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# Monetary Policy Statement

September 2011<sup>1</sup>

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

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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 has performed relatively well while headline inflation has increased somewhat since the June *Statement*. At the same time, however, global economic and financial risks have increased.

Domestic economic activity has surprised on the upside and capacity usage appears to have increased. Continued high export commodity prices and, in time, reconstruction in Canterbury are expected to provide impetus to demand over the projection horizon.

However, the outlook for New Zealand's trading partners has deteriorated markedly. There is now a real risk that global economic activity slows sharply.

Global financial market sentiment has also deteriorated. Sovereign debt concerns in Europe and the weakened global outlook have caused international bank funding markets to tighten. If conditions do not improve, New Zealand bank funding costs will increase.

Largely because the New Zealand economy has been doing better than many others, the New Zealand dollar has appreciated since the June *Statement*. The high level of the New Zealand dollar is having a dampening influence on some parts of the tradable sector and on imported inflation.

Annual headline CPI inflation continues to be above the Bank's 1 to 3 percent target band. However, much of the current spike in inflation has been driven by last year's increase in the rate of GST, and will therefore be temporary. Wage and price setters should focus on underlying inflation, which, while rising, is currently estimated to be near 2 percent.

If recent global developments have only a mild impact on the New Zealand economy, it is likely that the OCR will need to increase. For now, given the recent intensification in global economic and financial risks, it is prudent to continue to hold the OCR at 2.5 percent.

Alan Bollard



Governor

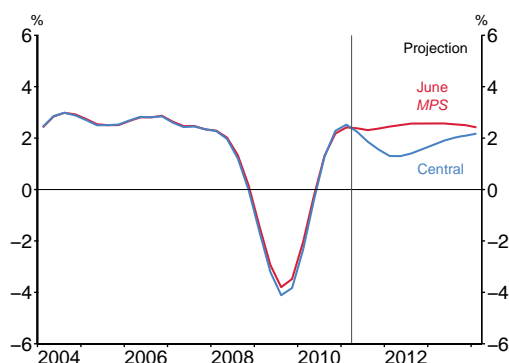
## 2 Overview and key policy judgements

The New Zealand economy has picked up more rapidly than was assumed in the June *Statement*. At the same time, however, global economic and financial risks have increased. Not only has growth eased in the United States and Europe, but also — and potentially of more concern — international funding markets have tightened. If this is sustained, New Zealand bank funding costs will increase, adding to the tightening in domestic financial conditions already generated by recent appreciation in the New Zealand dollar.

While the domestic economy has been surprisingly robust and underlying inflation has increased, global financial risks continue to intensify. If the recent global developments have an only mild, but not severe, impact on New Zealand, it is likely that the OCR will need to be increased over the coming year or so. However, increased funding costs and reduced export demand could have a greater impact than is assumed in this projection.

The outlook for New Zealand's Western trading partners has deteriorated markedly (figure 2.1). Revised GDP data for the United States now show that its recession was deeper and recovery slower than previously thought. What is more, forward indicators, such as business surveys and factory orders, point to continued weak growth. The pace of expansion has slowed in the United Kingdom, Germany and France, and growth in the wider euro area remains weak.

**Figure 2.1**  
**Western economies' GDP growth**  
(annual)



Source: Haver Analytics, RBNZ estimates. Western economies include the United States, the euro area, Canada and the United Kingdom.

While Asian growth indicators have also eased, export commodity prices have held up. Trading partner growth, while weaker in the near term, is assumed to recover in

2012. Similarly, while expected to ease somewhat, export commodity prices are projected to remain high, supporting incomes and boosting GDP growth in New Zealand. Nonetheless, there is a real risk that global economic activity slows sharply, as during the Global Financial Crisis (GFC).

Global financial market sentiment has also deteriorated significantly since the June *Statement*. Participants have become increasingly concerned by excessive sovereign debt across a number of countries, the weakened economic outlook and a lack of effective policy options that could stimulate activity.

The United States' sovereign long-term credit rating was downgraded by Standard and Poor's in early August. Government bond yields in the United States, the United Kingdom, Germany and France have declined since then, after investors sought less-risky assets. However, sovereign debt concerns have caused yields on the government bonds of Greece, Portugal, Ireland, Italy and Spain to remain very high. Concerns about private bank exposures to the debt of these sovereigns have caused international bank funding markets to tighten in recent weeks.

As a result, the indicative cost of international long-term funding has increased materially for New Zealand banks. Actual bank funding costs have so far been largely unaffected. New Zealand banks are currently well funded and have not needed to issue term debt recently. Nonetheless, if conditions do not improve, bank funding costs will eventually increase.

Momentum in the New Zealand economy appears to have picked up. March quarter GDP data was stronger than expected in the June *Statement*, and activity in previous quarters was revised higher. In addition, while some sectors of the economy continue to struggle, indicators suggest aggregate GDP growth continued to be robust through the middle of 2011.

Climatic conditions have been very favourable in 2011. Favourable weather helped boost agricultural production through the first half of 2011, and also left pasture and stock in good condition going into the 2011/12 season. Combined with very high commodity prices, this means primary sector export earnings have been, and are likely to remain, very robust. The retail and hospitality sectors,

which have experienced weak demand, are benefiting from increased activity associated with the Rugby World Cup. Household incomes have also risen, with employment continuing to increase.

Such income growth is unlikely to generate strong spending growth. Households and firms remain cautious, with high debt likely to constrain expenditure for several years. Indeed, residential construction and sales of existing houses remain low. Furthermore, despite excellent revenue growth, farmers continue to be measured in their capital expenditure and are limiting expenditure off farm.

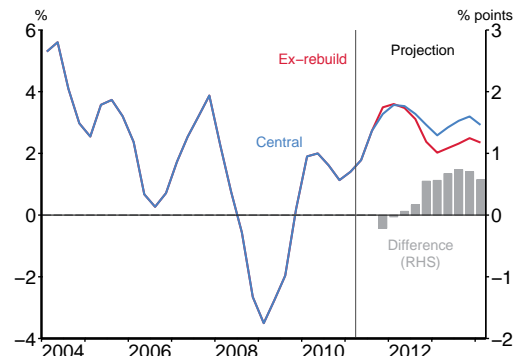
Inflation indicators have picked up over the past year. Core inflation, after falling to the centre of the target band, has risen over the past 12 months. Wage inflation has also risen from its early-2010 low. It is concerning that surveyed inflation expectations have also increased.

New Zealand economic data have been quite strong relative to that of our advanced country trading partners. Reflecting this difference, the New Zealand dollar has appreciated markedly. The currency is very strong for this stage of the business cycle. Growth in tourist spending and manufacturing production is much weaker than was the case following the 1997/98 recession.

The projections assume much of the current strength in the New Zealand dollar will be maintained over the forecast horizon. While export commodity prices are likely to moderate, continued outperformance by the New Zealand economy is assumed to underpin the currency. Currency strength would be expected to have a negative influence on some parts of the tradable sector.

GDP growth is expected to peak just below 3.5 percent around the middle of next year (figure 2.2). Canterbury reconstruction is projected to account for about 1 percentage point of growth in 2012 and 2013. This growth reflects the replacement of damaged buildings and housing rather than a net increase in national wealth.

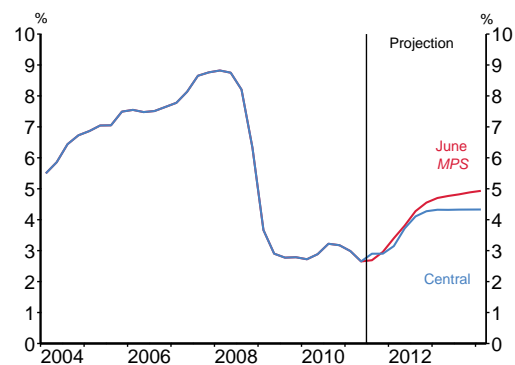
**Figure 2.2**  
**GDP growth**  
**(annual)**



Source: Statistics New Zealand, RBNZ estimates.

GDP growth is expected to eliminate current spare capacity over the coming year or so, causing underlying inflationary pressure to pick up. Some tightening in monetary conditions is expected to be necessary to offset this. Bank funding costs and the New Zealand dollar are assumed to be higher than was forecast in the June *Statement*. As such, the 90-day interest rate is projected to increase by less than was forecast in that *Statement* (figure 2.3).

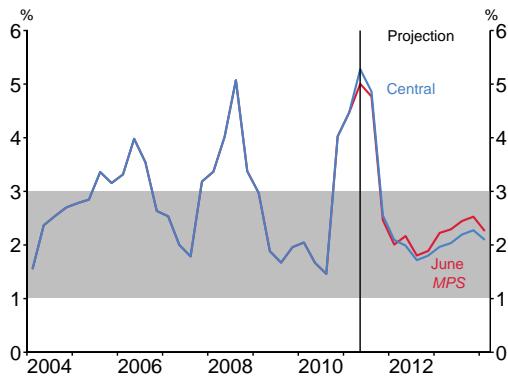
**Figure 2.3**  
**90-day interest rate**



Source: RBNZ estimates.

Given this tightening in monetary conditions, inflation is expected to track close to the midpoint of the target band over the latter part of the projection (figure 2.4). For now, annual CPI inflation continues to be boosted by recent increases in indirect taxes. Headline CPI inflation will decline markedly as these increases, particularly the October 2010 increase in the rate of GST, drop out of the annual figure.

Figure 2.4  
CPI inflation  
(annual)

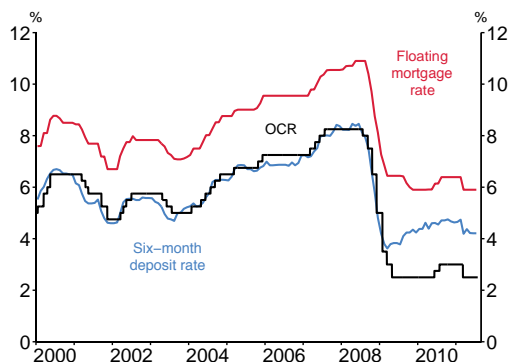


Source: Statistics New Zealand, RBNZ estimates.

