Monetary Policy Statement

September 2007

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

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This document is also available on www.rbnz.govt.nz

ISSN 1770-4829

1 Projections finalised on 31 August 2007. Policy assessment finalised on 12 September 2007
1  Policy assessment

The Official Cash Rate (OCR) will remain unchanged at 8.25 percent.

The outlook for economic activity and inflation has become more uncertain since we reviewed the OCR in July. Credit concerns and heightened risk aversion have led to significant turbulence in global financial markets. This development increases the likelihood of a weaker economic outlook for the United States and New Zealand’s other key trading partners than in recent forecasts.

The consequences of this financial market turmoil for New Zealand remain unclear at this stage. However, we continue to expect a significant boost to the economy over the next two years from the sharp rise in world prices for dairy products and some other commodities that has occurred over the past year. A sharp decline in the New Zealand dollar since July, if sustained, will act to reinforce the effects of higher world prices on export sector revenues.

Recent inflation outcomes have highlighted widespread inflation pressures but indicators in recent weeks suggest that previous increases in the OCR are starting to dampen domestic spending, which will help to reduce those pressures. In particular, household borrowing growth is beginning to slow and turnover in the housing market continues to fall.

We expect the effects of stronger export revenues on activity and inflation to be broadly offset by a further braking effect from the interest rate increases undertaken earlier this year. However, in the short-term, CPI inflation is likely to rise due to the effects of a lower exchange rate and higher food prices. It is important that this temporary increase in inflation does not affect price or wage setting behaviour in the medium term.

The recent collapse of a number of finance companies and reduced liquidity within the non-bank lending institution sector generally could further act to dampen activity in some areas of the economy, such as property development or consumer financing. However, we currently expect those negative effects to be relatively contained.

At this point, we believe that the current level of the OCR is consistent with future inflation outcomes of 1 to 3 percent on average over the medium term. However, given greater than usual uncertainty at present, we will be watching to see how the upside and downside risks to the outlook are developing.

Alan Bollard

[Signature]

Governor
2 Overview and key policy judgements

Since 2004, the Reserve Bank has gradually increased the Official Cash Rate (OCR) in response to a sustained upswing in economic activity, which in turn had stretched productive resources and generated significant inflationary pressure. Economic growth began to slow during 2005 and 2006, helping to reduce inflation pressures. The OCR was left unchanged during 2006 as the Bank waited to see the impact of the earlier OCR increases on inflation pressures. However, the economy regained considerable momentum in late 2006 and early 2007, intensifying pressure on productive resources. The rise in activity was most obvious in the household sector, reflected in strong consumption growth and rising house price inflation. Business investment activity also accelerated and a further tightening in the labour market was evident.

With the intention of maintaining inflation within the 1 to 3 percent target range over the medium term, the Bank increased the OCR by a further 75 basis points between March and June this year (see box 1). In the subsequent six weeks, it became clear that inflation pressures were intensifying, prompting the Bank to increase the OCR again at the July OCR Review, to 8.25 percent. Also helping to dampen inflation pressures was the exchange rate, which continued to appreciate significantly, reaching a post-float high of 77.2 on a trade-weighted basis in late July. This appreciation put considerable pressure on some parts of the export sector. Since that time, the exchange rate has fallen, improving the outlook for net exports, while the outlook for domestic activity has deteriorated slightly. The deterioration in the outlook for the domestic economy partly reflects recent developments in international and domestic financial markets and the domestic finance sector.

Over the past year, the world prices of New Zealand’s dairy exports have more than doubled. Furthermore, the world prices of some of New Zealand’s other commodities are starting to increase after an extended period of subdued out-turns. In addition, the most recent exchange rate depreciation means these increases in world prices are now more likely to be reflected in the incomes of New Zealand commodity exporters. The most obvious example of this is the recent announcement by Fonterra of a forecast payout of $6.40 per kilogram of milk solids for the 2007/08 season.

The increase in domestic incomes is clearly good news for the New Zealand economy. Higher export receipts will help to counter some of the large imbalances in the economy that have developed over several years, most notably the build-up in net foreign liabilities due to large current account deficits. At present, however, there remains considerable uncertainty about the degree to which these developments will affect activity and inflation.

The fact that the large income gains are concentrated mainly in the agriculture sector means that the near-term boost to domestic activity from higher commodity prices might be more limited than a terms of trade boost benefiting the entire economy – such as a decline in oil prices. In projections earlier this year, we considered that the then higher exchange rate would, in effect, spread some of the terms of trade gains to consumers via lower import prices; recent exchange rate depreciation has undermined some of this dissemination. Nevertheless, we continue to anticipate a considerable boost to activity emanating from the higher terms of trade over the coming years. While we expect many farmers to repay debt, others will increase their spending on things such as maintenance, on-farm investment, purchase of neighbouring farms, and general consumption. We have already seen evidence of increased dairy-related investment, with a pick-up in dairy conversions and announced dairy factory expansions. All of this will help to distribute some of the income gains to the wider economy, either directly to those servicing the agriculture sector or more broadly to those that benefit from a tighter labour market and higher wages. Furthermore, higher farm incomes are likely to boost tax revenue for the Government. The additional inflation pressure projected to come from this increase in activity was an important consideration in the decisions to increase the OCR earlier this year.

Despite reasonably resilient consumer confidence and, to a less extent, business confidence, there are signs that the OCR increases undertaken over the past few years – assisted by higher long-term interest rates – might be starting to affect activity. Higher mortgage interest rates appear to be reducing growth in household borrowing. This slowing is also apparent in the housing market, with turnover and pricing indicators turning down.
Although it currently appears that the housing market might be beginning to slow largely as we anticipated, the declines that we have seen in business confidence and other activity indicators have prompted us to lower our near-term GDP growth forecasts slightly relative to June (figure 2.1). However, further significant gains in commodity prices in the weeks immediately after the June Statement, stronger labour incomes, and a lower exchange rate assumption, mean that we are now projecting stronger growth over the second half of the projection period.

**Figure 2.1**

**Gross domestic product**

*(annual average percent change)*

Interest rates are projected to remain around current levels for most of the projection period (figure 2.2). If the interest rate profile had not increased relative to the June projection, inflation would be projected to be significantly higher than is assumed in the central projection (figure 2.3), largely reflecting the substantial increase in New Zealand’s terms of trade since June.

**Figure 2.2**

**90-day interest rate**

Our updated projection shows a stronger CPI inflation outlook over the next 18 months than was the case in our June projection. In part, this reflects a stronger-than-expected inflation out-turn in the June quarter. In addition, the recent fall in the exchange rate is expected to lead to stronger tradables inflation in the near term.

Moreover, higher food price inflation over the coming 18 months is expected to underpin inflation outcomes (see box 4, chapter 5). Our projection of higher food price inflation partly reflects higher dairy prices, together with other food commodity price pressures, that are expected to filter through to retail prices over the next 18 months. The interest rate projection in figure 2.2 assumes that the Bank will largely look through the initial direct price effects of these higher food prices, but will respond to the extent that the food price increases appear to be leading to more generalised price inflation.

While the longer-term projection for aggregate CPI inflation is broadly similar to the June projection, the composition has changed. The stronger GDP growth outlook means that we are now projecting more persistent non-tradables inflation – particularly for the non-housing components. Conversely, our medium-term tradables inflation outlook is slightly more benign, reflecting the fact that we are no longer assuming the exchange rate will depreciate later in the projection.
Policy judgements

A common theme throughout the remainder of this Statement is the larger-than-usual degree of uncertainty surrounding the outlook for both the global and domestic economies, with a number of conflicting developments having occurred since the time of the June Statement.

One of the main uncertainties stems from the recent turmoil in international financial markets. It is likely that recent developments will have a negative effect on activity in the US, particularly the housing market. In contrast, the outlook for many of our other trading partners has improved in recent months. However, the longer the uncertainty and risk aversion evident in global financial markets continues, and the more severe the impact on the US economy, the greater the likelihood that growth in other economies will suffer. There remains considerable debate about the extent to which some fast-growing regions of the world economy – such as China and much of Asia – might be affected by a slowdown in the US economy. Furthermore, history tells us that a global slowdown does not always result in a significant deterioration in the New Zealand economy. While the Asian financial crisis-induced global slowdown contributed significantly to the economic recession in New Zealand in 1997, domestic growth was very robust despite the US-led global slowdown in 2001.

The most likely channel through which deterioration in the global activity outlook would hurt the New Zealand economy is via the world price for New Zealand's commodity exports. However, given that many of the factors that have driven recent higher prices are related to supply rather than demand and the apparent absence of speculative activity in these markets, we are comfortable assuming that prices will remain near current levels until about the middle of next year, before declining gradually. The risks to this assumption are

Box 1

Recent monetary policy decisions

After the OCR was held constant through 2006, the tightening cycle that began in early 2004 resumed in March 2007.

