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# Monetary Policy Statement

March 2010<sup>1</sup>

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

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<sup>1</sup> Projections finalised on 26 February 2010. Policy assessment finalised on 10 March 2010.

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# 1 Policy assessment

The Reserve Bank today left the Official Cash Rate (OCR) unchanged at 2.5 percent.

The New Zealand economy is recovering broadly as expected and growth is predicted to pick-up further through 2010.

Trading partner activity has recovered a little faster than expected. Currently, growth is strongest in China, Australia, and emerging Asia, but is much more muted in other trading partners. At the same time, risks around the global outlook have increased, although not to the extreme levels seen at the height of the crisis.

We estimate the New Zealand economy grew at a stronger pace in the December and March quarters than in the prior two quarters. Looking forward, while growth is expected to increase to about 4 percent next year, this is subdued relative to previous recoveries.

Policy stimulus and improved consumer confidence have seen a pick-up in household spending. That said, households are still cautious with house sales and credit growth remaining subdued. Business spending is weak despite much improved confidence.

Annual CPI inflation is currently at 2 percent, and is expected to track within the target range over the medium term. In the short term, implementation of the amended Emissions Trading Scheme and increases in ACC charges will push CPI inflation toward the top of the target range.

Higher bank funding costs have reduced the level of stimulus that would normally be associated with any given level of the OCR. We expect these costs to persist over the projection reducing the extent of future increases in the OCR. Fiscal consolidation would also help reduce the work that monetary policy might otherwise need to do.

We continue to expect to begin removing policy stimulus around the middle of 2010.

Alan Bollard



Governor

## 2 Overview and key policy judgements

The New Zealand economy continues to recover. We forecast activity, both here and abroad, to keep expanding, albeit at a sluggish pace relative to previous recoveries. Resources are expected to become more fully employed over the projection, meaning that inflation is likely to increase. As such, we continue to expect to increase the OCR over the projection. However, higher bank and corporate funding costs will reduce the extent of this increase.

The outlook for activity in our trading partners remains quite mixed. Asia, which has quickly recovered from recession, continues to grow strongly. Growth in Australia is proving robust reflecting strong trade links with Asia, high export commodity prices and relatively high population growth.

In contrast, activity in Western economies remains soft. The recovery in the United States is expected to be more gradual as current inventory rebuilding and the impact of fiscal stimulus fade. Recovery in economic activity is expected to prove protracted in both the United Kingdom and the euro area.

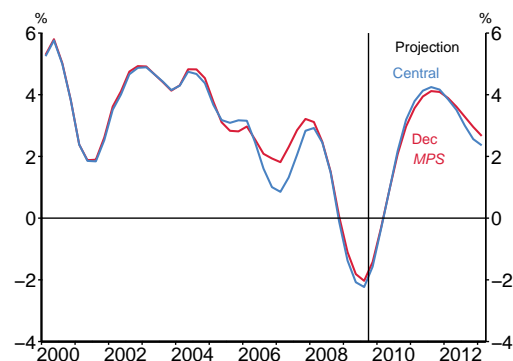
Nonetheless, the recovery in global activity to date has seen New Zealand's export commodity prices increase markedly. While international dairy prices have eased slightly following their sharp recovery, other prices, such as those for meat and forestry, continue to increase. We expect aggregate export prices to stabilise at their current high level.

New Zealand dollar strength has offset much of the benefit to exporters from these high export prices. However, recent depreciation in the currency, especially relative to the Australian dollar, has moderated this offsetting influence.

Domestically, the relatively sluggish recovery predicted in recent *Statements* continues to play out. Although we expect annual average GDP growth to push above 4 percent next year (figure 2.1), this is not particularly strong for an economy recovering from a sizeable downturn and is subdued relative to previous recoveries. Indeed, it is not until the September quarter of 2010 that the economy is projected to regain the level of activity seen in late 2007.

We expect a lift in household consumption and stronger residential investment to support a recovery in domestic demand. Business investment is predicted to remain relatively weak until later in the projection period. While

Figure 2.1  
GDP growth  
(annual average)



Source: Statistics New Zealand, RBNZ estimates.

surveyed investment intentions have improved markedly, we believe firms will look to initially increase production by hiring more workers rather than by undertaking capital investment. Higher credit spreads and greater caution on the part of both lenders and borrowers also suggest that some investment spending will be deferred until the recovery has become firmly established.

Export volumes are expected to pick up over the coming year, but not rapidly. Tourism and manufactured exports, in particular, are expected to take some time to fully recover.

The recession in activity has created excess capacity in the economy, as reflected in the rise in unemployment over the past 18 months. We expect to see a turnaround in employment growth over the coming year and excess capacity to be gradually absorbed. This in turn is expected to see inflation increase.

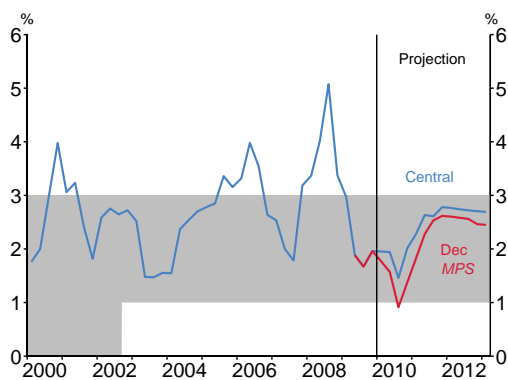
Inflation will also be boosted by increased administrative charges. In the September quarter of this year, ACC charges are likely to increase. While ACC levies tend to increase most years, the increase planned for 2010 is larger than usual.

In addition, the amended Emissions Trading Scheme (ETS) will be implemented on 1 July this year. The levies on fuel and electricity prices, along with any direct spillover to industries affected by these charges, are estimated to add 0.4 percentage points to headline CPI inflation during the year following implementation. Provided price and wage-setters recognise the increase in prices as one-off in nature and form their expectations and behaviours accordingly, the implementation of the ETS should not affect medium-term

inflation. If this is the case, we expect to be able to look through this inflation boost. Our inflation projections, unless otherwise stated, exclude the first round effects of the ETS.

Combined with an assumption that the New Zealand dollar will depreciate modestly over the projection, these factors see inflation increase. We expect annual CPI inflation to reach 2.8 percent late next year, before moderating thereafter (figure 2.2).

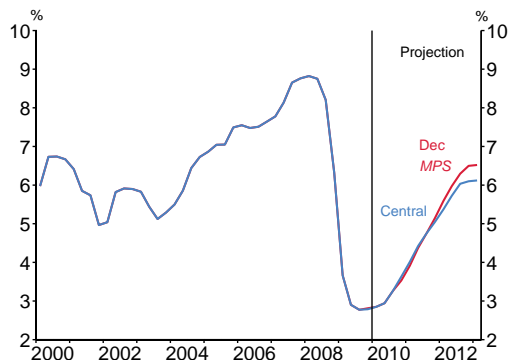
**Figure 2.2**  
CPI inflation  
(annual)



Source: Statistics New Zealand, RBNZ estimates.

Given this pick-up in activity and inflation, we continue to expect to increase the OCR over the projection (figure 2.3). However, higher bank and corporate funding costs will reduce the extent of this increase.

**Figure 2.3**  
90-day interest rate



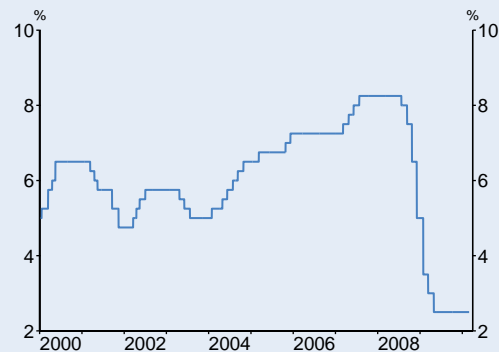
Source: RBNZ estimates.

## Box A

### Recent monetary policy decisions

In response to a significant global recession, tight credit conditions, wide interest rate spreads and contraction in the New Zealand economy – all of which have seen inflationary pressures reduce noticeably – the OCR has been held at a record low 2.5 percent for almost a year now (figure A1).

**Figure A1**  
Official Cash Rate



Source: RBNZ.

In addition, throughout this time, the Bank has communicated its expectation that the OCR would be kept at the current low rate for an extended period. These communications have helped support an economic recovery by offsetting the tendency for financial markets to quickly price some degree of interest rate normalisation once the OCR has reached a peak or trough. We believe these communications helped reduce the extent to which markets priced near-term OCR increases.

It appears that these attempts to keep interest rates low were appropriate, given the extent to which the New Zealand economy has contracted and inflation pressures abated.

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## Monetary policy judgements

Through the second half of 2008 and the first half of 2009, global activity contracted markedly. The size of this contraction was exacerbated by excessive household borrowing in many countries before the global financial crisis, which saw balance sheets become stressed as asset prices fell and unemployment rose. Despite most economies now being well out of recession, firms and households remain cautious in their spending decisions.

Similar conservatism has been seen in New Zealand, with many corporates choosing to reduce debt levels and many households increasing their saving. Higher credit spreads and a tightening in the terms and conditions on which credit is available have reinforced this development.

Recent data point to only moderate household spending growth, notwithstanding the stimulus from low interest rates and population growth. Most recently, activity in the market for existing houses has slowed. While this seems in part due to recent increases in longer-term mortgage rates, some of the deterioration also appears related to speculation about changes to the taxation of property. We forecast that real house prices will remain flat over the projection and that growth in consumer spending will remain modest compared to previous upturns.

While we expect this caution to persist, there is a risk that households and firms revert to previous borrowing and lending behaviour. Excessive credit growth could promote a return to unsustainable asset price growth and an eventual further financial slump.

However, such a long-term risk would likely take some years to develop. Over our projection horizon a strong pick-up in credit growth would likely cause economic activity, and inflation, to turn out much stronger than we currently predict. That would in turn require more aggressive policy tightening than we currently predict.

