

# Monetary Policy Statement

March 2013<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 1 March 2013. Policy assessment finalised 13 March 2013

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# 1 Policy assessment

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

The downside risks around global growth have receded in recent months, and financial market sentiment has improved.

Domestically, the economic recovery is uneven. While demand and output are expanding, the labour market remains weak. Economic growth and inflation are being shaped by a range of forces. The Canterbury rebuild is gaining momentum and residential investment and business and consumer confidence are increasing. House price inflation is increasing and the Bank does not want to see financial stability or inflation risks accentuated by housing demand getting too far ahead of supply.

The overvalued New Zealand dollar is undermining profitability in export and import competing industries, and worsening drought conditions are creating difficulty in much of the country. Ongoing fiscal consolidation will also act to slow overall demand.

We project the economy to grow at an annual rate of between 2 and 3 percent over the forecast period. Inflation is expected to rise gradually towards the 2 percent midpoint of the target range.

There are both upside and downside risks to this outlook. At this point we expect to keep the OCR unchanged through the end of the year.

Graeme Wheeler



Governor

## 2 Overview and key policy judgements

Inflation is currently subdued, and is likely to remain low in the near term. However, since the December *Statement*, there have been signs of a greater-than-expected strengthening in GDP growth. Over the coming years, demand will be further boosted by increasing reconstruction in Canterbury, a more widespread lift in housing construction, and continued low interest rates. While this will be partially offset by fiscal consolidation and the elevated New Zealand dollar, stronger domestic demand will contribute to an increase in medium-term inflationary pressures. Monetary policy will remain focused on keeping future average inflation near the 2 percent target midpoint.

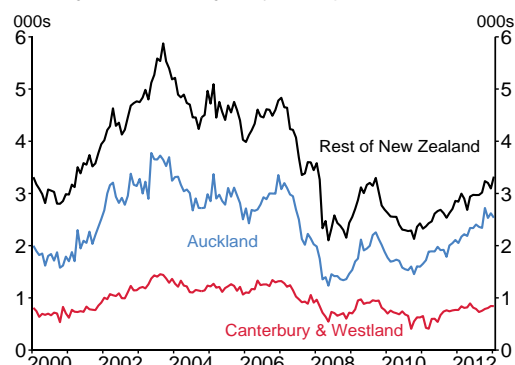
### Output and inflation developments

Inflation has fallen to low levels over the past year, with the Consumers Price Index increasing by 0.9 percent in the year to December 2012. This was the second consecutive quarter in which headline inflation has been just below the Bank's target band. Low inflation over the past year has been a result of on-going strength in the New Zealand dollar and the soft prices of imported goods. Inflation has also been dampened by the gradual pace of the domestic recovery in recent years, and resultant lingering excess capacity.

Since the December *Statement*, however, there appears to have been a greater-than-expected strengthening in GDP growth. This is primarily a result of increases in construction, underpinned by reconstruction in Canterbury. There has also been a more general lift in housing market activity, with nationwide house sales (figure 2.1) and issuance of building consents both increasing by 17 percent over the past year, and house price inflation increasing to 7 percent per annum. In addition to these developments, retail sales volumes rose 3 percent over the past year, and indicators of business sector activity have strengthened.

With demand increasing, excess capacity in the economy is gradually being reduced. In addition, some pockets of inflationary pressure have emerged. These have mainly been centred on the Canterbury housing

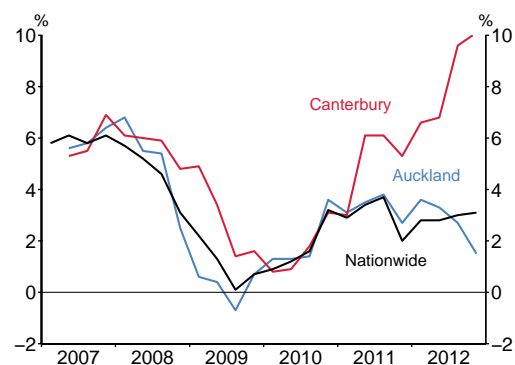
Figure 2.1  
Regional house sales  
(monthly, seasonally adjusted)



Source: REINZ.

market, with construction costs (figure 2.2), wages in the construction sector, and rents in the region all continuing to rise at rates well above national averages. With the volume of construction work still very low, but increasing elsewhere, the flow-on from such cost pressures to other regions and sectors has, to date, remained contained. However, the Bank is mindful of the potential increase in inflationary pressures as construction activity increases over the coming years.

Figure 2.2  
Regional construction cost inflation  
(annual)



Source: Statistics New Zealand.

Although overall output and demand has strengthened, the recovery has been uneven. Many businesses in the tradable sector continue to experience difficult trading conditions. The elevated New Zealand dollar is dampening export earnings and is encouraging substitution towards imports. In addition, although global economic conditions have stabilised in recent months, demand in many major economies remains subdued.

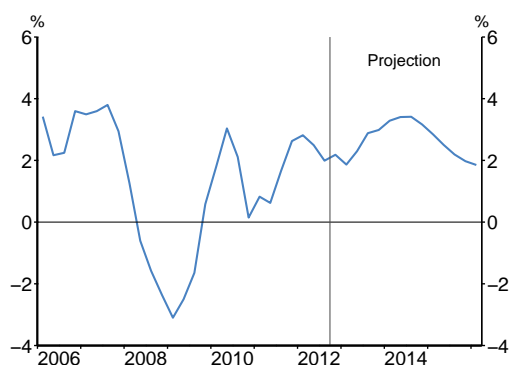
Of further concern, hot dry weather has resulted in challenging farming conditions in much of the country, with drought declared in many parts of the North Island. Milk production through the second half of the season is likely to be significantly affected. Continued drought would have a marked negative impact on aggregate economic output.

