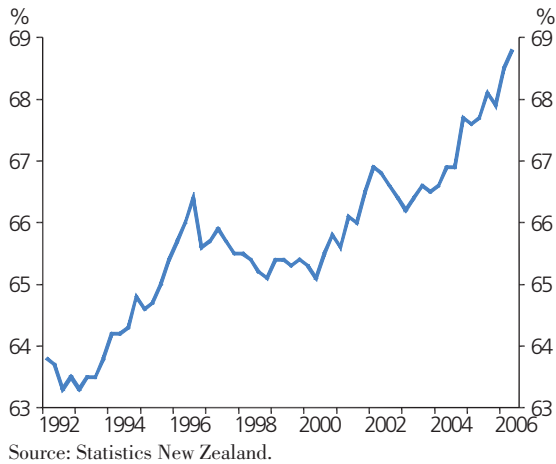
Labour cost index wage inflation – private sector (annual percent change)



Source: Statistics New Zealand.

particularly strong increases in participation by workers aged 55 years and over and those aged 20 to 24. Labour force participation by female workers has also continued to rise.

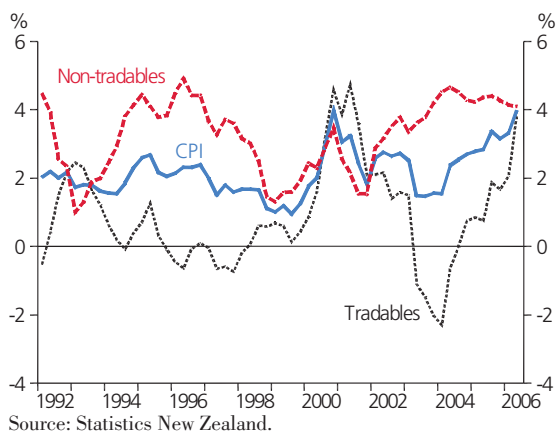
**Figure 3.16**  
**Labour force participation**



## Inflation

CPI inflation increased to 4.0 percent in the year to June 2006 with inflation pressures widespread across both the tradable and non-tradable sectors.

**Figure 3.17**  
**Annual CPI, tradables and non-tradables inflation**



Domestic resource pressures have remained a significant contributor to consumer price growth, with non-tradables inflation lingering above 4 percent since early 2004. Growth in non-tradable prices has centred on costs related to the purchase and construction of new dwellings, although inflation pressures have also been evident in non-tradables prices outside the housing sector.

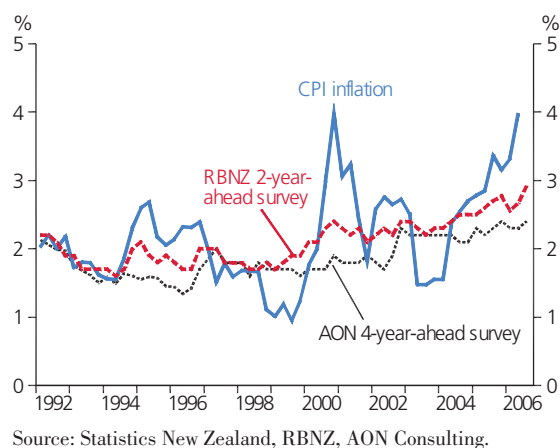
In the tradables sector, prices have risen sharply due to the lower New Zealand dollar and high oil prices. Oil prices were a particularly large contributor to consumer price growth in the June quarter. In addition to pushing up petrol prices, higher oil prices have spilled over into higher costs of production and into prices for other goods and services. These effects have been particularly large in the transport industry.

Higher oil prices have added around 1 percentage point to CPI inflation in the year to June 2006, and account for almost all the upside surprise to our headline inflation forecasts over the past year. In contrast, non-tradables inflation has evolved largely as expected over the past year.

## Inflation expectations

Longer-term inflation expectations are of concern for monetary policy due to their impact on economic decision-making, and on wage and price setting behaviour in particular. From figure 3.18 we see that inflation expectations have been edging up in recent periods, broadly consistent with recent movements in headline inflation. The RBNZ Survey of Expectations two-year-ahead measure reached 2.9 percent in the September quarter.

**Figure 3.18**  
**Longer-term inflation expectations**



**Table 3.1**  
Measures of inflation and inflation expectations  
(annual percent change)

	2004			2005			2006		
	Dec	Mar	Jun	Dec	Mar	Jun	Dec	Mar	Jun
<b>CPI</b>	2.7	2.8	2.8	3.4	3.2	4.0	3.2	3.3	4.0
<b>CPI Components</b>									
CPI non-tradables	4.3	4.2	4.4	4.4	4.3	4.1	4.3	4.1	4.1
Non-tradables housing components	6.0	5.7	6.1	5.8	5.7	4.6	5.7	5.3	4.6
Non-tradables ex-housing components	3.6	3.6	3.6	3.8	3.7	3.9	3.7	3.7	3.9
CPI tradables	0.7	0.8	0.7	1.9	1.7	3.8	1.7	2.1	3.8
Petrol	13.5	7.7	7.0	20.3	17.4	32.2	17.4	23.5	32.2
<b>Other inflation measures</b>									
CPI factor model estimate of core inflation	2.7	2.8	2.8	2.9	2.8	2.7	2.8	2.7	2.7
CPI trimmed mean (of annual price change)	2.9	3.0	2.9	3.2	3.0	3.2	3.0	2.9	3.2
CPI weighted median (of annual price change)	2.9	3.3	3.1	3.2	3.2	3.2	3.2	3.1	3.2
CPI ex-food, petrol and government charges	2.5	2.6	3.0	2.8	2.6	2.8	2.6	2.4	2.8
CPI ex-energy and fuel	2.1	2.3	2.5	2.5	2.6	2.7	2.6	2.5	2.7
GDP deflator (derived from expenditure data)	3.4	2.6	2.8	3.1	2.0	n/a	2.0	1.9	n/a
<b>Inflation expectations measures</b>									
RBNZ Survey of Expectations – inflation one-year-ahead	2.7	2.7	2.8	2.9	3.2	3.5	3.2	2.9	3.5
RBNZ Survey of Expectations – inflation two-years-ahead	2.5	2.5	2.6	2.7	2.8	2.9	2.7	2.6	2.9
AON Economist survey – inflation one-year-ahead	2.7	2.4	2.7	2.7	3.2	3.2	3.2	3.0	3.2
AON Economist survey – inflation four-years-ahead	2.1	2.3	2.2	2.3	2.4	2.4	2.4	2.3	2.4
NIBBO – inflation one-year-ahead (quarterly average)	2.9	2.9	3.0	3.0	3.3	3.2	3.3	3.1	n/a

## 4 Financial market developments

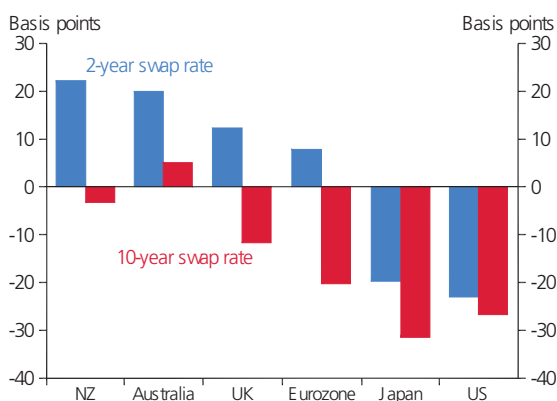
### International markets

As discussed in Chapter 3, policy rates have been raised in a number of economies since the June *Statement*, including the US, Europe, Japan, the UK and Australia. However, market expectations regarding the potential for further rate rises vary widely between these economies. After announcing its seventeenth consecutive rate rise in late June, the US Federal Reserve left its policy rate on hold at the August Federal Open Market Committee meeting. While continuing to price in some risk of another rate rise before the end of the year, US markets increasingly consider the next move is likely to be a cut in 2007.