Conversely, a reversal of the recent improvements in global financial conditions could also act as a constraint on the recovery. Deterioration in governments' fiscal positions has seen markets become concerned about some economies' ability to meet their sovereign debt obligations. If a sovereign defaulted, the repercussions on already fragile global financial markets could be quite severe. In particular,

deterioration in credit availability would undoubtedly drive up the cost of funds for New Zealand's banks and major corporates, which would in turn push up interest rates in New Zealand.

An important issue is the extent to which global recovery can continue at the pace projected as fiscal stimulus in many countries is gradually withdrawn. Many of the world's largest economies have seen their sovereign debt increase markedly over the past year or so, following increased fiscal stimulus aimed at offsetting the negative impact of the global financial crisis. Over the projection horizon, many countries are expected to embark on fiscal consolidation.

Many will elect to do this by either increasing taxes or cutting government spending, which would have a dampening influence on global growth. Our projections allow for a gradual recovery in global growth in light of this, but it could well be that fiscal consolidation is more aggressive than we project. Conversely, countries could decide that fiscal stimulus should be maintained to ensure their economies continue to recover. This would require further expansion in sovereign debt, potentially crowding out some private borrowing and pushing up the cost of funds for New Zealanders.

In summary, while we see our projection for trading partner growth as being sensible and plausible, we are conscious of the small risk of the world economy turning out much weaker than we expect. However, we are also mindful of the somewhat more likely scenario where the world economy turns out moderately stronger than we predict.

Turning back to the New Zealand economy, domestic financial conditions are much tighter than would normally be associated with a 2.5 percent OCR. This has come about because of significant appreciation in the New Zealand dollar over the second and third quarters of 2009, and also a sizable increase in the cost of bank and corporate funding. Reserve Bank estimates suggest that the marginal cost of bank funding has increased to about 150 basis points above the OCR, from around 20 to 30 basis points before the financial crisis. We expect this increased wedge to persist over the projection, thereby reducing the level of the OCR needed to achieve a desired level of interest rates for households and firms.

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Nonetheless, we continue to expect to increase the OCR over the projection. Because of increased bank funding costs, a shortening in mortgage duration and a positively sloped yield curve, we expect this tightening to have quite a powerful and relatively immediate impact on the economy.

As always, the Bank will continue to make regular assessments of economic conditions to assess the appropriateness of monetary conditions and the rate of removal of policy stimulus. In addition, along with our usual set of macroeconomic indicators, we continue to keep a close eye on credit flows. Bank lending remains weak, with lending to households and the agricultural sector growing

only modestly, while business credit continues to decline. It seems that this weak credit growth is a reflection of caution by both borrowers and lenders.

The New Zealand economy is currently being assisted by both monetary and fiscal support. While such support remains appropriate for now, once growth becomes self sustaining, fiscal restraint beyond that described in *Budget 2009* would be welcome and would help reduce the work that monetary policy might otherwise need to do.

### 3 Financial market developments

#### Overview

Sentiment in financial markets has taken on a more cautious tone in recent months following concerns about foreign sovereign default risk, mixed economic data and a continuing weak outlook for the corporate sector. The rally in equity markets since March 2009 stalled at the end of January after Greece's fiscal situation attracted market attention and raised concerns about the fiscal positions of some other European sovereigns. The US dollar and Japanese yen have risen in response to increased safe haven demand. Despite these gains, on a TWI basis, the New Zealand dollar is currently trading near the level of a few months ago.

Local interest rates have declined substantially, particularly around the middle part of the curve after local economic data turned out weaker than analysts had predicted. This has seen market expectations of policy tightening pared back since December. Despite the recent falls in wholesale rates, bank funding costs remain elevated and are likely to remain so for some time.

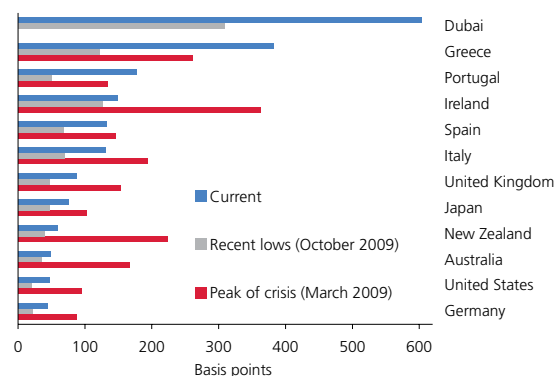
#### International financial market developments

Financial market fears over the state of European fiscal positions have stalled the gains in equity prices over the start of the year, and increasing risk aversion has pervaded markets. Equity markets are currently about 60 percent higher than the March lows after falling since late January. Concerns over fiscal accounts initially arose toward the end of last year following suggestions that Dubai's government would have to provide financial assistance to several state-owned enterprises. Since then, Greece's fiscal position has also gained market attention with concerns that the European Union or the International Monetary Fund may have to provide financial assistance. These concerns have spread to the fiscal positions of some other European sovereigns, as illustrated by the widening in sovereign Credit Default Swap spreads (figure 3.1).

Adding to the negative market sentiment in recent months have been earnings results and weaker economic data. While global earnings results have generally surprised on the upside of estimates, the gains appear to have been

Figure 3.1

Sovereign Credit Default Swap spreads



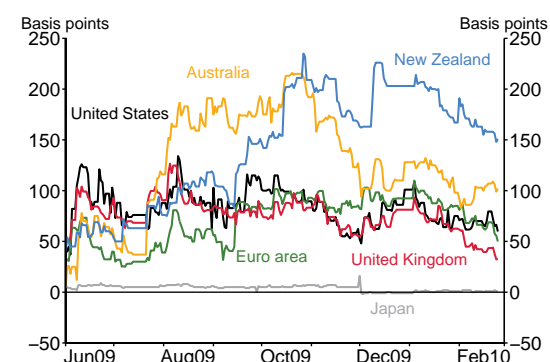
Source: Bloomberg, RBNZ.

driven mainly by cost-cutting measures, with a lack of genuine improvement in final demand. In addition, the outlook provided by most firms has generally remained fairly cautious. Economic data, particularly in Europe, have tended to disappoint analysts' expectations, underscoring the risks to the global recovery.

Interest rates in most major economies have moved lower, with yield curves steepening as expectations of policy rate hikes from central banks have been pared back in the near-term (figure 3.2), while concerns about fiscal stability have supported the longer-end of the interest rate curve. The Federal Reserve has continued to scale back 'emergency' liquidity management settings but has emphasised that the Federal Funds rate is unlikely to increase for some time yet. The Bank of England has indicated that further asset purchases may be necessary if the economic outlook does not improve. In contrast, the People's Bank of China and

Figure 3.2

Market pricing for central bank rate moves over the next 12 months



Source: Bloomberg.

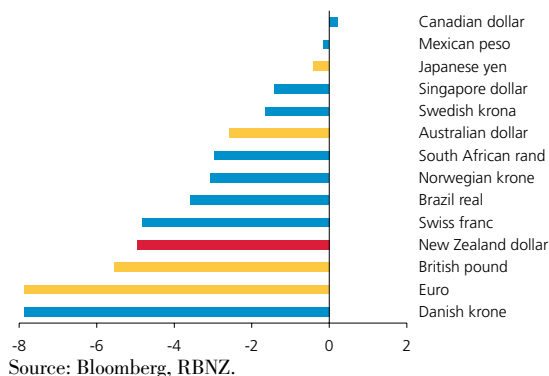
Chinese government authorities started to tighten lending conditions at the start of the year, taking markets somewhat by surprise. The Reserve Bank of Australia has continued to raise interest rates in recent months.

Fears regarding the potential for sovereign debt defaults, and the broad increase in risk aversion, have continued to weigh on market sentiment. While short-term money market conditions have stabilised either at or below levels seen prior to the financial crisis, longer-term credit measures have deteriorated in recent months.

### Foreign exchange markets

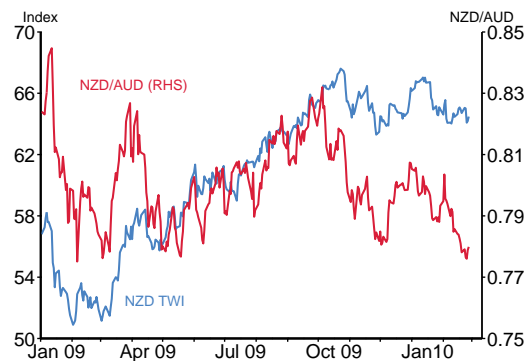
Foreign exchange markets have largely been driven by recent changes in risk appetite which have seen the US dollar and Japanese yen appreciate strongly, while the euro has fallen sharply (figure 3.3). The British pound has also fallen following increasing concerns around the stability of the United Kingdom's fiscal accounts, comments from the Bank of England indicating the possibility of making further asset purchases and market participants' nervousness ahead of the upcoming general election.

**Figure 3.3**  
**Movements in currencies against the US dollar**  
*(percent change since the December Statement)*



The divergence in the recovery of the Australian and New Zealand economies was illustrated in recent data releases and has pushed the New Zealand dollar lower against the Australian dollar in recent weeks. Overall, on a TWI basis the New Zealand dollar is little changed since the December Statement (figure 3.4).

**Figure 3.4**  
**New Zealand dollar TWI and NZD/AUD**



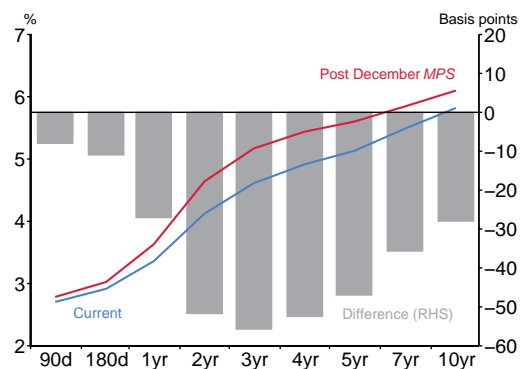
Source: Bloomberg.

### Domestic financial market developments

Local interest rates have fallen substantially in response to weaker than expected local economic data and international developments (figure 3.5). Interest rates were pressured lower in January following local CPI data which, despite being in line with the Reserve Bank's forecasts, were weaker than some market participants had expected. In early February, interest rates fell sharply in response to a higher than expected December quarter unemployment rate.

