Monetary Policy Statement
June 2009

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

Contents
1. Policy assessment 2
2. Overview and key policy judgements 3
3. International developments and outlook 8
4. Recent developments in the domestic economy 15
5. The macroeconomic outlook 24

Appendices
A. Summary tables 33
B. Companies and organisations contacted by RBNZ staff during the projection round 38
C. Reserve Bank statements on monetary policy 39
D. The Official Cash Rate chronology 41
E. Upcoming Reserve Bank Monetary Policy Statements and Official Cash Rate release dates 42
F. Policy Targets Agreement 43

This document is also available on www.rbnz.govt.nz
ISSN 1770-4829

1 Policy assessment

The Official Cash Rate (OCR) will remain unchanged at 2.50 percent.

The economic outlook remains weak both in New Zealand and in other countries. However, there are signs that international economic activity is stabilising, and international financial conditions are improving. We expect the New Zealand economy to begin growing again toward the end of this year but the recovery is likely to be slow and fragile. Many key economic indicators such as unemployment are projected to keep deteriorating well into 2010.

There remain some material downside risks to activity and inflation, but for the first time in some months we can also identify some clear upside opportunities for activity. One such area is a potential rebound in household spending and residential investment as a result of the rise in net immigration and the pick-up in the housing market. Ultimately, however, we do not think such a rebound in spending would prove sustainable given the soft outlook for employment, wages and farm incomes and high levels of household debt.

On balance, the risks to activity remain weighted to the downside.

The recent rise in the New Zealand dollar creates an unhelpful tension with our projections. A stronger dollar at a time of weak global growth risks delaying or even reversing the projected increase in exports, putting the sustainability of recovery at risk.

Overall, recent developments point to lower inflationary pressure than previously projected. Annual CPI inflation is likely to fall temporarily below the bottom of the target band later this year, but we expect it to return to inside the band by early 2010 and remain comfortably there over the remainder of the projection.

We have cut the OCR by a large amount over the year. We expect the effects to pass through to more borrowers over coming quarters as existing fixed-rate mortgages come up for re-pricing. Although rising longer-term interest rates overseas are placing upward pressure on longer-term lending rates here, there is room for further reductions in shorter-term lending rates.

The low OCR and stimulatory fiscal policy are the main sources of support to the New Zealand economy at present. It is likely to be some time before the recovery becomes self-sustaining and monetary policy support can be withdrawn.

We therefore consider it appropriate to continue to provide substantial monetary policy stimulus to the economy. The OCR could still move modestly lower over the coming quarters. As we said at the time of the April OCR decision, we expect to keep the OCR at or below the current level through until the latter part of 2010.

Alan Bollard

[Signature]

Governor
2 Overview and key policy judgements

For the past few quarters, the main focus of the Monetary Policy Statement has been the rapidly deteriorating outlook for the global and domestic economies, and the appropriate monetary policy response. Activity in New Zealand and in many of our trading partner economies in the first quarter of 2009 looks like it undershot our, already very weak, March Statement projections. Negative or weak growth is expected to continue for the next few quarters. However, for the first time in some months, we have increased confidence that activity here and abroad will trough over the next quarter or two. The signs of stabilisation have helped spur a recovery in international equity markets and an improvement in financial market conditions.

With the growing evidence of a stabilisation in activity, there is now more focus on the recovery, including its drivers, its speed and its sustainability. Determining these features is hard enough in normal times, but the severity of the financial crisis makes this task even more challenging. Below, and in chapter 5, we outline what we see as being the most likely path for the economy. However, there are other plausible outcomes. In particular, box B outlines an alternative scenario where the New Zealand dollar remains stronger than in our central projection and the household sector once again begins to spend significantly in excess of its income.

In our central projection we project activity in most of our trading partner economies to stop contracting during the second half of this year, before commencing a slow recovery next year. There are many factors contributing to this comparatively weak outlook. These include the synchronised nature of the global recession, the weak state of financial systems, and the need for households and firms in many Western economies to restore their balance sheets.

In addition, the eventual need for fiscal consolidation will hold back growth in demand over the medium term.

The prolonged period of weak global activity and the recent appreciation in the New Zealand dollar are projected to continue to weigh on demand for New Zealand exports for some time yet. However, we expect this situation to begin to turn around early next year, with both export volumes and prices recovering on the back of a resumption in world growth and an assumed depreciation in the New Zealand dollar. The latter represents a key judgement and is clearly an area of risk in the projections given recent developments.

Our assessment is that the recent appreciation has been largely driven by international factors. In time, we expect a renewed focus on domestic developments, particularly New Zealand's stretched external position, to put downward pressure on the New Zealand dollar. Stronger export growth is expected to support a rebound in business investment.

Household spending is likely to remain weak. Consumption per capita is expected to decline throughout the projection, and while residential investment rebounds it does so from very low levels. Recent increases in housing

Figure 2.1
Gross Domestic Product
(annual average percent change)
Monetary policy judgements

We continue to see the balance of risks to the central projection as being to the downside for activity and inflation. However, for the first time since the middle of 2008, it is possible to identify a number of upside risks to the activity outlook. In New Zealand, these upside risks relate mainly to the recent strong increases in net immigration and the pick-up in housing market turnover. Internationally, they relate to the recent improvement in activity indicators in many of our Asian trading partners. In addition, the risk of further marked deterioration in the global financial system looks to have reduced.
Box A

Recent monetary policy decisions

The OCR was cut by 5.75 percentage points in the nine months between the July 2008 and April 2009 OCR reviews (figure A1). This unprecedented rate of reduction in the OCR was in response to the rapidly deteriorating global outlook, tightening credit conditions, widening interest rate spreads, and continued contraction in the New Zealand economy – all of which were projected to result in a significant reduction in medium-term inflation.

In addition, the Bank has taken a number of steps to enhance its liquidity facilities, ensuring the flow of credit and so helping the transmission of the lower OCR to the interest rates faced by households and business.

The extent to which the New Zealand economy has continued to weaken and inflation pressures have abated suggests that rapid and significant OCR reductions have been appropriate.

The risks of a rapid rebound in the existing house market are also material to policy considerations currently. Recent housing activity indicators, including the rebound in housing loan approvals in April, point to some stabilisation of the sector. Moreover, shorter-term mortgage rates remain low and support a pick up in activity, and net immigration has surprised on the upside recently. On the other hand, household income growth is projected to remain weak over the next year, unemployment is continuing to rise and house prices remain above their long-term averages on a range of metrics. For these reasons, we do not expect the recent consolidation to flow through to a quick or large rebound in house prices, but we do expect residential investment to recover in 2010.

The combination of a stronger New Zealand dollar, and hence weaker export growth, and a rapid rebound in household spending would represent an unfortunate mix of macroeconomic conditions going forward. It would likely imply current macroeconomic imbalances, particularly aggregate household indebtedness and the current account deficit, remaining high or even increasing further. The vulnerability of the economy to a change in foreign investor sentiment would remain high and could worsen, putting the sustainability of the next expansion at risk. While we do not think such a picture is the most likely outcome at present, an alternative scenario where the New Zealand dollar stays higher than assumed in the central projection and household spending increases earlier, is shown to illustrate the possibilities (see box B).

Despite the downside risks to activity, and the projection for inflation to remain around the bottom half of the target band for the next year or so, we see little risk of sustained deflation in New Zealand. While inflation expectations, economy-wide wage growth, and surveyed pricing intentions, have declined significantly, they still all remain at levels consistent with inflation remaining within the target band over the medium term. In the same way as having a credible inflation target helped contain inflation expectations when headline CPI inflation spiked above 5 percent last year,
we believe it will help prevent inflation expectations falling too far in the current environment.

Another reason we see little risk of sustained deflation is that compared to many other countries, such as the United States and the United Kingdom, there is still scope for the OCR to be reduced further if needed.

Our view is that traditional monetary policy instruments remain effective in New Zealand. The record reductions in the OCR over the past year have passed through more than in most countries to the interest rates faced by households and businesses. Many more households and businesses will get the benefit of these lower interest rates over the coming year or so as their existing fixed interest rate terms mature. However, it appears as though the most recent reductions in the OCR have not been passed on to borrowers to the extent that we would have expected. While there has been some increase in funding costs from higher retail deposit rates and longer-term interest rates offshore, this does not appear to fully explain the relative lack of movement of interest rates at shorter terms.

Box B
Alternative scenario – ongoing build-up of imbalances

A key theme underlying the central projection is that the global economy will be more credit constrained going forward than was the case for much of this decade. One expected implication of this is that investors will be more discerning about who they lend to and the amount and price of credit they will make available. However, recent financial market developments may point to this constraint not being as binding as we think, at least for a while. If this turned out to be the case, two of the judgements underpinning the central projection could hold to a much lesser extent than we expect. The recent strength in the New Zealand dollar could be maintained or even built on, and households may be more able, or indeed willing, to take on debt again.

This alternative scenario looks at a plausible path of the economy if credit conditions ease by more than assumed in the central projection. For example, if the recent increase in housing turnover gains further traction facilitated by a resumption of credit growth, it could trigger an early rebound in house prices and a much stronger pick up in household spending (private consumption plus residential investment) than shown in the central projection (figure B1). Household saving would increase by much less than expected or even reverse for a period. At the same time, the stronger outlook for the domestic economy could lend further support to the New Zealand dollar (figure B2), particularly if foreign investors view New Zealand in a favourable light relative to our trading partners. The strength in the New Zealand dollar would likely keep the price of imports down, further boosting household spending, while weighing on exports.

Figure B1
Household spending per capita
(annual average percent change)

![Figure B1 graph]

Source: Statistics New Zealand, RBNZ estimates.

Figure B2
Nominal TWI

![Figure B2 graph]

Source: RBNZ estimates.
This combination of a strong domestic economy and weaker net exports would likely result in a wider current account deficit than shown in the central projection (figure B3).

**Figure B3**

*Current account balance (annual, percent of GDP)*

Such a renewed widening in the current account deficit would see net international liabilities resume increasing at a faster rate, adding to New Zealand’s already high external vulnerability. At some point, this increased vulnerability would lead to foreign investors reassessing the terms on which they lend to New Zealand. This would likely see the New Zealand dollar fall and the premium New Zealanders pay on their offshore funding increase.

This would lead to lower household spending and business investment, and eventually push growth below the central projection. The economy would be smaller and living standards lower over the medium term.
3 International developments and outlook

The global economy weakened significantly over the past year, more so than we expected at the time of the previous Statement. Particularly sharp contractions in activity occurred in late 2008 and early 2009 in response to significant strain in financial conditions, the effects of which were amplified by declines in household and business confidence. These developments caused most of our major trading partner economies to enter the deepest recessions they have experienced for several decades.

In recent months, global economic activity has remained weak. However, consistent with our projections from the previous Statement, signs that activity will stabilise over mid-2009 have emerged in many of our trading partner economies. Consumer and business confidence indices have lifted. Additionally, in some regions, leading indicators, such as industrial production have improved. These developments have helped to improve financial conditions.

Given these signs of stabilisation, we do not expect the global economy to continue contracting at the rapid pace seen in recent quarters. Nevertheless, we still expect that global economic activity will remain weak for an extended period. Financial conditions remain tight compared to previous years. In addition, the rebuilding of household and financial institution balance sheets is likely to continue for a protracted period, while at longer horizons fiscal debt positions will need to adjust to more sustainable levels. As a result, the global economy is likely to provide a dampening influence on the New Zealand economy for some time due to financial linkages and a weak trade environment.