There has also been continuing softness in the labour market. The unemployment rate remains elevated at 6.9 percent, and firms are reluctant to take on additional staff. This is dampening household sentiment.

## Economic outlook

Over the coming years, GDP growth is projected to strengthen to around 3 percent per annum (figure 2.3) as a result of reconstruction in Canterbury, a pick-up in residential investment elsewhere, and continued low interest rates. These factors are expected to boost output and employment in the construction, manufacturing and services sectors, and offset the dampening effects of the overvalued New Zealand dollar, fiscal consolidation and continued household caution.

Figure 2.3  
GDP growth  
(annual)



Source: Statistics New Zealand, RBNZ estimates.

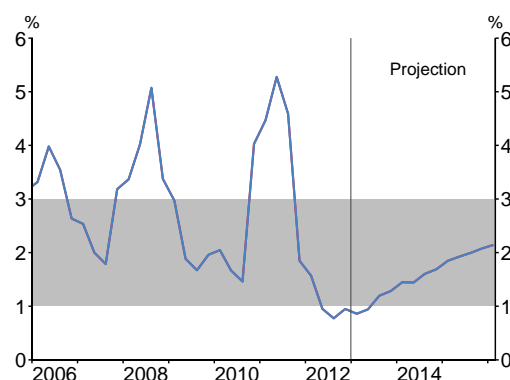
This outlook is conditional on several key assumptions:

- Repairs and reconstruction in Canterbury will significantly boost construction sector activity for an extended period, with around \$30 billion in 2011 dollars of work in total anticipated (equivalent to around 15 percent of annual GDP).

- Household spending is projected to respond only modestly to the recent and projected increases in house price inflation and residential investment. This household caution is being reinforced by the soft state of the labour market.
- In line with the Government's *Half Year Economic and Fiscal Update 2012*, a tightening in fiscal policy equivalent to 3.2 percent of GDP is assumed over the next four years. Fiscal consolidation will dampen momentum in the economy.
- Although risks remain, global demand is assumed to increase at an around average pace over the coming years, helping to support New Zealand's terms of trade.
- The New Zealand dollar trade weighted index (TWI) is assumed to remain elevated, with a gradual depreciation occurring over the projection horizon.

Inflation is expected to remain low over the coming year as a result of weakness in the prices of tradables. However, as GDP growth accelerates, domestic inflationary pressures are expected to increase. These pressures, coupled with increases in indirect taxes, will offset the subdued rate of inflation in the tradable sector. As a result, annual inflation is expected to settle close to the mid-point of the Bank's target band in the latter part of the projection period (figure 2.4).

Figure 2.4  
CPI inflation  
(annual)

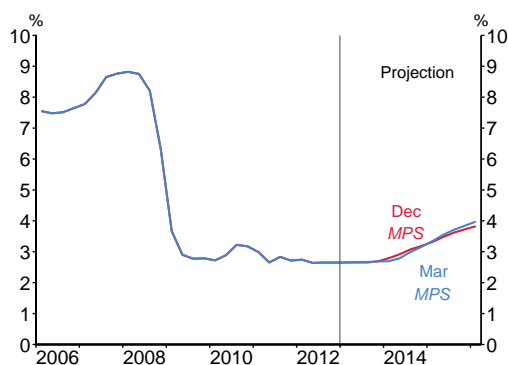


Source: Statistics New Zealand, RBNZ estimates.

## Economic risks and monetary policy judgements

Increases in GDP and inflationary pressures over the coming years will enable some normalisation of interest rates. Nevertheless, with the economy starting from a position of excess capacity and the New Zealand dollar remaining elevated, 90-day interest rates are projected to remain flat through 2013 (figure 2.5). A decline in bank funding costs in recent months has resulted in retail interest rates declining despite the flat outlook for short-term wholesale interest rates. Average mortgage rates have declined by 45 basis points over the past year.

Figure 2.5  
90-day interest rate



Source: RBNZ estimates.

The outlook for monetary policy at the current juncture is finely balanced. Inflation is expected to remain just below the Bank's target band through the early part of 2013. Monetary policy settings must balance this low near-term inflation outlook, and concerns about the exchange rate and weak labour market, against increasing signs that output will accelerate and inflationary pressures will pick up. During previous periods when inflation temporarily rose above the target band, the Bank did not attempt to rapidly reduce pricing pressures. Analogously, we are mindful that, because of policy lags, efforts to offset the current weakness in inflation may have an only limited impact on near-term conditions. Furthermore, such efforts could exacerbate medium-term inflationary pressures.

As discussed in Box A (page 7), current low rates of inflation are, in large part, a result of the elevated New Zealand dollar. As well as dampening inflation pressures, strength in the TWI is resulting in challenging conditions

for tradable sector firms.

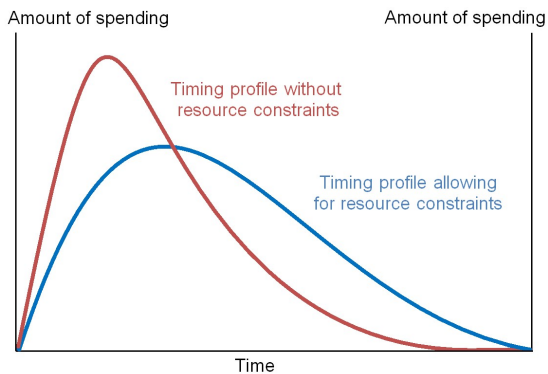
Exchange rates tend to experience pronounced cycles and can be prone to sharp movements over relatively short periods. It is easy to envision a scenario where the TWI evolves quite differently from what is assumed in these projections. This would have important implications for inflation, GDP and monetary policy settings. If the exchange rate rose for reasons not justified by New Zealand's economic fundamentals, all other things equal, this would lead to a lower-than-expected OCR.