The Bank of Japan announced its first rate rise in six years during July. Although markets expect this to be the first of a series of increases, they have come to expect these to be more gradual than previously thought. In contrast, markets have become more convinced that the European Central Bank will raise rates further over the next 12 months. The Reserve Bank of Australia followed up its May rate rise with another in August and markets are pricing in a relatively high probability of a further move in coming months.

Shorter-term market interest rate developments in the individual countries reflect these changing monetary policy expectations (figure 4.1). However, longer-term interest rate developments appear to have been heavily influenced by the fall in longer-term US interest rates which have offset, or at least limited, the impact of higher local policy rate expectations.

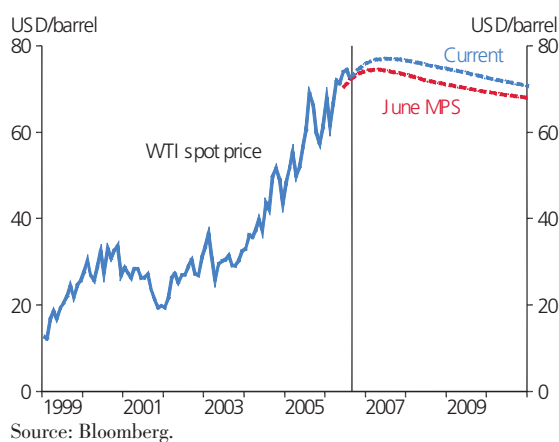
**Figure 4.1**  
Movements in wholesale interest rates since the June *Statement*



Source: Bloomberg.

Oil prices have increased further since the June *Statement* (figure 4.2), with both spot and futures prices reaching new record levels in recent months. Although prices have eased from the highs seen during the period, geopolitical risks continue to compound supply and demand pressures. While oil futures do not provide an unbiased forecast for oil prices, they continue to suggest oil prices will remain relatively high for the foreseeable future.

**Figure 4.2**  
Spot and futures prices for oil  
(West Texas Intermediate)

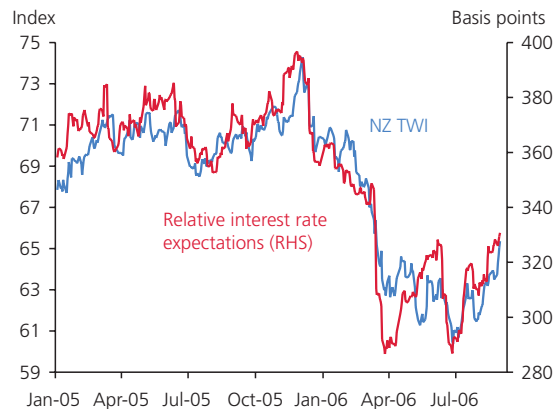


### Exchange rates

The New Zealand dollar has strengthened against all of the major currencies since the June *Statement*. The New Zealand dollar Trade Weighted Index slipped to three year lows in late June, but has subsequently staged a recovery. Recent gains have been in line with a rise in relative interest rate expectations (figure 4.3, opposite). Lower US policy rate expectations in particular have contrasted with New Zealand markets re-evaluating the potential for an OCR cut in the near future (as discussed in Domestic Markets opposite).

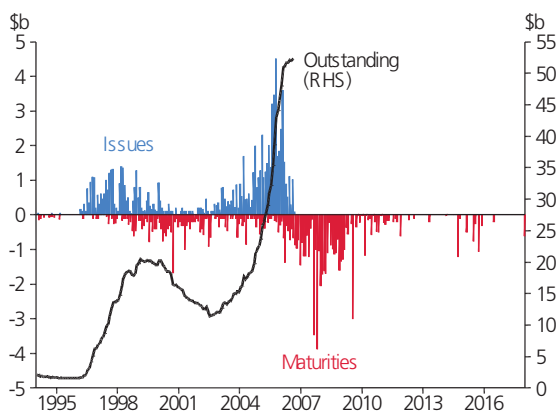
Against this background, there has been ongoing interest in New Zealand dollar securities. Specifically, while issuance of Eurokiwi and Uridashi bonds remains considerably weaker than seen during late 2005/early 2006, issuance has been sufficient to cover maturities of these products. Nevertheless, there is a more significant maturity profile over 2007 and 2008 and this represents an ongoing downside risk to the New Zealand dollar if relatively strong levels of issuance are not maintained.

**Figure 4.3**  
The TWI and relative interest rate expectations



Source: Bloomberg, RBNZ estimates.  
Note: This measure of relative interest rate expectations is the spread between bank bill futures rates in New Zealand and a TWI-weighted average of future rates in US, Europe, Australia, Japan and UK.

**Figure 4.4**  
New Zealand dollar bond issuance in offshore markets

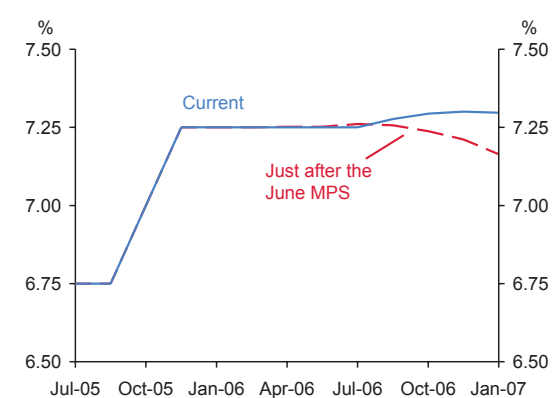


Source: Bloomberg, Reuters, RBNZ estimates.

### Domestic markets

Domestic interest rates have risen since the June *Statement*. At that time the market was pricing in a high probability of the OCR being cut by early/mid 2007. However, the market has increasingly re-evaluated this prospect in the face of activity and inflation developments over the past few months. Indeed, not only is the market now pricing in the likelihood of no OCR cut until at least mid 2007, it is also pricing in a small risk of a further OCR rise before the end of 2006 (figure 4.5).

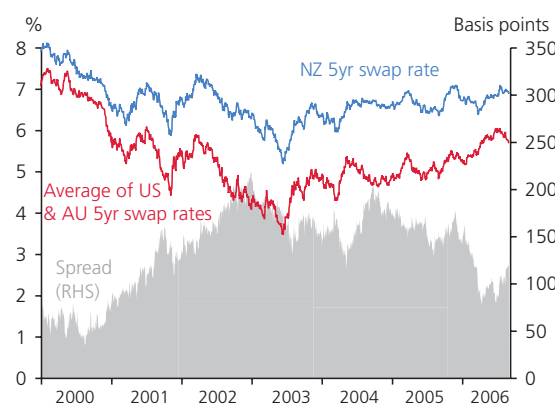
**Figure 4.5**  
Financial market expectations of the Official Cash Rate



Source: Reuters, RBNZ estimates from Overnight Indexed Swap rates.

As discussed above, US longer-term interest rates have fallen since the June *Statement*, although the impact of this has been partly offset by slightly higher Australian longer-term interest rates. Lower US long rates have mitigated the upward pressure on domestic long rates associated with the change in local monetary policy expectations. Nevertheless, the spread between New Zealand and US long-term interest rates has continued to rise from the lows seen earlier in the year (figure 4.6). This is in line with the change in relative monetary policy expectations between the two countries, with US markets increasingly pricing in the prospect of policy rate cuts and New Zealand markets now expecting the OCR to remain on hold for longer.

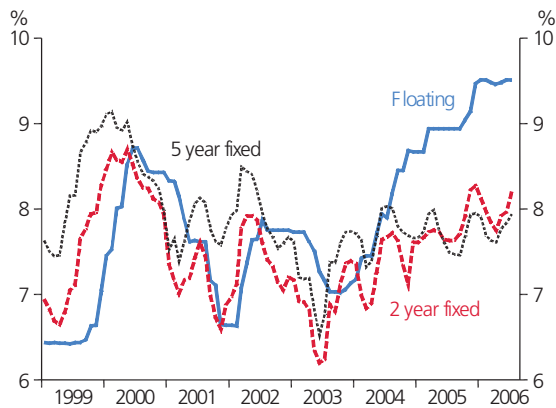
**Figure 4.6**  
Longer-term wholesale interest rates



Source: Bloomberg.