In contrast to recent quarters, risks for global growth have become more balanced. However, as is typical around economic turning points, indicators have been mixed and the outlook remains highly uncertain. In the near term, particular uncertainty surrounds the extent of recent improvements in activity, and whether such improvements will continue. Related to this are concerns about the sustainability of the recent improvement in financial conditions. At longer horizons, there is a tension between the significant monetary and fiscal support introduced in recent quarters, and the need for significant financial consolidation by households and financial institutions. Concerns also surround the longer-term sustainability of monetary and fiscal stimuli.

International financial market developments

The marked weakening in global activity since late 2007 has been closely tied to the deterioration in financial conditions and confidence, as well as a decline in both financial and housing wealth. However, in recent months there has been some improvement in financial market conditions. In part, this has been related to the tentative signs of stabilising economic activity. It has also been related to significant actions by government authorities globally to support the financial sector. In the United States in particular, markets reacted positively to the US Treasury announcement of plans to facilitate private-public investment programmes aimed at removing legacy assets from US bank balance sheets. Markets also reacted positively to the results of the stress test conducted by US authorities to assess the solvency of major US banks under a number of negative economic scenarios.

Further to this, the ability demonstrated by a number of financial institutions to raise equity capital, as well as to issue debt with and without government guarantees, has reinforced the recovery in sentiment.

These early signs of stabilisation in economic activity, as well as improved confidence in the global financial system, have facilitated an increase in risk appetite and investor confidence. The consequences of this have been seen most clearly in the performance of equity markets over the past few months. While remaining well below their highs of 2007, global equity markets have risen steadily since mid-March (figure 3.1), with the S&P 500 index increasing by about 30 percent. However, risks remain around the sustainability of the current improvement in financial markets given the uncertainty about the timing and extent of any global economic recovery.
Conditions in world wholesale credit markets have also improved recently. Pressures in money markets have continued to dissipate, with the spread between three-month interbank lending rates and policy rates moderating to the level seen before September 2008 when Lehman Brothers entered bankruptcy (figure 3.2). Market participants have also reported improved conditions in US dollar commercial paper markets.

Despite these improvements, access to credit remains tighter than it has been for many years and, while having risen from their March lows, measures of financial wealth remain well below their previous highs. Combined with still elevated levels of indebtedness in many of our main trading partner economies, this suggests tight financial conditions will continue to dampen activity in our trading partner economies for some time yet.

**Foreign exchange markets**

The US dollar has weakened against most major currencies over the past few months, as a moderation in safe-haven demand for US dollar assets has supported a depreciation of the currency. Further to this, concern over the inflationary consequences of the US Federal Reserve’s expansion of its asset purchase programme, as well as concern over the appetite of global investors to continue funding a rising US fiscal deficit, have also put downward pressure on the US dollar more recently.

In contrast, the New Zealand dollar has appreciated markedly over the past few months. In addition to gains made relative to the US dollar, the New Zealand dollar has appreciated strongly relative to the Japanese yen, with more modest gains relative to the euro and the British pound. This has left the New Zealand dollar about 12 percent higher on a trade weighted basis since the previous Statement (figure 3.3). The general increase in risk appetite has been a major driver of this strength, with the New Zealand dollar largely moving in line with the performance of global equity markets day to day. The relatively strong gains in the New Zealand dollar, along with the Australian and Canadian dollars, have also been driven by perceptions of greater sensitivity of commodity-exporting countries to stronger global growth and commodity price gains.

Limiting this appreciation to some degree has been a narrowing of New Zealand’s relative interest rate differentials. Further to this, the moderation in foreign exchange market volatility and improvement in risk appetite have not encouraged a significant increase in demand for New Zealand dollar assets. In particular, issuance of Eurokiwi and Uridashi bonds remains subdued, with maturities continuing to outpace new issuance.
International policy response

Contributing significantly to the improvement in financial conditions has been a substantial easing in monetary and fiscal policy in recent months. Central banks have continued to reduce policy rates, and markets continue to price a chance of further policy easing in some economies. Also, as policy rates in a number of countries have approached zero, some central banks have adopted more unconventional monetary policy measures. The US Federal Reserve, Bank of England and European Central Bank have all announced plans of direct asset purchases, or expansions to existing programmes. Of particular note, purchases of mortgage agency debt securities in the United States appear to have played a significant role in lowering mortgage interest rates. However, US government bond yields have continued to rise despite direct purchases by the US Federal Reserve, resulting in a broad tightening in financial conditions most recently.

Complementing the stance of monetary policy in recent quarters has been significant fiscal stimulus in most of our major trading partner economies. Particularly large fiscal stimulus packages have been introduced in the United States, China, Australia, Malaysia and Singapore. Recently, fiscal support packages have been expanded in Japan, the United Kingdom, Australia and in some other Asian economies.

Much of the announced fiscal stimulus is still coming on line, and we are yet to see the full effects on economic activity. However, in the current environment there are concerns that multiplier effects from one-off payments or tax cuts, which have been introduced in many economies, will be subdued. In the United States, for example, the deterioration of the labour market and low confidence have seen much of the recent tax cuts being saved rather than spent. Multipliers from infrastructure spending are likely to be higher than those resulting from targeted payments to households. For instance, in China where large-scale spending has centred around infrastructure, the domestic economy is showing signs of a turnaround, with recovery in business sector surveys, such as the PMI, as well as improvement in indicators of production and fixed asset investment.

Considerable uncertainty surrounds the sustainability of fiscal policy settings, particularly at longer horizons. Fiscal debt positions have deteriorated markedly for many of our trading partners. The eventual unwinding of stimulus may result in an extended period when fiscal spending is a contractionary impulse on activity.

An additional concern regarding fiscal stimulus is that the increase in risk appetite has seen safe-haven flows into government debt moderate, resulting in upward pressure on government bond yields, particularly for longer-term bonds. Further, there are concerns regarding the ability of markets to absorb planned increases in government debt issuance related to recently introduced fiscal measures, as well as increased spending associated with automatic fiscal stabilisers. This has placed pressure on longer-term interest rates more generally. As figure 3.4 highlights, the spread between 2-year and 10-year swap rates in major economies has continued to widen as yield curves steepen globally.

Figure 3.3
New Zealand and US trade weighted indices

Source: Bloomberg.

Figure 3.4
Spread between 10-year and 2-year swap rates

Source: Bloomberg.
International activity

In late 2008 and early 2009, significant strain in financial markets as well as very low confidence led to considerable weakness in global economic activity (figure 3.5). GDP contracted in nearly all major trading partner economies, in many cases at rates not seen for several decades. Manufacturing activity was particularly weak as households and businesses curtailed their demand for durable goods and inventories were run down. On balance, the degree of weakness has been greater than we expected at the time of the March Statement.

While economic activity has been weak, we are seeing signs that global growth is stabilising in mid-2009 – consistent with our March Statement projections. In many economies, consumer confidence has lifted off its lows and surveys of business activity have also improved (figure 3.5). Additionally, monetary and fiscal stimuli have begun

Figure 3.5
Trading partner GDP and activity indicators
(annual percent change)

Source: DataStream, national sources, RBNZ estimates.
Note: Activity indicators have been scaled so that they can be compared to GDP growth in each country.
to support domestic demand, particularly in China. In some regions, trade and production data have also improved in recent months, with some signs that the decline in activity has already been arrested in Asia. As noted above, this has been both the result of, and contributor to, improved financial market conditions.

Despite signs that economic activity is stabilising, underlying conditions remain weak. Business inventory ratios remain high and destocking is likely to continue to dampen activity in the near term. And although saving rates have already risen in Western economies, household debt remains at historically high levels (figure 3.6). Meanwhile, housing and other asset values have fallen steeply and labour market conditions are continuing to weaken. Concerns also remain regarding the health of financial institutions’ balance sheets in the United States and Europe. Further, as noted above, fiscal positions have deteriorated rapidly in some trading partner economies and are likely to continue to do so in coming years, suggesting a period of fiscal consolidation will be necessary once private sector activity resumes growing.

In view of these developments, we continue to anticipate that global economic growth will remain subdued for an extended period (figure 3.7). In the near term, ongoing adjustments in inventory levels, as well as the continuing adjustment to Western economies’ balance sheets, will provide a dampening influence on global activity. Partially offsetting these factors are considerable monetary and fiscal

**Figure 3.7**
Trading partner GDP
*(annual average percent change)*

**Table 3.1**
Trading partner GDP
*(calendar year, annual average percent change)*

<table>
<thead>
<tr>
<th>Country</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009f</th>
<th>2010f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>3.8</td>
<td>2.8</td>
<td>2.8</td>
<td>4.0</td>
<td>2.1</td>
<td>-1.0</td>
<td>0.9</td>
</tr>
<tr>
<td>Asia ex-Japan*</td>
<td>7.6</td>
<td>6.7</td>
<td>7.5</td>
<td>7.7</td>
<td>4.3</td>
<td>-1.4</td>
<td>3.9</td>
</tr>
<tr>
<td>United States</td>
<td>3.6</td>
<td>2.9</td>
<td>2.8</td>
<td>2.0</td>
<td>1.1</td>
<td>-2.9</td>
<td>0.7</td>
</tr>
<tr>
<td>Japan</td>
<td>2.7</td>
<td>1.9</td>
<td>2.0</td>
<td>2.3</td>
<td>-0.7</td>
<td>-6.3</td>
<td>1.0</td>
</tr>
<tr>
<td>Euro area**</td>
<td>1.9</td>
<td>1.8</td>
<td>3.0</td>
<td>3.0</td>
<td>0.9</td>
<td>-4.5</td>
<td>-0.1</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>2.8</td>
<td>2.1</td>
<td>2.8</td>
<td>3.0</td>
<td>0.7</td>
<td>-3.8</td>
<td>0.2</td>
</tr>
<tr>
<td>Main trading partners</td>
<td>4.1</td>
<td>3.3</td>
<td>3.7</td>
<td>4.0</td>
<td>1.8</td>
<td>-2.6</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Source: DataStream, RBNZ estimates.

Note: The GDP measure shown is an export-weighted average of GDP growth in New Zealand’s 12 major trading partners.

---

* Includes China, Hong Kong, Malaysia, Singapore, South Korea and Taiwan.
** Includes Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, Netherlands, Portugal, Slovakia, Slovenia and Spain.

Note: Our projections do not incorporate the Australian or Malaysian GDP outturns for the March quarter. The net impact of these results indicates only a slight upside risk to our projections.
stimuli, as well as recoveries in confidence and financial conditions.

The steep decline in activity seen since the end of 2008 has been remarkably synchronised across trading partner regions. However, there have been large variations in the size of contractions, and the timing of recoveries is also expected to vary, with activity projected to return to its pre-recession level sooner in the Asia-Pacific region than in Western economies.

- Western economies contracted sharply in the December and March quarters, with large falls in business investment and inventories. Production has continued to decline in recent months, although at a more modest rate. While fiscal and monetary conditions have eased, household spending has remained weak. Meanwhile, labour markets continue to deteriorate and housing market indicators also point to ongoing weakness. We therefore expect US consumer demand to remain subdued for some time as households repair their balance sheets. Recoveries in the United Kingdom and the euro area are likely to take longer still, as both economies face soft global demand as well as fragile banking sectors and tight credit conditions, and the euro area is confronted with additional challenges of policy coordination.