Falls in international interest rates and a paring back of market expectations for policy rate increases from major central banks have added downward pressure to local interest rates. The Overnight Index Swap market is currently pricing increases in the OCR of around 150 basis points over the next 12 months, down from as much as around 200 basis points at the beginning of the year.

**Figure 3.5**  
**Wholesale interest rate curve**



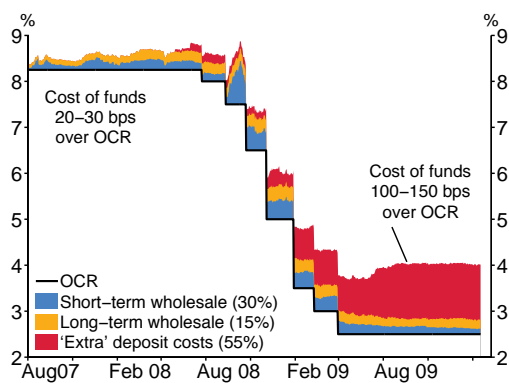
Source: Bloomberg.



## Financing and credit

Despite the recent falls in domestic wholesale interest rates, funding costs for banks remain elevated compared to pre-crisis levels. Banks have been under increasing pressure to move into more stable longer-term wholesale and retail deposit funding in lieu of cheaper short-term wholesale funding. This has kept the marginal cost of funds around 150 basis points over the OCR (figure 3.6). There have been signs of recent sovereign debt concerns affecting corporate credit markets and there is some risk that increased global government debt issuance could crowd out the corporate market, keeping the cost of longer-term wholesale funding elevated.

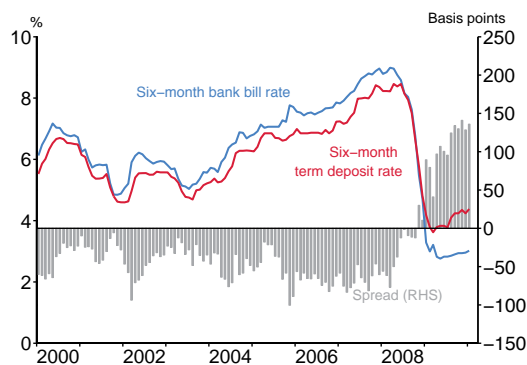
**Figure 3.6**  
Indicative marginal funding costs relative to the OCR



Source: RBNZ estimates.

Competition for domestic deposits has remained intense as banks look to maintain or grow their proportion of deposit funding. This has seen retail deposit interest rates remain elevated relative to wholesale interest rates (figure 3.7).

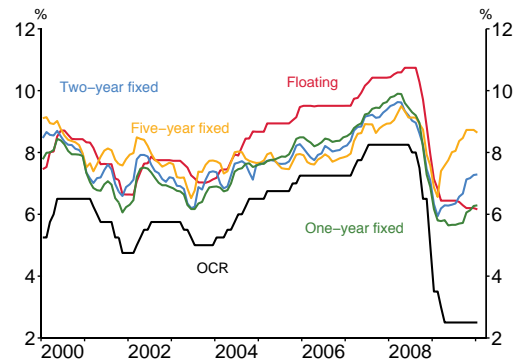
**Figure 3.7**  
Retail and wholesale six-month interest rates



Source: Bloomberg, RBNZ.

With these marginal funding costs remaining elevated, mortgage interest rates have either held steady or increased over recent months, despite reduced wholesale interest rates. The shape of the mortgage curve remains steeply positively sloped, with floating rates falling slightly below short-term fixed mortgage rates (figure 3.8).

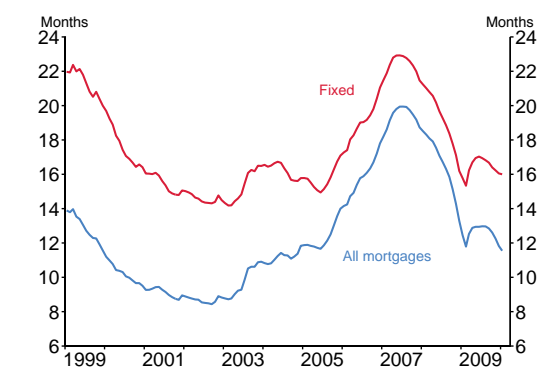
**Figure 3.8**  
Mortgage rates offered to new borrowers



Source: RBNZ.

This ongoing steepness in the mortgage curve has continued to attract borrowers into the shorter end of the curve, causing the average 'duration' of mortgage debt to fall back towards the levels of February 2009 (figure 3.9).

**Figure 3.9**  
Average mortgage duration



Source: RBNZ.

## 4 Current economic conditions

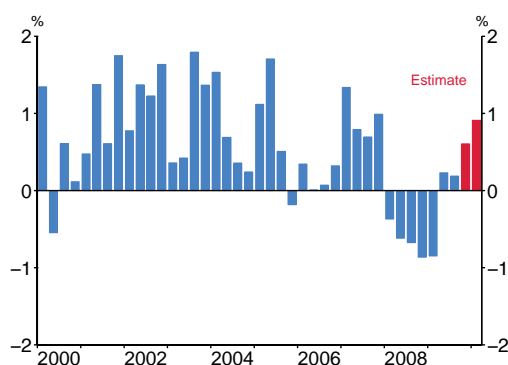
### Overview

The recovery in the New Zealand economy is gradually gaining momentum. After activity stabilised last year, the economy appears to have picked up at a greater pace in late 2009 and early 2010 (figure 4.1). Nevertheless, activity remains patchy both within and across sectors, and the overall pace of recovery is estimated to have been sluggish compared to typical rebounds from recession.

Figure 4.1

#### GDP growth

(quarterly, seasonally adjusted)



Source: Statistics New Zealand, RBNZ estimates.

Stimulatory fiscal and monetary settings continue to provide significant support to activity. Household consumption is estimated to have grown firmly in the December and March quarters, from a low base. However, the improvement in housing market activity through 2009 has abated in recent months. Firms remain very cautious in their investment behaviour, with little evidence of recovery in spending yet.

The domestic recovery is occurring in the context of a global economy recovering from a severe downturn. Asia-Pacific economies have rebounded strongly, supporting strong prices for New Zealand's commodity exports. However, in the major advanced economies, conditions still appear fragile and heavily dependent on policy support.

### International economic conditions

Activity in New Zealand's trading partners continues to recover. However the recovery is uneven and conditions remain very fragile in some regions. So far, much of the

improvement we have seen in global activity has been a result of policy support and the rebuilding of inventories.

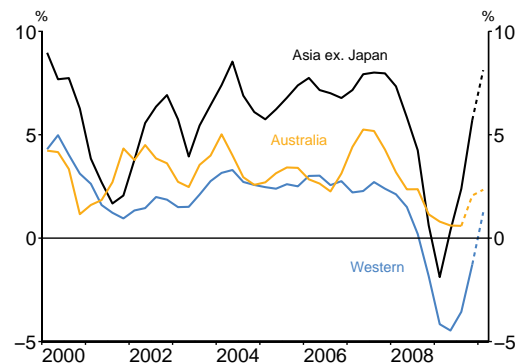
Underlying demand conditions in major Western economies remain soft, with elevated levels of unemployment, low consumer confidence and continuing high indebtedness. Additionally, substantial fiscal stimulus has eroded fiscal positions. Concerns have been expressed about the impact of burgeoning government debt positions on activity and financial conditions in a number of economies. Such concerns have been centred on smaller European economies, but are also potentially issues for the United States, United Kingdom and Japan.

In contrast, the recovery in the Asia-Pacific region has been more robust (figure 4.2). Most Asia-Pacific economies have seen relatively firm recoveries in production and retail spending, as well as signs of increased employment. There has been particular strength in Australia and China.

Figure 4.2

#### GDP growth by region

(annual, dashed lines represent estimates)



Source: DataStream, Haver, RBNZ estimates.

Note: Asia ex. Japan comprises: China, Hong Kong, Indonesia, Malaysia, the Philippines, Singapore, South Korea, Taiwan, Thailand and Vietnam.

Western economies comprise: the United Kingdom, the United States, Canada and the euro area.

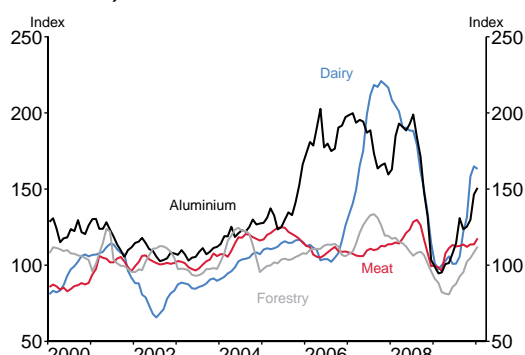
Headline inflation in our trading partner economies remains low but has recently been boosted by increases in food and fuel prices. At the same time, core inflation has not been as low as expected relative to the extent of the deterioration in economic activity.

## Domestic economic conditions

### External sector

World prices for New Zealand's commodity exports are at high levels, having increased rapidly over the second half of 2009 (figure 4.3). Underpinning this strength in prices has been firm demand from our Asian trading partners, especially China. More recently, some prices appear to be stabilising. In particular, recent *globalDairyTrade* auctions have shown modest declines in the price of whole milk powder.

**Figure 4.3**  
Export commodity prices  
(SDR terms)



Source: ANZ National Bank Group Ltd.

A recovery in world demand also supported strong primary export volumes through the middle of 2009. We estimate that primary export volumes are likely to have softened somewhat in the December 2009 and March 2010 quarters. In large part this reflects an end to the domestic inventory rundown that took place in the middle quarters of 2009.

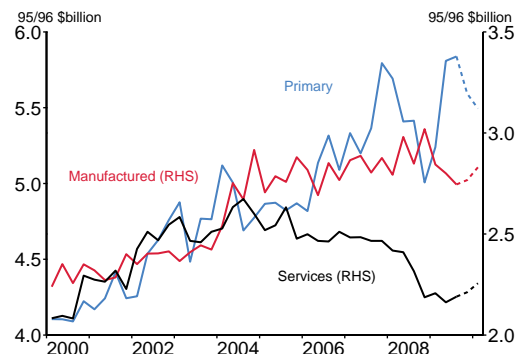
At the same time manufactured and services export volumes appear to be increasing from low levels. In the case of manufacturing this reflects the relative strength in the Australian economy, a major destination for these exports. Strength in visitor arrivals, particularly from Australia, is also supporting a recovery in services exports after very large declines in late 2008 (figure 4.4).