With global developments putting downward pressure on longer-term interest rates, the wholesale interest rate curve has become more negative-sloped or inverted. The increasing inversion of the yield curve has in turn impacted on the interest rates faced by households and businesses. Banks have continued to offer fixed mortgage rates significantly below floating rates. Moreover, the extent of yield curve inversion has seen five year fixed mortgage rates fall below two year fixed rates during the last 12 months for the first time since mid 1998 (figure 4.7).

**Figure 4.7**  
Mortgage rates offered to new borrowers



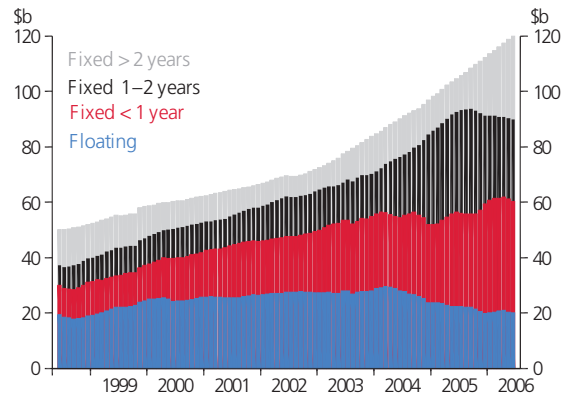
Source: RBNZ.

Against this background, borrowers are not only continuing to opt for fixed rate mortgages, but are increasingly favouring longer fixed terms. Fixed rate mortgages now make up more than 80 percent of all mortgage debt outstanding, up from less than 60 percent in early 2003 (figure 4.8). The increase in fixed mortgage stocks with less than one year until re-pricing is in line with the ageing of existing fixed rate mortgage stocks, and there appears to have been little, if any, net new lending for fixed terms of two years or less. Total mortgage lending increased by 14.5 percent or \$15.3 billion over the year to July 2006 and this appears to have been concentrated at terms of three years or more.

These trends in mortgage lending have seen an increase in the weighted average time to re-pricing for mortgage debt (figure 4.9). Even so, our estimates suggest the average for all outstanding mortgage debt remains less than 18 months and the weighted average time to re-pricing for outstanding fixed mortgage debt remains below the levels seen in the

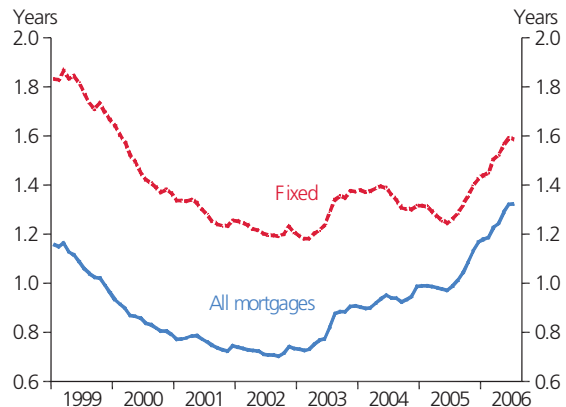
late 1990s. Overall, including floating rate mortgage debt, three quarters of all outstanding mortgage debt will come up for re-pricing within the next two years.

**Figure 4.8**  
Maturity profile of mortgages



Source: RBNZ.

**Figure 4.9**  
Weighted average time to re-pricing for mortgage debt

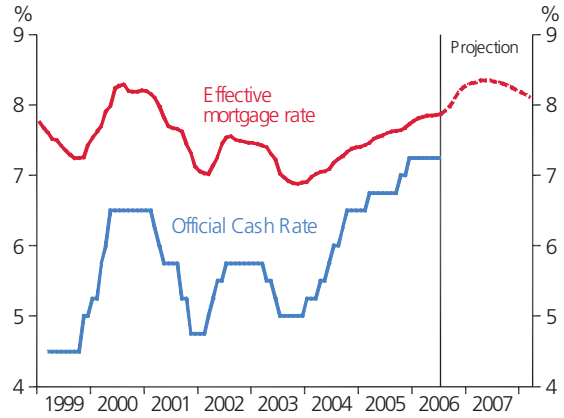


Source: RBNZ estimates.

Upcoming re-pricings are likely to generate a further increase in the average interest rate being paid on outstanding mortgage debt – the ‘effective’ mortgage rate (figure 4.10). More than 40 percent of existing fixed rate mortgage debt will re-price over the next 12 months, from an average existing rate of around 7.5 percent. Within this, a large number of two year fixed mortgages taken out during the ‘Mortgage War’ in late 2004 will come up for re-pricing around the end of the year. Given that many of these mortgages are currently paying rates close to, and in some cases below, 7 percent, these borrowers could face

rate increases of 75 to 100 basis points at currently available mortgage rates. The actual extent to which re-pricing generates a further increase in the effective mortgage rate will depend on interest rate developments over the months ahead.

**Figure 4.10**  
**The OCR and the effective mortgage rate**



Source: RBNZ.

## 5 The macroeconomic outlook

### Overview

After slowing sharply in late 2005, the economic growth outlook is expected to improve over the projection period. However, growth is forecast to remain below the economy's potential growth rate for some time. This prolonged period of sub-potential growth will eventually unwind the strong inflation pressures that have built up to date. Our projection has CPI inflation returning below 3 percent in late 2007.

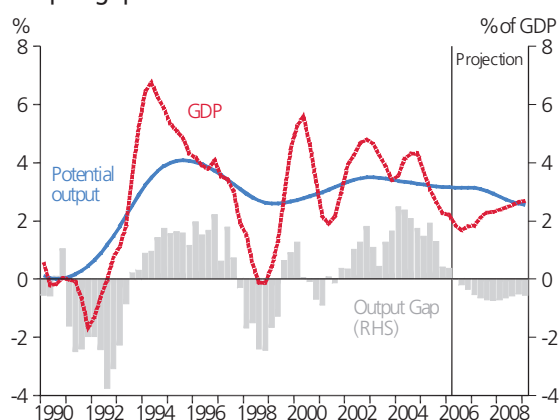
Within the growth outlook is a rebalancing of economic activity. The fall in the exchange rate over 2006 will underpin a gradual recovery in net exports. Meanwhile, domestic demand is expected to weaken further, reflecting the combination of rising effective mortgage rates, an expected slowing in the housing market, declining world prices for New Zealand's commodity exports, and reduced levels of immigration. The continued slowdown in domestic demand is crucial for the unwinding of non-tradables inflation pressure.

These projections portray a 'soft landing'. There are many factors suggesting that the cyclical adjustment will be a mild one: the world growth outlook remains robust; the New Zealand dollar has fallen significantly from its peak; the terms of trade are expected to remain at relatively high levels; the labour and housing markets remain resilient; and fiscal policy is set to become expansionary over the next few years.

As always, there are risks to the economic and inflation outlook. However, relative to our June *Statement*, the growth outlook for 2006 is slightly stronger, and medium-term inflation pressures are higher. Our assessment is that, while

Figure 5.1

### GDP growth, potential output growth and the output gap



Source: Statistics New Zealand, RBNZ estimates.

domestic demand is slowing, it is slowing at a more gradual pace, due mainly to ongoing resilience in the labour and housing markets. As a result, these projections incorporate a higher interest rate track than in the June *Statement*.

### World outlook

Our view of the outlook for New Zealand's main trading partners is largely based on *Consensus Forecasts*, a survey of forecasters in our main trading partner economies. World economic growth is projected to increase strongly over 2006, reflecting an improved outlook for the Euro area and China. Growth is then forecast to slow over 2007, particularly in the US. Nevertheless, global demand for New Zealand's exports is expected to remain robust.