### Monetary policy judgements

Since the GFC, banks have placed more emphasis on stable sources of funding, such as domestic retail deposits and longer-term wholesale funding. Rating agencies have encouraged this emphasis, as has the Reserve Bank's new liquidity policy. Because the pool of available retail deposits is relatively small and the cost of longer-term wholesale funding is relatively high, the cost of bank funding has increased markedly relative to the OCR over the past three years. This has caused deposit and lending rates to increase relative to the OCR (figure 2.5).

Figure 2.5  
Retail interest rates and the OCR



Source: RBNZ.

The recent tightening in international funding markets highlights the risk that the cost of longer-term wholesale funding might increase further.

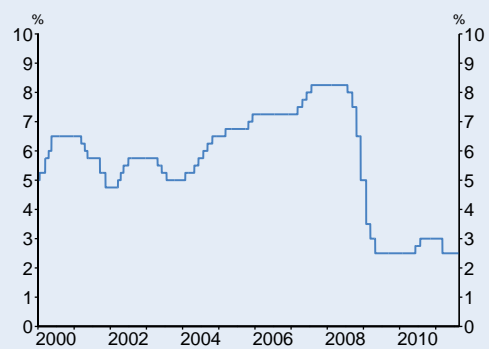
### Box A

#### Recent monetary policy decisions

The OCR was increased by 25 basis points at both the June 2010 *Statement* and the July 2010 OCR review. A run of disappointing economic data, published during the final few months of 2010, called into question the appropriateness of these increases. However, the recent pick-up in underlying inflation, current high surveyed inflation expectations and subsequent revisions to GDP data suggest these OCR increases were indeed appropriate.

The OCR was then reduced by 50 basis points at the March 2011 *Statement* (figure A1). This reduction was aimed at helping offset the economic impacts of the Christchurch earthquake and to guard against the risk of the economy slowing sharply. Since then, economic activity has continued to expand, suggesting that the nationwide effects of the earthquake have been contained.

Figure A1  
Official Cash Rate



Source: RBNZ.

Since then the OCR has been held at 2.5 percent. The July 2011 review did, however, signal an imminent rise in the OCR, provided that global financial risks receded and the New Zealand economy recovered further. Global financial risks have since intensified.

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The central projection assumes that current funding cost pressures dissipate before New Zealand banks need to access these markets. Clearly there is a risk that this does not happen, which would cause deposit and lending interest rates to increase further relative to the OCR.

Survey measures of inflation expectations have picked up since the start of the year. The Bank's own survey of two-year-ahead annual inflation expectations sits near the top of the 1 to 3 percent target band. Other surveys, such as the Bank's survey of household expectations, the ANZ National Bank Business Outlook and the AON Hewitt survey show similarly high readings.

To some extent, these high readings are likely to be related to the recent increases in indirect taxes. Survey respondents may have been influenced by the current high level of headline inflation, even when giving quite long-dated inflation predictions. As such, it still seems reasonable to expect that inflation expectations will moderate, particularly after the October 2010 increase in the rate of GST drops out of the annual figure. The December quarter 2011 CPI will be published in January 2012.

Nonetheless, core inflation has increased over the past year. While this pick-up may be related in part to increased inflation expectations, it could also be due to reduced slack in the economy or recent commodity price increases. Although some productive resources remain underemployed at present, capacity usage does appear to have increased from its recessionary low (box B).

Repairs and rebuilding in Canterbury will have a substantial influence on the New Zealand economy.

Construction sector activity will be boosted for several years, creating resource shortages in the building industry and other parts of the economy more generally.

The eventual volume of repairs and rebuilding is highly uncertain. Since the March *Statement*, the Bank has based its projections on a working assumption of \$15 billion of reconstruction in 2011 dollars. Recent assessments from the EQC and additional damage from aftershocks have highlighted upside risk to this working assumption. As a result the Bank has revised up its working assumption to \$20 billion. The Bank will continue to update this assumption as more information becomes available.

While some properties have been repaired, so far only limited rebuilding has occurred. Continuing aftershocks have hindered planning and building, and made it very difficult to secure insurance for new buildings. It seems unlikely that construction sector activity will pick up as soon as was projected in the June *Statement*. The updated projections assume major aftershocks soon cease, allowing EQC contractors to step up repairs on moderately damaged properties from early next year. Furthermore, seismic stability would be expected to help free up the private insurance market. It is assumed that rebuilding of severely damaged properties gets under way from the middle of next year.

In terms of the influence on monetary policy, it is the pace of reconstruction and the resultant degree of pressure on resources, rather than the eventual magnitude of reconstruction, that will have the greatest influence on interest rate settings. It is unclear how rapid reconstruction will be.

## Box B

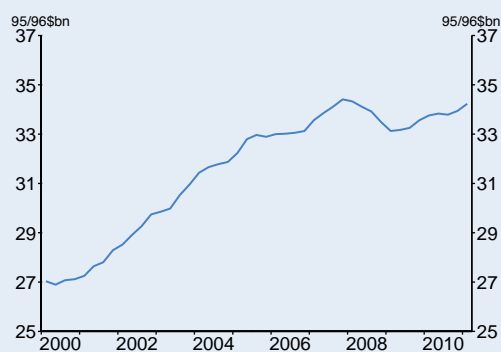
### Indicators of capacity usage

Economic activity has recovered steadily from the 2008/09 recession (figure B1). When a range of indicators are considered it appears there is still spare capacity in the economy, although the degree of slack is much less pronounced than it was in the trough of the recession.

Figure B1

#### Quarterly GDP

(seasonally adjusted)



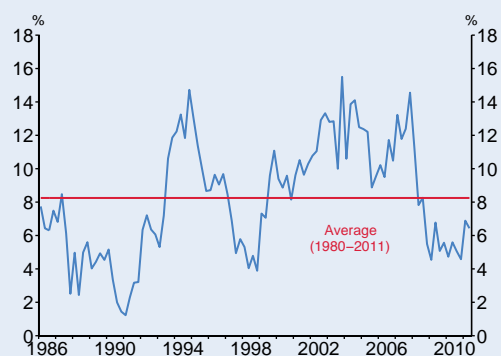
Source: Statistics New Zealand.

The proportion of firms citing capacity (often interpreted as capital) as the major factor restraining output remains a little below average, and well below the level seen prior to the recent recession (figure B2). Despite the small pick-up seen in this indicator over recent quarters, it still seems there is underutilised capital available to meet the projected improvements in economic activity.

Figure B2

#### Share of firms citing capital as the factor most limiting production

(seasonally adjusted)



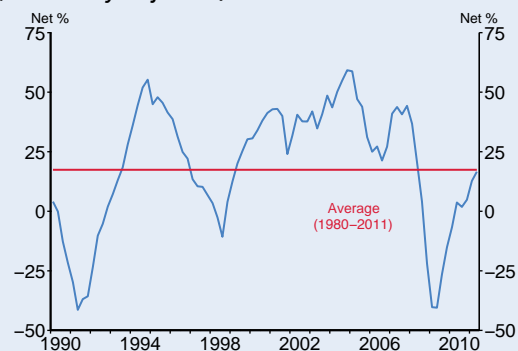
Source: NZIER.

Spare capacity in the labour market appears to be more limited. Despite the unemployment rate remaining above 6 percent, the reported difficulty in finding skilled labour has increased sharply since the trough of the recession (figure B3). Consistent with this, LCI wage inflation has increased from its early-2010 low. Such developments suggest the labour market has tightened by more than the relatively stable unemployment rate would suggest.

Figure B3

#### Difficulty finding skilled labour

(seasonally adjusted)



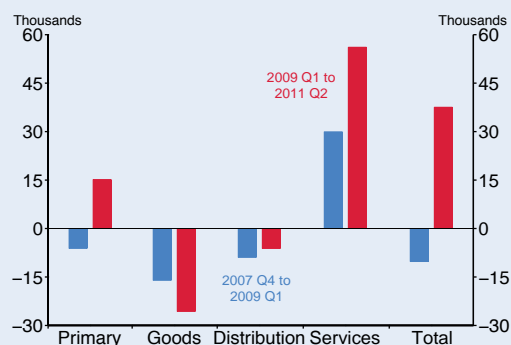
Source: NZIER.

One possible explanation for this is that there has been a mismatch between jobs and skills coming out of the recession. Figure B4 shows changes in employment by sector during the 2008/09 contraction in real GDP and its subsequent recovery. Notably, goods-sector employment has trended downwards, while services-sector employment has trended higher throughout the recession and recovery.

Another possible explanation for emerging skill shortages is the increasing rate of youth unemployment, which has driven a sizable portion of the run up in headline unemployment over recent years. However, even when younger cohorts are excluded, the unemployment rate remains high relative to the past decade, albeit below the peaks reached in 1991 and 1998.

Various indicators suggest that some underemployed resources are available to meet projected improvements in activity. However, spare capacity is being eliminated, particularly in the labour market, and it will be important to closely monitor capacity absorption as the economy recovers further.

**Figure B4**  
**Changes in employment 2007-2011**  
*(seasonally adjusted)*



Source: Statistics New Zealand, RBNZ estimates.



## 3 Financial market developments

### Overview

Global financial market sentiment has deteriorated markedly since the June *Statement*. This has largely reflected two major trends: weaker global growth and ongoing debt concerns that further cloud the economic outlook. These latter concerns were centred around sovereign debt issues in Europe and the exposure of European banks, and the political deadlock over the United States debt ceiling and subsequent Standard and Poor's downgrade of the United States' sovereign long-term credit rating. Volatility has subsequently increased in financial markets, and the prices of risky assets have declined markedly. Yields on government bonds in major economies have fallen.