Import volumes remain very low, reflecting weak domestic consumption and investment. With the economy recovering, import volumes are likely to have increased in the March quarter. However, import penetration remains well below levels prevalent over most of the past decade. As a result, the annual balance on trade in goods and services is estimated to have moved further into surplus.

**Figure 4.4**

### Export volumes

(dashed lines represent estimates, seasonally adjusted)



Source: Statistics New Zealand, RBNZ estimates.

In addition, the investment income balance has improved substantially, reflecting low domestic interest rates and reduced profitability of foreign-owned domestic firms. Provisions by the banking sector for one-off tax liabilities have also contributed to the improved investment income balance. This effect will soon pass.

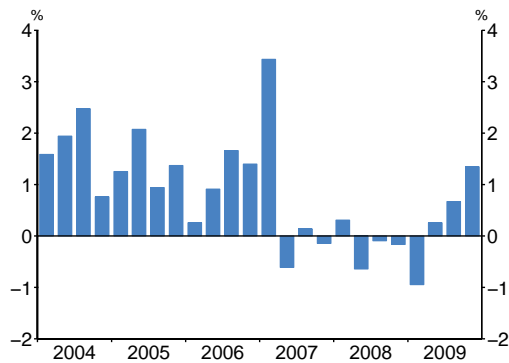
Overall, the annual current account deficit is estimated to have narrowed considerably to around 2 percent of GDP in the March quarter.

### Household sector

Household spending is estimated to be growing firmly, such that private consumption is now close to its pre-recession level. An improvement in consumer confidence, initially mostly reflected in perceptions of general activity, has spread to an improvement in households' perceptions of their own situation. Consistent with this, core retail sales volumes picked up strongly in the December quarter (figure 4.5, overleaf). However, significant discounting by the retail sector appears to have contributed to this result, with the nominal increase more modest. As such, retail sales volumes are unlikely to have grown as strongly in the March quarter, especially when households continue to increase their saving rate.

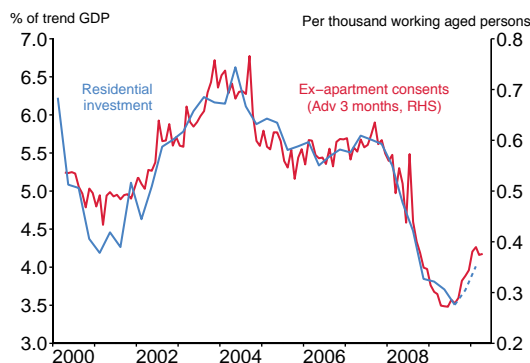
Reflecting the recovery in housing market activity through most of 2009, building consent issuance has also increased over recent months (figure 4.6, overleaf). As a result, we estimate that residential investment has been increasing at a relatively firm pace since the December quarter.

**Figure 4.5**  
**Growth in ex-auto retail sales volumes**  
*(quarterly, seasonally adjusted)*



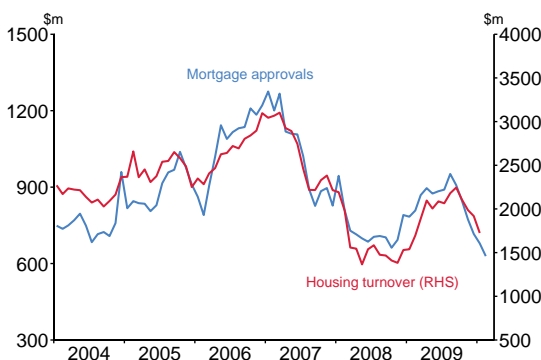
Source: Statistics New Zealand.

**Figure 4.6**  
**Ex-apartment consents and residential investment**  
*(seasonally adjusted, dashed lines represent estimates)*



Source: REINZ, Statistics New Zealand, RBNZ estimates.

**Figure 4.7**  
**Mortgage approvals and housing turnover**  
*(seasonally adjusted, monthly)*



Source: REINZ, RBNZ.

In recent months, however, turnover in the market for existing houses has slowed rapidly. Part of this slowing seems related to recent increases in longer-term mortgage rates. In addition, speculation about changes to the taxation of property seems to be discouraging property investors. Latest mortgage approvals data suggest the value of house sales has continued to moderate (figure 4.7).

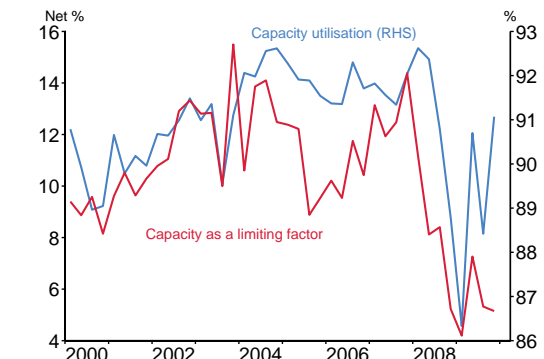
**Business sector**

Businesses' demand for credit is very low. Our business contacts remain focussed on consolidating their balance sheets and protecting cash flows. This balance sheet consolidation has shown through in a significant reduction in aggregate investment and a decline in bank lending.

With the economy lifting out of recession, business sentiment has improved significantly. The latest National Bank Business Opinion survey showed business confidence improving sharply, to the highest level since the Asian crisis in 1999. Investment intentions in the Quarterly Survey of Business Opinion have also rebounded, although remain weaker than average. However, we do not believe that this is flowing through to business spending yet.

Despite a pick-up in headline capacity measures, capacity as a limiting factor remains near its historic low, supporting our assessment that business spending remains subdued (figure 4.8).

**Figure 4.8**  
**Indicators of capacity usage**  
*(seasonally adjusted)*



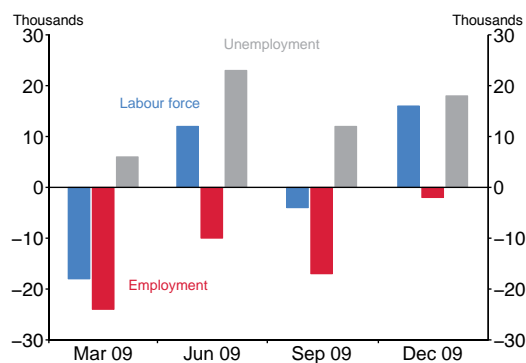
Source: NZIER.

## Labour market

Following significant declines in early 2009, employment held steady in the December quarter, consistent with a labour market that is close to turning. Surveyed employment intentions have rebounded, pointing to improved labour demand.

Despite these signs of stabilisation, a large increase in the labour force saw the unemployment rate increase markedly in the December quarter to 7.3 percent (figure 4.9). One factor underlying this result was surprisingly strong labour force participation. Strong net migrant inflows over the past year, underpinned by a very low rate of resident departures, have also boosted the labour force.

**Figure 4.9**  
Employment, unemployment and the labour force  
(seasonally adjusted, quarterly change)



Source: Statistics New Zealand.

With considerable spare resources in the labour market, pressure on wages is currently low. The annual increase in the Labour Cost Index, which adjusts for productivity, fell to 1.6 percent in the December quarter and is estimated to be weaker again in March.

## Prices

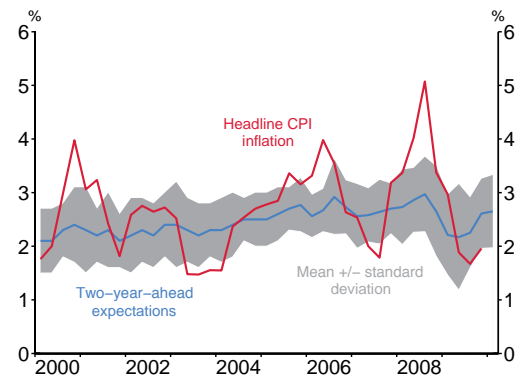
Headline CPI inflation was 2.0 percent in the December quarter (figure 4.10). In quarterly terms inflation fell 0.2 percent, reflecting declines in fruit and vegetable prices from a high winter peak.

Inflation is estimated to have remained near the middle of the target band in the March quarter. Non-tradable inflation, having held up more than we had anticipated through 2009,

eased in the December quarter consistent with underlying excess capacity and low wage growth. Tradable inflation is also likely to be low, reflecting the lagged impact from appreciation in the New Zealand dollar in 2009.

As discussed in the December *Statement*, inflation expectations have stayed relatively constant despite significant easing in CPI inflation through the recession. Two-year-ahead inflation expectations have ticked up recently. This is likely to reflect, in part, signalled one-off future price increases such as the implementation of the Emissions Trading Scheme.

**Figure 4.10**  
Headline CPI inflation and inflation expectations  
(annual)



Source: Statistics New Zealand, RBNZ.