Looking forward, medium-term inflationary pressures are likely to be centred on the non-traded sector, particularly housing and construction. Experience has shown that, once established, pressures in these sectors can be difficult to offset. Furthermore, these risks are skewed to the upside. In recent months, house sales, prices and building consent issuance have lifted more rapidly than anticipated. In addition, the central projection assumes on-going caution among households, encouraging a continued improving saving rate. As GDP and the labour market recover, households could revert to spending behaviour seen during the previous cycle, resulting in stronger-than-expected pressures on aggregate demand.

Reconstruction in Canterbury also poses some upside risk for inflation in the non-traded sector. Significant amounts of labour and capital will be required. Capacity constraints in the region will result in reconstruction being spread over a longer period, and will cause construction costs to increase. Figure 2.6 (overleaf) shows a stylised representation of how we have allowed for such constraints in our projections. The coordination of some projects in the region will help limit the build-up of inflationary pressures, while maintaining the pace of the reconstruction. Nevertheless, there is a significant risk that cost increases will be larger than expected.

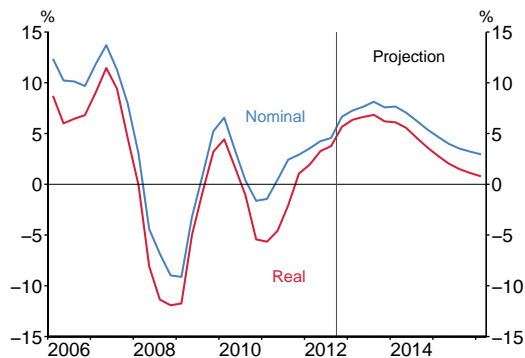
House prices are estimated to have increased in real terms at an annual rate of 6 percent over 2012 and are forecast to increase by 6.2 percent and 3.6 percent in 2013 and 2014 respectively before levelling off (figure 2.7, overleaf). There is considerable uncertainty around these projections given the nature of supply and demand imbalances in regional housing markets. We will closely monitor house prices for any signs of feed-through into

**Figure 2.6**  
**Stylised reconstruction profiles**



Source: RBNZ.  
 Note: This figure illustrates how resource constraints could affect reconstruction. However, the profiles shown are intended to be indicative, rather than illustrating specific assumptions about the reconstruction process.

**Figure 2.7**  
**House price inflation**  
*(annual)*



Source: RBNZ Estimates.

consumer price inflation.

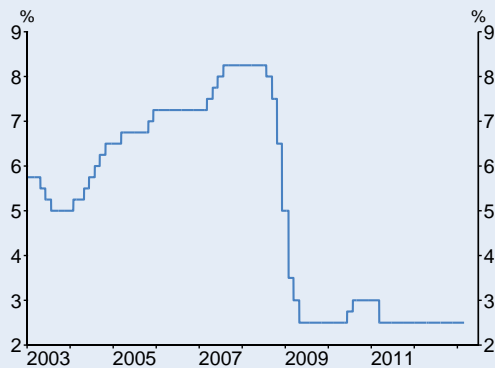
The stance of fiscal policy will be an important influence on monetary policy over the coming years. Fiscal consolidation will provide scope for monetary policy settings to remain accommodative, and will help reduce upward pressure on the New Zealand dollar. If consolidation does not occur as rapidly as assumed, inflationary pressures would be stronger.

Finally, the Bank continues to assume that inflation expectations remain anchored. Low headline inflation over the past year has resulted in a moderation in surveyed inflation expectations from households and businesses. With inflation expected to remain low over the coming year, some further declines are likely. Nevertheless, we anticipate that the public's inflation expectations will remain at levels consistent with the medium-term price inflation target as outlined in the Policy Targets Agreement.

## Box A Recent monetary policy decisions

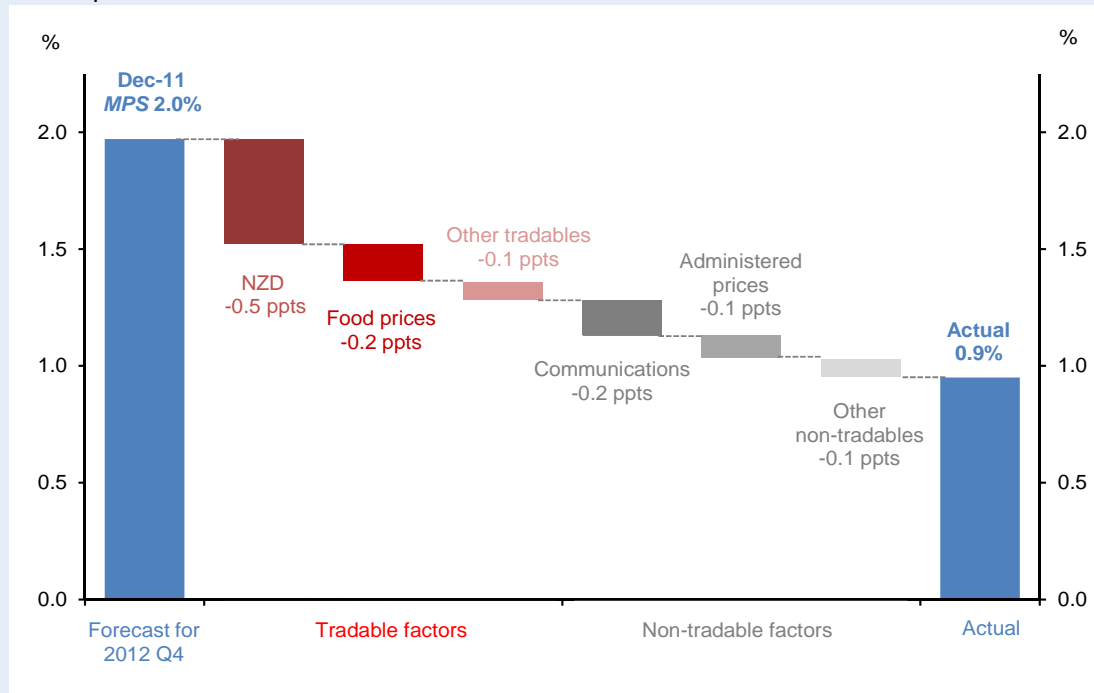
The OCR has been held at the historically low level of 2.5 percent since March 2011 (figure A1). The OCR was lowered to this level to limit the potential adverse economic consequences of the Canterbury earthquakes. Since that time, soft global conditions, gradual domestic growth and persistent strength in the New Zealand dollar have meant that inflation has remained subdued.