Concerns about private bank exposures to the debt of these sovereigns have caused international bank funding markets to tighten in recent weeks.

As a result, the indicative cost of international long-term funding has increased materially for New Zealand banks. To date, actual bank funding costs have been largely unaffected. New Zealand banks are currently well funded and have not needed to issue term debt recently. Nonetheless, if conditions do not improve, bank funding costs will eventually increase.

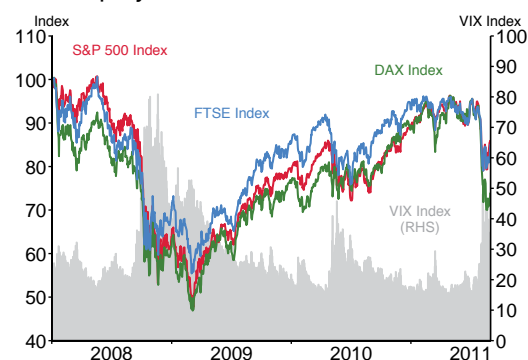
The New Zealand dollar has strengthened against most major currencies since the June *Statement*, supported by relatively favourable domestic growth and expectations of OCR increases. More recently, domestic interest rates have followed offshore interest rates lower. Financial market pricing for OCR increases over the next six months is broadly unchanged relative to pricing at the time of the June *Statement*. Further ahead, the market has pared back the pace at which the OCR is expected to rise.

### International financial market developments

Market sentiment has deteriorated since the June *Statement*, as the outlook for global growth has weakened and financial risks have increased. Economic data have continued to be weaker than forecast, prompting analysts to reduce their near-term growth projections. The deteriorating outlook has caused global equity and commodity prices to drop sharply.

As an indication of the deterioration in risk appetite, the VIX index (a common gauge of investor risk aversion) has risen to the level seen during May 2010, when Europe's peripheral sovereign debt problems first escalated (figure 3.1).

Figure 3.1  
Global equity markets and VIX index



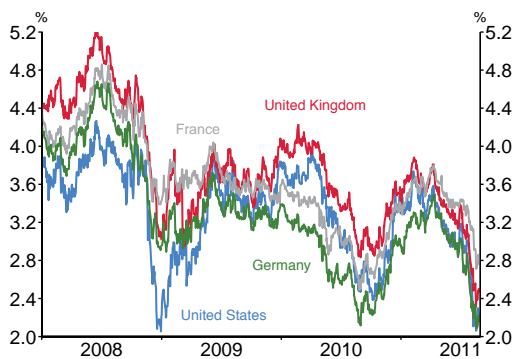
Source: Bloomberg.

In response to slowing United States growth, the Federal Open Market Committee (FOMC) stated that it expected to maintain 'exceptionally low levels for the federal funds rate at least through mid-2013'. The FOMC also left open the possibility of additional measures. Such options may include further asset purchases, changing the composition of the Federal Reserve's portfolio toward longer-dated bonds, and reducing the interest rate on excess reserves paid to banks. The ultimate goal of such measures would be to reduce interest rates paid by households and businesses and to encourage increased bank lending to revitalise the economy. The growing expectation of further policy stimulus from the FOMC has helped to stabilise risk appetite over recent weeks.

However, market participants question the ability of policymakers to provide additional stimulus to support growth. Policy rates are already close to zero in many developed countries, and government deficits are already large, limiting the scope for further fiscal stimulus. There is also a large amount of scepticism among market participants that alternative measures would have a significant impact on growth. Market participants are wary of unintended consequences of quantitative tools, such as the impact on inflation and the dampening effect that higher commodity prices would have on United States growth.

Global interest rates have fallen substantially since the June *Statement* as concerns around global growth and peripheral European sovereign debt have increased demand for safe-haven government debt. Yields on benchmark government bonds in major economies have declined to levels similar to their 2009 lows (figure 3.2). The recent declines in United States government bond yields have been driven by falls in real yields, consistent with rising concerns around economic growth. The falls have been significant, such that the inflation-adjusted yield on a 10-year government bond has become negative.

**Figure 3.2**  
Major economy 10-year government bond yields

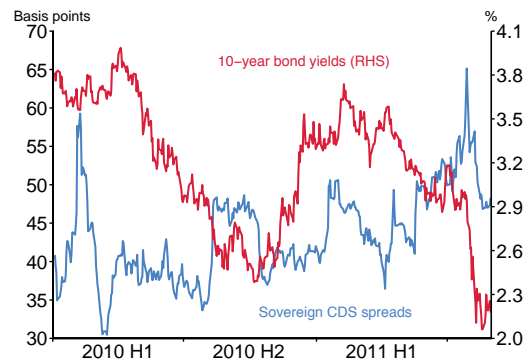


Source: Bloomberg.

US Treasury yields have declined even though Standard and Poor's cut the United States' sovereign long-term credit rating. United States sovereign credit default swap (CDS) spreads remain above average, reflecting perceptions of reduced United States creditworthiness. CDS spreads are down from the peak levels seen during the debt ceiling negotiations in July (see figure 3.3).

Sovereign debt concerns in Europe have continued to weigh on sentiment, despite EU leaders agreeing on a second assistance package for Greece. While this initially eased Greek funding pressures (figure 3.4), investors have become less confident in the package, given that a number of hurdles are yet to be passed. In particular, member states need to vote on proposed changes to the European Financial Stability Facility (EFSF), and private-sector participation for the Greek assistance package is not assured. The EFSF does not at present have the capacity to support larger euro-area economies, which has seen attention turn to more systemically important economies.

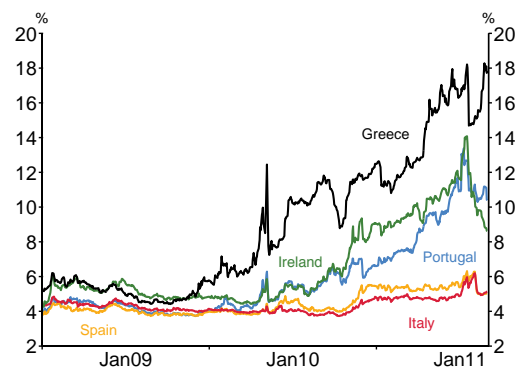
**Figure 3.3**  
United States 10-year bond yield and sovereign CDS spread



Source: Bloomberg.

Spanish and Italian sovereign bond yields increased to new highs, prompting the ECB to begin purchasing these bonds for the first time. As a result, sovereign funding pressures for these countries have eased again. Other countries have also faced investor scrutiny, with French CDS spreads climbing on speculation the country's sovereign credit rating may be downgraded. On a more positive note, the market has taken a more optimistic view on Ireland's debt problems, given its newly recapitalised banks and the reduced interest rate to be paid on bail-out funds determined at the EU summit in July.

**Figure 3.4**  
10-year government bond yields

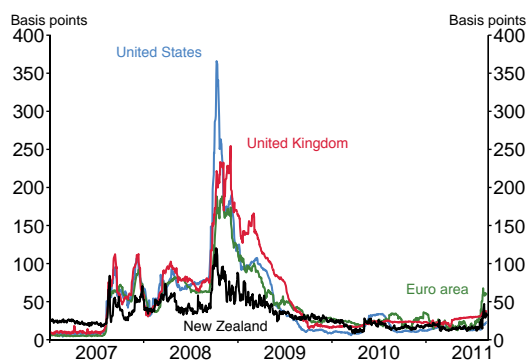


Source: Bloomberg.

## Financing and credit

Concern about European banks' exposure to peripheral sovereign debt has seen funding markets tighten. Stress in the interbank market has caused euro money market spreads to increase recently, although the levels remain well below those seen during the peak of the GFC (figure 3.5). United States money market funds have been reducing their exposure to European banks by not rolling over commercial paper issued by many European institutions, placing further pressure on European bank funding costs. During one recent week a shortage of United States dollar funding reached a point where two European banks were forced to access dollars via their central banks' emergency swap lines with the Federal Reserve.

**Figure 3.5**  
The spread between interbank rates and expected policy rates



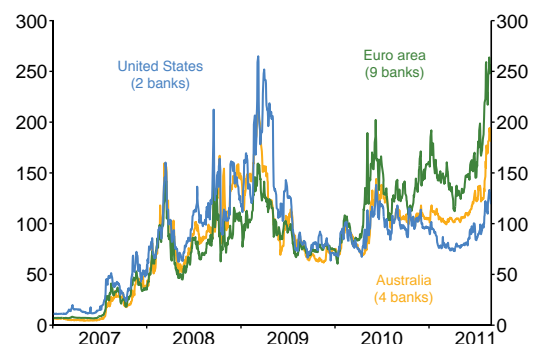
Source: Bloomberg.

Short-term funding market pressures in Europe have, thus far, shown limited signs of spreading outside the region. New Zealand dollar funding spreads have risen only modestly for short-term maturities. However, for longer-term funding, some covered bonds have been issued, but no offshore unsecured funding has been issued recently. This lack of issuance has had limited impact on New Zealand bank funding to date, given that the banks are currently well funded.

Nevertheless, stock prices of Australian banks have fallen recently and CDS spreads have become elevated (figure 3.6), suggesting that, unless conditions improve, the risk premium on term funding will rise. There is not a one-for-one relationship between the CDS spreads and wholesale term funding costs, but there is a high correlation

between the two measures. CDS spreads on Australian banks could have risen for a number of reasons, including concerns around global banking risks, the use of the CDS market as a hedge against Asia-Pacific risks, or Australian banks' reliance on foreign funding markets. How sustained these pressures will remain is uncertain. If conditions do not improve, these pressures will see monetary conditions tighten, and banks would be likely to increase lending and deposit rates relative to the OCR.