**Table 4.1**  
**Measures of inflation and inflation expectations**  
*(annual)*

	2008			2009			2010				
	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec
CPI	4.0	5.1	3.4	3.0	1.9	1.7	2.0				
<b>CPI Components</b>											
CPI non-tradables	3.4	4.1	4.3	3.8	3.3	3.0	2.3				
Non-tradables housing components	4.0	3.2	2.4	1.5	1.0	0.6	0.8				
Non-tradables ex housing, cigarettes and tobacco components	3.1	4.5	5.1	4.8	4.3	4.2	2.9				
CPI tradables	4.8	6.3	2.3	1.7	0.2	-0.1	1.5				
Petrol	25.9	29.3	-4.8	-9.3	-17.0	-19.0	3.3				
<b>Other inflation measures</b>											
Factor model estimate of core CPI inflation	3.3	3.6	3.1	2.9	2.4	2.1	2.1				
CPI trimmed mean (of annual price change)	3.8	4.0	3.1	2.9	2.2	2.0	2.2				
CPI weighted median (of annual price change)	3.4	3.7	3.0	2.9	2.9	2.8	2.2				
CPI ex food, petrol and government charges	1.9	2.2	2.0	1.9	1.6	1.9	1.7				
CPI ex food and energy	1.5	2.1	2.2	2.3	2.1	2.5	2.1				
GDP deflator (derived from expenditure data)	4.0	2.5	2.7	2.6	2.0	2.9	n/a				
<b>Inflation expectation measures</b>											
RBNZ Survey of Expectations - inflation one-year-ahead	3.3	3.6	2.8	2.0	1.8	1.8	2.1				2.1
RBNZ Survey of Expectations - inflation two-years-ahead	2.9	3.0	2.7	2.2	2.2	2.3	2.6				2.7
AON Economist survey - inflation one-year-ahead	3.1	3.5	3.0	2.1	2.2	1.7	1.6				2.2
AON Economist survey - inflation four-years-ahead	2.6	2.7	2.7	2.5	2.6	2.5	2.4				2.5
NBBO - inflation one-year-ahead (quarterly average)	3.4	3.7	3.5	2.7	2.6	2.6	2.6				n/a

## 5 The macroeconomic outlook

### Overview

The recovery in domestic activity is projected to gain momentum over the coming quarters. While fragility remains, annual average GDP growth is forecast to reach 3.2 percent in 2010 and 4.2 percent in 2011. These rates are slower than has typically been the case following previous recessions.

Recovery in New Zealand's trading partners also appears to be gathering pace, although the outlook remains fragile in Western economies, with high levels of debt likely to weigh on economic activity for some time. That said, the balance of global growth appears to favour New Zealand, with Australia and Asia showing more solid signs of recovery.

The initial impetus from consumer spending on domestic activity is forecast to tail off over the projection, as households reduce debt. Higher exports and investment are forecast to support output growth over the latter half of the projection. This growth eventually eliminates the margin of spare resources in the economy, resulting in higher inflationary pressure in the medium term.

### Trading partner activity and terms of trade

Overall, the outlook for trading partner activity is somewhat stronger than in the December *Statement*. Policy stimulus has been successful in returning most trading partner

economies to positive growth in recent quarters. But there continues to be a divergence in regional prospects.

Conditions in Western economies suggest a weak outlook for final demand. Unemployment remains elevated, confidence is low and there is lingering excess capacity. Furthermore, high levels of debt, both private and public, in some economies may require remedial action over the medium term. Consistent with these issues, growth in Western, and in particular European, economies is projected to be subdued throughout the forecast.

Conversely, data from Asia-Pacific economies point to strengthening demand, with recovery in consumption and exports. The region is benefiting from solid growth in China, which also contributes to the robust outlook for Australia, New Zealand's largest trading partner. The growing importance of these economies as destinations for New Zealand's exports will provide some insulation from the more general softness in global activity.

Considerable downside risks to the outlook for world economic activity remain. Growth in many economies is fragile, and underlying private sector demand is weak. Early removal of policy stimulus, or a further deterioration in household or business spending, may jeopardise the nascent recovery. On the upside, a quick return to past spending patterns in Western economies, together with ongoing expansion in Asia, could see the global economy expand faster.

**Table 5.1**  
**Forecasts of trading partner GDP**  
*(calendar year, annual average percent change)*

Country	2005	2006	2007	2008	2009e	2010f	2011f
Australia	3.2	2.7	4.8	2.3	1.0	2.8	3.4
Asia ex-Japan*	6.5	7.2	7.8	4.5	1.6	6.5	6.3
United States	3.1	2.7	2.1	0.4	-2.4	3.1	3.0
Japan	1.9	2.0	2.3	-1.2	-5.2	1.5	1.5
Euro area**	1.7	3.1	2.7	0.5	-4.0	1.0	1.5
United Kingdom	2.2	2.9	2.6	0.5	-4.8	0.8	2.2
16 Country Index	3.6	3.8	4.4	1.8	-0.9	3.6	3.9

Source: DataStream, Haver, RBNZ estimates.

\* Includes China, Hong Kong, Malaysia, Singapore, South Korea, Taiwan, Indonesia, Thailand, Vietnam and the Philippines.

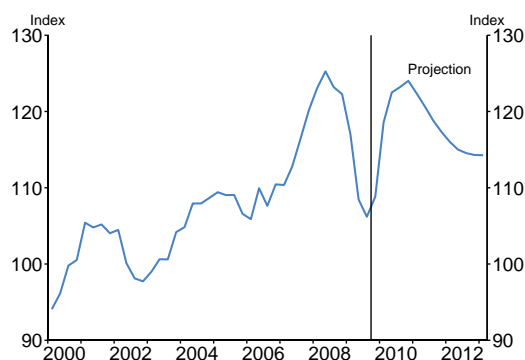
\*\* Includes Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, Netherlands, Portugal, Slovakia, Slovenia and, Spain.

Note: International projections finalised on 26 February 2010.

Consumer price inflation in our trading partner economies is projected to return to average rates. Recent increases in food and energy prices are exerting upward pressure. In line with the forecasts for activity, inflation is expected to be higher in Asian economies.

The prices of New Zealand's exports are projected to rise sharply over 2010, reflecting recent moves in spot commodity prices, notably dairy. But the substantial level of intervention stocks held in the United States and Europe are expected to limit further rises in dairy prices. Other commodity prices are also forecast to remain around current levels. Import prices are expected to increase as world activity recovers, resulting in some paring back of the terms of trade over the second half of the projection.

**Figure 5.1**  
OTI terms of trade (goods)  
(seasonally adjusted)

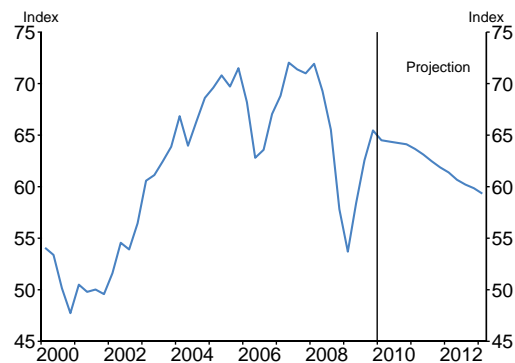


Source: Statistics New Zealand, RBNZ estimates.

## Exchange rate

Consistent with the higher terms of trade, the New Zealand dollar TWI is assumed to remain above its historic average throughout the projection. Since the December *Statement*, the TWI has depreciated following a reassessment of the international and domestic outlook by financial markets. The TWI is assumed to remain at current levels through the remainder of 2010. Thereafter, as activity in our trading partners recovers and global interest rates rise, the TWI is assumed to depreciate (figure 5.2).

**Figure 5.2**  
New Zealand dollar TWI

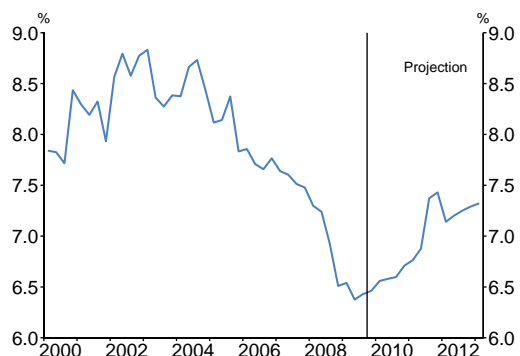


Source: RBNZ estimates.

## Trade volumes and the balance of payments

Tourism exports have fallen markedly in recent years, as the relatively high TWI and global recession have weighed on tourist expenditure in New Zealand. Furthermore, visitor arrivals from relatively high-spending Asian countries have declined somewhat. Total tourist expenditure is forecast to increase over the projection, reflecting both the lower TWI and higher foreign incomes arising from the recovery in world economic activity. In addition, New Zealand will host the Rugby World Cup in the second half of 2011. This is projected to provide a short-term boost to the economy arising from greater tourist numbers and higher average spending by those tourists (figure 5.3). However, the boost from this event is expected to be limited in duration, with negligible effects on medium-term inflationary pressure.

**Figure 5.3**  
Exports of services volumes  
(percent of trend GDP, seasonally adjusted)



Source: Statistics New Zealand, RBNZ estimates.

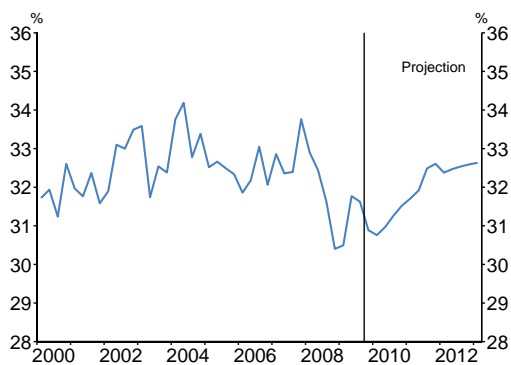


Goods exports are also forecast to improve through the projection. Continued demand from China and emerging markets is expected to underpin modest growth in dairy exports from current levels. China is also expected to purchase more of our forestry exports. The robust picture for Australian economic activity is projected to support a recovery in manufactured exports. Partly offsetting these changes is a weak picture for meat exports, where domestic restocking following the 2008 drought is expected to weigh on exports for some time. Overall exports are projected to return to a share of output close to the average of the past decade by the end of the projection (figure 5.4).

**Figure 5.4**

**Export volumes**

*(percent of trend GDP, seasonally adjusted)*



Source: Statistics New Zealand, RBNZ estimates.

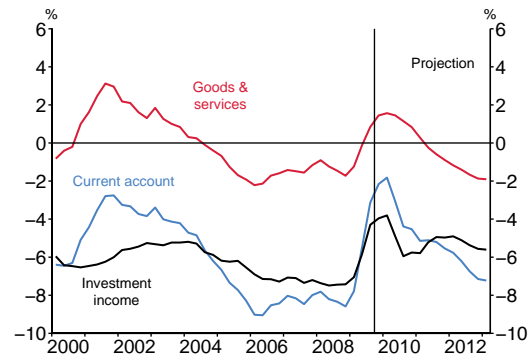
The ratio of imports to GDP fell over the course of the recession as a result of falling consumption and investment. As consumption returns to previous levels, and an eventual recovery in investment takes place, this ratio is expected to return to a more typical level.