Over the latter part of 2006, signs emerged that domestic demand was recovering. Initially, this recovery was partly attributed to falling petrol prices, although the Government's Working for Families package also provided significant fiscal stimulus. During this time, we also saw initial signs of a third wind developing in the housing market.

Through the early part of 2007, this recovery in domestic demand gained strength and it became apparent that the pick-up in activity was not just a temporary reaction to lower petrol prices. Notably, a sustained turning point in indicators of housing market activity and house price inflation was observed, and business sentiment improved significantly. Resource pressures, which had eased through the early part of 2006, showed signs of tightening at the end of 2006 and continued doing so in early 2007. Furthermore, world dairy prices increased substantially through the first half of 2007.

These developments, if ignored, were likely to result in materially stronger inflation. In response, the Bank increased the OCR by a total of 100 basis points between March and July this year (figure 2.4). At the time of the July OCR Review, the Bank noted early signs that New Zealanders were moderating their borrowing. If this moderation was sustained, and resource pressures continued to ease, the four successive OCR increases were expected to be sufficient to contain inflation.

Figure 2.4

Official Cash Rate

Source: RBNZ.
large and in both directions. The outlook for the Australian economy is also of key importance, given Australia remains our largest trading partner and an important source of foreign direct investment.

The sharp rise and subsequent fall in the exchange rate over the past three months appears to have largely reflected developments in global risk preferences. As always, predicting the exchange rate is fraught with difficulty, and we anticipate more volatility over the coming months. In the projection in chapter 5 we have assumed a largely flat exchange rate profile, supported by the strong terms of trade projection and the high relative interest rate outlook. Significant exchange rate depreciation would clearly add to tradables inflation at a time when we are already projecting non-tradables inflation to trend down only gradually. The extent to which importing firms will be able to absorb any further exchange rate depreciation into their margins without having to pass it on to their customers also adds to the uncertainty. While we continue to view the exchange rate as being well above equilibrium (see box 3, chapter 5), and is therefore continuing to constrain net exports, the extent of pressure on net exports is less than we assumed in June, and significantly less than we were thinking in July.

The financial market turmoil has not been isolated to international markets, with credit concerns being reflected in a widening of credit spreads in New Zealand, along with a general tightening in lending conditions. A number of local finance companies have gone into receivership (see box 2, chapter 3). These developments are likely to depress lending to some sectors, particularly personal finance and the construction sectors. At this stage we have made some allowance for the effect of these developments on the economy. However, the longer the concerns persist, the greater the impact on the wider economy will be, particularly to the extent that these developments weigh on consumer or business confidence.

As noted above, these developments come at a time when the domestic housing market is already showing signs of slowing. While the housing market is slowing largely as we projected in June, a knock to confidence could result in a sharper correction. To some extent, recent developments have helped speed up the much-needed rebalancing of growth away from the household sector, towards the export sector.

However, even if the housing market does turn down sharply, inflation pressures persist elsewhere in the economy. The most obvious examples of this are non-tradables prices, which have increased by at least 1.1 percent over each of the past two quarters, with evidence of more broad-based increases than was the case previously. Furthermore, labour income growth and the higher terms of trade are likely to underpin household spending. As noted above, food price inflation has also been increasing recently, and we anticipate further strong contributions to aggregate CPI inflation over the coming year as recent increases in wholesale food commodity prices pass through to retail prices.

In what follows, we use alternative scenarios to demonstrate some of these risks around the central projection discussed in chapter 5. On the one hand, recent international turmoil could lead to a more significant slowing in world growth than international forecasters are currently projecting, and could undermine the world price of New Zealand's commodity exports. Furthermore, it is plausible that developments in the local finance company sector could have a larger impact on confidence and restrain activity in some sectors to a greater degree. This combination of factors is captured in the ‘Global downturn’ scenario in figures 2.5, 2.6 and 2.7 (black dotted line).

### Figure 2.5

**90-day interest rate**

<table>
<thead>
<tr>
<th>Year</th>
<th>1995</th>
<th>1997</th>
<th>1999</th>
<th>2001</th>
<th>2003</th>
<th>2005</th>
<th>2007</th>
<th>2009</th>
</tr>
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<tbody>
<tr>
<td>Rate</td>
<td>3.0%</td>
<td>3.3%</td>
<td>4.0%</td>
<td>4.5%</td>
<td>5.0%</td>
<td>5.5%</td>
<td>6.0%</td>
<td>6.5%</td>
</tr>
</tbody>
</table>

Source: RBNZ.
It is worth noting that while the interest rate implications of the two scenarios are largely symmetrical, the growth and inflation outcomes are not. This mainly reflects the fact that many of the negative growth consequences of the global downturn scenario happen too quickly for lower interest rates to offset, while many of the positive inflation consequences of the additional inflation scenario happen too quickly for higher interest rates to offset.

Given the large uncertainties on both sides, assuming a roughly constant 90-day interest rate projection appears the most appropriate at this juncture. Based on the various assumptions, we see this as being sufficient to achieve the medium-term inflation target. However, we will be watching developments closely to gauge the most appropriate policy response over the coming months.

On the other hand, it is also possible that the central projection might overstate the current weakness in the housing sector and understate domestic demand pressures generally. In particular, as has been the case over much of the past few years, the tight labour market could conceivably result in higher and more persistent wage inflation than we have assumed. In addition, food price inflation could prove more pervasive. We illustrate this possibility in the ‘Additional inflation’ scenario (red dotted line).

As the figures show, the growth, inflation, and interest rate outcomes from these two relatively simple scenarios are quite dispersed. The global downturn scenario obviously leads to lower inflation, output, and interest rates relative to the central projection, while the additional inflation scenario leads to higher inflation, output, and interest rates.
3 Financial market developments

International markets

The period since the June Statement has seen significant turmoil in global financial markets. Problems originally seen as contained within the US sub-prime mortgage market have generated more widespread credit concerns, with losses accumulating and investors becoming increasingly uncertain about the true value of structured credit products. These credit concerns have fuelled an increase in risk aversion, which has affected a wide range of global markets, including equities, fixed income and foreign exchange.

Globally, the commercial paper markets that banks and corporate borrowers rely on for shorter-term funding have been particularly affected by credit concerns. Notably, asset-backed commercial paper markets have become dysfunctional, because of investor uncertainty about the value of the assets underlying those securities. Even those issuers with relatively high credit ratings have faced lower demand for their commercial paper, with investors preferring the safe haven of government securities. Government bond yields have fallen accordingly, although the interest rates faced by other borrowers have generally risen. Risk aversion has also spread to nervousness and weakness in global sharemarkets, which have been extremely volatile over the past month (figure 3.1). There is significant uncertainty about whether global markets will recover or whether recent turmoil will become more severe.

Figure 3.1

Equity indices

(1 January 2007 = 100)

Source: Bloomberg.

Uncertainty around the extent of the credit problems (and associated losses) faced by financial institutions has created liquidity problems across a range of countries. The major central banks have responded to various degrees by injecting liquidity and increasing the availability of short-term financing through repurchase facilities.

Overall, these developments are reflected in the relative movements in US short-term interest rates (figure 3.2). Risk aversion has seen increases in interbank (Libor) rates, while the US Federal Reserve’s efforts to address funding pressures through liquidity injections have driven its effective policy rate below the target level set for monetary policy purposes. Meanwhile, safe-haven demand for government securities has seen a sharp fall in Treasury bill rates.

Figure 3.2

US short-term interest rates

Source: Bloomberg.

These developments have had a significant effect on policy rate expectations in the major economies, with financial market turmoil seen as having the potential to undermine the economic outlook. Coupled with deepening concerns about the US housing market, this has seen US markets move to price in significant policy rate cuts over the coming year – with the first expected to be delivered at (or even before) the Federal Reserve’s next policy meeting in September (figure 3.3). Policy rate expectations have also fallen in the other major economies, although in the case of Europe and Japan this has meant scaling back rate rise expectations, rather than pricing in rate cuts.
Exchange rates

The New Zealand dollar has traded in a very wide range over the past three months. From levels around USD0.75 prevailing at the time of the June Statement, the New Zealand dollar rose to a new post-float high of USD0.811 in late July before falling to a nine-month low of USD0.664 in mid-August—a fall of more than 18 percent, one of the steepest since the New Zealand dollar was floated. While there has been some recovery from those lows, the New Zealand dollar has remained volatile. The Reserve Bank confirmed that it intervened in the foreign exchange market on 11 June (the press release is reprinted in Appendix C).

The sharp fall in the New Zealand dollar reflects the degree to which increased risk aversion and global market volatility has prompted an unwinding of carry trades. Carry trades rely on benign market conditions, wherein traders are less fearful of sharp currency moves wiping out the cash flows generated by borrowing in low interest rate currencies and investing in high interest rate currencies. Accordingly, increased volatility has seen high-yielding currencies weaken, while low-yielding ‘funding’ currencies, such as the Japanese yen, have strengthened. To the extent that the New Zealand dollar was one of the major recipients of carry trade flows, it has been the weakest of the main currencies in the period since the July OCR Review (figure 3.4).