**Figure 3.6**  
Selected highly-rated bank CDS spreads



Source: Bloomberg.

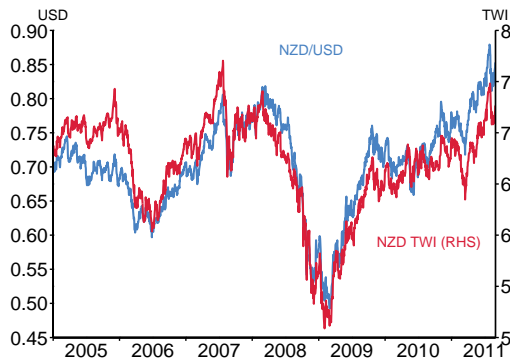
## Foreign exchange market

The deteriorating growth outlook and concerns about financial risks have seen safe-haven currencies appreciate significantly against growth-sensitive currencies since the June *Statement*. The Swiss franc and Japanese yen led the moves higher, prompting official currency intervention from their respective central banks. Safe-haven demand reached such an extent in Switzerland that investors have been willing to accept a negative nominal short-term interest rate. Commodity-related currencies, which initially weakened along with other growth-sensitive assets, have since rebounded.

The New Zealand dollar has appreciated since the June *Statement*, although it has been volatile during the period. Early in the quarter, positive domestic data coincided with the weakening growth outlook offshore, creating an environment favourable to the New Zealand dollar on the basis of relative growth and policy expectations. Portfolio diversification away from United States dollar and euro assets by sovereign wealth funds and central banks also boosted the New Zealand dollar. It hit a new post-float

high against the United States dollar (figure 3.7) before later easing, as the ongoing deterioration offshore reduced demand for growth-sensitive currencies.

**Figure 3.7**  
**NZD/USD and the New Zealand dollar TWI**

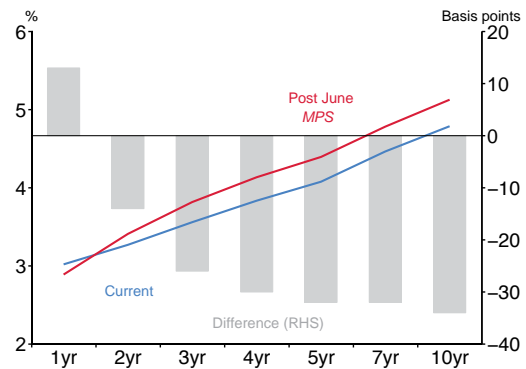


Source: Bloomberg.

## Domestic financial market developments

Local interest rates have followed international interest rates lower (figure 3.8). Longer-term interest rates have declined substantially, although the falls are more moderate than those seen offshore, reflecting the positive domestic data. Meanwhile, short-term interest rates have been anchored by market expectations for OCR increases, causing the yield curve to flatten. Overnight index swap (OIS) markets have left pricing for OCR increases over the next six months broadly unchanged relative to pricing at the time of the *June Statement*. Further ahead, the pace at which the OCR is expected to rise has been pared back, such that around 50 basis points of increases are expected over the next 12 months.

**Figure 3.8**  
**Wholesale swap interest rate curve**



Source: Bloomberg.

Retail mortgage interest rates have been stable since the *June Statement*. The effective mortgage rate has fallen slightly, as borrowers rolling off fixed rate mortgages that were set a year or two ago face lower interest rates today.

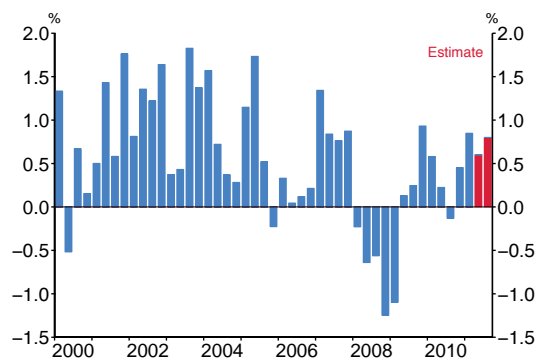
## 4 Current economic conditions

### Overview

The economy has recorded reasonably robust growth over the past year (figure 4.1). Despite weaker trading partner growth, the terms of trade have risen further, providing stimulus to the household and business sectors. Rising consumer and business confidence have also stimulated domestic activity. Spare capacity has diminished somewhat, inducing an increase in inflationary pressures. As a result, core inflation continues to increase. The elevated level of headline inflation has contributed to an increase in inflation expectations.

Figure 4.1

### GDP growth (quarterly, seasonally adjusted)



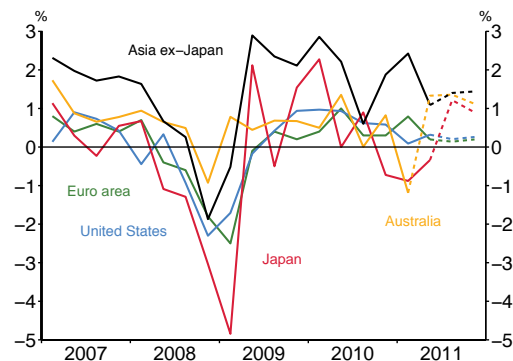
Source: Statistics New Zealand, RBNZ estimates.

### International conditions

Trading partner growth has slowed in recent quarters, partly due to temporary factors such as natural disasters. As these factors dissipate in the near term, growth in Japan and Australia is likely to recover, while the rest of Asia continues to enjoy robust domestic demand. Western economies, however, are being slowed by the effects of recent sovereign debt developments, and this slowdown may be more enduring. As a result, regional divergences have become more marked since the June *Statement* (figure 4.2).

Figure 4.2

### Trading partner growth (quarterly, seasonally adjusted, dashed lines represent estimates)



Source: Haver Analytics, RBNZ estimates. 'Asia ex-Japan' includes China, Hong Kong, India, Indonesia, Malaysia, the Philippines, Singapore, South Korea, Taiwan and Thailand.

In Western economies, output growth slowed through the first half of 2011. Some of the slowdown in the United States can be attributed to temporary factors, including trade disruptions following the Japanese earthquake in March, and substantial increases in fuel prices. However, it is also likely that underlying growth has slowed. Indicators of business and consumer sentiment deteriorated sharply in August, suggesting slow growth will persist in coming months. In Europe, growth has also weakened this year, with Germany recording only minimal GDP growth and French growth stalling in the June quarter.

Australian activity was weak over the first half of 2011, as mining exports have taken longer than expected to recover from January's severe flooding. Growth has picked up recently, driven by the recovery in primary exports and investment in the resource sector. Outside the resource sector, however, activity is generally soft.

Domestic demand in Asia remains strong, supported by tight labour markets and relatively low real interest rates. Intra-regional trade is recovering from the disruption caused by the Japanese earthquake. Indeed, industrial production in Japan has now recovered most of the sharp decline seen in March. In China, activity has remained robust, with forward indicators pointing to a modest slowing in output growth. However, general Asian growth has slowed from the high rates seen earlier this year, with softening particularly evident

in the manufacturing sector. This follows softer external demand from Western economies and some monetary tightening by most of the region's central banks.

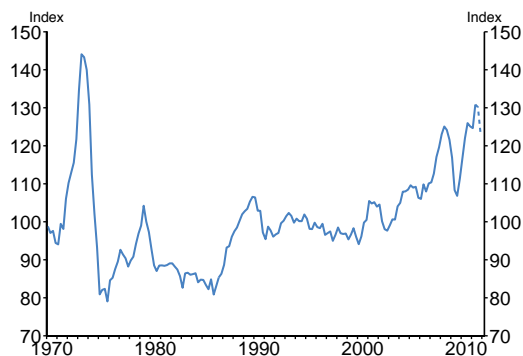
Trading partner inflation has stabilised recently, following some decline in food and oil prices in recent months. However, underlying inflation remains high in several Asian economies, and has increased over 2011 in the United States. Central banks have generally kept interest rates on hold in recent months due to heightened economic and financial volatility.

### Domestic conditions

The potential effects upon the domestic economy from international sovereign debt developments remain uncertain. There is a risk that business and consumer confidence, and export commodity prices, could be adversely affected. Data released over recent weeks suggest that the effects are limited thus far, with business confidence and commodity prices falling only modestly.

New Zealand's export commodity prices have been fairly stable so far in world terms, declining only 2.2 percent from their May peak. Indeed, despite significant appreciation in the currency, New Zealand dollar commodity prices remain at historically high levels. At the same time, import prices have fallen, causing the terms of trade to increase to their highest level since 1974 (figure 4.3).

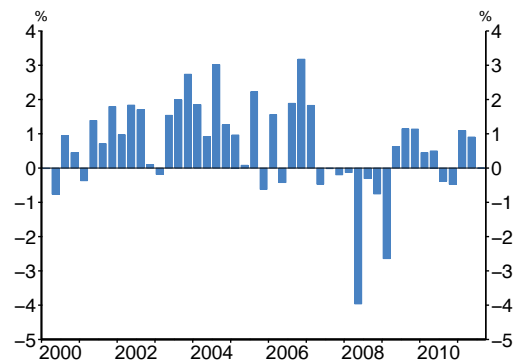
**Figure 4.3**  
OTI merchandise terms of trade  
(seasonally adjusted, dashed line represents estimates)



Source: Statistics New Zealand, RBNZ estimates.

Stimulus from the increased terms of trade, together with some recovery in the household sector, is supporting growth throughout the economy. Activity in the household and business sectors has continued to grow in recent months. Consumer confidence has improved since the February earthquake, and this is reflected in robust retail activity (figure 4.4). Spending by Rugby World Cup visitors is likely to further stimulate retail growth.