Figure A1  
Official Cash Rate



Source: RBNZ estimates.

Figure A3  
Decomposition of 2012 inflation forecast error

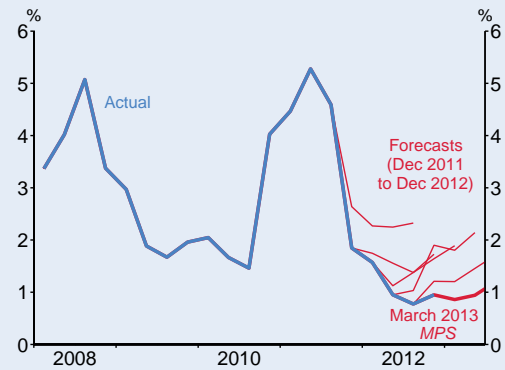


Source: Statistics New Zealand, RBNZ estimates.

Note: This chart shows the factors that contributed to the Bank's December 2011 forecast error for inflation in 2012. Figures are rounded to 1 decimal place, so do not sum exactly.

Over the past 18 months, inflation has been lower than the Bank (figure A2) and private sector forecasters expected. In response, the Bank significantly revised down its projection for short-term interest rates.

Figure A2  
CPI inflation forecasts  
(annual)

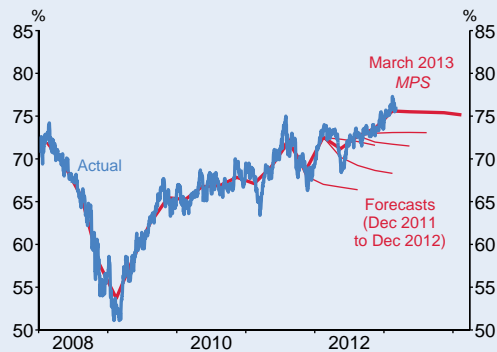


Source: Statistics New Zealand, RBNZ estimates.

A number of unforeseen factors dampened inflation in recent quarters (figure A3). Surprises were centred on the tradable sector and, for the most part, this reflected greater-than-expected strength in the New Zealand dollar (figure A4, overleaf). The stronger exchange rate

has dampened the prices for a number of goods, with particular softness in the prices of imported durable items such as audio-visual equipment, recreational equipment, and appliances. Sharper-than-expected declines in food prices in late 2012 – in part, affected by favourable growing conditions – also contributed to softer tradables inflation.

**Figure A4**  
New Zealand dollar TWI projections

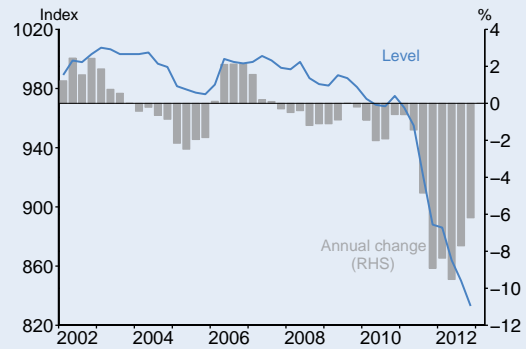


Source: RBNZ estimates.

The decline in non-tradables inflation has in part been related to sharp declines in the CPI communications group, and softer-than-usual inflation in administered charges (such as the cost of local government services). In the case of communications, increased competition among providers of mobile and broadband services

resulted in the communications group component of the CPI declining significantly, falling by 10 percent since mid-2011 (figure A5). This is markedly different from earlier experience.

**Figure A5**  
Communications group prices



Source: Statistics New Zealand.

Over this period, GDP growth has been in line with or slightly above the Bank's forecasts. Consistent with this, forecasts for most components of non-tradable inflation (with the exception of telecommunications and administered charges) have been in line with the Bank's expectations. This includes construction costs, which are expected to be significant contributors to inflation over the coming years.



## Box B

### The policy implications of persistent exchange rate strength

The central projection assumes the New Zealand dollar will hold up over 2013, before depreciating gradually over the latter part of the projection. A risk remains that the New Zealand dollar remains elevated for a more extended period, or appreciates further. This box looks at the consequences of such a scenario (figure B1).

All other things equal, a higher exchange rate relative to the baseline, in the absence of a corresponding relative strengthening of New Zealand's economic outlook, would warrant lower interest rates (figure B2). While lower interest rates might weaken the exchange rate, in this scenario the currency is assumed to remain strong, reducing inflationary pressure through weaker inflation in the tradable sector (figure B3, overleaf). Lower interest rates also boost non-tradable inflation (figures B4 and B5, overleaf) so that headline inflation remains around the centre of the target band over the medium term.