Table 5.1

### Forecasts of export partner GDP growth\*

(calendar year, annual average percent change)

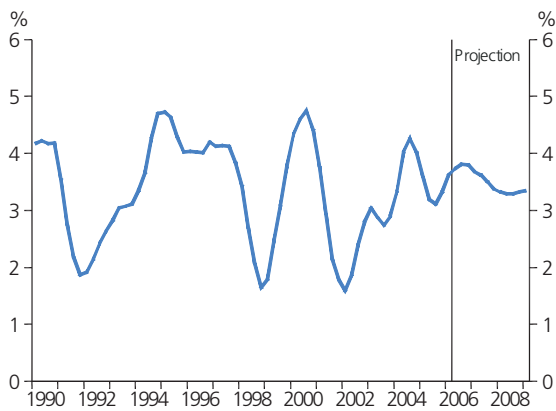
Country	2002	2003	2004	2005	2006f	2007f	2008f
Australia	4.1	3.1	3.5	2.5	3.2	3.3	3.1
United States	1.6	2.5	3.9	3.2	3.4	2.7	3.2
Japan	0.1	1.8	2.3	2.6	2.9	2.2	1.5
Canada	2.9	1.8	3.3	2.9	3.1	2.8	2.9
Eurozone**	1.0	0.8	1.8	1.4	2.3	1.8	1.9
United Kingdom	2.1	2.7	3.3	1.9	2.5	2.4	2.3
Asia ex-Japan***	5.6	5.2	7.6	6.6	6.9	6.1	6.1
12 country index	2.8	2.9	4.0	3.3	3.8	3.4	3.3

\* Source: Consensus Economics Inc., RBNZ estimates.

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

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

**Figure 5.2**  
**Trading partner GDP**  
*(annual average percent change)*



Source: Consensus Economics Inc., RBNZ estimates.

## The terms of trade

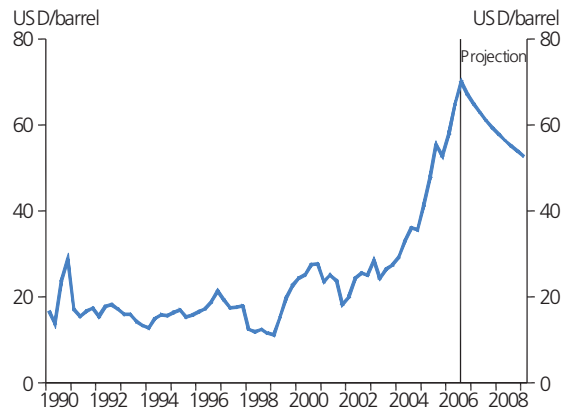
World prices for New Zealand's exports reached high levels in 2005, partly due to supply constraints on agricultural production in other parts of the world. As these supply constraints have eased, New Zealand's export prices have fallen back this year, and we are expecting further declines over the projection period. The extent of the fall in export prices is moderate by historical standards and reflects the robust global growth outlook. When combined with an expected gradual depreciation of the exchange rate, New Zealand dollar revenues are expected to improve for most exporters.

World import prices have also been at elevated levels over 2005, due predominantly to rising world oil prices. Oil prices have been a significant source of uncertainty over recent times, due mainly to ongoing geopolitical tensions and supply concerns. Our projections assume that the price for Dubai oil will fall gradually back towards USD50 per barrel by 2009. This profile is consistent with *Consensus Forecasts*.

A rising trend has also been evident for prices of most non-oil industrial commodities, while the emergence of China as a low-cost manufacturing exporter has dampened prices for manufactured goods. Looking forward, with the Chinese economy continuing to grow very strongly and margins being squeezed, the downward trend for prices of manufactured goods is not expected to continue.

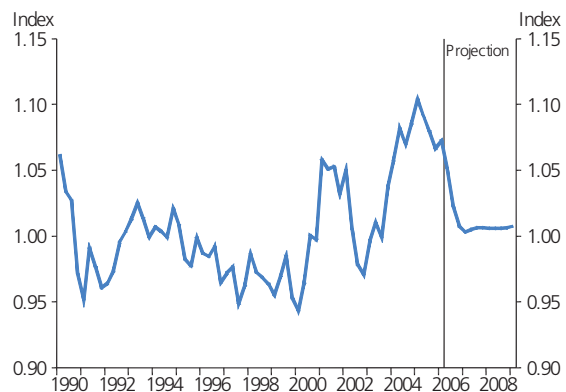
Higher import prices, coupled with the projected fall in export prices, imply a sharp fall in the terms of trade over 2006.

**Figure 5.3**  
**Dubai oil price**



Source: Datastream, RBNZ estimates.

**Figure 5.4**  
**Terms of trade (goods)**

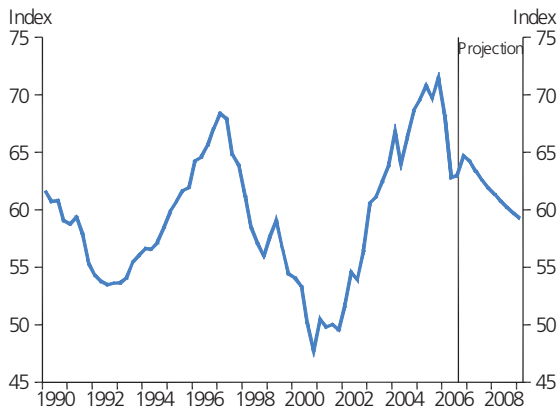


Source: Statistics New Zealand, RBNZ estimates.

## Exchange rate

After falling sharply over the first half of 2006, the New Zealand dollar has recently rebounded. Our technical assumption going forward is for the TWI to depreciate gradually towards its long-term average level. Relative to our June *Statement*, the TWI track is higher, reflecting recent trends and the higher interest rate differential embodied in these projections. The projected fall in the terms of trade will contribute to a weaker exchange rate going forward.

**Figure 5.5**  
**Nominal TWI assumption**



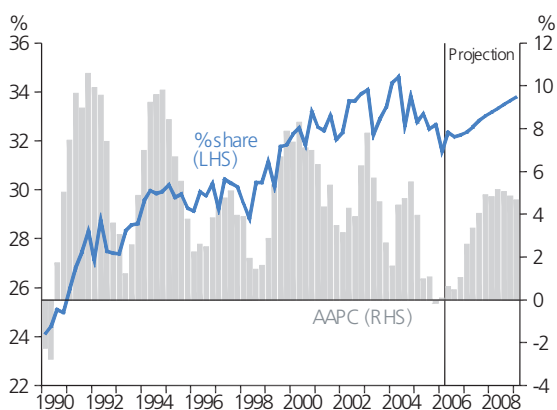
Source: RBNZ estimates.

## Export volumes

Exports are likely to record strong growth during the June 2006 quarter and the outlook for export volumes is for a gradual recovery. The export recovery will occur at different speeds across the various sectors. The benefits of the lower New Zealand dollar can be expected to flow through more quickly into services exports, while a more gradual pickup is expected in primary and manufactured exports. Climatic conditions and global demand are expected to be supportive of primary export performance.

**Figure 5.6**

**Total export volumes**  
*(percent of trend output and annual average percent change)*



Source: Statistics New Zealand, RBNZ estimates.

## Import volumes

Since 2003 imports have increased at a faster pace than GDP leading to a rise in the import penetration ratio. This trend reflects the fact that, during the expansion phase of the cycle, domestic demand exceeded domestic production and that the resulting imbalance was met through higher imports. A combination of capacity constraints, the lower relative price of imports due to the rising exchange rate, and the fact that many durable consumption and investment goods are produced offshore all contributed to the disproportionate increase in imports.

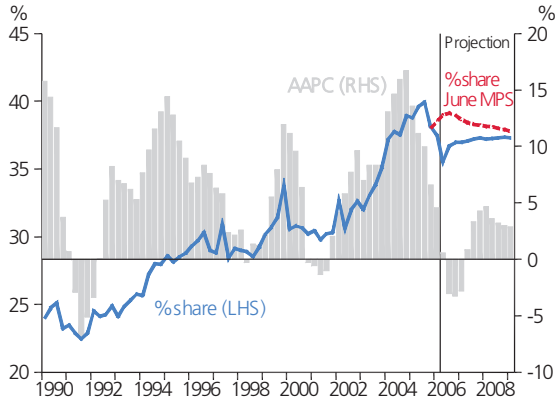
Conversely, as domestic demand has slowed, there has been a disproportionate slowdown in imports relative to domestic production, and a fall in the penetration ratio. As noted in box 3, Chapter 3, the fall in imports has been relatively broad-based across most import categories. We were surprised by the weakness in imports in late 2005 and early 2006, expecting a rebound in subsequent quarters. However, merchandise trade data for the June quarter also indicate a further sizeable decline in imports.