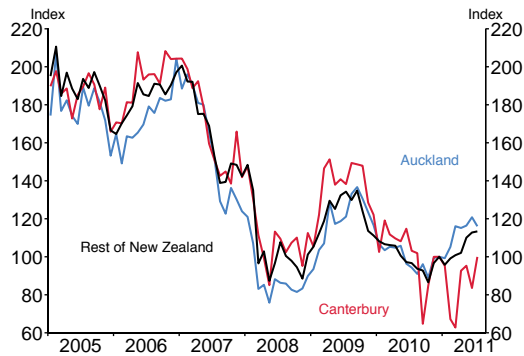
**Figure 4.4**  
Real retail sales growth  
(quarterly, seasonally adjusted)



Source: Statistics New Zealand.

The improvement in household sector sentiment is also visible in housing turnover, which has picked up from its late-2010 low. So far growth has been most pronounced in the Auckland region, with more modest growth elsewhere (figure 4.5). It is notable that house sales in the Canterbury-Westland region have already returned to the level they were at before the February earthquake. Nationwide house prices have not increased, indicating that, to date, the pick-up in demand for housing has not outstripped supply.

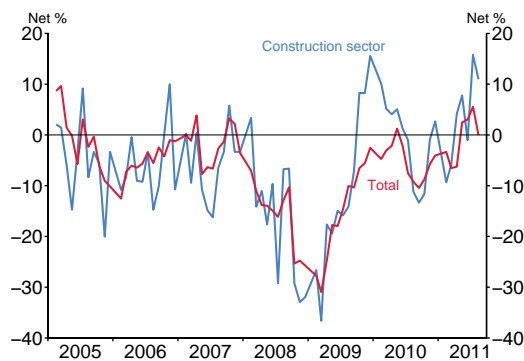
**Figure 4.5**  
**House sales by region**  
*(seasonally adjusted, December 2010 = 100)*



Source: REINZ.

Business sentiment has also improved, with surveyed investment intentions picking up in recent months. The increase has been most pronounced in the construction sector as firms prepare for rebuilding activity in Canterbury (figure 4.6). Feedback from business contacts also indicates that the appetite for investment has increased recently, suggesting that business investment could show robust growth. That said, business investment may remain subdued in the near term as firms assess the implications of recent international developments.

**Figure 4.6**  
**Investment intentions**  
*(deviation from long-term average)*



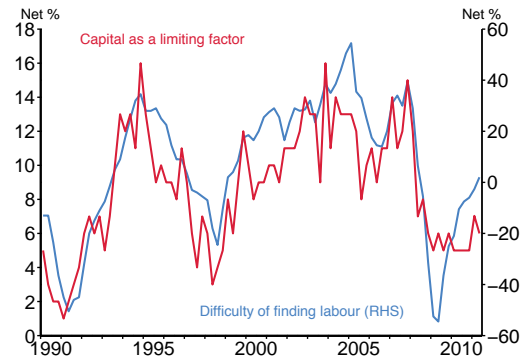
Source: ANZ National Bank Ltd.

## Capacity pressures and inflation

The economy continues to operate with some spare capacity, but there are signs that surplus capacity is more limited in the labour market. Although input cost inflation remains stable, core CPI inflation has risen over the past year.

Despite the unemployment rate holding steady, employers have found it increasingly difficult to find staff since 2009. Surveyed skill shortages have risen to near their long-term average, suggesting there is little slack in the labour market. In contrast, surveyed capacity pressures have remained fairly stable since the recession (figure 4.7).

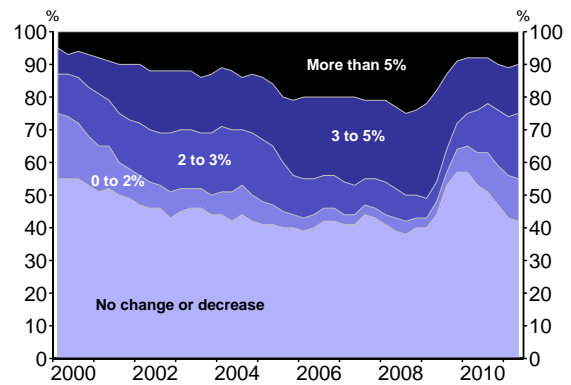
**Figure 4.7**  
**Survey measures of capacity pressures**



Source: NZIER.

Consistent with reduced slack in the labour market, wage inflation moved up. The proportion of negative or zero wage settlements has returned to its pre-recession level, while wage increases are now generally smaller than they were in 2008 (figure 4.8).

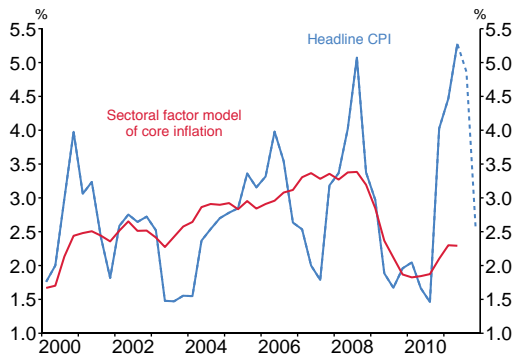
**Figure 4.8**  
**Distribution of wage changes**



Source: Statistics New Zealand.

Input price inflation has also increased, with the Producers Price Index for inputs rising 5.3 percent over the past year. Consistent with reduced spare capacity and rising costs, core CPI inflation has increased over the past year (figure 4.9).

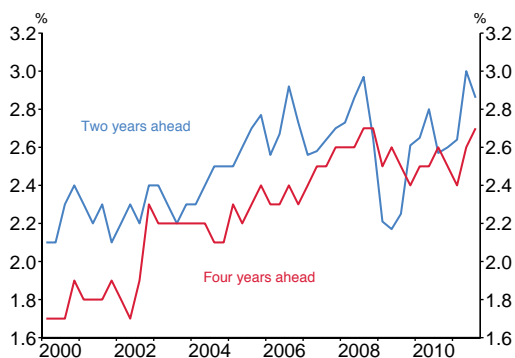
**Figure 4.9**  
Core and headline CPI inflation  
(annual, dashed line represents estimates)



Source: Statistics New Zealand, RBNZ estimates.

The recent increase in core inflation has been accompanied by an increase in surveyed inflation expectations. Expectations have increased at all horizons across a range of measures, with no measure showing any significant fall in the latest surveys. Even long-dated inflation expectations are elevated (figure 4.10).

**Figure 4.10**  
Inflation expectations  
(annual)

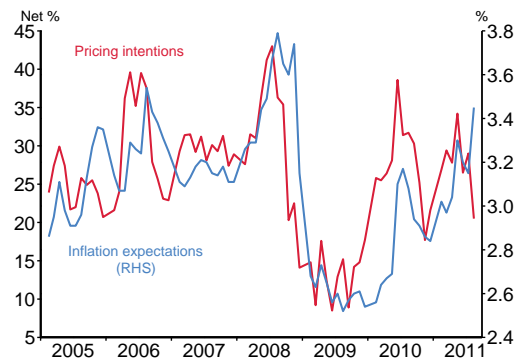


Source: RBNZ, AON Hewitt.

It is possible that survey responses have been affected by elevated commodity prices and the current high level of annual CPI inflation. If so, surveyed inflation expectations would be likely to fall shortly after the effect of the October 2010 GST increase drops out of the annual rate of inflation. This will occur in the December quarter 2011, when annual inflation is forecast to drop to 2.6 percent. Current iPredict pricing is consistent with a fall in inflation to around 2.8 percent in that quarter.

Notwithstanding the increase in inflation expectations, pricing intentions have fallen sharply in recent months, suggesting that the rise in surveyed inflation expectations may not be reflected in actual price setting behaviour (figure 4.11).

**Figure 4.11**  
Pricing intentions and annual one-year-ahead inflation expectations



Source: ANZ National Bank Ltd.



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

	2009			2010			2011		
	Dec	Mar	Jun	Dec	Mar	Jun	Dec	Mar	Jun
CPI	2.0	2.0	1.7	1.5	4.0	5.3			
<b>CPI components</b>									
CPI non-tradable	2.3	2.1	2.2	2.5	4.6	5.2			
Non-tradables housing component	0.8	1.2	1.4	1.7	2.7	3.0			
Non-tradables ex housing, cigarettes and tobacco component	2.9	2.6	2.2	2.1	4.8	5.5			
CPI tradable	1.5	2.0	1.0	0.3	3.3	5.5			
Petrol	3.3	11.5	9.5	5.8	14.2	20.1			
<b>Other inflation measures</b>									
Factor model estimate of core CPI inflation	2.0	2.0	2.1	2.1	3.1	3.3			
Sectoral factor model estimate of core CPI inflation	1.9	1.8	1.8	1.9	2.1	2.3			
CPI trimmed mean (of annual price change)	2.2	2.3	1.8	1.7	3.9	5.1			
CPI weighted median (of annual price change)	2.2	1.7	1.3	1.6	3.2	4.4			
CPI ex food, petrol and government charges	1.7	1.3	1.4	1.0	2.8	3.4			
CPI ex food and energy	2.1	1.7	1.7	1.4	3.1	3.6			
GDP deflator (derived from expenditure data)	-1.6	-0.1	1.8	2.8	5.7	n/a			
<b>Inflation expectation measures</b>									
RBNZ Survey of Expectations - inflation one-year-ahead	2.1	2.1	2.9	3.9	3.4	2.9			2.9
RBNZ Survey of Expectations - inflation two-years-ahead	2.6	2.7	2.8	2.6	2.6	2.9			2.9
AON Hewitt Economist survey - inflation one-year-ahead	1.6	2.2	3.4	5.0	4.3	3.0			2.8
AON Hewitt Economist survey - inflation four-years-ahead	2.4	2.5	2.5	2.6	2.5	2.7			2.7
NBBO - inflation one-year-ahead (quarterly average)	2.6	2.6	2.8	3.1	2.9	3.2			n/a

## 5 The macroeconomic outlook

### Overview

GDP growth is expected to increase over the coming year. Elevated export revenues and continued trading partner growth are likely to underpin a rise in business sector activity. In addition, reconstruction associated with the Canterbury earthquakes will add to economic activity for several years. Despite this, growth in private consumption is expected to remain subdued. As domestic activity increases, current spare capacity will be absorbed, boosting inflationary pressure. However, headline inflation is expected to settle within the target band over the medium term.