This increase in imports, combined with higher import prices, is projected to bring about a renewed deficit in the trade balance. As domestic profitability increases and interest rates return to more normal levels, the investment income balance is projected to deteriorate. Taken together, these imply a widening of the current account deficit, to more than 7 percent of nominal GDP by the end of the projection (figure 5.5).

**Figure 5.5**

**Current account, trade and investment income balances**

*(annual, percent of nominal GDP)*



Source: Statistics New Zealand, RBNZ estimates.

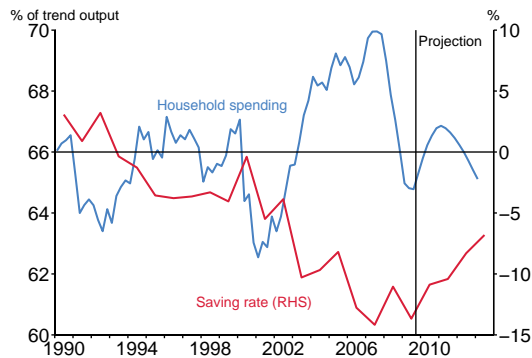
**Households**

As previously projected, the recent strength in house price inflation appears to have been temporary, with activity in the housing market abating. House prices remain high relative to incomes, and recent increases in mortgage rates will further impinge on affordability. Potential changes to taxation of property may also weigh on house prices in the medium term. We expect real house prices to stagnate over the projection.

Consistent with the outlook for house prices, residential investment is forecast to be historically weak. Given the projected increase in population from net immigration, this would imply an increase in the size of the average household or a deterioration in the average quality of housing. That said, the robust outlook for the Australian economy increases the risk of more resident departures, and hence downside risk to overall population growth.

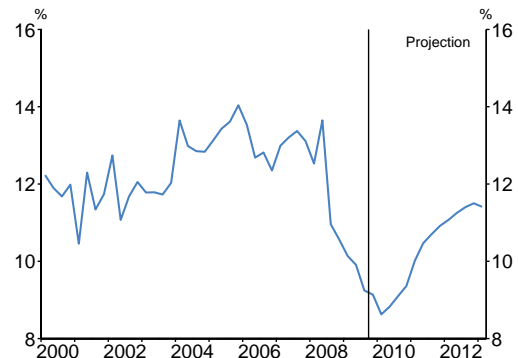
The recovery in consumer spending is projected to be relatively strong in the near term, reflecting discounting by retailers, a return to positive employment growth and higher wage growth. But having regained its pre-recession level, consumption is projected to grow slowly through the rest of the projection. Households remain highly indebted and debt service costs will increase as interest rates begin to rise. Households are forecast to consolidate their balance sheets, with the saving rate projected to rise (figure 5.6). Growth in consumer spending is expected to reach 2.8 percent in 2010 before slowing to just 0.9 percent in 2012.

**Figure 5.6**  
Household spending and saving  
(saving as a percent of household disposable income)



Source: Statistics New Zealand, RBNZ estimates.

**Figure 5.7**  
Business investment  
(excluding computer and intangible assets,  
percent of trend output, seasonally adjusted)



Source: Statistics New Zealand, RBNZ estimates.

## Businesses and labour market

Strengthening international and domestic demand has been reflected in business sentiment, which has rebounded from the lows witnessed during the recession. Consistent with this improved confidence, survey measures of investment and employment intentions have increased.

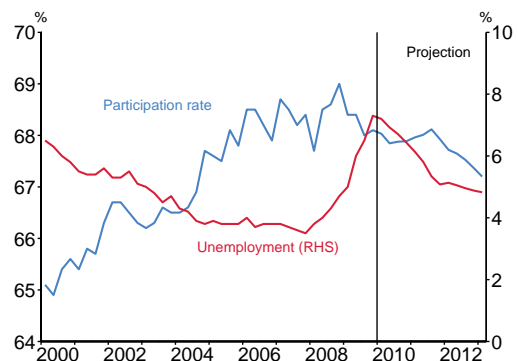
Despite this increased optimism, businesses are expected to remain focused on cost-cutting and consolidating their financial position over 2010. The high levels of investment prior to the recession may alleviate the need to replace machinery and tight credit conditions are expected to continue to weigh on investment.

Later in the projection, more pressure on resources, bolstered by increased profitability and the current favourable level of capital imports prices, is forecast to help drive a recovery in investment. That said, the level of investment relative to potential output remains low throughout the projection (figure 5.7).

Businesses are also forecast to increase their demand for labour input, both in terms of the numbers of employees and, at least initially, average hours worked. Employment growth is forecast to peak at about 3 percent through the middle of 2011.

As growth in economic activity strengthens, we project labour force participation to hold up around current rates through 2010 and 2011. Further out, an ageing population should bring about a decline in overall participation. Combined with the profile for employment growth, this implies that the unemployment rate falls over the projection to about 5 percent by the beginning of 2013 (figure 5.8).

**Figure 5.8**  
Unemployment and participation rate  
(seasonally adjusted)



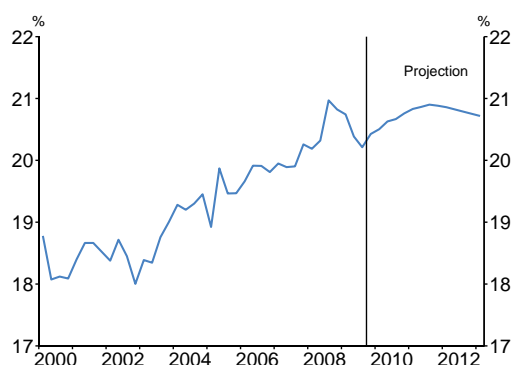
Source: Statistics New Zealand, RBNZ estimates.

## Government

Our fiscal projections are based on the *Half Yearly Economic and Fiscal Update*, adjusted to reflect the updated macroeconomic outlook. Government spending volumes are forecast to retain a roughly constant share of output through the coming years (figure 5.9). The impulse from fiscal policy is projected to be mildly contractionary from 2011.

Figure 5.9

Government spending volumes  
(percent of trend GDP, seasonally adjusted)



Source: Statistics New Zealand, RBNZ estimates.

## Gross Domestic Product

The recovery in activity is expected to build momentum through 2010. The rebound is forecast to be broad based across sectors. Initially, private consumption is projected to return to its pre-recession level and exports are projected to increase, driven by firmer international demand. Further out in the projection, business investment is expected to increase. GDP is forecast to grow by 3.2 percent in 2010 and 4.2 percent in 2011 on an annual average basis (figure 2.1). These rates of growth are lower than historic norms following a recession, reflecting tight credit conditions and attempts by households and businesses to reduce debt. Surveys of business sentiment point to some upside risk to this projection in the near term.

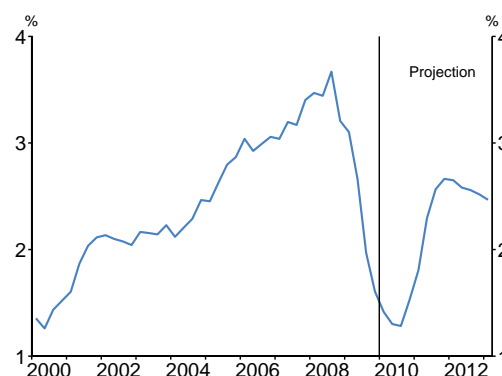
## Inflation

The current level of unemployment in the economy, combined with efforts by businesses to contain costs, is expected to weigh on wage inflation in the near term. Annual LCI wage inflation is projected to trough at 1.3 percent in the September quarter of 2010. Thereafter, as the labour market

tightens and profitability returns, wages are forecast to rise broadly in line with CPI inflation (figure 5.10).

Figure 5.10

LCI wage inflation  
(annual)



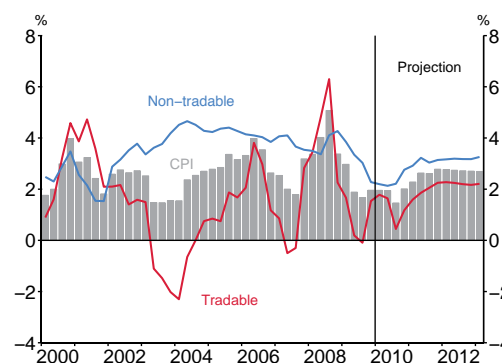
Source: Statistics New Zealand, RBNZ estimates.

Underlying tradable inflation is projected to fall over the coming quarters as the appreciation in the TWI over the latter half of 2009 is reflected in retail prices. However, the assumed depreciation in the TWI is forecast to bring about an increase in tradable inflation, to around 2 percent over 2012.

The recovery in both international and domestic economic activity is forecast to reduce the margin of spare capacity in the economy over the projection. Consequently, non-tradable inflation is projected to pick up in the medium term to its historical average of about 3 percent. Headline CPI (excluding ETS) is projected to reach 2.7 percent in 2012 (figure 5.11).

Figure 5.11

CPI, tradable and non-tradable inflation  
(annual)



Source: Statistics New Zealand, RBNZ estimates.

## Box B

### Emissions Trading Scheme

Headline CPI inflation is likely to be boosted over the coming quarters by implementation of the amended Emissions Trading Scheme (ETS). The first phase of the ETS is scheduled to take place on 1 July and will involve charges on liquid fossil fuels and stationary energy.

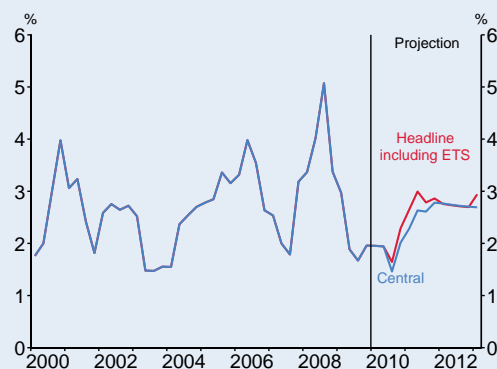
The initial direct impact on CPI is likely to be via the prices of petrol and electricity, as higher production costs are passed through to retail prices. In addition, an indirect impact is likely on the prices of goods and services which are energy intensive, such as transport. The indirect impact is assumed to be half of the direct impact.