In our projections, we have revised lower our view on the future path of imports. Overall, we expect some recovery in imports over the remainder of 2006, but the import penetration ratio is forecast to be significantly lower than in our June *Statement*. This weaker import profile will assist the improvement of the current account deficit. For a given level of demand, a lower import penetration ratio implies a greater level of domestic production.

There are risks on both sides. The current weakness in imports could be temporary. For instance, firms may have chosen to run down inventory levels in response to the sharp slowdown in economic growth over the second half of 2005. With economic growth having recovered over the first half of 2006, imports could rebound more strongly than we have forecast, as firms rebuild inventory levels. Conversely, the penetration ratio could continue its recent downtrend. The projected slowing in domestic spending and the lower exchange rate could result in further import switching/substitution.

Figure 5.7

Total import volumes  
(percent of trend output and annual average percent change)



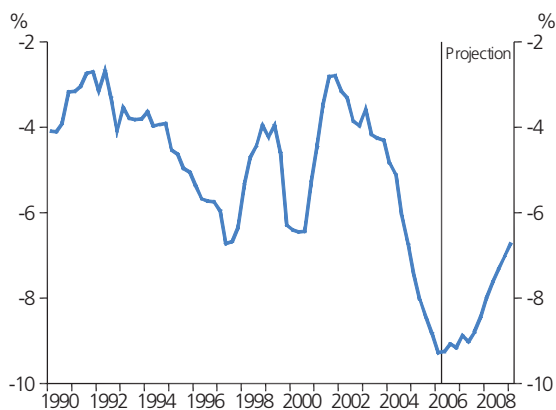
Source: Statistics New Zealand, RBNZ estimates.

### Current account

The current account deficit is now expected to improve more rapidly over the projection period. The main driver of this improvement is the trade balance, underpinned by a gradual improvement in exports, and lower imports. Relative to our June *Statement*, the terms of trade profile is weaker, but this is more than offset by the improved net export outlook.

Figure 5.8

Current account balance  
(percent of nominal GDP)



Source: Statistics New Zealand, RBNZ estimates.

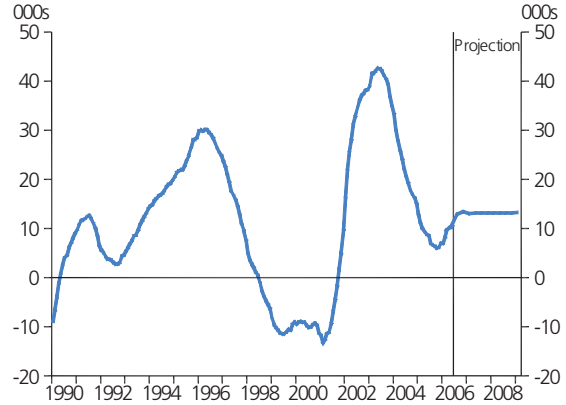
### Net immigration

After declining sharply over 2005, net immigration flows have stabilised over 2006. We project net permanent and long-term immigration flows to remain around 12,000 per

annum. This level of immigration is expected to underpin a flat residential investment profile over the projection period.

Figure 5.9

Net permanent and long-term immigration  
(annual total)



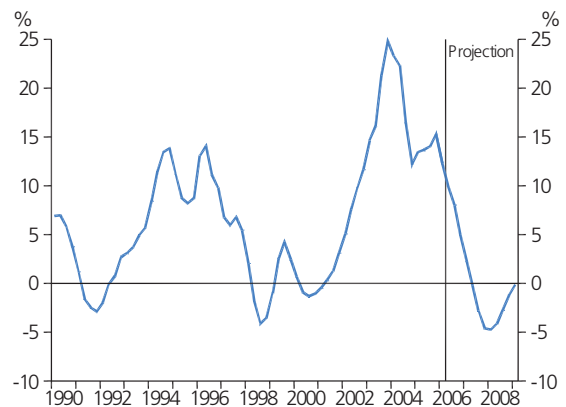
Source: Statistics New Zealand, RBNZ estimates.

### House prices

House price inflation is well off its 2004 peaks, and we expect to see a further slowing, reflecting the dampening influences of lower immigration and rising effective mortgage rates. However, the housing market outlook remains uncertain, with risks to the upside. To date, the slowing in house price inflation has been more gradual than expected, and there is a chance that it could continue to surprise on the upside.

Figure 5.10

House price inflation  
(annual percent change)

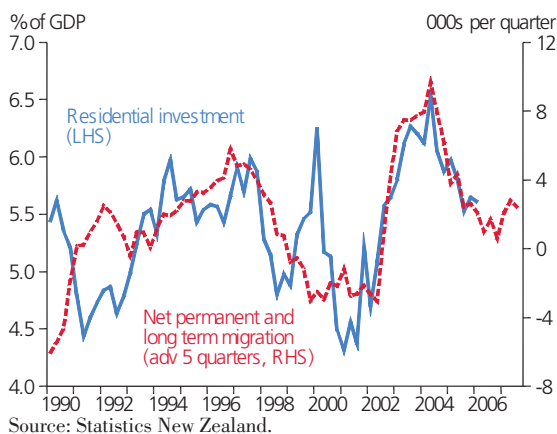


Source: Quotable Value Ltd, Statistics New Zealand, RBNZ estimates.

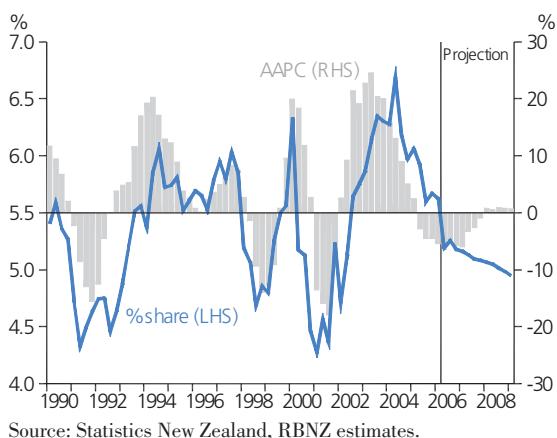
## Residential investment

We are projecting a long period without growth in residential investment as the housing and construction sectors undergo a correction. However, the stabilisation of net immigration at positive rates is expected to underpin residential investment to some extent.

**Figure 5.11**  
Residential investment and net immigration  
(percent of trend output and thousands per quarter)



**Figure 5.12**  
Residential investment  
(percent of trend output and annual average percent change)



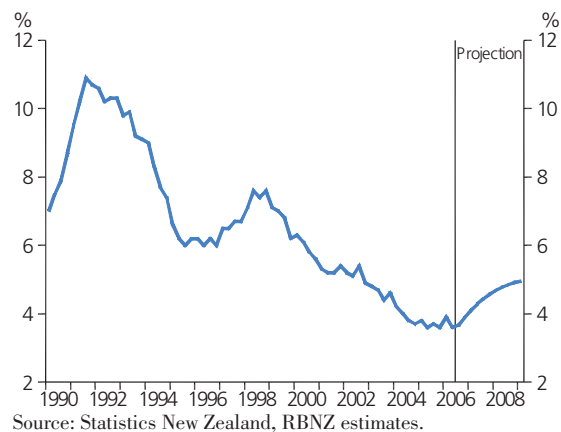
## Labour market

The labour market has shown surprising strength in the first half of 2006, with significant gains in employment and a fall in the unemployment rate. We are projecting employment growth to slow and pressures in the labour market to ease. However, the expected downturn is mild by historical

standards, with only a gradual rise in the unemployment rate. The gradual easing in labour market conditions is one of the key factors underpinning our view that this cyclical adjustment in the New Zealand economy will be a mild one.