- After growing relatively strongly for most of 2008, New Zealand’s Asian trading partners contracted very sharply at the end of the year and in early 2009, as global confidence collapsed and financial and trade flows dried up. Only China appears to have escaped recession. The falls were much steeper than in Western economies, although in recent months there have been some signs of partial recovery, notably in South Korea and Taiwan.

Most of our trading partners in Asia remain highly reliant on trade with Western economies and activity in the region is expected to remain below trend for some time as a result. However, in general the private sectors in these economies are not over-leveraged, and outside Japan, fiscal debt positions are also relatively healthy. We therefore expect the very substantial fiscal stimulus which is already in train to be comparatively effective. In particular, we expect growth in China to accelerate over this year as a result of very significant fiscal and monetary easing (including a significant expansion in the provision of credit). However, we certainly expect growth in Asia to remain below rates seen in recent years.

- Australian GDP growth has deteriorated markedly over the past year. This is mainly because of weaker activity in the business and export sectors. Lower export incomes are expected to lead to a significant decline in investment spending, both in the mining sector and more generally. Nevertheless, we continue to expect a milder downturn in Australia than in other trading partners. This reflects the relatively healthy banking sector and the large fiscal and monetary stimuli seen to date. Additionally, as is the case in New Zealand, Australia’s exports are largely commodity based. And while weak global activity is dampening export demand, the downturn in demand for commodity exports is expected to be more modest than for manufactured exports.

The outlook for global growth remains highly uncertain. However, in contrast to previous quarters, the risks surrounding our outlook have become more balanced. The risks have also become more divergent by trading-partner region. In the near term, uncertainty remains regarding the extent to which the recent improvements in business and market sentiment will be sustained. Indications have grown that the positive impact on activity of this normalisation in confidence may be larger than we have factored into our central projections, particularly in Asia. Further ahead, the outlook for trading-partner activity remains conditional on the opposing forces of exceptionally large fiscal and monetary stimuli on the one hand, and the need for considerable balance sheet adjustment by Western households, financial institutions and governments on the other. Considerable uncertainty surrounds how these longer-term influences will interact to affect activity. Again, these downside forces are likely to be less marked in many of New Zealand’s Asian trading partners.
International inflation

The marked fall in global activity over recent quarters resulted in sharp declines in inflation in our major trading partner economies (figure 3.8). In large part this was due to the impact of weak global activity on commodity prices, particularly oil. However, there was also a more general softening in inflation pressures, with some declines in core inflation and wage inflation, as well as reductions in inflation expectations and firms’ pricing intentions.

Figure 3.8
Headline inflation in selected trading partners (annual)

With the deflationary effect of last year’s commodity price declines dissipating, we expect global inflation to increase from current low rates over the remainder of 2009. Nevertheless, we continue to expect that global inflation will remain subdued for an extended period, consistent with our expectations for a protracted period of soft global economic activity. Consequently, we have revised down our projection for global inflation beyond 2009 (figure 3.10).

Figure 3.10
Trading partner consumer prices (annual and quarterly percent change)

While global inflation pressures remain subdued, signs of stabilisation in economic activity and improved risk appetite have contributed to some recovery in commodity prices in recent months (figure 3.9). Of note, West Texas Intermediate oil prices have risen to about US$67/barrel, well up on their low of US$31/barrel reached in December 2008. However, commodity prices remain well below the highs reached in 2008.

Figure 3.9
Commodity prices

With a weak outlook for global activity, the risks for global inflation are to the downside. And in economies where inflation is already low, there is a risk of sustained periods of deflation. Such risks are particularly acute for Japan, but are also relevant for some other economies in Asia.

Source: DataStream, RBNZ estimates.

Note: The consumer price measure shown is an import-weighted average of CPI inflation in New Zealand’s 12 major trading partners.
Recent developments in the domestic economy

Improving global financial markets have led to pressures easing further in local money markets. This, coupled with further reductions in OCR, has seen shorter-term interest rates fall further in New Zealand. Partly reflecting rapidly improving international financial market sentiment, longer-term wholesale interest rates have increased, prompting a steepening of the domestic yield curve. Improving global risk appetite has also seen the New Zealand dollar TWI strengthen from the lows earlier in the year, by a surprising amount relative to our March assumption.

The recession, which began at the start of 2008, appears to have continued over the first half of 2009. The slowdown in the New Zealand economy primarily reflects weaker household and business spending, with survey measures of business and consumer sentiment tracking at low levels. Despite the weakness in household consumption and the retail sector, housing market turnover has rebounded. Nevertheless, residential construction activity remains at a historically low proportion of aggregate economic activity.

Weakness in trading partner economies is having a noticeable impact on New Zealand’s non-agricultural export volumes, with world prices for New Zealand’s export commodities significantly off their peaks. Without recent increases in government spending and the reductions to personal income taxes, the decline in economic activity is likely to have been more marked.

With demand for imports remaining very weak, there are tentative signs that the New Zealand economy is rebalancing. Much lower import activity is likely to contribute to a temporary narrowing of the annual current account deficit over 2009.

The prolonged period of sub-trend growth has contributed to an easing of capacity pressures. This is evident in the labour market, where rising unemployment has coincided with a moderation in wage inflation. Lower import prices are likely to temporarily push annual CPI inflation from 3 percent currently to below 1 percent in the September quarter, before recovering towards the mid-point of the target range.

Domestic financial market developments

As discussed in chapter three, the improvement in global financial markets has helped to ease pressures in local money markets. The spread between three-month bank bill rates and expectations of the Official Cash Rate has fallen by about 85 basis points from the highs reached in October 2008. However, these spreads remain high relative to levels that persisted before the financial crisis (figure 4.1).

Figure 4.1
Spread between 90-day bank bill rate and three-month OIS rate

![Figure 4.1](source: Reuters)

This easing in short-term money market pressures, coupled with reductions in the OCR, has seen shorter-term interest rates fall further in New Zealand. In contrast, longer-term wholesale interest rates have increased, prompting a steepening of the domestic yield curve.

Figure 4.2
Wholesale interest rate curve

![Figure 4.2](source: Bloomberg)
Increases in longer-term interest rates in most major economies have been a significant driver of the increase in domestic longer-term wholesale yields. The improvement in risk appetite, coupled with expectations of increased government bond issuance to fund growing fiscal deficits, has pressured global longer-term wholesale yields higher. This pressure has underpinned local longer-term wholesale interest rates. This has been partly offset by some narrowing in the spread between New Zealand long rates and those in key offshore markets. These spreads have narrowed in line with changes in relative policy rate expectations over recent months.

**Financing and credit**

As a result of the increase in longer-term wholesale interest rates, longer-term fixed mortgage rates have moved higher in recent months. In contrast, shorter-term mortgage rates have remained relatively low (figure 4.3).

**Figure 4.3**

Mortgage interest rates offered to new borrowers

The average duration of mortgages has risen (figure 4.4). This rebound was largely driven by borrowers whose debt came up for repricing opting for longer-term fixed mortgages. The hedging of these flows contributed to upward pressure on wholesale yields during March, although this pressure appears to have subsequently waned.

Despite this upward pressure on longer-term wholesale yields, the effective mortgage rate has continued to decline (figure 4.5), as those repricing mortgages continue to move onto lower mortgage rates. This trend is expected to continue over the medium term and further falls in the effective mortgage rate are expected. Interest rates for non-residential borrowers have generally fallen faster than the effective mortgage rate. Business loans are typically shorter-term or variable-rate contracts, which allow firms to take advantage of falling short-term rates.

**Figure 4.4**

Estimated time to re-pricing for mortgages

**Figure 4.5**

Effective lending rates by sector and the OCR

Household credit continues to increase, albeit considerably below the growth rates of the previous few years. The annual rate of credit growth secured on housing, at 2.9 percent in April, mostly reflects softer housing market conditions. The stock of consumer credit is slightly below that of a year ago. Possibly as a consequence of the weak
climate for business investment and tight credit conditions, lending growth to the business sector has eased sharply, with annual growth declining to 6.8 percent in April (and is contracting in monthly terms). In contrast, agricultural lending is holding recent strength and continues to post double-digit annual growth.

Non-bank funding has improved to some degree, although costs remain high relative to pre-crisis levels. There has been some noted increase in issuance of corporate bonds in domestic retail markets. There has also been some improvement in domestic commercial paper markets, highlighted by increasing auction bid-offer ratios, although spreads remain wide and issuance subdued.

**External sector**

The downturn in global economic conditions has placed significant downward pressure on New Zealand’s external sector. Temporarily offsetting this has been much higher agricultural sector exports, with production recovering from the drought-related disruptions. Furthermore, significantly lower demand for imports has improved the trade balance and narrowed the current account deficit.

While being a food exporter has partly insulated the New Zealand economy from the global downturn, it has not done so completely. International dairy prices have more than halved from their 2007 peaks, and while meat and other commodity prices have not fallen to the same extent, they are significantly lower.

Weaker global demand has also contributed to much lower world prices for commodity imports. Oil prices, while rising over the past few months, remain about 60 percent below their July 2008 peaks. Other commodity import prices, most notably food, are also sharply lower in world price terms (figure 4.6).

To date, the fall in import commodity prices has been more significant than export commodity prices, which has kept the terms of trade above historical norms. While this has boosted the spending power of New Zealanders, the terms of trade is likely to fall over the coming year (as discussed in chapter 5).

**Figure 4.6**

New Zealand export and global commodity prices
*(SDR terms)*

Export activity for non-food manufacturing has broadly tracked sideways over recent years. However, the sizeable decline in manufacturing sector production over the past year has mirrored various readings of manufacturing sector activity in our trading partners, and points to the likelihood of reduced exports over the coming year. Services exports are also exposed to the global downturn, with the current slump testament to the weakness in discretionary spending of trading partner economies (figure 4.7).

Partly offsetting this, primary export sector volumes have increased as dairy export volumes have returned to normal levels following last year’s drought and a period of weak global demand. De-stocking may see these volumes rise even higher for a short period.

**Figure 4.7**

Export volumes
*(seasonally adjusted)*

Source: Statistics New Zealand, RBNZ estimates.
The contraction in consumer and business spending has flowed through into sharp declines in import volumes. The weakness in goods import volumes is evident in capital, consumer and intermediate imports. Imports of services are also declining.

Weakness in import demand has driven the improvement in the trade balance and is likely to see a further narrowing in the current account deficit over the short term (figure 4.8).

**Figure 4.8**
Current account (annual, percent of GDP)

![Current account graph](image)

Source: Statistics New Zealand.

**Household sector**
The period of retrenchment by the household sector, which began in 2008, appears to be continuing. This followed a period that had been characterised by high levels of consumption relative to income, with support provided from the housing market boom and strong labour market conditions.

Despite household disposable income growth being boosted by positive wage growth and further tax reductions, retail sales volumes have slowed as households have become more circumspect about their spending. Significant falls in financial and housing wealth over the past few years have adversely affected household balance sheets, notwithstanding the recent rally in equity prices and signs of stabilisation in the housing market. Softening labour market prospects and increasing concerns over job security appear to be encouraging more caution. Tight credit conditions are also likely to be playing a role.

Despite the apparent caution on retail spending, housing-market activity has recovered, with sales volumes up about 40 percent since the start of the year. Low mortgage interest rates and higher net immigration appear to be contributing to an improvement in demand. Possibly the surge in turnover reflects a degree of pent-up demand being released. However, housing turnover remains considerably below historical norms. Various indicators also suggest that house price inflation is close to cyclical troughs.

The pick up in housing turnover has yet to translate into higher residential construction activity. In the first few months of 2009, the level of dwelling consents remained at record lows, which suggests residential construction activity will remain very low over the coming months (figure 4.9).