These direct and indirect effects are collectively labelled the first-round impact and represent a change in the relative price of energy. This first-round impact is projected to add about 0.4 percent to headline CPI inflation in the year to June 2011. At the start of 2013, ETS energy charges will be increased further, but their effects are mostly beyond the published forecast horizon.

In keeping with previous treatment (see Box B in the March 2008 *Statement*), monetary policy will not act to offset these first-round effects. This is consistent with the Policy Targets Agreement which includes 'significant government policy changes that directly affect prices' as reasons why 'the actual annual CPI inflation will vary

around the medium-term trend'. As a result, the inflation projections shown in this *Statement* exclude these first-round effects (figure B1).

**Figure B1**  
CPI inflation including first-round ETS effects  
(annual)



Source: Statistics New Zealand, RBNZ estimates.

But some second-round impacts of the ETS could occur, if these higher relative prices cause consumers and businesses to reassess their beliefs on underlying aggregate inflationary pressure, and therefore change their wage and price setting behaviours. This change in behaviour would have consequences for the medium-term trend of inflation, and consequently interest rates would act to offset these effects.

# Appendix A<sup>1</sup>

## Summary tables

Table A

### Projections of GDP growth, CPI inflation and monetary conditions

(CPI and GDP are percent changes, GDP data seasonally adjusted)

		GDP	CPI <sup>2</sup>	CPI <sup>2</sup>	TWI	90-day
		Quarterly	Quarterly	Annual		bank bill rate
2002	Mar	0.8	0.6	2.6	51.6	5.0
	Jun	1.4	1.0	2.8	54.6	5.8
	Sep	1.2	0.5	2.6	53.9	5.9
	Dec	1.6	0.6	2.7	56.4	5.9
2003	Mar	0.4	0.4	2.5	60.6	5.8
	Jun	0.4	0.0	1.5	61.1	5.4
	Sep	1.8	0.5	1.5	62.4	5.1
	Dec	1.4	0.7	1.6	63.9	5.3
2004	Mar	1.5	0.4	1.5	66.8	5.5
	Jun	0.7	0.8	2.4	64.0	5.9
	Sep	0.4	0.6	2.5	66.3	6.4
	Dec	0.2	0.9	2.7	68.6	6.7
2005	Mar	1.1	0.4	2.8	69.6	6.9
	Jun	1.7	0.9	2.8	70.8	7.0
	Sep	0.5	1.1	3.4	69.7	7.0
	Dec	-0.2	0.7	3.2	71.5	7.5
2006	Mar	0.3	0.6	3.3	68.2	7.5
	Jun	0.0	1.5	4.0	62.8	7.5
	Sep	0.1	0.7	3.5	63.6	7.5
	Dec	0.3	-0.2	2.6	67.0	7.6
2007	Mar	1.3	0.5	2.5	68.8	7.8
	Jun	0.8	1.0	2.0	72.0	8.1
	Sep	0.7	0.5	1.8	71.4	8.7
	Dec	1.0	1.2	3.2	71.0	8.8
2008	Mar	-0.4	0.7	3.4	71.9	8.8
	Jun	-0.6	1.6	4.0	69.3	8.8
	Sep	-0.7	1.5	5.1	65.5	8.2
	Dec	-0.9	-0.5	3.4	57.8	6.3
2009	Mar	-0.8	0.3	3.0	53.7	3.7
	Jun	0.2	0.6	1.9	58.4	2.9
	Sep	0.2	1.3	1.7	62.6	2.8
	Dec	0.6	-0.2	2.0	65.5	2.8
2010	Mar	0.9	0.3	2.0	64.5	2.9
	Jun	1.1	0.5	1.9	64.4	2.9
	Sep	1.1	0.9	1.5	64.2	3.3
	Dec	1.0	0.4	2.0	64.1	3.6
2011	Mar	1.1	0.5	2.3	63.7	4.0
	Jun	0.9	0.9	2.6	63.1	4.4
	Sep	1.2	0.8	2.6	62.5	4.7
	Dec	0.7	0.5	2.8	61.9	5.0
2012	Mar	0.3	0.5	2.8	61.4	5.4
	Jun	0.6	0.9	2.7	60.7	5.7
	Sep	0.6	0.8	2.7	60.2	6.0
	Dec	0.6	0.5	2.7	59.9	6.1
2013	Mar	0.5	0.5	2.7	59.3	6.1

<sup>1</sup> Notes for these tables follow on pages 24 and 25.

<sup>2</sup> This series excludes the first-round impacts of the Emissions Trading Scheme.

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

(annual average percent change, seasonally adjusted, unless specified otherwise)

March year	Actuals					Projections					
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Final consumption expenditure											
Private	4.6	6.4	4.5	4.5	2.4	3.2	-1.1	0.6	3.0	1.6	0.9
Public authority	1.3	5.0	4.0	5.0	4.8	4.7	4.2	0.7	2.5	2.0	1.7
Total	3.9	6.1	4.4	4.6	2.9	3.5	0.1	0.6	2.9	1.7	1.1
Gross fixed capital formation											
Market sector:											
Residential	23.7	14.9	2.8	-5.3	-1.4	4.4	-22.7	-10.4	25.3	9.0	-0.8
Business	2.8	12.0	10.7	10.0	-1.7	8.3	-4.7	-10.3	6.4	13.2	7.2
Non-market government sector	14.3	14.4	13.6	3.0	-5.0	-14.1	16.9	-4.5	17.3	11.5	2.8
Total	7.8	12.8	9.0	6.0	-1.9	6.0	-7.1	-9.9	10.3	12.3	5.4
Final domestic expenditure	4.8	7.7	5.5	5.0	1.7	4.1	-1.7	-1.9	4.5	4.1	2.2
Stockbuilding <sup>1</sup>	-0.1	0.2	0.2	-0.5	-0.7	0.7	-0.4	-2.5	2.3	0.5	0.0
Gross national expenditure	4.7	7.8	6.0	4.7	0.8	5.1	-2.0	-4.5	6.8	4.6	2.2
Exports of goods and services	7.8	1.1	4.9	-0.1	2.9	3.0	-3.1	1.9	2.4	5.4	3.0
Imports of goods and services	7.0	12.9	12.4	4.2	-1.4	9.9	-4.6	-11.3	14.9	8.0	2.5
Expenditure on GDP	4.9	4.0	3.5	3.4	2.3	2.8	-1.4	0.0	2.9	3.7	2.3
GDP (production)	4.9	4.3	3.7	3.2	0.9	2.9	-1.4	-0.3	3.8	3.9	2.4
GDP (production, March qtr to March qtr)	4.7	5.2	2.4	2.4	1.7	2.1	-3.0	1.9	4.4	3.1	2.3

<sup>1</sup> Percentage point contribution to the growth rate of GDP.

Table C

## Summary of economic projections

(annual percent change, unless specified otherwise)

March year	Actuals						Projections				
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Price measures</b>											
CPI <sup>1</sup>	2.5	1.5	2.8	3.3	2.5	3.4	3.0	2.0	2.3	2.8	2.7
Labour costs	2.2	2.1	2.5	3.0	3.0	3.5	3.1	1.4	1.8	2.7	2.5
Import prices (in New Zealand dollars)	-10.7	-10.3	0.6	6.9	0.3	0.6	12.5	-8.1	4.1	9.6	6.8
Export prices (in New Zealand dollars)	-15.4	-5.0	5.0	3.5	4.6	12.2	7.0	-6.8	7.4	3.9	5.2
<b>Monetary conditions</b>											
90-day rate (year average)	5.9	5.3	6.5	7.3	7.6	8.6	6.7	2.8	3.5	4.9	6.0
TWI (year average)	56.4	63.6	67.1	70.1	65.6	71.6	61.6	62.7	64.1	62.2	60.0
<b>Output</b>											
GDP (production, annual average % change)	4.9	4.3	3.7	3.2	0.9	2.9	-1.4	-0.3	3.8	3.9	2.4
Potential output (annual average % change)	3.3	3.2	3.0	2.6	2.3	2.0	1.9	1.9	2.0	2.2	2.3
Output gap (% of potential GDP, year average)	1.1	2.1	2.8	3.4	1.9	2.8	-0.4	-2.6	-0.9	0.7	0.8
<b>Labour market</b>											
Total employment (seasonally adjusted)	1.8	3.4	3.7	2.8	2.1	-0.2	0.8	-1.2	2.5	2.0	0.8
Unemployment rate (March qtr, seasonally adjusted)	5.0	4.3	3.9	4.0	3.8	3.8	5.0	7.2	6.1	5.1	4.8
Trend labour productivity	1.2	1.0	0.8	0.8	0.9	1.0	1.1	1.3	1.4	1.4	1.4
<b>Key balances</b>											
Government operating balance (% of GDP, year to June)	3.3	3.9	4.7	4.4	3.5	3.1	-2.1	-4.0	-3.2	-2.6	-2.5
Current account balance (% of GDP, year average)	-3.4	-4.7	-6.7	-9.0	-8.0	-7.8	-7.8	-1.8	-5.1	-5.8	-7.2
Terms of trade (OTI measure, annual average % change)	-5.6	3.9	5.8	-0.8	1.8	7.8	3.2	-9.4	11.3	-3.9	-3.1
Household saving rate (% of disposable income)	-10.3	-9.7	-8.2	-12.8	-14.2	-11.0	-13.7	-10.9	-10.4	-8.3	-6.8
<b>World economy</b>											
Trading partner GDP (annual average % change)	3.2	3.4	3.7	3.8	3.7	4.1	0.3	0.6	3.3	3.8	3.9
Trading partner CPI (TWI weighted, annual % change)	2.2	1.4	2.1	2.5	1.9	3.3	1.1	1.3	1.2	1.9	2.4

<sup>1</sup> This series excludes the first-round impacts of the Emissions Trading Scheme.