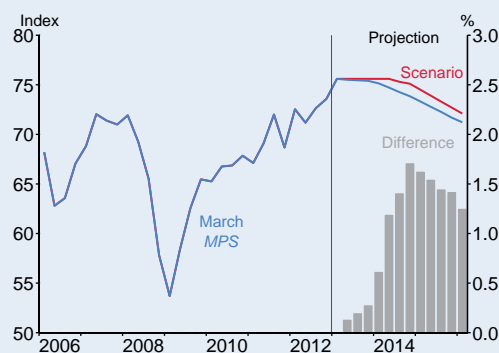
In such a scenario an elevated TWI dampens returns in the export sector and the wider tradable sector. There would be a further shift towards imports, with import-competing firms likely to face very challenging trading conditions. At the same time, weaker inflationary pressure and lower policy rates would stimulate a rise in household consumption. As a result, New Zealand's current account widens (figure B6, overleaf).

The lower interest rate in this scenario would boost momentum in the housing market and household spending. Given the strength of the exchange rate, some of this increase in household spending would be on imported goods.

There is a risk, however, that lower interest rates would result in greater momentum in the housing market than is assumed here. In addition, any related increase in household spending and imports would likely result in a greater deterioration in external balances.

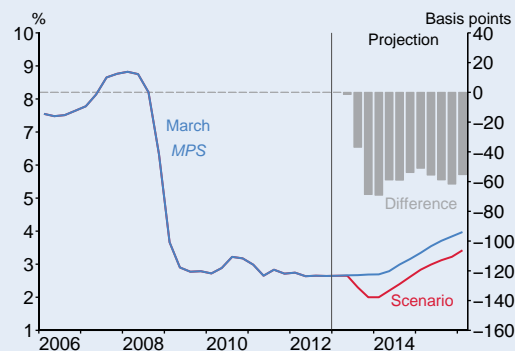
The New Zealand dollar has, at times, risen to levels that are not consistent with underlying economic conditions. These periods of overvaluation can be protracted. However, exchange rates do eventually adjust in line with underlying economic conditions, often at a rapid pace. If the exchange rate were to decline rapidly, this would add to inflationary pressures, and monetary policy would need to respond.

Figure B1  
New Zealand dollar TWI



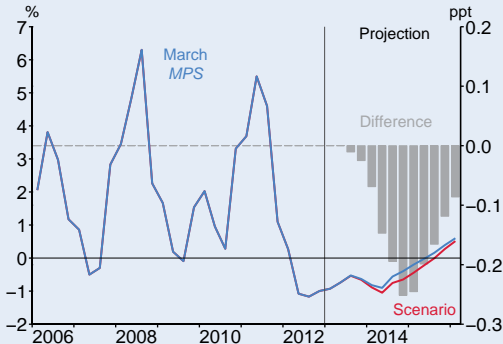
Source: Statistics New Zealand, RBNZ estimates.

Figure B2  
90-day interest rate



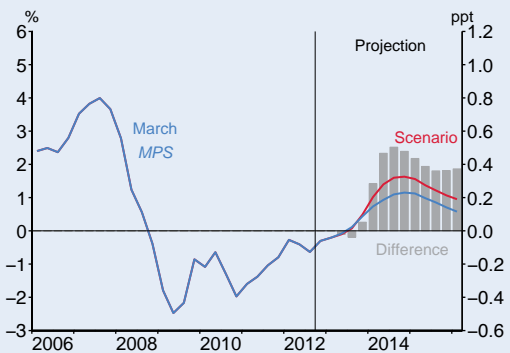
Source: RBNZ estimates.

**Figure B3**  
**Tradable inflation**  
*(annual)*



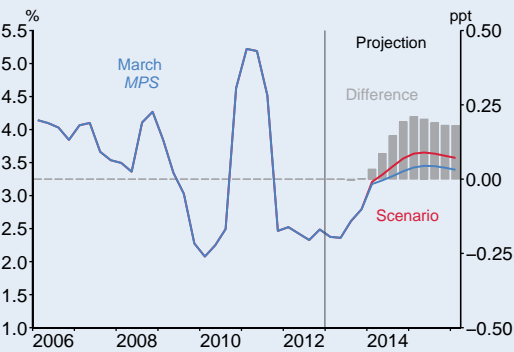
Source: Statistics New Zealand, RBNZ estimates.

**Figure B5**  
**Output gap**  
*(share of potential GDP)*



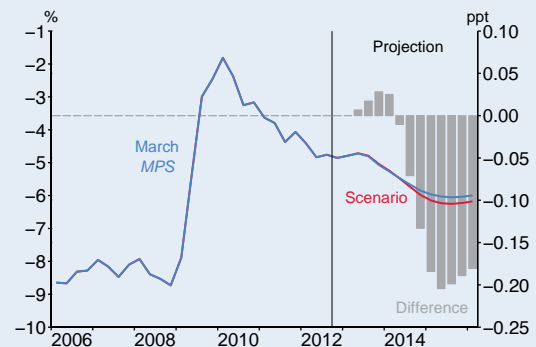
Source: Statistics New Zealand, RBNZ estimates.

**Figure B4**  
**Non-tradable inflation**  
*(annual)*



Source: Statistics New Zealand, RBNZ estimates.

**Figure B6**  
**Current account**  
*(annual, share of nominal GDP)*



Source: Statistics New Zealand, RBNZ estimates.

### 3 Financial market developments

Financial market sentiment has improved since the December *Statement*, as evidenced by the upward trend in global equity markets. This improved sentiment reflects a number of positive developments, including a successful restructuring of Greek government debt and the avoidance of the fiscal cliff in the United States. Markets continue to be supported by very easy global liquidity conditions provided by the major central banks.