**Figure 4.9**
House sales, ex-apartment consents and real residential investment (seasonally adjusted)

![House sales graph](image)

Source: REINZ, Statistics New Zealand, RBNZ estimates.

This weakness is not expected to persist, with residential construction soon to post a modest recovery. Rising net immigration is expected to boost new housing, with housing turnover rising above cyclical lows. Survey measures of consumer sentiment remain considerably below the norms of the past decade.

As yet, improving housing market prospects and stabilising consumer confidence have yet to filter through into retail spending volumes, which remain considerably below levels of a year earlier (figure 4.10).
Business sector

Weaker domestic and foreign demand is adversely affecting the business sector. Despite some improvement in conditions and lower effective interest rates for business borrowing, credit conditions remain restrictive. Business responses to own activity surveys touched multi-decade lows earlier in the year, with some improvement evident since then (figure 4.11).

Figure 4.11
Business outlook for own activity
(seasonally adjusted)

Source: ANZ National Bank Group Ltd, NZIER.

Firms have responded by looking to reduce costs. Lower import prices, and particularly lower oil prices, have been welcomed, with producer input prices having declined by almost 5 percent in the past six months. Firms are also looking to trim labour costs, partly by reducing working hours for staff. But as this downturn has continued, more firms have had to look to reduce staff numbers as well.

Survey measures of employment intentions point to further shedding of staff.

Even with costs under closer scrutiny, survey measures of business profitability remain at record lows. Weaker demand has also contributed to a growing margin of spare capacity, which has reduced the demand for capacity-enhancing investment. Higher prices for imported capital goods are also likely to weigh on business investment plans. Business investment has been reduced, with survey measures of investment intentions pointing to further weakness (figure 4.12).

Output

Economic activity contracted in every quarter of 2008 and ended the year nearly 2 percent below its late 2007 peak. Much weaker business and household spending is contributing to continuing declines in economic activity (figure 4.13). This is despite higher government spending and a much improved net export position, driven by lower demand for imports.
Weakness in retail spending has been evident in the first few months of 2009. Other indicators point to continued weakness in activity in manufacturing, construction and wholesale trade sectors over these months, with business survey activity measures at cyclical lows.

Much smaller declines in economic activity are likely for the June quarter, with aggregate economic activity nearing (or around) a cyclical trough. However, the economy is currently very fragile, with recent recoveries in business sentiment and housing market activity being relatively modest and coming from historically low levels.

**Productive capacity and the labour market**

The weakness in economic activity has contributed to a widening margin of spare capacity. Survey measures suggest that capacity pressures are their weakest since at least the early 1990s.

Demand for labour is also significantly weaker. The unemployment rate has risen sharply, and surveyed skilled labour shortages have abated significantly to a level comparable to the early 1990s (figure 4.14). While it seems clear that pressures in the labour market have eased, it is less obvious what has driven this. Over the past two years the HLFS and QES have provided quite different indications of labour market activity (box C, overleaf).

With wage pressures easing, firms are under less pressure to raise prices. Furthermore, the costs of other production inputs have declined. Lower import prices have contributed to this, with the price of crude oil falling by around 60 percent in US dollar terms from its July 2008 peak, to currently around $65 per barrel. Non-oil imports, such as food and industrial...
Interpreting recent labour market data

Statistics New Zealand publishes two independent quarterly surveys of labour market activity: the Household Labour Force Survey (HLFS) and the Quarterly Employment Survey (QES). While these two surveys have historically tended to produce similar results, significant quarterly divergence has occurred over the past two years.

In particular, the surveys have painted very different pictures of employment over the past year-and-a-half. According to the QES, job numbers have declined by 23,500 since the start of the recession, while the HLFS suggests that only a net 4,000 people have lost their jobs through this time.

While the surveys conceptually attempt to measure the same thing – activity in the labour market – there are some important differences between the two:

- The HLFS is a survey of households, thereby capturing the characteristics of the labour market from the perspective of the employee. This allows the HLFS to have a wide coverage of different businesses and industries as all households are equally likely to be surveyed, regardless of the businesses and industries they work in.
- Conversely, the QES is a survey of businesses, thereby capturing the characteristics of the labour market from the perspective of the employer. However, because some firms are more difficult to survey, the QES does not have as greater coverage of the different businesses and industries as the HLFS. Most obviously in this regard, the QES does not survey very small firms. Nor does it cover businesses involved in agriculture, fishing, or residential property operators.

But controlling for such differences – to the extent that is practical – does little to explain the recent divergence between the two surveys.

There are other more subtle differences between the two surveys. For instance, the HLFS is a survey of employment, while the QES is a survey of jobs. From this perspective the recent divergence between the QES and HLFS could simply reflect fewer people having multiple jobs.

In deciphering which of the two surveys is more likely to reflect what is really happening to labour market activity, it should be noted that HLFS employment has exhibited significant volatility of late. That said, because of equally volatile labour force participation, the HLFS unemployment rate has steadily increased in a manner highly consistent with other economic indicators.

Therefore, we see the divergence between the HLFS and QES as making it difficult to infer what has driven the increase in the unemployment rate, rather than questioning whether the unemployment rate has actually risen. According to the HLFS, the increase in unemployment has been driven by a stagnating labour market being unable to absorb growth in the working age population. Conversely, the QES indicates job numbers have fallen, which would presumably have caused more people to leave the labour force than the HLFS currently suggests.

Overall, given its recent relative instability, we would expect the HLFS to converge to the QES over the next few quarters.
tradable inflation is also easing (figure 4.16), reflecting less cost pressure. Construction cost inflation has already started to ease. Extensive weakness in domestic construction activity suggests further cost easing is likely.

**Figure 4.16**
CPI, tradable and non-tradable inflation *(annual)*

The recent declines in domestic and trading partner activity have contributed to inflation expectations easing. Two-year-ahead inflation expectations have fallen to 2.2 percent in May, down from a peak of 3.0 percent late last year (figure 4.17). This is a positive step in keeping inflation anchored between 1 and 3 percent over the medium term.

**Figure 4.17**
Headline CPI and inflation expectations *(annual)*

Source: Statistics New Zealand.
Table 4.1

Measures of inflation and inflation expectations

(annual)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI</td>
<td>1.8</td>
<td>3.2</td>
<td>3.4</td>
<td>4.0</td>
<td>5.1</td>
<td>3.4</td>
<td>3.0</td>
</tr>
<tr>
<td>CPI components</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPI non-tradables</td>
<td>3.7</td>
<td>3.5</td>
<td>3.5</td>
<td>3.4</td>
<td>4.1</td>
<td>4.3</td>
<td>3.8</td>
</tr>
<tr>
<td>Non-tradables housing components</td>
<td>4.9</td>
<td>4.9</td>
<td>4.6</td>
<td>4.0</td>
<td>3.2</td>
<td>2.4</td>
<td>1.5</td>
</tr>
<tr>
<td>Non-tradables ex housing, cigarettes and tobacco components</td>
<td>3.1</td>
<td>3.0</td>
<td>3.1</td>
<td>3.1</td>
<td>4.5</td>
<td>5.1</td>
<td>4.8</td>
</tr>
<tr>
<td>CPI tradables</td>
<td>-0.3</td>
<td>2.8</td>
<td>3.4</td>
<td>4.8</td>
<td>6.3</td>
<td>2.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Petrol</td>
<td>-5.9</td>
<td>16.9</td>
<td>20.5</td>
<td>25.9</td>
<td>29.3</td>
<td>-4.8</td>
<td>-9.3</td>
</tr>
<tr>
<td>Other inflation measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor model estimate of core CPI inflation</td>
<td>2.6</td>
<td>3.0</td>
<td>3.1</td>
<td>3.4</td>
<td>3.6</td>
<td>3.0</td>
<td>2.8</td>
</tr>
<tr>
<td>CPI trimmed mean (of annual price change)</td>
<td>2.3</td>
<td>3.5</td>
<td>3.5</td>
<td>3.8</td>
<td>4.0</td>
<td>3.1</td>
<td>2.9</td>
</tr>
<tr>
<td>CPI weighted median (of annual price change)</td>
<td>2.7</td>
<td>3.2</td>
<td>3.2</td>
<td>3.4</td>
<td>3.7</td>
<td>3.0</td>
<td>2.9</td>
</tr>
<tr>
<td>CPI ex food, petrol and government charges</td>
<td>1.9</td>
<td>2.0</td>
<td>1.9</td>
<td>1.9</td>
<td>2.2</td>
<td>2.0</td>
<td>1.9</td>
</tr>
<tr>
<td>CPI ex food and energy</td>
<td>1.8</td>
<td>1.8</td>
<td>1.6</td>
<td>1.5</td>
<td>2.1</td>
<td>2.2</td>
<td>2.3</td>
</tr>
<tr>
<td>GDP deflator (derived from expenditure data)</td>
<td>3.2</td>
<td>5.8</td>
<td>6.2</td>
<td>3.7</td>
<td>2.3</td>
<td>2.7</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Inflation expectation measures

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>RBNZ Survey of Expectations - inflation one-year-ahead</td>
<td>2.7</td>
<td>3.0</td>
<td>3.0</td>
<td>3.3</td>
<td>3.6</td>
<td>2.8</td>
<td>2.2</td>
</tr>
<tr>
<td>RBNZ Survey of Expectations - inflation two-years-ahead</td>
<td>2.6</td>
<td>2.7</td>
<td>2.7</td>
<td>2.9</td>
<td>3.0</td>
<td>2.7</td>
<td>2.3</td>
</tr>
<tr>
<td>AON Economist survey - inflation one-year-ahead</td>
<td>2.5</td>
<td>2.8</td>
<td>3.1</td>
<td>3.1</td>
<td>3.5</td>
<td>3.0</td>
<td>2.1</td>
</tr>
<tr>
<td>AON Economist survey - inflation four-years-ahead</td>
<td>2.5</td>
<td>2.6</td>
<td>2.6</td>
<td>2.6</td>
<td>2.7</td>
<td>2.7</td>
<td>2.5</td>
</tr>
<tr>
<td>NBBO - inflation one-year-ahead (quarterly average)</td>
<td>3.2</td>
<td>3.1</td>
<td>3.3</td>
<td>3.4</td>
<td>3.7</td>
<td>3.5</td>
<td>2.7</td>
</tr>
</tbody>
</table>
5 The macroeconomic outlook

Economic forecasting, even in more normal times, is particularly difficult around turning points in the business cycle. As such, it is easy to envisage other potential outcomes than those described in the central projection. This uncertainty noted, this chapter’s role in the Monetary Policy Statement is to describe the central projection, which is based upon three key judgements. These are:

- that households, after steadily increasing their debt levels for the past two decades, look to consolidate;
- that the recent appreciation in the New Zealand dollar TWI is driven by market sentiment rather than fundamentals and will prove short lived; and,
- that trading partner activity recovers, as discussed in chapter 3.

The central projection sees activity, while beginning to expand from late this year, remaining weak throughout the forecast horizon. Combined with recent GDP declines, this sees the economy in a position of significant slack over the next few years, with the unemployment rate expected to continue rising sharply over the coming 12 months.

This weak demand pressure results in subdued non-tradable inflation over the projection. Falling import prices and recent appreciation in the TWI result in lower tradable inflation over the near term, but this is projected to increase as a result of the assumed depreciation in the TWI. Overall, headline inflation is expected to fall markedly by the September quarter of 2009. Thereafter, it is expected to increase, settling at around 2 percent in 2011.