Figure 3.3
Financial market expectations of the US Fed funds target rate

Source: Reuters, RBNZ estimates.

Figure 3.4
Currencies against the US dollar
(1 January 2007 = 100)

Source: Bloomberg.

The extent to which increased volatility and risk aversion has removed an important pre-condition for the carry trade is demonstrated by the recent breakdown in the close correlation between the New Zealand dollar and relative interest rate expectations that had existed during the past few years (figure 3.5). The New Zealand dollar has fallen sharply despite relative interest rate expectations remaining elevated, with New Zealand interest rate expectations falling by less than those in key offshore economies (with the recent fall in relative interest rate expectations reflecting some easing of pressures in the local bank bill market, as discussed in Domestic markets on the following page).

Figure 3.5
TWI and relative interest rate expectations

Source: Bloomberg, RBNZ estimates.

This measure of relative interest rate expectations is the spread between bank bill futures rates in New Zealand and a TWI-weighted average of futures rates in the US, Europe, Australia, Japan and the UK.
In a similar manner to the impact of the unwinding of carry trades, some of the weakness in the New Zealand dollar around the time of its lows in mid-August was fuelled by a substantial reduction in positions held by Japanese margin traders. Movements in positioning over the past year suggest these traders had generally seen periods of weakness in the New Zealand dollar against the Japanese yen as opportunities to buy. This ‘buy-the-dips’ pattern was again evident during the early stages of the fall in the New Zealand dollar over late July and early August. However, when the NZD/JPY failed to recover, these traders liquidated much of their positions – activity which contributed to further weakness in the New Zealand dollar in mid-August (figure 3.6).

**Figure 3.6**
NZD/JPY and margin trader positioning

![NZD/JPY and margin trader positioning](source: Bloomberg, Tokyo Financial Exchange)

**Domestic markets**

Local policy rate expectations rose between the June Statement and the July OCR Review as the market moved to anticipate the July OCR increase. Since then, OCR expectations have fallen as the market has focused on the downside risks to the economic outlook posed by global developments, as well as some weaker local economic data (particularly with regards to retail spending and housing market activity). This has seen the market move to price in a decrease in the OCR by about March next year (figure 3.7).

![Financial market expectations of the OCR](source: RBNZ estimates from overnight indexed swaps)

Despite a fall in OCR expectations during the period since the July OCR Review, short-term wholesale interest rates rose sharply during August. Notably, the 90-day bank bill rate – a key indicator rate for short-term borrowing – rose sharply as a result of increased funding pressures faced by local banks. With New Zealand banks relying on US dollar commercial paper markets as an important source of funding, difficulties faced in offshore markets were reflected in a tightening of liquidity conditions in the local interbank market. The 90-day bank bill rate rose to a peak of 9.2 percent in late August from levels around 8.5 percent at the end of July. The spread between the 90-day bank bill rate and three-month overnight index swap rates (the latter a reflection of OCR expectations) rose to more than 80 basis points, compared to its usual average of 20 to 30 basis points (figure 3.8).

The Reserve Bank responded on 23 August by announcing that bank bills would be temporarily accepted in its overnight reverse repurchase facility, as well as introducing Exchange Settlement Account tiering earlier than previously planned. While some interbank liquidity pressures remain (notably the volume of bank bills being traded remains relatively low), bank bill rates have subsequently returned to levels less out of line with the current level of – and market expectations for – the OCR.

Longer-term wholesale interest rates have fallen largely in line with global interest rate developments. Given the rise in shorter-term interest rates, this has seen the wholesale...
yield curve become more negatively sloped (figure 3.9). Regardless, recent global and local financial developments could result in some disruptions to financing activity and increased financing costs for some borrowers. Notably, the difficulties being faced by some local finance companies could affect the availability of finance in some sectors. This is discussed in more detail in box 2.

Against this background, the effective mortgage rate – the average rate being paid on outstanding mortgage debt – has continued to rise. The effective mortgage rate has now increased by nearly 140 basis points from its lows in late 2003 and has reached its highest level since August 2000 (figure 3.11). Almost 30 percent of the existing mortgage debt on fixed rates (representing close to a quarter of all mortgage debt) will re-price over the next 12 months, from an average rate of less than 8 percent. On the basis of currently available mortgage rates, these borrowers will face interest rates that are 100 to 120 basis points higher than they are currently paying. This prospect suggests the effective mortgage rate will continue to rise over the next 12 to 18 months.

Meanwhile, the mortgage rates being offered to new borrowers have continued to rise during the past few months (figure 3.10). Overall, these increases have seen both floating and fixed mortgage rates rise by close to 100 basis points since the beginning of March – largely in line with the increase in the OCR over that period.
Box 2
Non-bank lending institutions

Since 2006, finance company failures have affected more than $1 billion of household deposits, or approximately 1 percent of household deposits at both bank and non-bank lending institutions. While most of these failures appear to be due to inadequate credit management, the liquidity of some companies has been undermined by reduced rates of New Zealand household reinvestment in the sector. Companies that rely heavily on household funding and are perceived as relatively risky have come under liquidity pressure. This situation has been aggravated by tighter credit conditions in international and domestic financial markets.

To date, we believe the effects of these developments on the wider economy will be relatively contained. The proportion of lending from the non-bank lending institution (NBLI) sector is small as a share of total lending in the economy. Also, for relatively sound areas of lending, reductions in lending from non-bank lending institutions might see other lenders expand or move into such areas over time.

Nonetheless, credit availability to certain sectors will inevitably be affected to some degree, which might dampen consumption and investment activity in some areas. Alternative lenders may be difficult to find for riskier types of lending – for example, second-hand car finance and mezzanine finance for property development. Non-bank lenders have played an important niche role in the provision of second-tier property lending (for both residential and non-residential developments). Reduced provision of second-tier lending would mean that riskier projects of the kind that have been financed in recent years might be unable to be financed in the future.

Figure 3.12 shows a breakdown of lending to different sectors, and shows the relatively small proportion of non-bank institution lending, in comparison to the banks. Non-bank lending institutions account for roughly 8 percent of the total lending in figure 3.12.3

The figure separates finance lending institutions into ‘savings institutions’, ‘deposit-takers’ and ‘non-deposit-takers’, as the three groups tend to have quite different characteristics.4 Savings institutions raise most of their funding from households and have tended to engage in relatively lower-risk lending. Deposit-takers are other finance companies that are required to issue a prospectus in New Zealand in order to take New Zealand household deposits, which comprise the bulk of their funding. The last group is the non-deposit-taker group, which consists of finance companies that are mostly funded by non-residents. Non-deposit-takers provide a large proportion of household consumer finance, and a few individual non-deposit-takers are as large as the smaller banks.

Figure 3.12
Sectoral lending (NZD), by type of financial institution

Non-resident and local authority lending is excluded, as is lending to other financial institutions and securitised lending. Figures 3.12 and 3.13 are based on data from non-bank lending institutions with assets exceeding $100 million, which captures about 93 percent of total non-bank lending institution assets. Total assets of all non-bank lending institutions amounted to about $30.5 billion as at June 2007, representing about 7 percent of total financial system assets (RBNZ estimates).

In terms of the labels that have been used in the Financial Stability Report, ‘deposit-takers’ are the ‘issuers’, and ‘non-deposit-takers’ are the ‘non-issuers’. Savings institutions include seven building societies, the PSIS, and a credit union.
Those deposit holders affected by finance company failures potentially face a loss of wealth and liquidity, which could have some negative effect on household spending, although we expect the direct impact to be small in relation to the household sector as a whole. A large proportion of total depositors’ funds might be recovered over time, which will reduce the economic impact, although recovery rates might vary widely across individual institutions and recovery may be protracted. Less clear at this stage is the degree to which general household confidence might be affected by recent events. Negative confidence effects can have long-lasting impacts, which could further dampen future activity.

Figure 3.13 shows the sectors from which the different types of financial institutions raise funds. The figure shows the relatively high reliance that NBLI deposit-takers have on household sector deposits.

The Bank believes that broader negative effects through the banking system are unlikely. Aggregate direct lending exposure of registered banks to non-bank lenders accounts for only 1 percent ($2.5 billion) of banks’ total lending. The only non-bank lenders to which banks have any significant credit exposure are either non-deposit-takers with strong overseas parents, or companies with an investment grade credit rating (often both).

For non-bank lending institutions, funding from the ‘finance sector is primarily from banks.
4 The recent economic situation

Overview
New Zealand has experienced largely uninterrupted economic growth since 1998 (figure 4.1). In recent years, most of this expansion has been fuelled by strong growth in domestic demand. Strong demand growth has exceeded growth in the economy’s supply potential, placing considerable pressure on non-tradables inflation.