### International economic projection

Activity in New Zealand's trading partner economies is expected to expand at a gradual pace. The outlook for growth in both the United States and Europe is substantially weaker than in the June *Statement* (figure 2.1). This reflects a revision to historical GDP, declines in forward indicators of production and a deterioration in confidence.

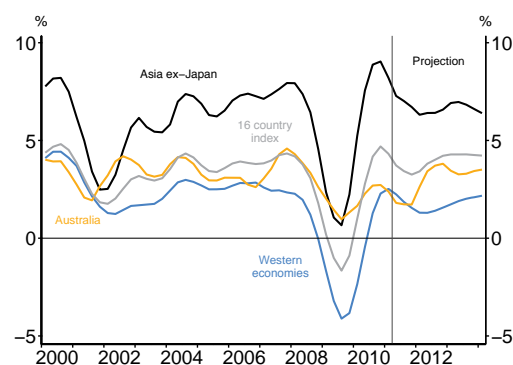
Growth in the United States and Europe is likely to continue to be slow over coming quarters. Household sector conditions are subdued in the US, with the unemployment rate remaining high. An oversupply of housing is also likely to continue to weigh on the economy. In Europe, fiscal consolidation, along with uncertainty over how sovereign debt concerns will be resolved, is likely to limit growth.

There is substantial downside risk to the outlook for Western activity. As discussed in chapter 3, this could lead to tighter financial conditions. Further to this, the debt positions of Western nations provide little room for further fiscal stimulus.

The outlook for Asian economies is more positive (figure 5.1). A large amount of rebuilding in Japan following the March earthquake will boost demand over the forecast period, and strong domestic demand growth is likely to continue in emerging Asia. Growth in China is likely to continue to be driven by a high level of investment. However, there remains the potential for a deterioration in Western economic conditions to spill over to Asia.

Figure 5.1

Trading partner GDP growth  
(annual, seasonally adjusted)



Source: Haver Analytics, RBNZ estimates. 'Asia ex-Japan' includes China, Hong Kong, India, Indonesia, Malaysia, the Philippines, Singapore, South Korea, Taiwan and Thailand. Western economies include the United States, the euro area, Canada and the United Kingdom.

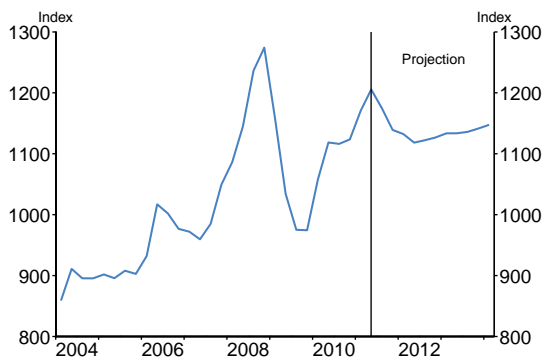
In Australia, GDP growth is forecast to increase over the coming year. A high level of investment in the resource sector is expected to support further increases in export volumes. However, growth in the non-resource sector is likely to be limited as financial conditions remain relatively tight.

Trading partner inflation is expected to moderate slightly over the forecast period. This follows the slowdown in global growth that has already been seen, and some easing in global food prices. However, monetary policy continues to be relatively accommodative in most economies, generating a risk of further commodity price inflation, and overheating in several Asian economies.

### Domestic economic projection

In the near term, export prices are expected to moderate somewhat, as global supply conditions normalise in some key agricultural markets. Despite this, export prices are forecast to remain elevated over the next few years (figure 5.2). Income growth and urbanisation in emerging markets have increased demand for New Zealand's export commodities. This trend is likely to persist for some time, providing support for New Zealand's export prices.

**Figure 5.2**  
**OTI export prices (goods)**  
*(seasonally adjusted)*

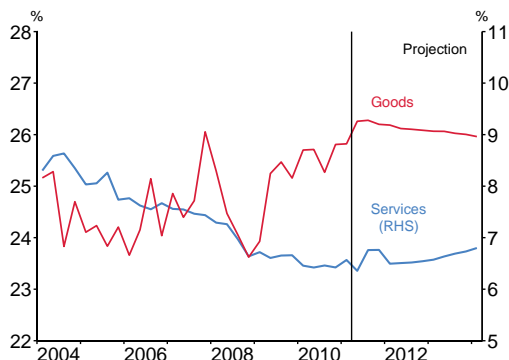


Source: Statistics New Zealand, RBNZ estimates.

At the same time, exports of goods are expected to remain elevated over the next few years (figure 5.3). Current favourable conditions are likely to boost production and exports in the agricultural sector throughout the next year, assuming no adverse weather effects. In addition, higher prices for New Zealand's export commodities should help encourage growth in export volumes.

The Rugby World Cup is expected to boost exports of services. The current working assumption is that Rugby World Cup visitors will contribute \$700 million to exports of services over the last two quarters of 2011. Disentangling the temporary impact of the tournament from the economic trend will be important when interpreting economic data over coming quarters. Beyond the Rugby World Cup, activity in the sector is expected to be subdued, as a low number of visitors from the Northern hemisphere continues to undermine tourist spending in New Zealand.

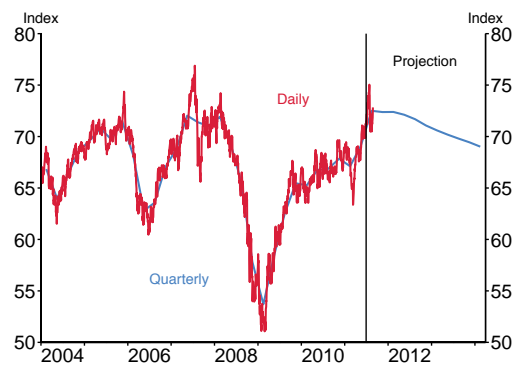
**Figure 5.3**  
**Export volumes**  
*(share of potential GDP, seasonally adjusted)*



Source: Statistics New Zealand, RBNZ estimates.

The recent appreciation of the New Zealand dollar TWI has provided some offset to higher world prices for New Zealand's exports. The New Zealand dollar TWI is assumed to hold around current levels over the coming year (figure 5.4), given New Zealand's relatively favourable economic outlook. The New Zealand dollar TWI is then assumed to depreciate gradually over the latter part of the projection, consistent with the forecast moderation in the terms of trade.

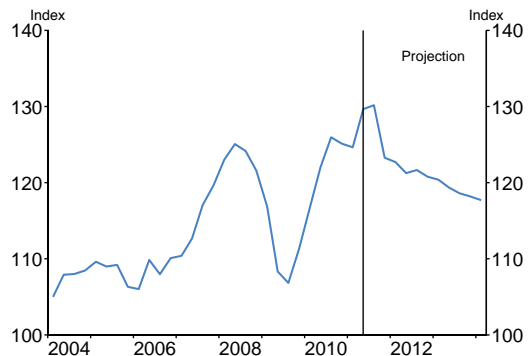
**Figure 5.4**  
**New Zealand dollar TWI**



Source: RBNZ estimates.

As the global economy recovers, import prices are expected to increase roughly in line with global consumer prices. As a result, the terms of trade are forecast to moderate somewhat over the next few years (figure 5.5). Nevertheless, the terms of trade remain high throughout the projection.

**Figure 5.5**  
**OTI merchandise terms of trade**  
*(seasonally adjusted)*



Source: Statistics New Zealand, RBNZ estimates.

The combination of elevated export prices and strength in export volumes will result in exporter incomes remaining high. This is expected to support a pick-up in general business activity. An improved profit outlook, particularly in the export sector, will likely result in business investment rising from current low levels (figure 5.6). Imported capital goods are also likely to be relatively cheap, given the elevated level of the New Zealand dollar, while the labour market is also expected to tighten, providing further incentive for investment.

**Figure 5.6**  
**Business investment**  
*(excluding computers and intangible assets, share of potential GDP, seasonally adjusted)*



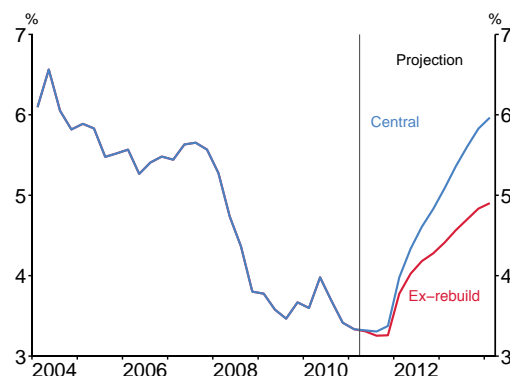
Source: Statistics New Zealand, RBNZ estimates.

Reconstruction associated with the Canterbury earthquakes will further boost both residential and business investment for several years. This activity reflects the replacement of damaged buildings and housing rather than representing a net increase in national wealth. Recent assessments from EQC and additional damage from recent aftershocks have highlighted upside risk to damage estimates. As a result, the Bank has revised up its working assumption of the spending on repairs to \$20 billion in 2011 prices, from \$15 billion in the June *Statement*. There remains significant uncertainty around this estimate, and the Bank will continue to update this forecast as more information becomes available.

Reconstruction is expected to begin slightly later than had been assumed in the June *Statement*. Continued aftershocks in the Canterbury region have made planning for rebuild and insurance purposes difficult, hampering reconstruction.