The terms of trade

As discussed in chapter 3, the outlook for global growth has deteriorated markedly over the past few quarters. Concurrent with this deterioration has been a severe decline in global commodity prices, which has affected both New Zealand’s export and import prices.

On the export side, most damaging for New Zealand has been the sharp fall in international dairy prices. This has been so severe that the gains of 2006 and 2007 have been eliminated. Most recently though, despite the introduction of export subsidies by the European Union, stabilisation has occurred. We project dairy prices to remain around current levels in the near term, before commencing a steady trend improvement over the medium term.

That said, with the United States now also due to introduce export subsidies, some near-term moderation in international dairy prices could occur, especially if the use of such subsidies escalates further.

The medium-term outlook for meat prices seems favourable, with reduced supply a key factor likely to push up prices. Nevertheless, the world prices implied by New Zealand’s trade data are likely to decline further through calendar 2009 as previous declines in spot export commodity prices are reflected in export contracts (figure 5.1).

Figure 5.1

OTI world export prices (goods)
(seasonally adjusted)

Crude oil prices also fell sharply through 2008, but have rebounded over recent months. We assume oil prices will rise gradually over the projection (figure 5.2).

Figure 5.2

Dubai oil price

Source: Statistics New Zealand, RBNZ estimates.
Box D

Introducing KITT

This year, we are in the complex process of moving to a new forecasting model called KITT (Kiwi Inflation Targeting Technology). As part of our forecasting process for this Statement, forecasts produced by the KITT model were presented to the Monetary Policy Committee alongside the usual forecasts from our existing core model, FPS, and our suite of statistical models. The forecasts from the KITT model show that any variation in our forecasts arising from the new model will be sequential and incremental, rather than offering a substantive shift in the forecast regime.

The KITT model offers a detailed multi-sector structure that helps articulate some of the key transmission channels of monetary policy — including a role for house prices. KITT is also a modern macroeconomic model which advances both the theory and the empirics of our model relative to FPS. Current macroeconomic thinking has progressed tremendously in the 12 years since FPS was developed and it is important to keep up with these changes. These developments are easier to incorporate into a new model rather than adapting FPS.

In contrast to FPS, KITT is an estimated model, which helps our understanding of key areas of uncertainty in our forecasts. While the new model will also improve our macro-modelling advice — which requires a theoretically well founded model — we will continue to draw information from the wide range of sources that have informed our forecasting process to date. Indeed, under KITT, the core macroeconomic model will remain a tool to help inform and build up the forecast picture rather than determining the forecasts in a top-down approach.

The June Reserve Bank Bulletin will contain an article, “Introducing: KITT, the Reserve Bank of New Zealand’s new DSGE model for forecasting and policy design”, that will provide an overview of the new model and its role in the forecasting process. Longer, more technical documentation of the model will be available shortly after. The June Reserve Bank Bulletin will also contain an article titled: “The use of statistical forecasting models at the Reserve Bank of New Zealand”, that will describe our suite of statistical models and their role in the forecast process.

While oil prices have risen, other import prices continue to fall. In particular, the prices of the non-oil commodities that New Zealand imports declined substantially through late 2008 and early 2009. Looking further forward, it is likely that import prices will soon also stabilise, before recovering in line with the gradual improvement we expect in world activity.

Overall, we continue to expect a substantial decline in the terms of trade over the course of the projection, with import prices expected to rise more noticeably than export prices over the medium term (figure 5.3).

Figure 5.3

OTI terms of trade (goods)

Source: Statistics New Zealand, RBNZ estimates.
Exchange rate

The New Zealand dollar TWI has rebounded strongly in recent months, following a sharp depreciation over early 2009. This rebound primarily reflects both US dollar weakness and an increased worldwide risk appetite; it is mirrored by recent moves in the currencies of other commodity exporters (see chapter 3).

We assume the New Zealand dollar TWI will hold its current strength over the next few months, before steady depreciation occurs throughout the rest of the projection (figure 5.4). Such depreciation is consistent with a renewed international focus on New Zealand’s large external imbalance. More prolonged TWI strength could have a serious negative impact on the New Zealand economy (see box B, chapter 2).

Figure 5.4
Nominal TWI assumption

Source: RBNZ estimates.

Trade volumes

The world recession is expected to result in reduced demand for New Zealand’s exports, notably of manufacturing goods, throughout 2009. Last year’s drought is also expected to have a continued effect on export volumes. The high level of slaughter last year has resulted in a reduced sheep flock this year, which has lowered meat exports. Conversely, the recovery from drought is projected to drive an increase in dairy exports.

In the near term, the sharp declines in consumption and investment in late 2008 and early 2009 are estimated to result in markedly lower import volumes in the March quarter of 2009. However, goods imports are projected to increase from the middle of 2009 as domestic activity improves and business investment begins to increase.

The weaker world has also affected tourist arrivals in New Zealand. Real exports of services are projected to decline over 2009 to the lowest level (as a share of potential GDP) for a decade. Thereafter, exports of services are projected to increase as world activity improves. Conversely, to date there has been little evidence of a large decline in New Zealanders taking holidays overseas. But we project this to fall in the coming quarters as households rein in spending, particularly on discretionary items.

Figure 5.5
Total export volumes
(percent of trend output and annual average percentage change)

Source: Statistics New Zealand, RBNZ estimates.

The fall in consumption and investment over 2008 resulted in a decrease in the import penetration ratio. Over the forecast, business investment is expected to recover, but the share of consumption in total expenditure is projected to fall, resulting in a stabilisation of the penetration ratio (figure 5.6).
The current account

Reduced import prices and continued weak import volumes are expected to drive a near-term improvement in the current account. Indeed, this adjustment appears to be under way with recent monthly merchandise trade outturns posting seasonally adjusted surpluses. As previous deficit months fall out of the annual total, the annual goods and services balance is expected to move out of deficit by the end of 2009.

However, this improvement is projected to be short lived. The recent appreciation of the TWI and continued weak trading partner demand are forecast to reduce exports such that the trade balance moves back into deficit by early 2010 and remains negative thereafter (figure 5.7).

Business investment

Because of the poor world outlook, many businesses have slashed investment plans. With spare capacity already significant, continued contraction in aggregate activity is expected to see supplies of idle resources increase significantly. This, combined with tight credit conditions and recent gains in plant and machinery prices, has seen surveyed investment intentions remain very weak.

In line with this, we expect investment spending to fall markedly in 2009, such that — as a share of total output — core business investment declines to a level below that observed during the worst of the early 1990s recession (figure 5.8).

The investment income deficit is expected to shrink markedly over the projection. But rather than being a sign of health, this contraction reflects the weak domestic economy, with poor corporate profits and low domestic interest rates reducing payments to foreign investors. Beyond the end of the projection, the forecast improvement in the investment income deficit is therefore likely to reverse, once the lagged impact of a stronger New Zealand economy sees profits recover and interest rates rise. The projected improvement in the aggregate current account is unlikely to be sustained.
We expect business investment to recover tentatively beyond this, although there remains much uncertainty over timing. Interest rate stimulus and a low New Zealand dollar are expected to see aggregate activity recover from late 2009, which will allow for firms to expand their operations. Note that, despite this recovery, business investment spending is expected to remain at a very low level throughout the projection.

The labour market
The weak activity outlook has also seen firms cut back their employment plans, with surveyed employment intentions remaining low for several months. This period of low employment demand has coincided with a sharp increase in the unemployment rate. We expect unemployment to continue to move higher over the coming year (figure 5.9).

Figure 5.9
Employment growth and the unemployment rate
(seasonally adjusted)

A substantial driver of this pick up in unemployment is the large decline in employment we expect over the next few quarters. In all, we expect employment to fall by 2.7 percent through calendar 2009. This would be the largest annual percentage decline in employment since the reforms of the late 1980s.

Note that despite this bleak employment outlook, the eventual peak in the unemployment rate is well below that of the early 1990s. A low starting point for unemployment, combined with efforts by firms to cut costs by reducing hours and wage growth rather than staff numbers, and reduced labour force participation from an aging population, limits the projected peak in unemployment.

It should be remembered, though, that the growth of numbers of unemployed reflects the severity of the downturn better than the peak unemployment rate. With this in mind, the outlook for the labour market is very poor indeed.

Given this, we expect wage inflation to ease markedly. As was quite clearly visible during our April round of business visits, wage growth expectations have already fallen sharply, with many employers who had previously paid increases of up to 5 percent, now expecting settlements where wages are held steady.

While it will take time for this qualitative information to show up in official data, we expect wage inflation to fall sharply over the coming year. Such wage flexibility will help cushion the employment impact of current weak labour demand.

Household spending and house price inflation
Households remain under considerable pressure. While some relief has been delivered via historically low mortgage interest rates and reduced personal income taxes, householders still face an extremely weak employment outlook. Furthermore, asset prices — most obviously house prices, but also equity and debt investments — have declined over the past year.

In addition to these more cyclical negative drivers, we are assuming households will also reduce spending for more structural reasons. Over the past five years or so, household spending — both through increased consumption spending and purchases of new and existing houses — has risen markedly. This increase has seen debt levels increase to an extreme, and in our view, unsustainable, level. We project this high debt holding to induce householders to trim their spending — either voluntarily, or less willingly through reduced credit availability — such that the household saving rate trends higher over the projection (figure 5.10).

However, over the past few months there has been a reasonable pick up in housing market turnover. According to industry contacts, with housing turnover so low through 2008, it seems a backlog of house buyers developed who were either unwilling to purchase while house prices were
falling or were unable to purchase while mortgage rates were still high. But with mortgage interest rates now at historical lows, and many buyers believing that price declines will be more limited in the future, house sales have increased.

At the same time, net permanent and long-term immigration has surged higher. With the level of permanent arrivals less than 10 percent off their mid-2002 cyclical peak, and permanent departures falling sharply, net immigration seems likely to be strong over the next few quarters. Such migration-driven population growth could also be behind part of the housing market pick up.

Nonetheless, while improved housing market turnover may well continue for the next couple of months, we expect the pick-up ultimately to be short lived, and dominated by the risk of unemployment and high debt levels facing households. That said, house sales have historically proved to be an extremely good early indicator of future movements in household spending. As such, there seems a clear risk that, over the next few quarters at least, household spending turns out stronger than we currently project.

Government

Despite the recent decision to defer further personal tax cuts, fiscal policy is still expected to support economic activity over the projection. Budget 2009, on which our fiscal forecasts are based, signals increased government spending over the next two years, despite some downward revision towards the end of the projection. This increased spending comes both through higher operating expenditure and significant infrastructure investment.

With GDP either contracting or showing only modest growth over the coming year or so, the share of government spending in aggregate activity is expected to be higher over the projection than it has been at any point in the past 15 years (figure 5.11). As such, in the absence of this higher government spending, the trough in GDP is likely to have been deeper, and the subsequent recovery delayed.

Gross Domestic Product

The New Zealand economy continues to contract. After reducing throughout 2008, we estimate that activity fell further in the first quarter of 2009 and again in the second and third quarters. Weakness is projected across all sectors of the economy, but is especially acute in the manufacturing, construction, wholesale and retail trade sectors. GDP is projected to begin rising from the December quarter of 2009. Annual average GDP growth is projected to trough
at -2.4 percent in Q3 of 2009 (figure 5.12). Box E puts this recession into context.