Relatively high rates of wage inflation have been consistent with the ongoing tightness in the labour market. However, there remains a risk that wage inflation could accelerate if it responds to the temporary spike in headline CPI inflation. This would result in more persistent inflation over the medium term than we have forecast.

**Figure 5.13**  
Unemployment rate



## Household consumption

In recent years we have witnessed strong growth in household consumption. As a share of real GDP, consumption has reached unprecedented levels, as spending has outstripped income growth. The strong labour market has resulted in robust income growth and provided job security. Rising house prices have boosted wealth and households have accessed this wealth via credit expansion.

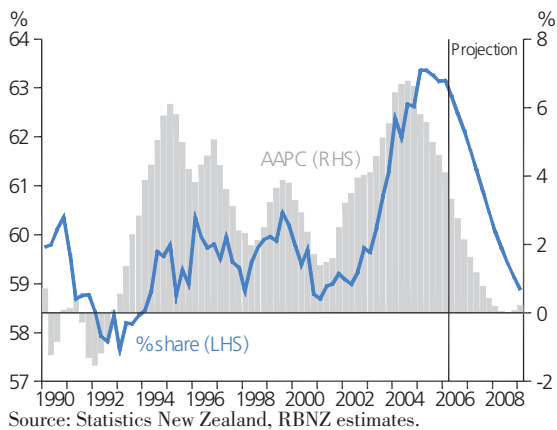
The slowing in consumption to date has been more gradual than expected, most probably because of the surprising resilience in the labour and housing markets. However we continue to project a substantial slowdown in consumption over the forecast period, with flat consumption growth during 2008. The consumption slowdown partly reflects further significant increases in effective mortgage rates but is also dependant on a flattening of house prices.

The projected slowing in consumption growth is sharp by historical standards and there are upside risks to this outlook.

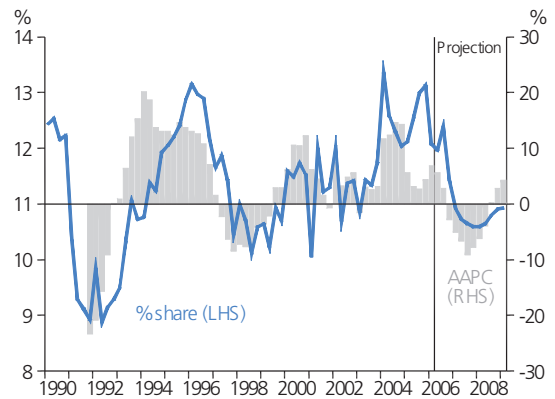
The housing market could continue to prove stronger than expected, underpinning consumption at a higher level. Even in the event of the projected sharp housing slowdown occurring, consumption growth could still hold up at a higher level, similar to what occurred during the downturns in the Australian and UK housing markets.

The consumption outlook depends crucially on the ability and willingness of households to continue to dis-save and borrow. We assume that as housing prices level off, households reduce their appetite for additional credit and significantly re-adjust their spending patterns.

**Figure 5.14**  
**Real household consumption**  
*(percent of trend output and annual average percent change)*



**Figure 5.15**  
**Business investment (excluding computers and intangible assets)**  
*(percent of trend output and annual average percent change)*



## Business investment

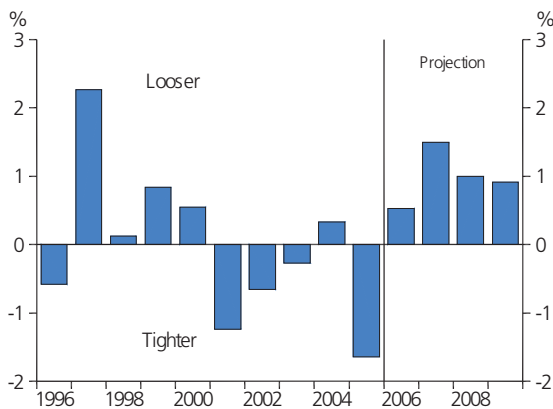
Business investment is expected to contract sharply over the projection period as businesses face rising costs and falling profitability. The investment downturn is expected to be concentrated in capital goods, with indications that non-residential construction could hold up.

## Government

Our projections for fiscal policy are based on The Treasury's *Budget Economic and Fiscal Update 2006*. Fiscal policy is projected to become quite expansionary over the projection period, providing a significant offset to the slowdown in private sector domestic demand. This forecast for fiscal policy is little changed since the June *Statement*.

According to The Treasury's estimates, fiscal policy is expected to boost economic activity by around 1 percent of GDP per annum over the next few years. The effect of this expansionary fiscal policy is significant given that the public sector is bidding for resources at a time when the available pool of labour and capital is limited.

**Figure 5.16**  
Fiscal Impulse\*  
(percent of trend output, June years)



Source: The Treasury.

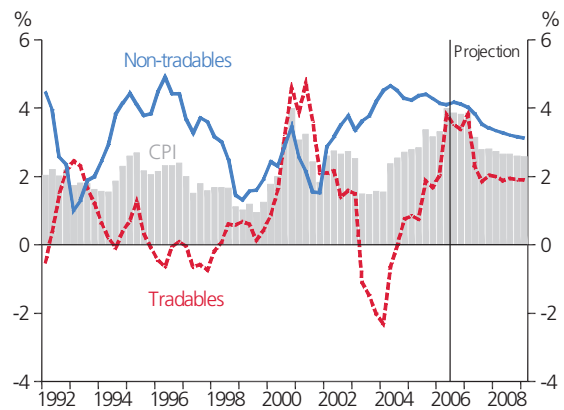
\* Fiscal impulse is a measure of the effect that discretionary fiscal policy has on GDP growth. It abstracts from changes to the fiscal balance that may occur over a business cycle. A positive number indicates a fiscal expansion.

## Inflation

The sharp fall in the exchange rate and the rise in oil prices over the first half of 2006 has temporarily lifted CPI inflation to 4 percent. Looking through the short-term spike and focussing on the medium term, inflation is expected to fall within the 1–3 percent target range by late 2007. This reduction will be led by non-tradables inflation as below-potential economic growth alleviates resource pressures. However, there are risks to this outlook over both the short- and medium-term horizons. In the short term, oil prices are the greatest source of uncertainty and could continue to

surprise on the upside. Over the medium term, the main risks are that the current high headline inflation spills over more aggressively into inflation expectations, and that the level of domestic demand holds up for longer.

**Figure 5.17**  
CPI, tradables and non-tradables inflation  
(annual rate)



Source: Statistics New Zealand, RBNZ estimates.

# Appendix A<sup>1</sup>

## Summary tables

Table A

### CPI inflation projections and monetary conditions

(CPI is in percentage changes)

		CPI Quarterly	CPI Annual	TWI	90-day bank bill rate
2000	Sep	1.4	3.0	50.1	6.7
	Dec	1.2	4.0	47.7	6.7
2001	Mar	-0.2	3.1	50.5	6.4
	Jun	0.9	3.2	49.8	5.9
	Sep	0.6	2.4	50.0	5.7
	Dec	0.6	1.8	49.6	5.0
2002	Mar	0.6	2.6	51.6	5.0
	Jun	1.0	2.8	54.6	5.8
	Sep	0.5	2.6	53.9	5.9
	Dec	0.6	2.7	56.4	5.9
2003	Mar	0.4	2.5	60.6	5.8
	Jun	0.0	1.5	61.1	5.4
	Sep	0.5	1.5	62.4	5.1
	Dec	0.7	1.6	63.9	5.3
2004	Mar	0.4	1.5	66.9	5.5
	Jun	0.8	2.4	64.0	5.9
	Sep	0.6	2.5	66.3	6.4
	Dec	0.9	2.7	68.6	6.7
2005	Mar	0.4	2.8	69.6	6.9
	Jun	0.9	2.8	70.8	7.0
	Sep	1.1	3.4	69.7	7.0
	Dec	0.7	3.2	71.5	7.5
2006	Mar	0.6	3.3	68.2	7.5
	Jun	1.5	4.0	62.8	7.5
	Second half average	0.8	3.8	63.8	7.5
2007	First half average	0.7	3.5	63.7	7.6
	Second half average	0.7	2.8	62.1	7.6
2008	First half average	0.7	2.7	60.9	7.3
	Second half average	0.6	2.6	59.9	7

#### Quarterly projections

		CPI quarterly	CPI annual	GDP quarterly	GDP annual average
2006	Dec	0.7	3.2	-0.1	2.3
	Mar	0.6	3.3	0.7	2.2
	Jun	1.5	4.0	0.4	1.8
	Sep	1.0	3.8	0.6	1.7
	Dec	0.7	3.8		

<sup>1</sup> Notes for these tables follow on pages 30-31.