Concerns around global conditions have receded somewhat in recent months. Consequently, domestic economic data is having a greater influence on New Zealand asset prices compared to a year ago. The combination of more positive global sentiment, improved domestic economic indicators and New Zealand's higher interest rates has put upward pressure on the New Zealand dollar.

Improving global financial conditions continue to put downward pressure on marginal funding costs for local banks. Long-term wholesale and retail deposit funding costs declined further over the last quarter and these were passed on to households via lower mortgage rates.

#### International market developments

Developments since the December *Statement* have tended to be positive for financial market sentiment. Improved economic indicators, combined with easier funding conditions, have led to increased optimism regarding the outlook for the global economy.

Global equity prices have moved higher (figure 3.1). Rises in equity markets have been broad based, with Japan's market the strongest performer following significant depreciation of the yen. Global government bond yields have tended to increase as investors shift into higher risk assets, and credit spreads have narrowed further. A search for yield and higher risk appetite have contributed to the downwards movement in bond yields for some of the troubled European nations, such as Spain, Portugal and Ireland.

One noticeable difference in global financial markets this year has been a change in correlations between (and within) asset classes. Since the financial crisis, attitudes

Figure 3.1  
MSCI world equity index



Source: DataStream.

to risk have been a major driver of asset prices, causing a wide variety of risky assets to move in tandem with each other. Specifically, the prices of different asset classes that are considered high-risk have tended to appreciate together when risk appetite improves. Since late-2012 this relationship appears to have broken down, perhaps as a result of tail risks for global markets subsiding. This has meant that local data and events have had an increased relative impact recently on New Zealand asset prices, and currency movements across a range of cross rates can be explained more by local factors than a common global trend.

Turning to regional developments, in the United States a key event was the avoidance of the fiscal cliff in early January. In addition, the debt ceiling deadline was extended to mid-May, and addressing the required spending cuts was delayed until March. These negotiations removed the possibility of a sharp near-term fiscal contraction, helping to support market sentiment, although at the time it was recognised that the required fiscal consolidation was simply being pushed into the future.

In mid-December, the United States Federal Reserve boosted its quantitative easing policy by planning to purchase \$US45 billion per month of unsterilised longer-term treasury debt in addition to the programme of mortgage backed securities purchases. The Federal Reserve also modified its communication strategy by linking any possible increase in the Federal Funds rate to economic thresholds on the unemployment rate and inflation, eliminating the timing reference of mid-2015.

Given improving economic trends in the United States, the market's attention turned to the timing of any modification to the Federal Reserve's quantitative easing programme. At this stage market participants are reluctant to aggressively price in a near-term change in monetary policy, as evidenced by only a moderate lift in United States bond yields to date.

In Europe, Greece completed a buyback of €32 billion of government debt held by the private sector, allowing a restructuring of its debt. The reduction in debt obligations meant that further funding became available from official sources. This provided support for market sentiment as it was perceived to significantly reduce the probability that Greece might exit the euro area in a chaotic or disorderly fashion.

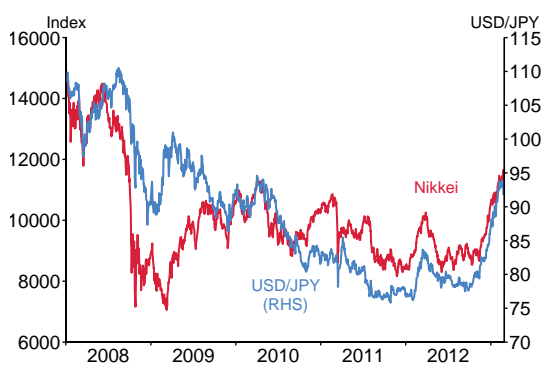
The European Central Bank's (ECB) Outright Monetary Transactions (OMT) policy has proved highly successful, with the effective "lender of last resort" function reducing volatility in markets and significantly improving funding conditions for European countries and banks. No country has applied for assistance through the programme, but the policy has nevertheless acted as a backstop and has helped to stabilise market sentiment.

The Bank of England kept its policy rate at a historically low level and left the size of its asset purchase programme unchanged. Moody's Investor Services downgraded the United Kingdom's sovereign rating by one notch from Aaa to Aa1. The ratings agency noted that the prospect of sluggish economic growth continuing had increased the risk that the United Kingdom's public debt-to-GDP ratio would rise, reducing the country's ability to absorb further shocks.

In Asia, developments in Japan have been a key focus. A new government came to power in December, having campaigned on a promise to raise nominal GDP growth to 3 percent and inflation to 2 percent. The Bank of Japan subsequently raised its inflation objective from a goal of 1 percent to a target of 2 percent. Investors saw this as a significant policy development, leading to a sizeable depreciation of the yen and a strong rally in Japan's equity market (figure 3.2).

In its February monetary policy report, the People's Bank of China said that controlling inflation was a priority

Figure 3.2  
Japan equity index and USD/JPY



Source: Bloomberg.

as the economy strengthened. In its liquidity operations, the central bank removed a record volume of money from the financial system, which markets interpreted as a "normalisation" of monetary policy. These operations followed an improvement in activity, strong credit growth and house prices picking up pace.

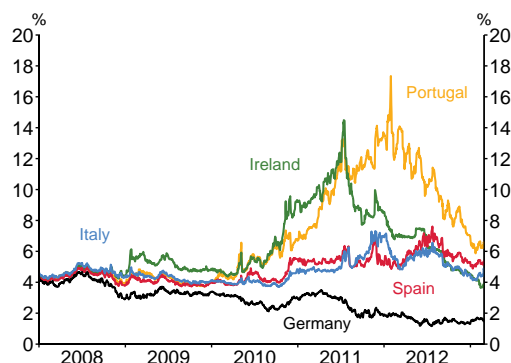
At its two meetings this year, the Reserve Bank of Australia (RBA) kept its cash rate at the historically low level of 3 percent but maintained an easing bias. The RBA noted that the inflation outlook "would afford scope to ease policy further, should that be necessary to support demand".