Figure 4.1
Real GDP cycles
(first quarter of cycle = 100)

Source: Statistics New Zealand.

Strong domestic demand, coupled with the high New Zealand dollar, led to a surge in import growth, while the high exchange rate also acted as a brake on export growth. With import growth outpacing that of exports, the current account deficit widened substantially.

Over the latter stages of 2005 and early 2006, domestic demand and capacity pressures showed signs of easing. Coinciding with signs the economy was slowing, the exchange rate depreciated rapidly and import growth receded. These factors provided tentative evidence that the New Zealand economy was entering a rebalancing phase (figure 4.2).

However, the rebalancing of economic activity subsequently proved short-lived as domestic demand rebounded strongly over late 2006 and early 2007. Business and consumer confidence improved markedly, helped by falling petrol prices. In addition, firming net immigration and the strong labour market helped spur a third wind in the housing market. At the same time, a resurgence in the New Zealand dollar hampered the emerging recovery under way in the export sector. With the domestic economy regaining momentum, capacity pressures intensified once again and domestic inflation pressures returned to uncomfortably high levels.

More recent data suggest that parts of the economy have begun to slow in response to interest rate increases earlier this year. House sales fell sharply over June and July and anecdotal reports indicate growth in bank lending has continued to slow. Further, leading indicators suggest house price inflation is beginning to respond to the slowing in housing market activity already witnessed. Growth in retail spending has eased from the high rates seen earlier this year, in line with recent declines in consumer confidence.

Global economic developments
Activity in our major trading partners has remained buoyant. Recent indications are that solid growth over 2006 has continued into the early part of 2007. While parts of the US economy are clearly softening, growth in the rest of our trading partners’ economies has continued apace, with particular strength in Australia and across much of Asia.

Partly as a result of strong world activity, inflation pressures have intensified in many of our trading partners’ economies. A recent resurgence in oil prices and increases in food prices have also added to global inflation concerns. Consequently, a number of central banks have raised official rates since the June Statement.
None of the official international data we have seen to date will have been affected by the recent financial market turbulence. However, current developments in financial markets will have some bearing on the global economic situation in the quarters ahead. This is discussed briefly in chapter 5.

- Australian GDP growth has picked up recently, rising to 4.3 percent in the year to June. Strength in domestic demand has been underscored by the strong labour market and further increases in commodity prices. Business confidence has also been rising, which, coupled with record low unemployment, has seen capacity pressures increase rapidly. The associated escalation in inflationary pressures saw the Reserve Bank of Australia (RBA) increase its policy rate at its August meeting. In doing so, the RBA revised up its inflation forecast for the year to June 2008, acknowledging continuing pressure on resource utilisation and the stronger-than-expected inflation outcome for the June quarter 2007.

- Activity in the US has slowed to a modest pace. Weakness in the housing market has continued. However, activity outside the housing market has generally remained resilient in the face of the housing slowdown. Strong gains in employment have supported private consumption spending, while business sector activity has generally been robust. It is still too early to gauge what impact recent financial market turbulence will have on the real economy.

- Growth in the Japanese economy moderated in the June quarter. However, this follows solid growth over the previous two quarters. Unemployment remains low and some improvement has been seen in indicators of business sector activity.

- Growth continues to surge in other parts of Asia. In particular, the strength in Chinese activity has continued to surprise, with GDP rising by 11.9 percent in the year to June. Elsewhere, gains in industrial production, accelerating export orders, and low unemployment have underpinned buoyant growth in South Korea, Singapore and Hong Kong.

- Growth in the eurozone dipped in the June quarter, but remains steady overall.

**Traded sector activity**

New Zealand’s trade position deteriorated significantly between 2001 and 2006. The appreciating exchange rate, coupled with household dis-saving and surging domestic demand resulted in the current account deficit expanding to a peak of 9.7 percent of GDP in June 2006 (figure 4.3).

More recently, some easing in domestic demand, and signs of a recovery in net exports have contributed to a trend improvement in the current account balance. Recent falls in the exchange rate, if sustained, might help this process.

**Figure 4.3**

**Current account balance, goods and services balances (annual)**

Export growth showed signs of a recovery through the second half of 2006 and early 2007. Strength was mostly centred on agricultural exports, as growing conditions became more favourable following poor conditions during 2005. Dairy exports in particular have been strong, growing at double-digit rates over the past year. The commencement of oil extraction at the Tui oilfield should provide a further boost to primary exports over the next few quarters, potentially boosting September quarter GDP growth by about 0.2 percentage points (without adding to inflation pressure).

In contrast to primary export volumes, our other key export sectors have displayed little growth over the past two years (figure 4.4). Despite recent increases in short-term visitor arrivals, services exports have remained subdued as the high exchange rate has eroded tourists’ spending...
power. Manufactured exports have also struggled under the high exchange rate, although solid growth has now been recorded in two of the past three quarters, reflecting strong global demand, particularly from Australia.

**Figure 4.4**

**Export volumes**

(annual average percent change)

Over the past year, world prices for our key export commodities have surged to unprecedented levels (figure 4.5). Most of these gains have been concentrated in dairy prices. Against a backdrop of strong international demand, lower-than-expected worldwide production combined with increasing demand for biofuels has constrained growth in global dairy supply. As a result, international dairy prices have more than doubled over the past nine months, with prices increasing 20 percent since the June Statement. Most of the gains in dairy prices occurred prior to the July OCR Review.

In addition to increasing dairy prices, international prices for forestry and meat products have begun to increase recently, albeit on a much smaller scale. World meat prices have risen as global supply has begun to fall short of demand following earlier drought conditions in other parts of the world. And forestry prices have found further support from surging Asian demand for wood products.

These strong increases in world prices, combined with recent falls in the exchange rate, have lifted New Zealand dollar commodity prices to near record levels (figure 4.5).

**Figure 4.5**

**Commodity prices**

Import growth slowed over most of 2005 and 2006 in line with signs the economy was slowing and capacity pressures were easing. With the downturn in activity subsequently proving short lived, import growth rebounded sharply over the latter part of 2006, assisted by the resurgence in the New Zealand dollar at that time (figure 4.6). Recent indicators signal strong import growth continued during the first half of 2007.

**Figure 4.6**

**Import volumes**

**Domestic demand**

Growth in domestic demand rebounded over the latter stages of 2006, partly as a response to falling petrol prices. Momentum in domestic demand continued in the first quarter of 2007, with a particularly strong contribution from household consumption. More recent demand indicators suggest domestic activity has begun to slow. Part of this slowing is likely to reflect timing effects following the strong
March quarter. However, at least some of the softening in demand is likely to be genuine, reflecting interest rate increases earlier in the year.

Residential investment spending remains at high levels (figure 4.7). Recent levels of residential consent issuance suggest that strength in this sector has persisted into 2007. However, other timely indicators point to a slowing later this year. The net flow of incoming migrants has now dipped below 10,000 annually, largely due to increased departures to Australia. In addition, the number of house sales has declined dramatically this year, particularly over the past two months (figure 4.8).

Figure 4.7
Real residential investment

Figure 4.8
House sales and migration

Over the second half of 2006, fresh signs emerged of renewed momentum in the housing market. Housing turnover increased and the number of days to sell a house fell swiftly to very low levels (figure 4.9). This third wind in the housing market was confirmed by a 3.5 percent increase in house prices over the March quarter (Quotable Value Limited, QV) – lifting year-on-year growth to 12 percent. Tentative evidence has now emerged that housing demand has begun to ease in response to recent substantial increases in mortgage interest rates. Household borrowing has slowed and timely indicators of housing activity have turned down, although the level of these indicators remains well above historical averages. According to data from the Real Estate Institute of New Zealand (REINZ), house prices have largely tracked sideways for the past three months (in seasonally adjusted terms).

Figure 4.9
House price inflation and days to sell

The third wind in the housing market provided strong support for a recovery in consumption growth over the latter stages of 2006. The recovery was assisted by falling petrol prices, steady growth in labour incomes, and the Government’s Working for Families package. Reflecting the stimulus from these factors, consumer confidence surged back to above-average levels and consumption growth followed suit (figure 4.10).

However, the renewed strength in consumer spending looks to have been temporary. Consumer confidence has waned recently as household balance sheets have come under increasing pressure from higher interest rates and ever-increasing debt levels. This shift in sentiment was
partly reflected in a fall in retail sales in the June quarter, although New Zealanders’ spending abroad appears to have continued apace.

**Figure 4.10**

Real consumption and consumer confidence

![Graph showing real consumption and consumer confidence over time.](image)

Source: Statistics New Zealand, Westpac McDermott Miller, Roy Morgan.

The upswing in business investment continued in the March quarter, with another solid quarterly increase (figure 4.11). Firms continue to report high levels of capacity utilisation and difficulty finding labour, and it is likely that these factors have encouraged investment in plant and equipment.