**Table B**  
**Composition of real GDP growth**

(Annual average percent change, unless specified otherwise)

March year	Actuals										Projections				
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009					
Final consumption expenditure															
Private	3.3	1.4	3.2	4.3	6.3	5.8	4.2	1.5	0.1	0.3					
Public authority	5.7	-2.0	4.6	2.1	3.1	5.2	5.6	5.2	3.1	3.9					
Total	3.9	0.6	3.5	3.8	5.6	5.7	4.5	2.3	0.8	1.1					
Gross fixed capital formation															
Market sector:															
Residential	19.5	-13.3	2.4	22.6	15.8	2.3	-5.1	-6	0.8	0.7					
Business	6.4	9.2	6.7	2.6	14.8	9.9	6.8	-2.2	-0.7	5.6					
Non-market government sector	18.4	-18.1	12.7	9.9	15.1	7.1	22.5	-7.5	7.0	4.1					
Total	10.6	0.7	6.3	7.4	15.1	7.8	5.6	-3.5	0.4	4.5					
Final domestic expenditure	5.3	0.6	4.1	4.6	7.8	6.2	4.8	0.8	0.7	2.0					
Stockbuilding <sup>(1)</sup>	1.2	-0.4	0.1	-0.3	0.2	0.3	-0.6	-1.1	1.5	0.1					
Gross national expenditure	6.5	0.3	4.2	4.2	7.8	6.4	4.2	-0.2	2.1	2.1					
Exports of goods and services	7.4	6.3	3.0	7.8	1.6	3.9	0.0	2.6	4.8	4.7					
Imports of goods and services	11.3	-0.7	4.0	7.2	12.9	13.7	4.6	-2.2	4.6	2.9					
Expenditure on GDP	5.2	2.5	3.8	4.5	3.9	3.4	2.0	1.6	2.1	2.7					
GDP (production)	5.3	2.1	3.9	4.7	3.6	3.7	2.2	1.8	2.4	2.7					
GDP (production, March qtr to March qtr)	5.8	0.9	4.8	4.2	4.8	2.2	2.0	2.2	2.5	2.7					
Potential output	2.7	3.0	3.3	3.5	3.4	3.3	3.2	3.1	2.8	2.6					
Output gap (% of potential GDP, year average)	0.4	-0.4	0.2	1.3	1.5	1.9	1.0	-0.3	-0.7	-0.6					

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

Table C

## Summary of economic projections

*(Annual percent change, unless specified otherwise)*

March year	Actuals										Projections		
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009			
<b>Price measures</b>													
CPI	1.7	3.1	2.6	2.5	1.5	2.8	3.3	3.9	2.7	2.6			
Labour costs	1.4	1.6	2.1	2.2	2.1	2.5	3.0	2.8	2.6	2.3			
Import prices (in New Zealand dollars)	11.2	7.4	-2.9	-11.1	-10.5	0.5	6.8	9.9	3	2.9			
Export prices (in New Zealand dollars)	9.9	20.6	-3.5	-15.5	-5.1	4.9	3.7	2.9	3.4	3.0			
<b>Monetary conditions</b>													
90-day rate (year average)	5.2	6.6	5.4	5.9	5.3	6.5	7.3	7.6	7.5	7			
TWI (year average)	56.1	50.4	50.3	56.4	63.6	67.1	70.0	63.7	62.2	59.9			
<b>Output</b>													
GDP (production, annual average % change)	5.3	2.1	3.9	4.7	3.6	3.7	2.2	1.8	2.4	2.7			
GDP (production, March qtr to March qtr)	5.8	0.9	4.8	4.2	4.8	2.2	2.0	2.2	2.5	2.7			
Output gap (% of potential GDP, year average)	0.4	-0.4	0.2	1.3	1.5	1.9	1.0	-0.3	-0.7	-0.6			
<b>Labour market</b>													
Total employment	1.5	2.3	3.5	1.5	3.1	3.4	2.6	1.5	0	0.4			
Unemployment rate (March qtr, s.a.)	6.3	5.3	5.2	4.8	4.2	3.8	3.9	4.1	4.7	5			
Trend labour productivity (annual % change)	1.5	1.6	1.5	1.2	0.9	0.7	0.7	1.0	1.4	1.8			
<b>Key balances</b>													
Government operating balance (% of GDP, year to June)	1.4	1.2	1.9	1.5	5.2	4.1	5.4	4.1	2.9	2.2			
Current account balance (% of GDP, year to March)	-6.4	-4.4	-3.1	-3.6	-4.8	-7.4	-9.3	-8.8	-8	-6.7			
Terms of trade (OTI measure, annual average % change)	-0.2	4.4	4.2	-5.7	3.9	5.8	-0.8	-5.2	-1.5	0.1			
Household savings rate (% of disposable income, year to March)	-1.6	-5.1	-5.2	-11.7	-12.4	-14.8	-14.7	-12.3	-11	-9.7			
<b>World economy</b>													
World GDP (annual average % change)	4.3	3.8	1.6	3.0	3.3	3.6	3.6	3.7	3.3	3.3			
World CPI inflation	1.9	2.7	1.4	2.2	1.5	2.1	2.5	2.6	2.1	2.1			

s.a. = seasonally adjusted

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## Notes to the tables

CPI	Consumers Price Index. Quarterly projections rounded to 1 decimal place.
TWI	RBNZ. Nominal Trade Weighted Index of the exchange rate. Defined as a geometrically-weighted index of the New Zealand dollar bilateral exchange rates against the currencies of Australia, Japan, the United States, the United Kingdom, and the Euro.
90-day bank bill rate	RBNZ. Defined as the interest yield on 90-day bank bills. Forecasts rounded to the nearest quarter percent.
World GDP	Reserve Bank definition. 12-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, 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> .

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<b>Government operating balance</b>	Historical source: The Treasury. Adjusted by the RBNZ over the projection period.
<b>Labour productivity</b>	The series shown is the annual percentage change in a trend measure of labour productivity. Labour productivity is defined as GDP (production) divided by HLF5 hours worked.
<b>Labour cost</b>	Private sector all salary and wage rates. Labour Cost Index.
<b>Quarterly percentage change</b>	$(\text{Quarter}/\text{Quarter}_{-1} - 1) * 100$
<b>Annual percentage change</b>	$(\text{Quarter}/\text{Quarter}_{-4} - 1) * 100$
<b>Annual average percentage change</b>	$(\text{Year}/\text{Year}_{-1} - 1) * 100$

Source: Unless otherwise specified, all data conform to Statistics New Zealand definitions, and are not seasonally adjusted.  
Rounding: All projections data are rounded to one decimal place.