When rebuilding does commence, residential investment will rise to an elevated share of potential output (figure 5.7), drawing on a significant amount of the economy's resources. A more gradual increase in commercial building is assumed. Given the size of the rebuild and limits to capacity in the construction industry, a significant amount of rebuild-related residential and non-residential investment is projected to occur beyond the forecast horizon.

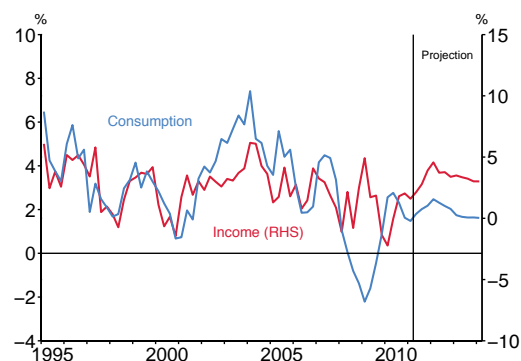
**Figure 5.7**  
**Residential investment**  
*(share of potential GDP, seasonally adjusted)*



Source: Statistics New Zealand, RBNZ estimates.

While strong exporter incomes along with earthquake reconstruction are expected to boost business sector activity, growth in household spending is expected to remain modest. Households have built up a significant amount of debt over the past decade, and are now expected to undertake a period of consolidation. As a result, consumption growth is expected to be subdued, despite a recovery in labour incomes (figure 5.8).

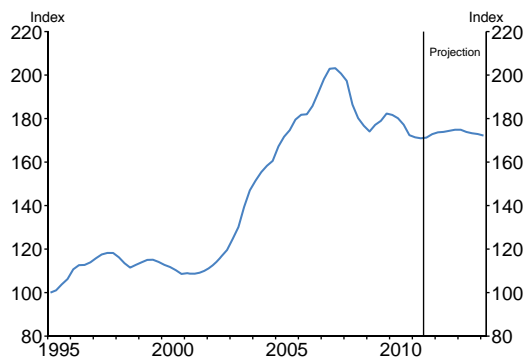
**Figure 5.8**  
**Growth in real after-tax labour income and consumption spending**  
*(annual)*



Source: Statistics New Zealand, RBNZ estimates.

House prices are likely to increase only modestly over coming years. Generally, house prices remain elevated when assessed against a range of typical metrics. As a result, increases in house prices are expected to be in line with CPI inflation over the projection (figure 5.9).

**Figure 5.9**  
Real house prices  
(seasonally adjusted)



Source: Source: Property IQ, RBNZ estimate.

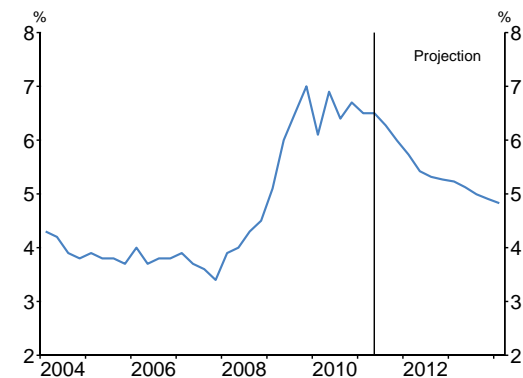
Fiscal costs associated with the reconstruction in Canterbury, in conjunction with previously announced spending plans, put pressure on the Crown's financial position in the 2010/2011 year. Over the coming years, spending related to earthquake reconstruction and recovery will add to the fiscal impulse. Eventually, as Canterbury reconstruction slows, the fiscal impulse will become less stimulatory, particularly given the reduction in discretionary spending outlined in *Budget 2011*.

Overall, elevated exporter incomes, along with reconstruction associated with the Canterbury earthquakes, will see GDP growth rise over the next few years. This increase is expected to be limited by a degree of consolidation by households. As a result, GDP growth is expected to increase to about 3.5 percent in annual average terms.

This rise in activity will draw on domestic resources and absorb current spare capacity. An improvement in economic conditions will also boost labour demand. The unemployment rate is expected to fall towards 5 percent in 2012 (figure 5.10).

Wage inflation will pick up as the labour market tightens. Annual LCI inflation is projected to peak at 2.4 percent in early 2012. Wage increases are likely to be most apparent in the construction sector, given the scale of the Canterbury rebuild.

**Figure 5.10**  
Unemployment rate  
(seasonally adjusted)

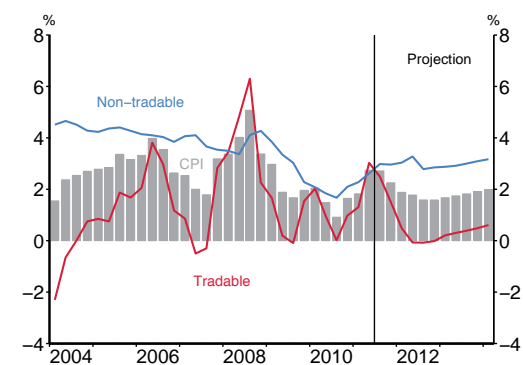


Source: Statistics New Zealand, RBNZ estimates.

That said, construction cost inflation is not expected to reach the peaks seen during the construction boom of the mid-2000s. Aggregate capacity pressure is forecast to be more limited relative to the peak of the previous construction boom, with a degree of resource mobility between sectors expected to dampen the overall rise in construction costs.

Inflationary pressures are expected to build as the labour market tightens and capacity pressures rise, with the removal of monetary stimulus providing some offset to this. As resource pressures increase, underlying annual non-tradable inflation is expected to rise to about 3.3 percent (figure 5.11).

**Figure 5.11**  
CPI, tradable and non-tradable inflation  
(annual, excluding policy changes)



Source: Statistics New Zealand, RBNZ estimates. 'Excluding policy changes' is the Bank's CPI inflation projection which from the June quarter 2010 excludes the direct impact of the increase in the rate of GST, the incorporation of the stationary energy and liquid fuel sectors to the amended Emissions Trading Scheme, and increases in the excise tax on tobacco.

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In contrast, tradable inflation is expected to moderate in the near term. This reflects the pass-through of lower world commodity prices along with the recent appreciation of the exchange rate. Tradable inflation then rises over the latter part of the projection, as import price inflation returns towards average levels and the TWI depreciates modestly. Consequently, annual CPI inflation excluding policy changes is expected to remain steady around the centre of the target band over the latter part of the projection.

# 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 Quarterly	CPI Quarterly	CPI Annual	TWI	90-day bank bill rate
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	1.6	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	0.3	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	0.2	-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	0.8	0.5	1.8	71.4	8.7
	Dec	0.9	1.2	3.2	71.0	8.8
2008	Mar	-0.2	0.7	3.4	71.9	8.8
	Jun	-0.6	1.6	4.0	69.3	8.8
	Sep	-0.6	1.5	5.1	65.5	8.2
	Dec	-1.2	-0.5	3.4	57.8	6.3
2009	Mar	-1.1	0.3	3.0	53.7	3.7
	Jun	0.1	0.6	1.9	58.4	2.9
	Sep	0.2	1.3	1.7	62.6	2.8
	Dec	0.9	-0.2	2.0	65.5	2.8
2010	Mar	0.6	0.4	2.0	65.3	2.7
	Jun	0.2	0.2	1.7	66.8	2.9
	Sep	-0.1	1.1	1.5	66.9	3.2
	Dec	0.5	2.3	4.0	67.8	3.2
2011	Mar	0.8	0.8	4.5	67.1	3.0
	Jun	0.6	1.0	5.3	69.1	2.7
	Sep	0.8	0.7	4.9	72.5	2.9
	Dec	1.0	0.1	2.6	72.4	2.9
2012	Mar	1.1	0.3	2.1	72.4	3.1
	Jun	0.6	0.9	2.0	72.1	3.7
	Sep	0.6	0.4	1.7	71.7	4.1
	Dec	0.6	0.2	1.8	71.1	4.3
2013	Mar	0.8	0.5	2.0	70.6	4.3
	Jun	0.8	0.9	2.0	70.3	4.3
	Sep	0.8	0.6	2.2	69.8	4.3
	Dec	0.8	0.2	2.3	69.4	4.3
2014	Mar	0.5	0.4	2.2	69.0	4.3

<sup>1</sup> Notes for these tables follow on pages 26 and 27.

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

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

March year	Actuals							Projections			
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Final consumption expenditure											
Private	6.3	4.5	4.4	2.5	3.3	-1.1	0.3	2.0	2.1	2.1	1.6
Public authority	5.0	4.5	4.9	4.4	4.7	4.2	0.3	3.2	2.6	-0.1	-0.3
Total	6.0	4.5	4.5	2.9	3.6	0.1	0.3	2.3	2.2	1.5	1.2
Gross fixed capital formation											
Market sector:											
Residential	14.9	2.8	-5.3	-1.4	4.4	-23.4	-13.2	2.1	-1.4	37.9	23.4
Business	12.6	10.9	10.1	-1.9	8.9	-5.8	-9.1	7.5	6.8	9.0	4.6
Non-market government sector	14.7	10.9	6.6	-6.8	-10.4	20.0	-8.4	-2.1	7.3	4.1	4.1
Total	13.3	8.9	6.3	-2.2	6.7	-7.8	-9.7	5.9	5.6	12.8	7.9
Final domestic expenditure	7.7	5.6	5.0	1.6	4.4	-1.9	-2.1	3.1	3.0	4.1	2.9
Stockbuilding <sup>1</sup>	0.2	0.2	-0.5	-0.7	0.6	-0.0	-1.9	1.4	1.0	-0.3	-0.1
Gross national expenditure	7.8	6.0	4.7	0.7	5.4	-2.0	-3.6	4.4	3.6	3.7	2.8
Exports of goods and services	1.1	4.9	-0.1	3.0	3.2	-3.5	4.7	1.8	3.9	1.6	2.6
Imports of goods and services	12.9	12.4	4.2	-1.5	9.9	-4.2	-9.5	10.3	7.7	4.5	2.5
Expenditure on GDP	4.1	3.5	3.3	2.1	3.1	-1.6	1.1	1.7	2.3	2.8	2.8
GDP (production)	4.4	3.8	3.2	0.8	3.0	-1.5	-0.7	1.5	2.8	3.1	3.0
GDP (production, March qtr to March qtr)	5.3	2.5	2.4	1.7	2.3	-3.5	1.9	1.4	3.6	2.6	2.9