**Figure 4.11**

Real business investment

![Graph showing real business investment over time.](image)

Source: Statistics New Zealand.

Moreover, it looks as though momentum in business investment will be maintained. Both imports of capital equipment and non-residential consent issuance remained strong in the June quarter. And while business sentiment has softened lately, firms’ reported investment intentions are still at above-average levels, indicating strong fundamental support for business investment over the remainder of this year.

**Productive capacity and the labour market**

Spare capacity in the economy remains limited. This is despite a protracted period of sub-trend economic growth (figure 4.12). Taken at face value, indicators from the Quarterly Survey of Business Opinion (QSBO), such as capacity utilisation, suggest capacity pressures are almost as intense now as at anytime during the past three years. While structural changes in the economy could mean that these indicators are overstating the degree of resource pressures when compared to previous business cycles, they nevertheless suggest the economy remains stretched.

**Figure 4.12**

Economy-wide capacity utilisation and annual average GDP growth

![Graph showing capacity utilisation and GDP growth over time.](image)

Source: Statistics New Zealand, NZIER.

The labour market remains exceptionally tight, which has likely contributed in no small way to the current degree of stretch in the economy. Unemployment remains at multi-decade lows, despite significant gains in participation (figure 4.13). And with workers departing to Australia in increasing numbers, the available pool of workers has shrunk further. As a result, firms continue to report increased difficulty in finding both skilled and un-skilled labour.
A sharp decline in labour productivity growth from 2004 to early 2006 has exacerbated labour market pressures. However, measured productivity growth has shown signs of picking up again more recently (figure 4.14).

Inflation

Underlying inflation pressure remains persistent, underpinned by intense resource pressures. However, volatile movements in the exchange rate and petrol prices have obscured the extent of domestic pricing pressure recently.

CPI inflation spiked to 4 percent in June 2006 due to sharp increases in petrol prices. With petrol prices subsequently declining and the exchange rate again appreciating rapidly earlier this year, annual CPI inflation has tracked sharply lower since, falling to 2 percent in the June 2007 quarter (figure 4.16, table 4.1).

The appreciation of the New Zealand dollar also helped push core inflation measures lower over the past few quarters (figure 4.17). Nevertheless, most measures of core inflation remain in the top half of the 1 to 3 percent inflation band.
Beneath the volatility in headline inflation, non-tradables inflation has remained persistent, reflecting widespread capacity pressures. Non-tradables inflation gradually eased through 2005 and 2006, albeit remaining at high levels. More recently, signs of a re-acceleration in non-tradables inflation have emerged. In the March quarter, a 1.2 percent quarterly increase saw the annual rate of non-tradables inflation climb back above 4 percent. This was followed by another large quarterly increase in the June quarter. A further lift in construction costs contributed to the recent re-acceleration in non-tradables inflation, as the housing market surged with renewed vigour. However, recent gains in non-tradables inflation have become increasingly broad-based, evidence that economy-wide resource pressures remain elevated.

Inflation expectations

Inflation expectations drifted higher over 2006, introducing the potentially damaging prospect of expectations impacting on medium-term wage and price setting behaviour. With headline inflation subsequently easing, two-year-ahead inflation expectations have retreated recently (figure 4.18). Nevertheless, longer-term measures of inflation expectations remain at uncomfortably high levels.

Firms have been experiencing increased costs, which have squeezed profits. As a consequence, firms’ pricing intentions remain at high levels, indicating inflation pressures remain elevated (figure 4.19).
### Table 4.1
Measures of inflation and inflation expectations

(annual)

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1. Due to a reweighting of the Consumers Price Index, these series are only available on a consistent basis from September 2006 onwards.
5 The macroeconomic outlook

Overview
Uncertainty about the outlook for the New Zealand economy is particularly marked at present. Since the publication of the June Statement: commodity prices have made further significant gains; the New Zealand dollar TWI appreciated to a peak of 77.2 before depreciating to a trough of 64.9; housing turnover has moderated noticeably; credit concerns have seen lending conditions tighten; and a number of local finance companies have gone into receivership.

Over the coming months and quarters it will hopefully become clearer just what these developments mean for the New Zealand economy. For now, we judge that inflation pressures remain intense.

A larger-than-anticipated boost to the terms of trade is expected to support domestic demand, providing a significant boost to inflation pressures. At the same time, our assumption that the New Zealand dollar TWI will move broadly sideways from here reduces tradables inflation over the medium term relative to what we had projected in June.

World outlook
As discussed in chapter 4, world growth has remained buoyant lately. While the August Consensus Forecasts – on which our projection for world growth is primarily based – expect such rates of expansion to continue, the projections in this survey are subject to some degree of downside risk (figure 5.1).

Importantly, the August survey was completed well before the worst of the recent international financial market turmoil occurred. As such, it is likely the August survey overstates respondents’ current beliefs of the prospects for world growth.

Just how large these downside risks are, or to what extent any slowdown would affect New Zealand, is far from clear. For now, notwithstanding the tightening in the availability of credit occurring in the economies of many of our trading partners, the most obvious economic fallout of recent developments appears predominantly limited to the US. However, the longer the problems in the US persist, the greater the eventual impact on the US economy is likely to be, and the larger the likelihood that there will be spill-over to the rest of the world. Of particular concern in this regard would be any sign that commodity prices were beginning to trend lower.

For now, after accounting for some stronger-than-expected actual data, we have marginally lowered the August Consensus Forecasts for world growth such that our projection is largely unchanged relative to that seen in the June Statement.

The terms of trade
After rising markedly in the nine months before the publication of the June Statement, the world prices for New Zealand’s commodity exports showed even faster growth in the lead-up to the July OCR Review. While these gains were again dominated by increases in dairy prices, world prices for our other main commodity exports, most notably lamb, also improved. Since then, commodity export prices have increased less rapidly. We expect prices will persist at current levels for the next 18 months or so, before moderating gradually.

Considerable uncertainty surrounds this outlook. Should the risks to world growth discussed above eventuate, export prices could well decline sooner and more rapidly than we currently project. Conversely, given the momentum seen in export prices lately, our projections could again prove too modest.

"World growth" is an export-weighted average of the growth in New Zealand’s 12 major trading partners.
Oil prices have also risen since the June Statement, reaching a peak of USD71 per barrel (Dubai). In accordance with the August Consensus Forecasts, we assume oil prices stabilise at about USD68, before trending lower from the beginning of 2008 (figure 5.2).

**Exchange rate**

As discussed in chapter 3, marked volatility has been seen in the New Zealand dollar over the past three months. The New Zealand dollar TWI appreciated markedly in the six weeks following the publication of the June Statement, before depreciating to an even greater degree.

The projections assume the New Zealand dollar TWI will track largely sideways from here, with a stronger terms of trade and higher interest rates expected to underpin the currency (figure 5.4). Given the highly volatile nature of currency markets at present, it should be noted that this assumption is subject to more uncertainty than usual.

**Export volumes**

The high value of the New Zealand dollar in recent years has hindered export growth. This has created an imbalance between the performance of the domestic and external sectors. While the recent depreciation in the New Zealand dollar will benefit export earnings, the currency remains contractionary (see box 3), and any currency-driven recovery in export volumes is unlikely to show through until the latter stages of 2008.

A commodity-price-driven increase in agricultural export volumes also seems some way off. In the near-term, biological constraints, and the time taken to convert land to dairy production, are likely to hinder volume growth. As such, we expect total export volume growth to only keep pace with GDP growth over the coming 18 months (figure 5.6).

*(continued on p. 26)*
Box 3
The equilibrium real exchange rate

Since about 2004, the TWI exchange rate measured in real terms has generally tracked well above its long-term average (figure 5.5). Most of the strength in the TWI has corresponded to marked strength in the New Zealand dollar against the US dollar and the Japanese yen, with the New Zealand dollar exchange rates against the Australian dollar, the euro and the British pound somewhat closer to their long-term averages.

Figure 5.5
Real TWI exchange rate

The equilibrium real exchange rate

The most important cyclical factor is the differential between short-term interest rates in New Zealand and those abroad, which reflects the responses of monetary policy here and abroad to economic conditions in the respective economies. The effect of interest rate differentials on the exchange rate can be modulated to some degree by international investors’ risk appetites and the quantity of funds available for cross-border investment. Since about 2004 until very recently, strong risk appetites and ample funds had reinforced the New Zealand dollar’s appreciation in response to relatively high New Zealand interest rates.

These factors tend to be shorter term, pushing the exchange rate around a more slow-moving ‘equilibrium’ level. One well-accepted analytical framework for estimating the equilibrium level is the ‘macro balance’ approach, which adjusts for the effects of cyclical factors and views the exchange rate through its impact on competitiveness and the economy’s current account position. These longer-term structural factors tend to pull the exchange rate back from its extremes, towards equilibrium.