**Figure 5.12**
Gross Domestic Product
(annual average percent change)

Initially, the recovery is almost exclusively driven by increased government spending. Further out, the assumed depreciation in the TWI and the improvement in world activity are forecast to aid export growth. Furthermore, the expected pick up in business and residential investment is projected to support domestic activity, such that annual average GDP growth is forecast to reach 3.8 percent by the end of 2011. Note that while its impulse is most significant in late 2009, fiscal policy is expected to support activity throughout the projection.

A key uncertainty regarding the recent and projected weakness in GDP growth is the extent to which this slowdown is structural and therefore longer lasting. Although the exact impact is highly uncertain, we believe New Zealand’s trend growth rate has been negatively affected. Indeed, while credit availability is expected to improve over the next few years, we see it as highly unlikely that finance will become as easy to source as it was between 2002 and 2007. As such, some investment and innovation that may well have occurred during this time are less likely to proceed over the next few years.

**Inflation**
Inflation is expected to fall markedly over the next two quarters such that annual CPI inflation is projected to briefly fall below 1 percent in the September quarter of this year. This near-term moderation, while also reflecting lower non-tradable inflation, is chiefly driven by sharply lower import prices. Looking further forward, the assumed depreciation in the TWI, along with some recovery in world import prices, is projected to push tradable inflation higher, reaching almost 4 percent by the beginning of 2011.

Non-tradable inflation is expected to be very weak throughout the projection. Driven by significant spare productive capacity, annual non-tradable inflation is expected to decline to only 0.5 percent in mid 2010, before rising modestly thereafter.

In aggregate, headline inflation is expected to increase from the end of 2009, settling around 2 percent by the beginning of 2011 (figure 5.13). While inflation is projected to be in the lower half of the target band for a considerable period, as is discussed in chapter 2, we see little risk of deflation in New Zealand.

**Figure 5.13**
CPI, tradable and non-tradable inflation
(annual)

As in the March Statement, these projections exclude the effects of the Emissions Trading Scheme.
Box E
Putting the projections in perspective

In the March Monetary Policy Statement, we compared the current recession with past New Zealand recessions and with those being experienced in other economies. In this box we update that comparison and also consider the projected recovery.

The economic forecasts presented earlier in the chapter show the economy beginning to grow again from the December quarter of 2009. If the economy evolves as projected, this would imply seven quarters of negative growth and a peak-to-trough fall in the level of GDP of around 3.3 percent. Compared with past recessions since 1960 this would make the current recession longer in duration, and the overall decline larger, albeit marginally so, than the average (figure E1). The 1976/77 recession was also seven quarters in duration but was larger in terms of the decline in activity at over 4 percent. Relative to post 1960 recessions in the industrial countries that have been associated with the current financial crisis and highly synchronised global downturn,1 the current New Zealand recession is expected to be milder but of a similar duration.

Figure E1
Current and past recessions compared

![Graph showing current and past recessions compared](image)

Source: Hall and McDermott, Reserve Bank, IMF WEO April 2009.

Turning to the recovery, figure E2 plots the profile for the level of quarterly New Zealand GDP during the main recoveries and expansions since 1960. The solid black line shows the forecast recovery and expansion as per the central projection. Despite the current recession being slightly larger than average, the pace of recovery is quite gradual relative to past expansions. For instance, the projected recovery is broadly in line with the post East-Asian crisis expansion, despite the fall in output being much larger in the current recession. Compared with the 1992 to 1997 expansion, the initial recovery this time is expected to be somewhat stronger reflecting the more flexible nature of the economy now relative to the early 1990s.

As discussed in the main text, the pace of recovery is constrained by the impact of weak global activity on exports, and low income growth and lower asset prices on household spending. As a result, the level of real GDP does not return to its pre-recession level until the end of 2010. The unemployment rate remains higher throughout the projection.

Figure E2
Economic recoveries and expansions in New Zealand since 1960

(quarterly GDP, level at start of recession = 100)

![Graph showing economic recoveries and expansions](image)

Source: Hall and McDermott, Reserve Bank.

1 For all post 1960 recessions, the average duration is 3.6 quarters and the peak to trough fall in the level of GDP is 2.7 percent.


Given the synchronised nature of the current global recession, it is worthwhile to consider the projected expansion alongside what we expect to happen internationally. Figure E3 shows the path of GDP, (actual: solid line, forecast: dashed line) for New Zealand and various trading partners, since the end of 2007.
Generally other countries entered recession after New Zealand. For the sample shown, the best performers over the recession and recovery period are expected to be Asia excluding Japan, and Australia followed by New Zealand.

A common feature of this group is that their financial sectors have fared better than in the other countries examined. Australia and New Zealand also have a higher share of commodities than many of New Zealand’s other trading partners, and have therefore been less exposed to the very large fall in global trade in manufactured goods experienced over recent quarters.

Figure E3
Level of GDP – New Zealand and trading partners compared
(quarterly GDP, level at December 2007 = 100)

Source: National sources, RBNZ forecasts.

Includes China, Hong Kong, Malaysia, Singapore, South Korea and Taiwan.
Appendix A

Summary tables

Table A

Projections of CPI inflation and monetary conditions

(CPI and GDP are percent changes)

<table>
<thead>
<tr>
<th>Year</th>
<th>Quarter</th>
<th>CPI Quarterly</th>
<th>CPI Annual</th>
<th>TWI</th>
<th>90-day bank bill rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>Mar</td>
<td>0.6</td>
<td>2.6</td>
<td>51.6</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>Jun</td>
<td>1.0</td>
<td>2.8</td>
<td>54.6</td>
<td>5.8</td>
</tr>
<tr>
<td></td>
<td>Sep</td>
<td>0.5</td>
<td>2.6</td>
<td>53.9</td>
<td>5.9</td>
</tr>
<tr>
<td></td>
<td>Dec</td>
<td>0.6</td>
<td>2.7</td>
<td>56.4</td>
<td>5.9</td>
</tr>
<tr>
<td>2003</td>
<td>Mar</td>
<td>0.4</td>
<td>2.5</td>
<td>60.6</td>
<td>5.8</td>
</tr>
<tr>
<td></td>
<td>Jun</td>
<td>0.0</td>
<td>1.5</td>
<td>61.1</td>
<td>5.4</td>
</tr>
<tr>
<td></td>
<td>Sep</td>
<td>0.5</td>
<td>1.5</td>
<td>62.4</td>
<td>5.1</td>
</tr>
<tr>
<td></td>
<td>Dec</td>
<td>0.7</td>
<td>1.6</td>
<td>63.9</td>
<td>5.3</td>
</tr>
<tr>
<td>2004</td>
<td>Mar</td>
<td>0.4</td>
<td>1.5</td>
<td>66.8</td>
<td>5.5</td>
</tr>
<tr>
<td></td>
<td>Jun</td>
<td>0.8</td>
<td>2.4</td>
<td>64.0</td>
<td>5.9</td>
</tr>
<tr>
<td></td>
<td>Sep</td>
<td>0.6</td>
<td>2.5</td>
<td>66.3</td>
<td>6.4</td>
</tr>
<tr>
<td></td>
<td>Dec</td>
<td>0.9</td>
<td>2.7</td>
<td>68.6</td>
<td>6.7</td>
</tr>
<tr>
<td>2005</td>
<td>Mar</td>
<td>0.4</td>
<td>2.8</td>
<td>69.6</td>
<td>6.9</td>
</tr>
<tr>
<td></td>
<td>Jun</td>
<td>0.9</td>
<td>2.8</td>
<td>70.8</td>
<td>7.0</td>
</tr>
<tr>
<td></td>
<td>Sep</td>
<td>1.1</td>
<td>3.4</td>
<td>69.7</td>
<td>7.0</td>
</tr>
<tr>
<td></td>
<td>Dec</td>
<td>0.7</td>
<td>3.2</td>
<td>71.5</td>
<td>7.5</td>
</tr>
<tr>
<td>2006</td>
<td>Mar</td>
<td>0.6</td>
<td>3.3</td>
<td>68.2</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>Jun</td>
<td>1.5</td>
<td>4.0</td>
<td>62.8</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>Sep</td>
<td>0.7</td>
<td>3.5</td>
<td>63.6</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>Dec</td>
<td>-0.2</td>
<td>2.6</td>
<td>67.0</td>
<td>7.6</td>
</tr>
<tr>
<td>2007</td>
<td>Mar</td>
<td>0.5</td>
<td>2.5</td>
<td>68.8</td>
<td>7.8</td>
</tr>
<tr>
<td></td>
<td>Jun</td>
<td>1.0</td>
<td>2.0</td>
<td>72.0</td>
<td>8.1</td>
</tr>
<tr>
<td></td>
<td>Sep</td>
<td>0.5</td>
<td>1.8</td>
<td>71.4</td>
<td>8.7</td>
</tr>
<tr>
<td></td>
<td>Dec</td>
<td>1.2</td>
<td>3.2</td>
<td>71.0</td>
<td>8.8</td>
</tr>
<tr>
<td>2008</td>
<td>Mar</td>
<td>0.7</td>
<td>3.4</td>
<td>71.9</td>
<td>8.8</td>
</tr>
<tr>
<td></td>
<td>Jun</td>
<td>1.6</td>
<td>4.0</td>
<td>69.3</td>
<td>8.8</td>
</tr>
<tr>
<td></td>
<td>Sep</td>
<td>1.5</td>
<td>5.1</td>
<td>65.5</td>
<td>8.2</td>
</tr>
<tr>
<td></td>
<td>Dec</td>
<td>-0.5</td>
<td>3.4</td>
<td>57.8</td>
<td>6.3</td>
</tr>
<tr>
<td>2009</td>
<td>Mar</td>
<td>0.3</td>
<td>3.0</td>
<td>53.7</td>
<td>3.7</td>
</tr>
<tr>
<td></td>
<td>First half average</td>
<td>0.3</td>
<td>2.3</td>
<td>55.9</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td>Second half average</td>
<td>0.4</td>
<td>1.0</td>
<td>57.1</td>
<td>2.8</td>
</tr>
<tr>
<td>2010</td>
<td>First half average</td>
<td>0.3</td>
<td>1.3</td>
<td>54.7</td>
<td>2.8</td>
</tr>
<tr>
<td></td>
<td>Second half average</td>
<td>0.7</td>
<td>1.8</td>
<td>52.8</td>
<td>2.9</td>
</tr>
<tr>
<td>2011</td>
<td>First half average</td>
<td>0.5</td>
<td>2.3</td>
<td>51.9</td>
<td>3.5</td>
</tr>
<tr>
<td></td>
<td>Second half average</td>
<td>0.6</td>
<td>2.3</td>
<td>51.9</td>
<td>3.9</td>
</tr>
</tbody>
</table>

Quarterly projections

<table>
<thead>
<tr>
<th>Year</th>
<th>Quarter</th>
<th>CPI Quarterly</th>
<th>CPI Annual</th>
<th>GDP Quarterly</th>
<th>GDP Annual average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Sep</td>
<td>1.5</td>
<td>5.1</td>
<td>-0.5</td>
<td>1.7</td>
</tr>
<tr>
<td></td>
<td>Dec</td>
<td>-0.5</td>
<td>3.4</td>
<td>-0.9</td>
<td>0.2</td>
</tr>
<tr>
<td>2009</td>
<td>Mar</td>
<td>0.3</td>
<td>3.0</td>
<td>-1.0</td>
<td>-0.9</td>
</tr>
<tr>
<td></td>
<td>Jun</td>
<td>0.4</td>
<td>1.7</td>
<td>-0.3</td>
<td>-1.8</td>
</tr>
<tr>
<td></td>
<td>Sep</td>
<td>0.5</td>
<td>0.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Notes for these tables follow on pages 36 and 37.
### Table B
Composition of real GDP growth