<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			
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Price measures</b>											
CPI	1.5	2.8	3.3	2.5	3.4	3.0	2.0	4.5	2.1	2.0	2.2
Labour costs	2.1	2.5	3.0	3.0	3.5	3.1	1.3	2.0	2.4	2.1	2.1
Import prices (in New Zealand dollars)	-10.3	0.6	6.8	0.2	0.3	12.1	-8.5	3.7	-1.7	2.0	3.5
Export prices (in New Zealand dollars)	-5.0	5.0	3.3	4.3	11.8	6.5	-8.6	10.7	-3.3	0.1	1.2
<b>Monetary conditions</b>											
90-day rate (year average)	5.3	6.5	7.3	7.6	8.6	6.7	2.8	3.1	2.9	4.1	4.3
TWI (year average)	63.6	67.1	70.1	65.6	71.6	61.6	62.9	67.1	71.6	71.4	69.6
<b>Output</b>											
GDP (production, annual average % change)	4.4	3.8	3.2	0.8	3.0	-1.5	-0.7	1.5	2.8	3.1	3.0
Potential output (annual average % change)	3.4	3.2	2.8	2.3	1.9	1.6	1.2	1.4	1.6	2.2	2.3
Output gap (% of potential GDP, year average)	2.2	2.8	3.2	1.7	2.8	-0.4	-2.2	-2.1	-1.0	0.0	0.6
<b>Labour market</b>											
Total employment (seasonally adjusted)	3.3	3.7	2.8	2.0	-0.3	0.7	-0.1	1.8	1.7	2.6	2.0
Unemployment rate (March qtr, seasonally adjusted)	4.3	3.9	4.0	3.9	3.9	5.1	6.1	6.5	5.7	5.2	4.8
Trend labour productivity	1.1	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.6	0.8	0.9
<b>Key balances</b>											
Government operating balance (% of GDP, year to June)	3.9	4.7	4.4	3.5	3.1	-2.1	-3.4	-8.3	-4.1	-1.8	-0.4
Current account balance (% of GDP)	-4.3	-6.1	-8.6	-7.9	-7.9	-7.8	-2.4	-4.2	-3.5	-4.6	-5.4
Terms of trade (OTI measure, annual average % change)	3.9	5.8	-0.8	1.8	7.8	3.2	-9.1	12.3	1.6	-4.3	-2.1
Household saving rate (% of disposable income)	-7.4	-6.0	-8.3	-8.9	-4.0	-4.5	-2.2	-1.3	-0.4	0.6	2.2
<b>World economy</b>											
Trading partner GDP (annual average % change)	3.5	3.7	3.8	3.8	4.2	0.2	1.0	4.3	3.4	4.3	4.2
Trading partner CPI (TWI weighted, annual % change)	1.5	2.1	2.5	1.9	3.3	0.9	1.6	2.3	1.9	2.0	2.1

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## Notes to the tables

CPI	Consumer Price Index. Quarterly projections rounded to one decimal place.
TWI	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	The interest yield on 90-day bank bills.
World GDP	RBNZ definition. 16-country index, export weighted. Seasonally adjusted.
World CPI inflation	RBNZ 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.
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 Reserve Bank 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

Alexander Construction (Hawkes Bay) Ltd	PGG Wrightson Ltd
APN New Zealand Publishing	Port of Napier Ltd
Bayleys Auckland	Ports of Auckland Limited
BusinessNZ	PricewaterhouseCoopers
Canterbury Employers Chamber of Commerce	Ray White Group
Contact Energy	Rio Tinto Alcan
Criterion Group Ltd	Solid Energy New Zealand Limited
Environment Canterbury Regional Council	Subaru of New Zealand
Fairfax Media	Tru-Test Group
Farmlands Trading Society Ltd	Veda Advantage
Fisher & Paykel Healthcare	Weldwell New Zealand Ltd
Fonterra Co-operative Group Limited	Weston Milling
Foodstuffs South Island Limited	WHK (NZ) Ltd
Fulton Hogan Limited	Windsor Engineering Group Limited
Gough Gough & Hamer Investments Ltd	
Harcourts Real Estate	
Hawkes Bay Chamber of Commerce	
Hawkes Bay Fruitgrowers Association	
Hayes Knight NZ Limited	
Hertz Corporation	
IDC New Zealand	
Infratil Limited	
Jenkins Group Ltd	
Kathmandu New Zealand	
Kermadec Property Fund Limited	
KordaMentha (NZ)	
KPMG NZ	
MacRennie Commercial Construction Limited	
Meat Industry Association of New Zealand Inc	
National Aluminium Ltd	
New Zealand Manufacturers and Exporters Association	
Noel Leeming Group	
NZ Council of Trade Unions	
OCG Consulting Limited	
Orion New Zealand Limited	
Pan Pac Forest Products Ltd	
Paper Plus Group	
Paymark	

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## Appendix C

### Reserve Bank statements on monetary policy

#### OCR unchanged at 2.5 percent

9 June 2011

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 has improved since the publication of the March *Statement*.

“Economic activity has been significantly disrupted by the Christchurch earthquake. However, while many firms and households – particularly within Canterbury – continue to be adversely affected, it appears the negative confidence effect of the earthquake on economic activity throughout the rest of the country has been limited.

“The early signs of recovery noted in the March *Statement* have continued. Despite some continuing signs of weakness in the world economy, commodity prices remain very strong and firms expect to increase their hiring and capital investment. Reconstruction in Canterbury is projected to add about 2 percentage points to GDP growth over 2012, and boost the level of activity for several years thereafter.

“Despite the strong outlook for export earnings, household expenditure is expected to grow only modestly. Household debt remains very high and is expected to constrain retail spending and the housing market for some time. Continued fiscal consolidation will also act to dampen activity.

“The New Zealand dollar has appreciated substantially over the past two months. This appreciation, supported by high export prices for primary producers, is negatively affecting other parts of the tradable sector, constraining rebalancing of the New Zealand economy.

“Headline inflation is currently being boosted by recent increases in indirect taxes, food and petrol prices, and surveyed expectations of future inflation have edged up. Despite this, indicators of capacity usage and core inflation suggest underlying inflation remains constrained.

“As GDP growth picks up, underlying inflation is expected to rise. A gradual increase in the OCR over the next two years will be required to offset this, such that CPI

inflation tracks close to the midpoint of the target band over the latter part of the projection. The pace and timing of increases will be guided by the speed of recovery, but for now the OCR remains on hold.”

#### OCR unchanged at 2.5 percent

28 July 2011

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

Reserve Bank Governor Alan Bollard said: “The economy has grown more strongly than was expected, and it appears that the recovery is getting back on track, supported by a strong terms of trade. At the same time, however, current fragility in global financial markets, including the uncertainty around the US Government’s debt ceiling, continues to highlight the downside risk to trading partner activity noted in the June *Statement*.

“Annual headline CPI inflation continues to be above the Bank’s 1 to 3 percent target band. However, much of the current spike in inflation has been driven by the October 2010 increase in the rate of GST, and will therefore be temporary. Wage and price setters should focus on underlying inflation, which is currently estimated to be below 2.5 percent.

“Provided current global financial risks recede and the economy continues to recover, the Bank sees little need for the March 2011 ‘insurance’ cut to remain in place much longer. The current very high value of the New Zealand dollar is acting as a drag on the New Zealand economy. If this persists, it is likely to reduce the need for further OCR increases in the short term.”

## 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	11 March 2010	2.50
14 March 2001	6.25	15 September 2005	6.75	29 April 2010	2.50
19 April 2001	6.00	27 October 2005	7.00	10 June 2010	2.75
16 May 2001	5.75	8 December 2005	7.25	29 July 2010	3.00
4 July 2001	5.75	26 January 2006	7.25	16 September 2010	3.00
15 August 2001	5.75	9 March 2006	7.25	28 October 2010	3.00
19 September 2001	5.25	27 April 2006	7.25	9 December 2010	3.00
3 October 2001	5.25	8 June 2006	7.25	27 January 2011	3.00
14 November 2001	4.75	27 July 2006	7.25	10 March 2011	2.50
23 January 2002	4.75	14 September 2006	7.25	28 April 2011	2.50
20 March 2002	5.00	26 October 2006	7.25	9 June 2011	2.50
17 April 2002	5.25	7 December 2006	7.25	28 July 2011	2.50
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 2011-13:

### 2011

Thursday 27 October 2011	OCR announcement
Thursday 8 December 2011	<i>Monetary Policy Statement</i>

### 2012

Thursday 26 January 2012	OCR announcement
Thursday 8 March 2012	<i>Monetary Policy Statement</i>
Thursday 26 April 2012	OCR announcement
Thursday 14 June 2012	<i>Monetary Policy Statement</i>
Thursday 26 July 2012	OCR announcement
Thursday 13 September 2012	<i>Monetary Policy Statement</i>
Thursday 25 October 2012	OCR announcement
Thursday 6 December 2012	<i>Monetary Policy Statement</i>

### 2013

Thursday 31 January 2013	OCR announcement
Thursday 14 March 2013	<i>Monetary Policy Statement</i>
Thursday 24 April 2013	OCR announcement
Thursday 13 June 2013	<i>Monetary Policy Statement</i>

Dates for 2013 are provisional, subject to confirmation in August 2012.

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