New Zealand runs a persistent current account deficit, reflecting the accumulation over many years of a substantial net external debt position. Macro balance is achieved when the trend balance on trade in goods and services is consistent with the trend current account deficit remaining stable as a percentage of GDP. The estimated equilibrium exchange rate at any given time is that which would deliver macro balance at a certain trend level of the current account deficit, given the other influences on nominal export and import flows.

These flows are substantially influenced by the terms of trade. In recent months, New Zealand has enjoyed a substantial terms of trade improvement, driven largely by the soaring prices of dairy products on international markets. This has led to some comment about whether the exchange rate appreciation earlier this year might have

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Data for April to August 2007 are estimates. For the purposes of this note, we use a rebased version of the five-country real TWI measure described in Kite, H (2007), “A review of the trade weighted exchange rate index”, Reserve Bank of New Zealand Bulletin, 70(2), 20-31. This measure is a 50:50 trade-to-GDP weighted TWI since 1990. In nominal terms it is the same as the official TWI after 1999, but differs from the official TWI prior to 1999 because over that time bilateral trade weights were used to construct the official TWI. The TWI measure used here is preferred to the official TWI for the purposes of historical comparisons because it is calculated consistently over its history.

A fuller discussion is provided in Munro, A (2004), “What drives the New Zealand dollar?”, Reserve Bank of New Zealand Bulletin, 67(2), 21-34.

For example, the macro balance approach has been used for IMF exchange rate assessments since the 1970s. A New Zealand example is developed in Brook, A-M and Hargreaves, D (2000), “A macroeconomic balance measure of New Zealand’s equilibrium exchange rate”, Reserve Bank of New Zealand Discussion Paper DP2000/09. That paper reported estimates of the equilibrium exchange rate in 1999 centred around 56 in nominal TWI terms.
reflected a rise in the equilibrium exchange rate level due to the terms of trade improvement.

The macro balance approach suggests that a terms of trade improvement, if permanent, should imply an increase in the equilibrium exchange rate, all else equal. This is because, if the trend current account deficit is to remain stable at a given level, a rise in the trade balance due to a rise in the terms of trade must be offset by a combination of lower export volumes and higher import volumes, which the higher exchange rate brings about.

Reserve Bank modelling using the macro balance approach suggests that a permanent 1 percent increase in the terms of trade driven by export prices might lead to a 0.8 percent appreciation in the equilibrium exchange rate. We estimate that the terms of trade has improved by about 13 percent over 2007, due largely to gains in export prices. If this increase proves permanent, the equilibrium exchange rate may have appreciated by about 10 percent, to be currently in a range centred around 63 in nominal TWI terms. This figure is probably an upper limit of plausible estimates within this framework, given that we do not expect all of the terms of trade improvement to be permanent. Of course, a range of uncertainty exists around the estimate in any case.

Bringing all the above factors together, it seems that a rise in the equilibrium exchange rate might explain some of the appreciation of the exchange rate seen until very recently, but not all. The exchange rate’s appreciation beyond its equilibrium can be attributed to the cyclical impact of New Zealand’s high interest rates, particularly relative to the US and Japan, bolstered until very recently by strong risk appetite and an ample global supply of investment funds.
Import volumes
In line with sustained shortages of productive resources, import volumes have increased to a very high level as a proportion of total GDP over the past few years. This increase has helped meet demand pressures in the wider economy to an extent. While we expect import volumes will hold at current levels, relative to GDP (figure 5.7), we now project lower import volume growth than was the case in the June Statement, with weaker business investment and a lower New Zealand dollar likely to weigh on import volumes over the coming year.

Business investment
After slowing from mid-2004, business investment growth recovered somewhat in late 2006. Domestic demand has been strong and labour shortages have provided an incentive for firms to rely more on capital wherever possible. In addition, the high exchange rate has reduced the price of imported capital equipment. On the other hand, for firms in the export sector, the high exchange rate has undermined the expected profitability of new investment projects.

While most of the factors supporting capital spending are still in place, many are less supportive than was the case in June. Following recent credit concerns in financial markets, lenders are likely to be more cautious, resulting in some firms finding it more difficult to obtain finance. In line with these developments, we now project weaker business investment (figure 5.9) than was the case in the June Statement.
Net immigration
The number of New Zealanders moving to Australia on a permanent and long-term basis has continued to increase. This has seen total net immigration decline further in recent months (figure 5.10). Net immigration is anticipated to continue to moderate in the near term, before beginning to recover early next year.

Labour market
Despite a noticeable moderation in the pace of economic growth, the combination of healthy labour demand and low net immigration has seen labour market pressures persist in recent years. The unemployment rate has now held below 4 percent for 12 consecutive quarters (figure 5.11).

Government
Our projections for fiscal policy are based on Budget 2007. Fiscal policy is expected to become quite expansionary over the projection period, with government spending as a proportion of total output forecast to continue rising (figure 5.12). This forecast for fiscal policy is little changed from the June Statement. However, we do project much larger operating surpluses over the projection horizon, with the terms of trade gain discussed above likely to lead to significantly higher tax revenues.
Residential investment

Over the past year, residential investment has remained buoyant and has increased as a proportion of GDP (figure 5.13). We expect the combination of higher mortgage interest rates, greater risk aversion on the part of lenders, and lower net immigration to slow residential construction activity. We anticipate lending by finance companies into this sector will also decline.

House prices

After trending up from the middle of last year, indicators of house price inflation have recently shown moderation. Current stretched valuations and high mortgage interest rates are likely to see this moderation continue and intensify. We expect annual house price inflation to continue to decline, so that house prices begin moving sideways from the middle of 2008 (figure 5.14).

Household consumption

Supported by low unemployment, historically high wage growth, and considerable fiscal support, household consumption spending has expanded rapidly over the past few years (figure 5.15).
Many of the factors supporting consumption spending are likely to persist for some time. Furthermore, the significant run-up in the terms of trade discussed above will eventually deliver a noticeable boost to household sector incomes. However, despite all this, we see the current level of household consumption as being very high relative to GDP. This, along with further increases in effective mortgage interest rates (see chapter 3) and stalling house prices, is expected to result in only moderate spending growth over the projection horizon.

**Gross domestic product**

After slowing noticeably through 2005, economic growth has been relatively robust over the past 12 months. We forecast continued robust growth throughout the projection horizon, with the flow-on effects on aggregate activity of the stronger terms of trade and strong labour incomes expected to outweigh the negative effect of higher interest rates, tighter credit conditions, and a high New Zealand dollar.

Income growth is expected to far outstrip GDP growth. The forthcoming terms of trade-induced jump in farm incomes is likely to see real gross domestic income increase by more than 7 percent through 2008 in annual average terms (figure 5.16, see notes to the tables, pages 34 and 35).

**Figure 5.16**

Real gross domestic product and real gross domestic income

(annual average percent change)

Source: Statistics New Zealand, RBNZ estimates.

**Inflation**

The annual rate of CPI inflation has declined over the past year as earlier gains in petrol prices and an appreciating New Zealand dollar have seen tradables inflation moderate noticeably (figure 5.17). Looking forward, the more recent depreciation in the currency, if sustained, along with higher food price inflation (see box 4), is likely to see tradables inflation move up to more average levels.

At the same time, persistent resource shortages are likely to see non-tradables inflation ease only gradually. Driving this easing, construction cost inflation is forecast to track steadily lower, as a slowdown in the housing market sees resources free up in the construction sector.

**Figure 5.17**

CPI, tradables and non-tradables inflation

(annual)

Source: Statistics New Zealand, RBNZ estimates.
Box 4
International commodities and food price inflation

The effect of the recent surge in global dairy prices on New Zealanders’ incomes has been a key focus of discussion over recent months. However, the direct effect on domestic inflation of the rise in global food commodity prices has attracted far less attention. In New Zealand, food constitutes a material part (17 percent) of the CPI regimen, thus a sustained or broad-based rise in prices of consumer food products could have considerable inflation consequences, both directly and through inflation expectations. In this box we briefly look at the direct implications of the rise in global food commodity prices for domestic inflation, and assess some of the risks around this outlook.

Consumer food price inflation has begun to pick up across our major trading partner economies over the past year (figure 5.18). At least in part, the rise in food prices reflects global factors, as stronger global demand, coupled with disrupted supply in key markets, has driven a rise in the world price of a number of food commodities (factors behind the increase are discussed in more detail in the context of the rise in dairy prices in Box 3 June 2007 Monetary Policy Statement). For example, world wheat prices have increased by more than 80 percent since April, and the CRB futures grains index has increased by 60 percent since last September.

In New Zealand, the rise in food price inflation to date has largely been a reflection of adverse weather conditions affecting fruit and vegetable prices. Even so, over the past year the price of meats, breads, and cereals has tracked higher in annual terms, and in the latest monthly data we have seen domestic retail milk prices increase in response to higher global dairy prices.