## Financing and credit

Global 10-year bond rates in Australia, United States, Germany, France and the United Kingdom have risen since the December *Statement*. Higher rates (or lower bond prices) might reflect preliminary signs of an asset allocation shift out of bonds and into equity markets as risk sentiment has improved. As noted earlier, investors are focused on the timing of the removal of monetary stimulus in the United States, and this has been a factor in a steepening of the yield curve. The United States ten year bond rate reached a high of just over two percent mid-February, up over 40 basis points from the rate prevailing in early December, before falling back slightly. Japan's bond rates have fallen to new lows (the ten-year rate reached 0.6 percent) as the market anticipates the Bank of Japan extending its bond-buying programme to stimulate growth.

Funding conditions have improved considerably in Europe. Following ECB President Draghi's speech in late July, bond rates in the troubled European nations have fallen significantly (figure 3.3), deposits in those countries have risen, capital inflows have returned to the region, and financial market fragmentation (for example, diverging interest rates in the region) has shown signs of dissipating. Portugal and Ireland returned to funding markets in small size in January and intend to issue more debt over coming months. A return to funding markets by countries is required before they are eligible for support via the ECB's OMT programme. Spain began the year facing a large debt raising programme, in the order of €120 billion, but by the end of February it had already met almost a quarter of that target.

**Figure 3.3**  
10-year government bond rates



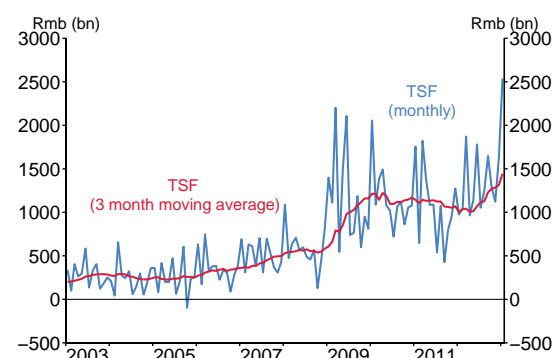
Source: Reuters.

The improvement in financing conditions gave European banks the confidence to pay back long-term loans to the ECB. By early March, European banks had paid back just over €200 billion of the total €1 trillion borrowed from the ECB in the two Long-Term Refinancing Operations a little over a year ago. However, a breakdown of the data showed that repayments were primarily made by large, well-capitalised banks in Germany, France and Spain. Notably, any flow-through of improved market conditions into the real economy has so far been lacking, as evidenced in contracting credit growth. The ECB bank lending survey also showed that tighter lending conditions prevailed in the December quarter. Banks attribute tightening lending conditions to the poor growth outlook rather than funding conditions. It is clear that conditions

remain far from normal and the region remains vulnerable to further shocks.

In China, credit issuance – which includes lending by banks and financing provided by non-bank institutions – surged to a record Rmb2.5 trillion in January on the back of a boom in shadow banking (credit sourced from unregulated markets). Analysts are comparing the strength of credit issuance to that during the financial crisis period in early 2009 (figure 3.4).

**Figure 3.4**  
China total societal financing (new lending)



Source: Bloomberg.

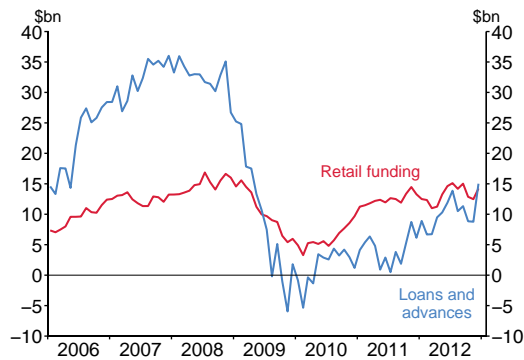
Improved global market conditions are reducing funding costs for New Zealand banks in long-term wholesale markets. Since the middle of last year our indicator of marginal funding costs has fallen by about 40 basis points. In this environment, local banks have no real need to aggressively compete for retail deposits, and this is flowing through into lower rates being offered to domestic depositors. Another factor is that banks' liquidity positions are strong relative to regulatory requirements of the core funding ratio policy.

Solid growth in domestic deposits has taken the pressure off banks to issue longer-term debt offshore, a more expensive source of funding. While offshore global funding spreads have continued to trend lower, the cost of hedging that debt into New Zealand dollars remains very high and in many deals is the dominant factor in the total cost of funding.

However, loans and advances' growth surpassed deposit growth in December on an annual basis (figure 3.5). There is some indicative evidence that higher loan-to-value ratio lending has made up a greater proportion of

new lending. If credit growth continues to pick up, banks may issue into offshore markets with greater frequency. While this would increase banks' reliance on global funding markets, funding costs are the lowest they have been since early 2011.

**Figure 3.5**  
Retail funding and credit growth  
(annual)



Source: RBNZ.

## Foreign exchange market

As mentioned earlier, local factors have become a more important driver of currency markets. For instance:

- The yen has depreciated significantly, following the change in Japan's government and inflation target.
- Sterling has depreciated, as investors weigh up the weak United Kingdom economy. A new governor is set to begin on 1 July, with investors believing that an easier policy stance may follow.
- The reduction of tail risk in Europe and improved funding conditions have helped support the euro.
- The United States dollar has been supported by better than expected data, but fiscal risks have constrained its move.
- The RBA's easing bias and soft domestic data have acted as a drag against the Australian dollar.