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## 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. <i>Overseas Trade Indexes</i> .
Export prices	Domestic currency export prices. <i>Overseas Trade Indexes</i> .
Terms of trade	Constructed using domestic currency export and import prices. <i>Overseas Trade Indexes</i> .
Private consumption	<i>System of National Accounts</i> .
Public authority consumption	<i>System of National Accounts</i> .
Residential investment	RBNZ definition. Private sector and government market sector residential investment. <i>System of National Accounts</i> .
Business investment	RBNZ definition. Total investment less the sum of non-market investment and residential investment. <i>System of National Accounts</i> .
Non-market investment	RBNZ definition. The <i>System of National Accounts</i> annual nominal government non-market/market investment ratio is interpolated into quarterly data. This ratio is used to split quarterly expenditure GDP government investment into market and non-market components.
Final domestic expenditure	RBNZ definition. The sum of total consumption and total investment. <i>System of National Accounts</i> .
Stockbuilding	Percentage point contribution to the growth of GDP by stocks. <i>System of National Accounts</i> .
Gross national expenditure	Final domestic expenditure plus stocks. <i>System of National Accounts</i> .
Exports of goods and services	<i>System of National Accounts</i> .
Imports of goods and services	<i>System of National Accounts</i> .
GDP (production)	<i>System of National Accounts</i> .
Potential output	RBNZ definition and estimate. Refer to Conway, P and B Hunt (1997), 'Estimating Potential Output: a semi-structural approach', <i>Reserve Bank of New Zealand Discussion Paper</i> , G97/9.
Output gap	RBNZ definition and estimate. The percentage difference between real GDP (production, seasonally adjusted) and potential output GDP.
Current account balance	<i>Balance of Payments</i> .
Total employment	<i>Household Labour Force Survey</i> .
Unemployment rate	<i>Household Labour Force Survey</i> .
Household saving rate	<i>Household Income and Outlay Account</i> .



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<b>Government operating balance</b>	Operating balance before gains and losses. Historical source: The Treasury. Adjusted by the RBNZ over the projection period.
<b>Labour productivity</b>	The series shown is the annual percentage change in a trend measure of labour productivity. Labour productivity is defined as GDP (production) divided by <i>Household Labour Force Survey</i> hours worked.
<b>Labour cost</b>	Private sector all salary and wage rates. <i>Labour Cost Index</i> .
<b>Real gross domestic income</b>	The real purchasing power of domestic income, taking into account changes in the terms of trade. <i>System of National Accounts</i> .
<b>Quarterly percent change</b>	$(\text{Quarter}/\text{Quarter}_{-1} - 1) * 100$
<b>Annual percent change</b>	$(\text{Quarter}/\text{Quarter}_{-4} - 1) * 100$
<b>Annual average percent change</b>	$(\text{Year}/\text{Year}_{-1} - 1) * 100$

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

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## Appendix B

### Companies and organisations contacted by Reserve Bank staff during the projection round

Air New Zealand Ltd

Barfoot & Thompson

Circa Marine and Industrial Ltd

Contact Energy Ltd

Debtworks NZ Ltd

Employers and Manufacturers Association

Fisher & Paykel Finance Ltd

Fletcher Construction Ltd

Fonterra Co-operative Group Ltd

Foodstuffs Ltd

H & J Holdings Ltd

Hertz New Zealand Ltd

Kelly Services NZ Ltd

L J Hooker

Mainfreight Ltd

Ministry of Tourism

Motor Trade Association

New Zealand Manufacturers and Exporters Association

Nissan New Zealand Ltd

NZ Council of Trade Unions

Ports Of Auckland Ltd

Registered Masters Builders Federation

Retailers and Merchants Association

Skope Ltd

Skyline Enterprises Ltd

Smith & Caughey Ltd

Smith City Group Ltd

Snowy Peak Ltd

The Warehouse Ltd

Yarrows "The Bakers" Ltd

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## Appendix C

### Reserve Bank statements on monetary policy

#### OCR unchanged at 2.5 percent

*10 December 2009*

The Official Cash Rate (OCR) remains unchanged at 2.5 percent.

Reserve Bank Governor Alan Bollard said: "The New Zealand economy continues to recover but there remains considerable uncertainty about the durability of the expansion.

"Global activity has continued to rebound. Most obviously, activity in Australia, China and emerging Asia continues to increase and solid growth is expected over the next few years.

"The picture is more mixed in the major developed economies. While activity is expanding, sustained growth is not assured. Financial sectors are still impaired in a number of economies and economic activity is still heavily dependent on policy support.

"In New Zealand, the economy continues to recover, reflecting improved world growth, higher export commodity prices, increased government spending and housing strength. A key uncertainty is the extent to which higher house prices are eventually reflected in increased consumer spending. At this point credit growth remains subdued suggesting households are being relatively cautious.

"While business confidence has improved, actual business spending remains weak. In addition, the high level of the New Zealand dollar has limited the scope for exports to contribute to the recovery. After some short-term correction the current account deficit is expected to widen in the future.

"Annual CPI inflation is expected to remain below 2 percent until early 2011 and track within the target range over the medium term.

"The economy is being assisted by both monetary and fiscal policy support. As growth becomes self sustaining, fiscal consolidation would help reduce the work that monetary policy might otherwise need to do.

"If the economy continues to recover, conditions may support beginning to remove monetary stimulus around the middle of 2010. Recent tightening in financial conditions,

driven by a higher exchange rate, increased long-term interest rates and a wider gap between the OCR and bank funding costs, reduces the need for more immediate action."

#### OCR unchanged at 2.5 percent

*28 January 2010*

The Reserve Bank today left the Official Cash Rate (OCR) unchanged at 2.5 percent.

Reserve Bank Governor Alan Bollard said: "The outlook for the New Zealand economy remains consistent with the projections underlying the December Monetary Policy Statement.

"Global activity continues to recover, helping push New Zealand's export commodity prices higher. Economic growth is most apparent in China, Australia, and emerging Asia. However, sustained growth throughout our trading partners is not assured, with many still facing impaired financial sectors and overall activity still reliant on policy support.

"Similarly, the New Zealand economy continues to recover. Policy stimulus and improving export earnings have seen a pickup in household spending. That said, households remain cautious, with credit growth subdued. Business spending remains weak.

"Annual CPI inflation is currently at the centre of the target band, and is expected to track comfortably within the band over the medium term.

"The economy is being assisted by both monetary and fiscal policy support. As growth becomes self sustaining, fiscal consolidation would help reduce the work that monetary policy might otherwise need to do.

"If the economy continues to recover in line with our December projections, we would expect to begin removing policy stimulus around the middle of 2010."

## Appendix D

### The Official Cash Rate chronology

Date	OCR (percent)	Date	OCR (percent)	Date	OCR (percent)
17 March 1999	4.50	4 September 2003	5.00	24 April 2008	8.25
21 April 1999	4.50	23 October 2003	5.00	5 June 2008	8.25
19 May 1999	4.50	4 December 2003	5.00	24 July 2008	8.00
30 June 1999	4.50	29 January 2004	5.25	11 September 2008	7.50
18 August 1999	4.50	11 March 2004	5.25	23 October 2008	6.50
29 September 1999	4.50	29 April 2004	5.50	4 December 2008	5.00
17 November 1999	5.00	10 June 2004	5.75	29 January 2009	3.50
19 January 2000	5.25	29 July 2004	6.00	12 March 2009	3.00
15 March 2000	5.75	9 September 2004	6.25	30 April 2009	2.50
19 April 2000	6.00	28 October 2004	6.50	11 June 2009	2.50
17 May 2000	6.50	9 December 2004	6.50	30 July 2009	2.50
5 July 2000	6.50	27 January 2005	6.50	10 September 2009	2.50
16 August 2000	6.50	10 March 2005	6.75	29 October 2009	2.50
4 October 2000	6.50	28 April 2005	6.75	10 December 2009	2.50
6 December 2000	6.50	9 June 2005	6.75	28 January 2010	2.50
24 January 2001	6.50	28 July 2005	6.75		
14 March 2001	6.25	15 September 2005	6.75		
19 April 2001	6.00	27 October 2005	7.00		
16 May 2001	5.75	8 December 2005	7.25		
4 July 2001	5.75	26 January 2006	7.25		
15 August 2001	5.75	9 March 2006	7.25		
19 September 2001	5.25	27 April 2006	7.25		
3 October 2001	5.25	8 June 2006	7.25		
14 November 2001	4.75	27 July 2006	7.25		
23 January 2002	4.75	14 September 2006	7.25		
20 March 2002	5.00	26 October 2006	7.25		
17 April 2002	5.25	7 December 2006	7.25		
15 May 2002	5.50	25 January 2007	7.25		
3 July 2002	5.75	8 March 2007	7.50		
14 August 2002	5.75	26 April 2007	7.75		
2 October 2002	5.75	7 June 2007	8.00		
20 November 2002	5.75	26 July 2007	8.25		
23 January 2003	5.75	13 September 2007	8.25		
6 March 2003	5.75	25 October 2007	8.25		
24 April 2003	5.50	6 December 2007	8.25		
5 June 2003	5.25	24 January 2008	8.25		
24 July 2003	5.00	6 March 2008	8.25		

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## Appendix E

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

The following is the Reserve Bank's schedule for the release of *Monetary Policy Statements* and Official Cash Rate announcements for 2009:

### 2010

Thursday 29 April 2010	OCR announcement
Thursday 10 June 2010	<i>Monetary Policy Statement</i> and OCR announcement
Thursday 29 July 2010	OCR announcement
Thursday 16 September 2010	<i>Monetary Policy Statement</i> and OCR announcement
Thursday 28 October 2010	OCR announcement
Thursday 9 December 2010	<i>Monetary Policy Statement</i> and OCR announcement

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.

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# Appendix F

## Policy Targets Agreement

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

### 1 Price stability

- (a) Under Section 8 of the Act the Reserve Bank is required to conduct monetary policy with the goal of maintaining a stable general level of prices.
- (b) The 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.

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## 4 Communication, implementation and accountability

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



**Hon Bill English**

Minister of Finance



**Dr Alan E Bollard**

Governor

Reserve Bank of New Zealand

Dated at Wellington this 18th day of December 2008