Given the historical relationship between movements in global soft commodity prices, the exchange rate, and domestic food price inflation (ex-fruit and vegetables), we would expect a more marked impact on food prices in New Zealand through 2008 as higher world prices of grains and other soft commodities feed through to higher costs for meat, dairy, and more domestically processed foods such as breads, cereals, and confectionery. These higher food prices contribute to the rise in tradables inflation projections through 2008.

However, there remain considerable risks surrounding the outlook for food prices and the impact on domestic inflation more generally. Importantly, these risks are tied to the extent to which high rates of global food commodity price inflation are likely to be sustained. Indeed, with demand for protein-rich foods from emerging Asia and the use of corn in biofuel production unlikely to slow in the immediate future, risks seem skewed to the upside. The extent to which these higher costs are passed down the production chain is also of key importance. In this respect, the highly competitive nature of the domestic food retailing industry might lead to a more muted response domestically to the rise in global food prices than would otherwise be expected. However, it is not clear that margins can contract much further from here.

Higher food prices might also have wider effects on domestic inflation. Reserve Bank research suggests consumers are highly conscious of increases in the prices of frequently purchased items, such as food. Hence, if food price rises are sustained, this might be reflected in consumers’ inflation expectations.

Figure 5.18
Food price inflation (annual)

Source: Statistics New Zealand, Datastream.

Australia has experienced even higher food price inflation, but much of this reflects Australia-specific factors.
## Appendix A

### Summary tables

**Table A**

Projections of CPI inflation and monetary conditions

*(CPI and GDP are percent changes)*

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<td>68.0</td>
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### Quarterly projections

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<th>GDP Quarterly</th>
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1 Notes for these tables follow on pages 34 and 35.
Table B  
Composition of real GDP growth  
\textit{(annual average percent change, unless specified otherwise)}

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<th>March year</th>
<th>2001</th>
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<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
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<th>2009</th>
<th>2010</th>
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<td>Public authority</td>
<td>-2.0</td>
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<td>1.3</td>
<td>4.5</td>
<td>3.8</td>
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<td>4.2</td>
<td>4.0</td>
<td>4.2</td>
<td>3.5</td>
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<tr>
<td><strong>Total</strong></td>
<td>0.6</td>
<td>3.1</td>
<td>4.2</td>
<td>6.0</td>
<td>4.9</td>
<td>4.6</td>
<td>2.8</td>
<td>3.4</td>
<td>2.4</td>
<td>2.3</td>
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</table>

| Gross fixed capital formation |      |      |      |      |      |      |      |      |      |      |
| **Market sector:** |      |      |      |      |      |      |      |      |      |      |
| Residential | -13.3 | 2.0  | 23.5 | 14.5 | 3.0  | -4.7 | -2.1 | 3.0  | -3.5 | 2.8  |
| Business | 8.5  | 7.1  | 2.3  | 12.2 | 10.9 | 7.5  | -3.6 | 4.2  | 2.7  | 2.5  |
| Non-market government sector | -17.8 | 16.4 | 14.5 | 13.8 | -4.8 | 2.3  | -2.2 | 0.4  | 12.7 | 7.6  |
| **Total**  | 0.3  | 6.8  | 7.8  | 12.9 | 7.4  | 4.2  | -3.2 | 3.6  | 2.3  | 3.0  |

| Final domestic expenditure |      |      |      |      |      |      |      |      |      |      |
| **Stockbuilding** | -0.4 | 0.1  | -0.1 | 0.2  | 0.1  | -0.5 | -0.8 | -0.1 | 0.8  | 0.1  |
| **Gross national expenditure** | 0.2  | 3.9  | 4.8  | 7.8  | 5.5  | 4.0  | 0.5  | 3.3  | 3.1  | 2.6  |

| Exports of goods and services |      |      |      |      |      |      |      |      |      |      |
| Imports of goods and services | -0.7 | 4.0  | 7.2  | 12.7 | 12.4 | 4.1  | -1.3 | 6.0  | 4.3  | 3.5  |
| **Expenditure on GDP** | 2.4  | 3.5  | 5.1  | 3.8  | 3.2  | 2.8  | 2.0  | 2.1  | 2.7  | 2.7  |

| GDP (production) |      |      |      |      |      |      |      |      |      |      |
| GDP (production, March qtr to March qtr) | 0.5  | 4.5  | 4.0  | 4.7  | 2.5  | 1.7  | 2.5  | 2.7  | 3.1  | 2.5  |

\footnote{(1) Percentage point contribution to the growth rate of GDP.}
### Table C

#### Summary of economic projections

*(annual percent change, unless specified otherwise)*

| March year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |  | 2008 | 2009 | 2010 |
|------------|------|------|------|------|------|------|------| |     |     |     |
| **Price measures** |      |      |      |      |      |      |      | |     |     |     |
| CPI        | 3.1  | 2.6  | 2.5  | 1.5  | 2.8  | 3.3  | 2.5  | | 2.9 | 3.0  | 2.6  |
| Labour costs | 1.6  | 2.1  | 2.2  | 2.1  | 2.5  | 3.0  | 3.0  | | 3.1 | 2.8  | 2.5  |
| Import prices (in New Zealand dollars) | 7.4  | -2.9 | -11.1 | -10.5 | 0.5  | 6.9  | 0.0  | | 5.9 | 0.2  | -0.3 |
| Export prices (in New Zealand dollars) | 20.6 | -3.5 | -15.5 | -5.1  | 4.9  | 3.6  | 5.0  | | 16.0 | -2.5 | -2.2 |
| **Monetary conditions** |      |      |      |      |      |      |      | |     |     |     |
| 90-day rate (year average) | 6.6  | 5.4  | 5.9  | 5.3  | 6.5  | 7.3  | 7.6  | | 8.5 | 8.6  | 8.2  |
| TWI (year average) | 50.4 | 50.3 | 56.4 | 63.6 | 67.1 | 70.1 | 65.6 | | 69.0 | 67.3 | 67.9 |
| **Output** |      |      |      |      |      |      |      | |     |     |     |
| GDP (production, annual average % change) | 2.1  | 3.6  | 4.6  | 3.5  | 3.9  | 2.0  | 1.7  | | 2.9 | 2.9  | 2.8  |
| Potential output (annual average % change) | 2.8  | 3.2  | 3.4  | 3.3  | 3.1  | 2.9  | 2.8  | | 2.9 | 2.9  | 2.8  |
| Output gap (% of potential GDP, year average) | -0.1 | 0.3  | 1.4  | 1.6  | 2.4  | 1.6  | 0.5  | | 0.5 | 0.5  | 0.5  |
| **Labour market** |      |      |      |      |      |      |      | |     |     |     |
| Total employment | 2.3  | 3.5  | 1.5  | 3.1  | 3.4  | 2.6  | 1.7  | | 1.8 | 0.3  | 0.0  |
| Unemployment rate (March qtr, seasonally adjusted) | 5.3  | 5.2  | 4.8  | 4.1  | 3.8  | 3.9  | 3.7  | | 3.7 | 4.0  | 4.4  |
| Trend labour productivity | 1.5  | 1.4  | 1.1  | 0.9  | 0.8  | 0.9  | 1.2  | | 1.6 | 1.8  | 1.9  |
| **Key balances** |      |      |      |      |      |      |      | |     |     |     |
| Government operating balance (% of GDP, year to June) | 1.1  | 1.9  | 1.5  | 5.2  | 4.2  | 7.3  | 3.8  | | 4.0 | 3.9  | 3.7  |
| Current account balance (% of GDP, year to March) | -4.4 | -3.2 | -3.6 | -5.0 | -7.3 | -9.6 | -8.5 | | -7.5 | -6.6 | -6.6 |
| Terms of trade (OTI measure, annual average % change) | 4.4  | 4.2  | -5.7 | 3.9  | 5.8  | -0.8 | 2.0  | | 9.1 | 2.5  | -2.4 |
| Household saving rate | -4.5 | -3.9 | -10.9 | -10.0 | -11.0 | -14.0 | -12.9 | | -10.7 | -8.6 | -8.6 |
| (% of disposable income, year to March) |      |      |      |      |      |      |      | |     |     |     |
| **World economy** |      |      |      |      |      |      |      | |     |     |     |
| World GDP (annual average % change) | 3.7  | 1.6  | 3.0  | 3.3  | 3.6  | 3.6  | 3.6  | | 3.6 | 3.6  | 3.4  |
| World CPI inflation | 2.7  | 1.4  | 2.2  | 1.5  | 2.1  | 2.5  | 1.9  | | 2.4 | 2.0  | 2.2  |
Notes to the tables

CPI
Consumers Price Index. Quarterly projections rounded to one 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.

World GDP
Reserve Bank definition. 12-country index, export weighted. Projections based on
Consensus Forecasts. Seasonally adjusted.