*(annual average percent change, unless specified otherwise)*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Actuals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final consumption expenditure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>4.9</td>
<td>6.5</td>
<td>5.1</td>
<td>4.6</td>
<td>2.8</td>
<td>3.2</td>
<td>-0.6</td>
<td>-0.9</td>
<td>0.8</td>
<td>0.3</td>
</tr>
<tr>
<td>Public authority</td>
<td>1.3</td>
<td>4.9</td>
<td>4.2</td>
<td>4.9</td>
<td>4.0</td>
<td>4.3</td>
<td>3.7</td>
<td>3.8</td>
<td>3.3</td>
<td>2.0</td>
</tr>
<tr>
<td>Total</td>
<td>4.1</td>
<td>6.2</td>
<td>4.9</td>
<td>4.6</td>
<td>3.1</td>
<td>3.5</td>
<td>0.4</td>
<td>0.2</td>
<td>1.4</td>
<td>0.7</td>
</tr>
<tr>
<td>Gross fixed capital formation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market sector:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>23.6</td>
<td>15.0</td>
<td>2.9</td>
<td>-5.2</td>
<td>-2.3</td>
<td>4.3</td>
<td>-26.8</td>
<td>-23.0</td>
<td>27.0</td>
<td>15.3</td>
</tr>
<tr>
<td>Business</td>
<td>2.3</td>
<td>12.2</td>
<td>12.1</td>
<td>8.1</td>
<td>0.3</td>
<td>4.1</td>
<td>-4.1</td>
<td>-12.4</td>
<td>7.9</td>
<td>11.1</td>
</tr>
<tr>
<td>Non-market government sector</td>
<td>14.6</td>
<td>14.2</td>
<td>5.3</td>
<td>0.7</td>
<td>-4.1</td>
<td>5.5</td>
<td>-9.7</td>
<td>26.7</td>
<td>9.8</td>
<td>-5.9</td>
</tr>
<tr>
<td>Total</td>
<td>7.8</td>
<td>13.1</td>
<td>9.2</td>
<td>4.4</td>
<td>-0.6</td>
<td>4.3</td>
<td>-9.2</td>
<td>-10.6</td>
<td>10.8</td>
<td>9.6</td>
</tr>
<tr>
<td>Final domestic expenditure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stockbuilding</td>
<td>-0.1</td>
<td>0.2</td>
<td>0.3</td>
<td>-0.4</td>
<td>-0.9</td>
<td>0.8</td>
<td>-0.1</td>
<td>0.4</td>
<td>-0.2</td>
<td>-0.3</td>
</tr>
<tr>
<td>Gross national expenditure</td>
<td>4.7</td>
<td>7.7</td>
<td>6.5</td>
<td>4.3</td>
<td>1.1</td>
<td>4.6</td>
<td>-1.8</td>
<td>-2.2</td>
<td>3.2</td>
<td>2.4</td>
</tr>
<tr>
<td>Exports of goods and services</td>
<td>7.8</td>
<td>0.9</td>
<td>4.6</td>
<td>0.0</td>
<td>3.1</td>
<td>2.9</td>
<td>-4.0</td>
<td>-4.0</td>
<td>5.6</td>
<td>8.1</td>
</tr>
<tr>
<td>Imports of goods and services</td>
<td>7.2</td>
<td>12.7</td>
<td>12.5</td>
<td>4.2</td>
<td>-1.6</td>
<td>9.6</td>
<td>-3.8</td>
<td>-7.6</td>
<td>5.2</td>
<td>3.5</td>
</tr>
<tr>
<td>Expenditure on GDP</td>
<td>5.0</td>
<td>4.0</td>
<td>3.8</td>
<td>3.0</td>
<td>2.7</td>
<td>2.3</td>
<td>-1.8</td>
<td>-0.8</td>
<td>3.2</td>
<td>3.7</td>
</tr>
<tr>
<td>GDP (production)</td>
<td>4.9</td>
<td>4.3</td>
<td>3.8</td>
<td>3.0</td>
<td>1.8</td>
<td>3.1</td>
<td>-0.9</td>
<td>-1.3</td>
<td>3.2</td>
<td>3.8</td>
</tr>
<tr>
<td>GDP (production, March qtr to March qtr)</td>
<td>4.6</td>
<td>5.3</td>
<td>2.3</td>
<td>2.9</td>
<td>2.4</td>
<td>2.1</td>
<td>-2.6</td>
<td>0.8</td>
<td>4.0</td>
<td>3.6</td>
</tr>
</tbody>
</table>

1. Percentage point contribution to the growth rate of GDP.
### Table C

**Summary of economic projections**

*(annual percent change, unless specified otherwise)*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Price measures</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPI</td>
<td>2.5</td>
<td>1.5</td>
<td>2.8</td>
<td>3.3</td>
<td>2.5</td>
<td>3.4</td>
<td>3.0</td>
<td>1.2</td>
<td>2.3</td>
<td>2.2</td>
</tr>
<tr>
<td>Labour costs</td>
<td>2.2</td>
<td>2.1</td>
<td>2.5</td>
<td>3.0</td>
<td>3.0</td>
<td>3.5</td>
<td>3.1</td>
<td>2.1</td>
<td>1.3</td>
<td>1.3</td>
</tr>
<tr>
<td>Import prices (in New Zealand dollars)</td>
<td>-11.1</td>
<td>-10.5</td>
<td>0.5</td>
<td>6.9</td>
<td>0.3</td>
<td>0.7</td>
<td>13.7</td>
<td>0.5</td>
<td>10.4</td>
<td>6.0</td>
</tr>
<tr>
<td>Export prices (in New Zealand dollars)</td>
<td>-15.5</td>
<td>-5.1</td>
<td>4.9</td>
<td>3.6</td>
<td>4.8</td>
<td>12.5</td>
<td>10.9</td>
<td>-6.8</td>
<td>8.3</td>
<td>2.2</td>
</tr>
<tr>
<td><strong>Monetary conditions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90-day rate (year average)</td>
<td>5.9</td>
<td>5.3</td>
<td>6.5</td>
<td>7.3</td>
<td>7.6</td>
<td>8.6</td>
<td>6.7</td>
<td>2.8</td>
<td>3.0</td>
<td>3.9</td>
</tr>
<tr>
<td>TWI (year average)</td>
<td>56.4</td>
<td>63.6</td>
<td>67.1</td>
<td>70.1</td>
<td>65.6</td>
<td>71.6</td>
<td>61.6</td>
<td>56.9</td>
<td>52.9</td>
<td>51.9</td>
</tr>
<tr>
<td><strong>Output</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP (production, annual average % change)</td>
<td>4.9</td>
<td>4.3</td>
<td>3.8</td>
<td>3.0</td>
<td>1.8</td>
<td>3.1</td>
<td>-0.9</td>
<td>-1.3</td>
<td>3.2</td>
<td>3.8</td>
</tr>
<tr>
<td>Potential output (annual average % change)</td>
<td>3.9</td>
<td>3.8</td>
<td>3.4</td>
<td>2.9</td>
<td>2.5</td>
<td>2.2</td>
<td>2.1</td>
<td>2.1</td>
<td>1.9</td>
<td>2.1</td>
</tr>
<tr>
<td>Output gap (% of potential GDP, year average)</td>
<td>1.1</td>
<td>1.6</td>
<td>2.0</td>
<td>2.0</td>
<td>1.3</td>
<td>2.2</td>
<td>-0.8</td>
<td>-4.1</td>
<td>-2.9</td>
<td>-1.3</td>
</tr>
<tr>
<td><strong>Labour market</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total employment</td>
<td>1.8</td>
<td>3.3</td>
<td>3.6</td>
<td>2.7</td>
<td>2.0</td>
<td>-0.3</td>
<td>0.8</td>
<td>-1.9</td>
<td>0.8</td>
<td>2.4</td>
</tr>
<tr>
<td>Unemployment rate (March qtr, seasonally adjusted)</td>
<td>5.0</td>
<td>4.3</td>
<td>3.9</td>
<td>4.0</td>
<td>3.8</td>
<td>3.8</td>
<td>5.0</td>
<td>7.1</td>
<td>6.8</td>
<td>6.0</td>
</tr>
<tr>
<td>Trend labour productivity</td>
<td>1.2</td>
<td>1.0</td>
<td>1.1</td>
<td>1.0</td>
<td>0.9</td>
<td>1.2</td>
<td>1.4</td>
<td>1.6</td>
<td>1.6</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>Key balances</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government operating balance (% of GDP, year to June)</td>
<td>1.5</td>
<td>5.3</td>
<td>4.2</td>
<td>7.3</td>
<td>4.8</td>
<td>1.3</td>
<td>-5.3</td>
<td>-2.6</td>
<td>-3.1</td>
<td>-2.7</td>
</tr>
<tr>
<td>Current account balance (% of GDP)</td>
<td>-3.4</td>
<td>-4.8</td>
<td>-6.8</td>
<td>-9.3</td>
<td>-8.3</td>
<td>-8.0</td>
<td>-8.2</td>
<td>-6.1</td>
<td>-6.5</td>
<td>-5.6</td>
</tr>
<tr>
<td>Terms of trade (OTI measure, annual average % change)</td>
<td>-5.7</td>
<td>3.9</td>
<td>5.8</td>
<td>-0.8</td>
<td>1.9</td>
<td>7.8</td>
<td>3.7</td>
<td>-6.1</td>
<td>-1.2</td>
<td>-3.5</td>
</tr>
<tr>
<td>Household saving rate (% of disposable income)</td>
<td>-10.3</td>
<td>-9.7</td>
<td>-9.3</td>
<td>-11.7</td>
<td>-12.7</td>
<td>-10.6</td>
<td>-8.1</td>
<td>-6.4</td>
<td>-6.6</td>
<td>-4.3</td>
</tr>
<tr>
<td><strong>World economy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trading partner GDP (annual average % change)</td>
<td>3.1</td>
<td>3.3</td>
<td>3.6</td>
<td>3.6</td>
<td>3.6</td>
<td>3.9</td>
<td>0.1</td>
<td>-1.7</td>
<td>2.0</td>
<td>3.6</td>
</tr>
<tr>
<td>Trading partner CPI (TWI weighted, annual % change)</td>
<td>2.2</td>
<td>1.4</td>
<td>2.1</td>
<td>2.5</td>
<td>1.9</td>
<td>3.3</td>
<td>0.9</td>
<td>0.6</td>
<td>1.2</td>
<td>1.6</td>
</tr>
</tbody>
</table>
Notes to the tables

CPI
Consumer 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 area.

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. Seasonally adjusted.

World CPI inflation
Reserve Bank definition. Five-country index, TWI weighted.

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

Business investment
RBNZ definition. Total investment less the sum of non-market investment and residential investment. System of National Accounts.

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

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

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

Gross national expenditure

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

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 Account.
### Government operating balance
Historical source: The Treasury. Adjusted by the RBNZ over the projection period.

### Labour productivity
The series shown is the annual percentage change in a trend measure of labour productivity. Labour productivity is defined as GDP (production) divided by Household Labour Force Survey hours worked.

### Labour cost
Private sector all salary and wage rates. *Labour Cost Index*.

### Real gross domestic income
The real purchasing power of domestic income, taking into account changes in the terms of trade. *System of National Accounts*.