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## Appendix B

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

Air New Zealand Ltd  
Allens Goode Leith Realty Ltd  
Ampcor Kiwi Packaging Ltd  
American International Group Ltd  
Aoraki Development Trust  
APN New Zealand Publishing Ltd  
Ashburton District Council  
Ashburton Implement Services  
Auckland City Council  
Auckland Regional Transport Authority  
Bayleys Real Estate Ltd  
Christchurch City Council  
Circa Marine & Industrial Ltd  
Culham Engineering Ltd  
Dan Cosgrove Ltd  
Delta Ltd  
Dunedin City Council  
Electricity Ashburton  
Farmlands Trading Society Ltd  
Fulton Hogan Ltd  
Gallaway Cook Allan  
Gibbons Holdings Ltd  
Insurance Council of New Zealand  
Jefferies Vehicle Deliveries Ltd  
Langham Hotels & Resorts Ltd  
Lion Nathan New Zealand Ltd  
Lyttelton Engineering Ltd  
Lyttelton Port Company Ltd  
Meat & Wool New Zealand  
Mitre 10 New Zealand Limited  
Morgan Furniture Ltd  
Motor Trade Finances Ltd  
Napier City Council  
Naylor Love Properties Ltd  
Nelson Pine Industries Ltd  
New Zealand Council of Trade Unions

New Zealand Honey Producers Co-operative Ltd  
New Zealand King Salmon Ltd  
New Zealand Sugar Company Limited  
Ngai Tahu Seafood Ltd  
Northern Publishing Ltd  
Northland Chamber of Commerce  
NZ Timber Industry Federation  
Port of Napier Ltd  
Port of Nelson Ltd  
Ports of Auckland Limited  
PPCS Richmond Ltd  
Primeport New Zealand Ltd  
Real Estate Institute NZ  
Recruitment & Consulting Services Assoc.  
Scott Technology Ltd  
South Canterbury Finance Ltd  
Swannndri New Zealand Ltd  
Tamahine Holdings Ltd  
Taranaki Newspapers Ltd  
Tecpak Industries Ltd  
The Warehouse Group Ltd  
Tourism Nelson Tasman Ltd  
Transport Investments Ltd  
TSB Bank Ltd  
Vanburwray Chartered Accountants  
Wellington City Council  
Whitakers Civil Engineers Ltd  
Whitcoulls Group Ltd  
Williams & Kettle Limited

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

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## Appendix C

### Reserve Bank statements on Monetary Policy

8 June 2006

#### OCR unchanged at 7.25 per cent

The Official Cash Rate (OCR) will remain at 7.25 per cent.

Reserve Bank Governor Alan Bollard said: "Recent economic activity has been weaker than projected in the March *Monetary Policy Statement*. However, the short-term inflation outlook has worsened.

"Growth is expected to remain low through 2006, before recovering in 2007. The much awaited economic rebalancing from domestic spending to exports commenced in late 2005, and is expected to continue over the next two years. Export growth will recover as a result of the lower exchange rate and buoyant demand in world markets. At the same time, household spending will be constrained by a continued weakening in the housing market, high petrol prices and a slowdown in employment growth.

"While weaker economic activity will reduce medium-term inflation pressures, the short-term inflation outlook has deteriorated. The sharp decline in the exchange rate over March and April will lead to higher prices on imported goods, although weak domestic demand and foreign exchange hedging by importers may dampen this increase. In addition, oil prices have risen by around 20 per cent since the March *Statement*, leading to higher prices for petrol and other transport items. These two effects together are now expected to keep headline CPI inflation above 3 per cent well into 2007.

"Given the unavoidable nature of these price shocks, it would be inappropriate for monetary policy to try to counteract their short-term inflation effects. However, it is essential that monetary policy hold the line against any second-round effects that could be felt in wages, prices and inflation expectations. A failure to do so would risk inflation becoming entrenched at a higher level, ultimately delaying a return to stronger growth.

"We do not expect to tighten policy in response to the high headline inflation in the short term. But, equally, we cannot afford to ease policy until we have more certainty that future inflation outcomes will be trending down comfortably below 3 per cent. Given this situation, we see no scope for an easing of the OCR this year."

27 July 2006

#### OCR unchanged at 7.25 per cent

The Official Cash Rate (OCR) will remain unchanged at 7.25 per cent.

Reserve Bank Governor Alan Bollard said: "Recent economic developments have been broadly in line with our June *Monetary Policy Statement*. However, economic activity has been a little stronger than expected. Indicators of both consumer demand and business activity have not softened to the degree anticipated. We are also seeing slightly more short-term inflation pressure as a result of the continued upward trend in world oil prices. Headline annual CPI inflation reached 4 per cent in the June quarter and is likely to persist around this level for several quarters to come. We remain wary of the risks to inflation expectations presented by these high headline inflation rates.

"Our medium-term view is for underlying inflation pressures to trend downwards. Economic growth is forecast to remain subdued through 2006 and 2007, and CPI inflation is expected to return within the 1–3 per cent target range by late 2007. The rebalancing of economic activity – away from domestic demand and towards exports and import substitution – is expected to continue and will help to alleviate domestic inflation pressures. The rebalancing will be supported by the weaker New Zealand dollar exchange rate and ongoing upward pressure on effective mortgage rates. Foreign interest rate trends and domestic market expectations are both now working to support our domestic policy stance.

"We maintain our view that the current level of the OCR is consistent with returning inflation to the target range. While second-round wage and price effects remain a risk, we do not expect to have to tighten the OCR further in this cycle. However, a sustained period of adjustment in domestic spending is necessary, and it will be some time before an easing in the OCR can be considered. Certainly we will need to be confident that future inflation is heading back comfortably within the target range."

## Appendix D

### The Official Cash Rate chronology

Date	OCR (percent)	Date	OCR (percent)
17 March 1999	4.50	6 March 2003	5.75
21 April 1999	4.50	24 April 2003	5.50
19 May 1999	4.50	5 June 2003	5.25
30 June 1999	4.50	24 July 2003	5.00
18 August 1999	4.50	4 September 2003	5.00
29 September 1999	4.50	23 October 2003	5.00
17 November 1999	5.00	4 December 2003	5.00
19 January 2000	5.25	29 January 2004	5.25
15 March 2000	5.75	11 March 2004	5.25
19 April 2000	6.00	29 April 2004	5.50
17 May 2000	6.50	10 June 2004	5.75
5 July 2000	6.50	29 July 2004	6.00
16 August 2000	6.50	9 September 2004	6.25
4 October 2000	6.50	28 October 2004	6.50
6 December 2000	6.50	9 December 2004	6.50
24 January 2001	6.50	27 January 2005	6.50
14 March 2001	6.25	10 March 2005	6.75
19 April 2001	6.00	28 April 2005	6.75
16 May 2001	5.75	9 June 2005	6.75
4 July 2001	5.75	28 July 2005	6.75
15 August 2001	5.75	15 September 2005	6.75
19 September 2001	5.25	27 October 2005	7.00
3 October 2001	5.25	8 December 2005	7.25
14 November 2001	4.75	26 January 2006	7.25
23 January 2002	4.75	9 March 2006	7.25
20 March 2002	5.00	27 April 2006	7.25
17 April 2002	5.25	8 June 2006	7.25
15 May 2002	5.50	27 July 2006	7.25
3 July 2002	5.75		
14 August 2002	5.75		
2 October 2002	5.75		
20 November 2002	5.75		
23 January 2003	5.75		

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## Appendix E

# Upcoming Reserve Bank *Monetary Policy Statements* and Official Cash Rate release dates

The following is the Reserve Bank's schedule for the release of *Monetary Policy Statements* and Official Cash Rate announcements for 2006-07.

26 October 2006	OCR announcement
7 December 2006	<i>Monetary Policy Statement</i>
5 January 2007	OCR announcement
8 March 2007	<i>Monetary Policy Statement</i>
26 April 2007	OCR announcement
7 June 2007	<i>Monetary Policy Statement</i>
26 July 2007	OCR announcement
13 September 2007	<i>Monetary Policy Statement</i>
25 October 2007	OCR announcement
6 December 2007	<i>Monetary Policy Statement</i>

The announcement will be made at 9:00am on the day concerned. Please note that the Reserve Bank reserves the right to make changes, if required due to unexpected developments. In that unlikely event, the markets and the media would be given as much warning as possible.

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## Appendix F

# Policy Targets Agreement

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

### 1. Price stability

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

### 2. Policy target

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

### 3. Inflation variations around target

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

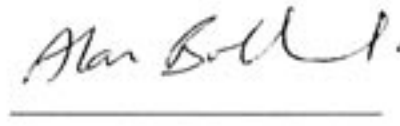
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#### 4. Communication, implementation and accountability

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



Hon Dr Michael Cullen  
Minister of Finance



Dr Alan E Bollard  
Governor Designate  
Reserve Bank of New Zealand

Dated at Wellington this 17th day of September 2002