World CPI inflation
RBNZ definition and estimate. TWI trading partners’ CPI inflation, weighted by TWI
weights. Projections based on Consensus Forecasts.

Import prices
Domestic currency import prices. Overseas Trade Indexes.

Export prices
Domestic currency export prices. Overseas Trade Indexes.

Terms of trade
constructed using domestic currency export and import prices.
Overseas Trade Indexes.

Private consumption
System of National Accounts.

Public authority consumption
System of National Accounts.

Residential investment
RBNZ definition. Private sector and government market sector residential

Business investment
RBNZ definition. Total investment less the sum of non-market investment and

Non-market investment
RBNZ definition. The System of National Accounts annual nominal government
non-market/market investment ratio is interpolated into quarterly data. This ratio
is used to split quarterly expenditure GDP government investment into market and
non-market components.

Final domestic expenditure
RBNZ definition. The sum of total consumption and total investment.
System of National Accounts.

Stockbuilding
Percentage point contribution to the growth of GDP by stocks.
System of National Accounts.

Gross national expenditure

Exports of goods and services
System of National Accounts.

Imports of goods and services
System of National Accounts.

GDP (production)
System of National Accounts.

Potential output
RBNZ definition and estimate. Refer to Conway, P and B Hunt (1997),

Output gap
RBNZ definition and estimate. The percentage difference between real GDP
(production, seasonally adjusted) and potential output GDP.

Current account balance
Balance of Payments.

Total employment
Household Labour Force Survey.

Unemployment rate
Household Labour Force Survey.

Household saving rate
Household Income and Outlay Accounts.
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<th>Indicator</th>
<th>Description</th>
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<td><strong>Labour productivity</strong></td>
<td>The series shown is the annual percentage change in a trend measure of labour productivity. Labour productivity is defined as GDP (production) divided by Household Labour Force Survey hours worked.</td>
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<td><strong>Labour cost</strong></td>
<td>Private sector all salary and wage rates. Labour Cost Index.</td>
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<td><strong>Real gross domestic income</strong></td>
<td>The real purchasing power of domestic income, taking into account changes in the terms of trade. System of National Accounts.</td>
</tr>
<tr>
<td><strong>Quarterly percent change</strong></td>
<td>((\text{Quarter/Quarter}_{-1} - 1) \times 100)</td>
</tr>
<tr>
<td><strong>Annual percent change</strong></td>
<td>((\text{Quarter/Quarter}_{-4} - 1) \times 100)</td>
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<tr>
<td><strong>Annual average percent change</strong></td>
<td>((\text{Year/Year}_{-1} - 1) \times 100)</td>
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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.
Appendix B
Companies and organisations contacted by RBNZ staff during the projection round

Aka-Aka Otaua Farm Discussion Group
Allied Telesis Labs Ltd
ASB Bank Limited
Ashburton District Council
Ashburton Implement Services Limited
Bayleys Real Estate Limited
Betacom Limited
BP Oil New Zealand Ltd
Canterbury Building Society Ltd
Canterbury Employers’ Chamber of Commerce
Colliers International (New Zealand) Ltd
Collins Mitre 10 Ltd
Comalco New Zealand Limited
Cookson Boats Ltd
Criterion Group Limited
CWF Hamilton and Company Ltd
Delta Software Limited
Donaglys Ltd
Drummond & Etheridge Ltd
Dunedin City Council
Electricity Ashburton Limited
Employers & Manufacturers Association (Northern) Inc.
Engineering, Printing & Manufacturing Union
Fairfax New Zealand Limited
Farmlands Trading Society Limited
Federated Farmers of New Zealand (Inc)
Financial Services Federation Inc.
Fisher & Paykel Appliances Limited
Fletcher Building Limited
Fliway International Ltd
Foodstuffs (Wellington) Co-operative Society Ltd
Fulton Hogan Ltd
Gallaway Cook Allan
Gibbons Holdings Ltd
Harcourts Group Ltd
Hertz New Zealand Ltd
Mainzeal Property and Construction Limited
MARAC Finance Ltd
Meat & Wool New Zealand Ltd
Methanex New Zealand Limited
Mitre 10 Mega (Tauranga) Ltd
Napier City Council
Naylor Love Ltd
Nelson Pine Industries Ltd
Nelson Tasman Chamber of Commerce
New Zealand Sugar Company Limited
Nissan New Zealand Limited
Port Nelson Limited
Port of Napier Ltd
Port of Tauranga Limited
Ports of Auckland Limited
PPCS Limited
Ravensdown Fertiliser Co-operative Limited
Simkin Construction Ltd
Skope Industries Limited
Solid Energy New Zealand Ltd
Steel and Tube Holdings Limited
Stevens Bros Ltd
Subaru of New Zealand Ltd
Tamahine Holdings Ltd
Tecpak Industries Limited
The Warehouse Group Limited
Toll Owens Limited
Vero Insurance New Zealand Limited
Zespri International Ltd
Appendix C
Reserve Bank statements on monetary policy

Reserve Bank raises OCR to 8.00 percent
7 June 2007
The Official Cash Rate (OCR) will increase by 25 basis points to 8.00 percent.

Reserve Bank Governor Alan Bollard said: “Domestic demand has grown strongly since late 2006, particularly in the household sector. Housing market activity has been buoyant, consumer confidence has remained relatively robust and a range of business sector indicators, including employment and investment intentions, have been strong. As we have noted recently, government spending continues to increase, which is contributing to domestic demand.

“Following several years of strong growth, firms have indicated that capacity remains stretched and that finding both skilled and unskilled staff has become increasingly difficult. These pressures continue to underpin inflation.

“A sustained period of slower growth in domestic activity will be required to alleviate inflation pressures. Lending rates have risen significantly in recent months, partly due to previous increases in the OCR. Given the usual lags, we have not yet seen the effect of these increases on domestic demand and inflation pressures. There are some early indications from recent opinion surveys and other data that growth may be starting to soften, but these are by no means conclusive. Indeed, at present the risks to domestic activity appear to remain on the upside.

“A significant development in the past six months has been a marked increase in dairy prices. While there are uncertainties about the future path of these prices, the increases will assist in narrowing New Zealand’s trade deficit. The rise in dairy sector incomes will provide a substantial boost to economic activity over the next few years, but will also add to inflation pressures.

“Parts of the export sector outside the dairy industry will continue to face challenging conditions due partly to the New Zealand dollar. As we noted in April, the exchange rate is at levels that are both exceptionally high and unjustified on the basis of New Zealand’s medium-term fundamentals.

“Had we not increased the OCR this year, it is likely that the inflation outlook would now be looking uncomfortably high. This further increase in the OCR is to ensure that inflation outcomes remain consistent with achieving the target of 1 to 3 percent inflation on average over the medium term.”

Reserve Bank confirms forex intervention
11 June 2007
The Reserve Bank confirmed it has intervened today in the foreign exchange market to sell New Zealand dollars.

Reserve Bank Governor Alan Bollard said: “As stated in our June Monetary Policy Statement, we regard current levels of the exchange rate as exceptional and unjustified in terms of the economic fundamentals.

“This action does not prejudge the future direction of monetary policy, which as always will remain dependent on emerging economic trends.

“The action is consistent with clause 4(b) of the Policy Targets Agreement, which requires monetary policy to avoid unnecessary instability in the exchange rate.”

Reserve Bank raises OCR to 8.25 percent
26 July 2007
The Official Cash Rate (OCR) will increase by 25 basis points to 8.25 percent.

Reserve Bank Governor Alan Bollard said: “The New Zealand economy is running strong. We are recording continued big increases in international commodity prices, especially dairy, reflecting solid world demand for our products.

“This is very good news for New Zealand. Given this positive situation, some of the negative commentary circulating about the economy is unwarranted.

“However, the continued tight labour market, high capacity use, and rising oil and food prices all point to sustained inflationary pressures. That is why we are increasing the OCR today.
“The New Zealand dollar has reached very high levels recently, driven by US dollar weakness and New Zealanders’ heavy demand for borrowing. This level of the currency has been hurting exports.

“The high New Zealand dollar is not sustainable medium term and investors should understand this. The higher OCR now gives strong incentives to New Zealanders to save.

“New Zealanders have been showing early signs of moderating their borrowing.

“Provided they keep this up, and the pressure on resources continues to ease, we think the four successive OCR increases we have delivered will be sufficient to contain inflation.”
## Appendix D

### The Official Cash Rate chronology

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<th>OCR (percent)</th>
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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 2007 and 2008:

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<thead>
<tr>
<th>Date</th>
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<td>25 October 2007</td>
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<td>4 December 2008</td>
<td>Monetary Policy Statement</td>
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The announcement will be made at 9:00 am 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.
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.
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
Reserve Bank of New Zealand

Dated at Wellington this 24th day of May 2007