### Quarterly percent change
\[ \text{Quarterly/Quarter}_{t-1} \times 100 \]

### Annual percent change
\[ \text{Quarterly/Quarter}_{t-4} \times 100 \]

### Annual average percent change
\[ \text{Year/Year}_{t-1} \times 100 \]

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.
Appendix B
Companies and organisations contacted by RBNZ staff during the projection round

4 Industry Group Ltd
Air New Zealand Ltd
Algie Clothing Ltd
Allied Nationwide Finance Ltd
Arthur Barnett Ltd
Ballance Agri Nutrients Ltd
Bay of Plenty Federated Farmers
Canterbury Employers’ Chamber of Commerce
Canterbury Manufacturers Association
Cavalier Corporation Ltd
Contact Energy Ltd
DB Breweries Ltd
Dunedin City Council
Electropar New Zealand Ltd
Environment Canterbury
Farmers Mutual Group
Fisher & Paykel Finance Ltd
Fonterra Ltd
Gallaway Cook Allan – Lawyers
George Janis Group Ltd
Hamilton Jet Ltd
Harcourts Group Ltd
Harvey Norman Ltd
Hayes International Ltd
Hayes Knight NZ Ltd
Hellaby Holdings Ltd
Hertz New Zealand Ltd
Horizon Energy Ltd
Hume Pine NZ Ltd
Infratil Ltd
Jenkins Group Ltd
Juken New Zealand Ltd
Kea Property Group Ltd
Kelly Services Ltd
Kirkcaldie & Stains Ltd
Kohler New Zealand Ltd
Kordia Ltd
KPMG Ltd
LJ Hooker Group Ltd
Lockwood Group Ltd
LWR Industries Ltd (in receivership)
Meat Industry Association of New Zealand (Inc)
Misc Agencies (New Zealand) Ltd
New Zealand Council of Trade Unions
New Zealand Transport Agency
Ngati Awa Trust
Orion New Zealand Ltd
Pacific Tourways Ltd
PF Olsen Group Ltd
Port of Tauranga Ltd
Progressive Enterprises Ltd
Sika Technology Ltd
Solid Energy Ltd
Sportsworld Ltd (Whakatane)
Stevenson Group Ltd
Tachikawa Forest Products Ltd
Tauranga Mitre 10 Mega Ltd
Tecpak Industries Ltd
Telecom New Zealand Ltd
Trustpower Ltd
Wellington Chamber of Commerce
Westland Co-operative Dairy Company Ltd
Zespri International Ltd
Appendix C
Reserve Bank statements on monetary policy

OCR reduced to 3 percent
12 March 2009
The Reserve Bank today reduced the Official Cash Rate (OCR) by 50 basis points to 3 percent.

Reserve Bank Governor Alan Bollard said: “The world economy deteriorated very rapidly late last year, amid ongoing losses and extreme volatility in international financial markets. While monetary and fiscal policy responses in many countries have been substantial we still expect the adverse economic forces generated by the crisis to remain dominant throughout 2009. The timing and extent of global recovery remain highly uncertain.

“In New Zealand, the impact of difficult trading conditions is showing through clearly in reduced export revenues, weak business sentiment, and sharply curtailed investment and employment. Further house price falls and increased precautionary saving by households are driving a weakness in spending. Inflation pressure is abating rapidly as a result.

“The OCR has now been reduced 525 basis points in little more than six months, taking interest rates to very stimulatory levels. Further falls in the lending rates faced by households and businesses are in the pipeline. While credit growth is easing in line with the weak economy, we expect financial institutions to continue lending on sound business propositions, to support the recovery.

“In addition to the substantial change in monetary policy settings, there has been a large amount of stimulus from fiscal policy. These policy changes, together with the sizeable exchange rate depreciation, will act to support the New Zealand economy: therefore, we expect to see activity troughing in the middle of this year and then gradually picking up thereafter. However, the scale of the global financial crisis is such that there is great uncertainty about future economic developments and there is a risk that the recovery may occur later and be more protracted than we anticipate.

“As economic activity troughs, we expect the rapid easing of monetary policy to slow. Any future cuts will be much smaller than observed recently. We do not expect to see in New Zealand the near-zero policy rates of some countries. New Zealand needs to retain competitiveness in the international capital markets. We will assess the need for further cuts in the OCR against emerging developments in the global and domestic economies and the responses to policy changes already in place.”

OCR reduced to 2.5 percent
30 April 2009
The Reserve Bank today reduced the Official Cash Rate (OCR) by 50 basis points to 2.5 percent.

Reserve Bank Governor Alan Bollard said: “Overall, developments since March point to lower medium-term inflation than previously projected. The main factors behind this are weaker global growth, and an unwarranted tightening in financial conditions via both higher long-term interest rates and a stronger exchange rate than expected.

“Global financial markets have showed some tentative signs of stabilisation since the March Monetary Policy Statement and governments in the major economies are continuing to make progress in resolving their banking system difficulties. However, a large amount still needs to be done and sentiment remains fragile. Negative feedback from the global recession could also still adversely affect financial institutions.

“The world economy deteriorated further than expected in the first quarter of 2009. While monetary and fiscal policy responses in many countries have been substantial and there are some signs of stabilisation in some countries, we still expect the adverse economic forces generated by the crisis to remain dominant throughout 2009. The timing and extent of global recovery remain highly uncertain.

“While the New Zealand economy has not experienced the same extreme falls in economic activity as seen in a number of our trading partners, it remains weak. Business sentiment is low, investment has been curtailed and employment reduced.

“We expect the large decline in the OCR over the past year to pass through to more borrowers over coming quarters as existing fixed-rate mortgages come up for re-
pricing. This, together with the stimulus from fiscal policy, will act to support the New Zealand economy and eventually see activity trough and pick up thereafter. However, the scale of the global financial crisis and domestic adjustments underway are such that it is likely to be some time before economic activity returns to robust and healthy levels.

“We consider it appropriate to provide further policy stimulus to the economy. We expect to keep the OCR at or below the current level through until the latter part of 2010. The OCR could still move modestly lower over the coming quarters.”
Appendix D
The Official Cash Rate chronology

<table>
<thead>
<tr>
<th>Date</th>
<th>OCR (percent)</th>
<th>Date</th>
<th>OCR (percent)</th>
<th>Date</th>
<th>OCR (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>17 March 1999</td>
<td>4.50</td>
<td>4 September 2003</td>
<td>5.00</td>
<td>24 April 2008</td>
<td>8.25</td>
</tr>
<tr>
<td>21 April 1999</td>
<td>4.50</td>
<td>23 October 2003</td>
<td>5.00</td>
<td>5 June 2008</td>
<td>8.25</td>
</tr>
<tr>
<td>19 May 1999</td>
<td>4.50</td>
<td>4 December 2003</td>
<td>5.00</td>
<td>24 July 2008</td>
<td>8.00</td>
</tr>
<tr>
<td>29 September 1999</td>
<td>4.50</td>
<td>29 April 2004</td>
<td>5.50</td>
<td>4 December 2008</td>
<td>5.00</td>
</tr>
<tr>
<td>17 November 1999</td>
<td>5.00</td>
<td>10 June 2004</td>
<td>5.75</td>
<td>29 January 2009</td>
<td>3.50</td>
</tr>
<tr>
<td>19 January 2000</td>
<td>5.25</td>
<td>29 July 2004</td>
<td>6.00</td>
<td>12 March 2009</td>
<td>3.00</td>
</tr>
<tr>
<td>15 March 2000</td>
<td>5.75</td>
<td>9 September 2004</td>
<td>6.25</td>
<td>30 April 2009</td>
<td>2.50</td>
</tr>
<tr>
<td>19 April 2000</td>
<td>6.00</td>
<td>28 October 2004</td>
<td>6.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 May 2000</td>
<td>6.50</td>
<td>9 December 2004</td>
<td>6.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 July 2000</td>
<td>6.50</td>
<td>27 January 2005</td>
<td>6.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 August 2000</td>
<td>6.50</td>
<td>10 March 2005</td>
<td>6.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 October 2000</td>
<td>6.50</td>
<td>28 April 2005</td>
<td>6.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 December 2000</td>
<td>6.50</td>
<td>9 June 2005</td>
<td>6.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 January 2001</td>
<td>6.50</td>
<td>28 July 2005</td>
<td>6.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 March 2001</td>
<td>6.25</td>
<td>15 September 2005</td>
<td>6.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 April 2001</td>
<td>6.00</td>
<td>27 October 2005</td>
<td>7.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 May 2001</td>
<td>5.75</td>
<td>8 December 2005</td>
<td>7.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 July 2001</td>
<td>5.75</td>
<td>26 January 2006</td>
<td>7.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 August 2001</td>
<td>5.75</td>
<td>9 March 2006</td>
<td>7.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 September 2001</td>
<td>5.25</td>
<td>27 April 2006</td>
<td>7.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 October 2001</td>
<td>5.25</td>
<td>8 June 2006</td>
<td>7.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 November 2001</td>
<td>4.75</td>
<td>27 July 2006</td>
<td>7.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23 January 2002</td>
<td>4.75</td>
<td>14 September 2006</td>
<td>7.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 March 2002</td>
<td>5.00</td>
<td>26 October 2006</td>
<td>7.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 April 2002</td>
<td>5.25</td>
<td>7 December 2006</td>
<td>7.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 May 2002</td>
<td>5.50</td>
<td>25 January 2007</td>
<td>7.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 July 2002</td>
<td>5.75</td>
<td>8 March 2007</td>
<td>7.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 August 2002</td>
<td>5.75</td>
<td>26 April 2007</td>
<td>7.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 October 2002</td>
<td>5.75</td>
<td>7 June 2007</td>
<td>8.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 November 2002</td>
<td>5.75</td>
<td>26 July 2007</td>
<td>8.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23 January 2003</td>
<td>5.75</td>
<td>13 September 2007</td>
<td>8.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 March 2003</td>
<td>5.75</td>
<td>25 October 2007</td>
<td>8.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 April 2003</td>
<td>5.50</td>
<td>6 December 2007</td>
<td>8.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 June 2003</td>
<td>5.25</td>
<td>24 January 2008</td>
<td>8.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 July 2003</td>
<td>5.00</td>
<td>6 March 2008</td>
<td>8.25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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 2009:

<table>
<thead>
<tr>
<th>2009</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>30 July</td>
<td>OCR announcement</td>
</tr>
<tr>
<td>10 September</td>
<td><em>Monetary Policy Statement</em></td>
</tr>
<tr>
<td>29 October</td>
<td>OCR announcement</td>
</tr>
<tr>
<td>10 December</td>
<td><em>Monetary Policy Statement</em></td>
</tr>
</tbody>
</table>

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 Government’s economic objective is to promote a growing, open and competitive economy as the best means of delivering permanently higher incomes and living standards for New Zealanders. Price stability plays an important part in supporting this objective.

2 Policy target

(a) In pursuing the objective of a stable general level of prices, the Bank shall monitor prices as measured by a range of price indices. The price stability target will be defined in terms of the All Groups Consumers Price Index (CPI), as published by Statistics New Zealand.

(b) For the purpose of this agreement, the policy target shall be to keep future CPI inflation outcomes between 1 per cent and 3 per cent on average over the medium term.

3 Inflation variations around target

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

(b) When disturbances of the kind described in clause 3(a) arise, the Bank will respond consistent with meeting its medium-term target.
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 Bill English  
Minister of Finance

Dr Alan E Bollard  
Governor  
Reserve Bank of New Zealand

Dated at Wellington this 18th day of December 2008