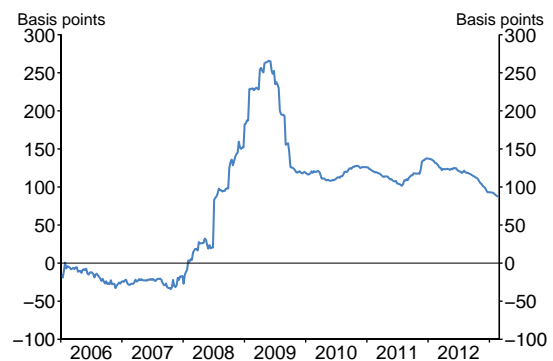
Easy global monetary policy and, in particular, quantitative easing remain key factors in the strength of the New Zealand dollar. The currency has also been supported by positive domestic data, such as improving confidence and housing market indicators. The Bank's firmer policy stance compared to many other countries

has been noted by market participants as a factor in explaining movements in the New Zealand dollar. The net result has been a push higher in the New Zealand TWI, which reached a post-float high of 77.5 in mid-February. The New Zealand dollar has shown particular strength against the yen and, to a lesser extent, sterling.

## Domestic financial market developments

The New Zealand equity market began the year on a strong note, in line with the positive trend in global markets, with a five percent gain in the NZX-50 Index since 1 January. This follows the 24 percent gain last year. Credit markets have also performed strongly, with corporate spreads to swap rates on a declining trend over the last six to nine months.

**Figure 3.6**  
NZ corporate credit spreads to swap  
(indicative)



Source: Harbour Asset Management, RBNZ.

Since the December *Statement* the New Zealand yield curve has moved higher. Longer-term interest rates have led the moves, with the 5 year swap rate rising more than 50 basis points, while the 90-day bank bill rate is up just a few basis points. Government bond rates are also higher, with the 10-year rate up 40 basis points, in line with the move in the United States. Foreign interest in New Zealand bonds has picked up of late. As at the end of January, non-residents owned 65 percent of government stock, the highest percentage in four years.

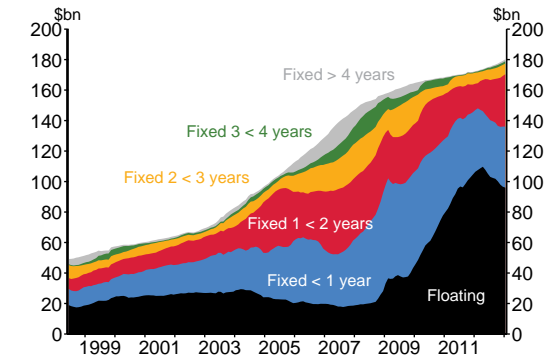
While higher longer-term rates reflect upward pressure from global rates, the short end of the curve has been underpinned by steady monetary policy. There

has been a change in monetary policy expectations as reflected in the overnight indexed swap (OIS) market. In early December the market was pricing in about a 50 percent probability of a 25 basis point cut to the OCR by the middle of 2013, perhaps reflecting remaining global tail risks. The market interpreted the Bank's January OCR review as significantly reducing the chance of any near-term easing. The interpretation of the January review, together with improved domestic data and global financial conditions, led the OIS market to price out any chance of a near-term easing. In early March the OIS market was pricing in about 20 basis points of tightening by year-end.

A number of banks dropped their fixed mortgage rates during the first two months of the year, with the 6-month rate dropping to as low as 4.79 percent, the lowest market mortgage rate New Zealand has seen for at least 40 years. Borrowers continue to migrate to fixed rate mortgages. As is typically the case, borrowers are shifting into the cheapest part of the curve, which is currently six-

month to two-year fixed mortgage rates. The proportion of borrowers on fixed terms greater than two years is just 5.5 percent, compared to a peak of 33 percent in 2007. The average time until mortgage rates are re-priced has increased from 4.7 months (at its low in February 2012) to 6.7 months as at the end of January.

Figure 3.7  
Stock of outstanding mortgage debt



Source: RBNZ.

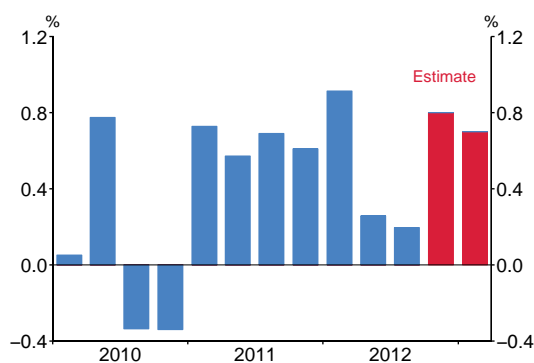
## 4 Current economic conditions

Economic activity in New Zealand appears to have strengthened following very modest growth in the middle of 2012 (figure 4.1). Domestic demand continues to improve, underpinned by continued acceleration in construction and a lift in household sector activity.

While survey indicators suggest that growth has become more broad based, pockets of weakness remain. The high New Zealand dollar remains a considerable drag on the tradable sector, dampening export receipts and encouraging substitution towards imported goods and services. In addition, dry conditions across New Zealand will weigh on agriculture production in the first half of the year. The labour market remains soft with the unemployment rate near its recessionary high.

Annual CPI inflation remains low at 0.9 percent in the December quarter 2012. Soft inflation in New Zealand trading partner economies, the high New Zealand dollar and a competitive demand environment contributed to very low rates of tradable inflation. In addition, with the economy still operating with some spare capacity, non-tradable inflation remains below average.

Figure 4.1  
GDP growth  
(quarterly, seasonally adjusted)



Source: Statistics New Zealand, RBNZ estimates.

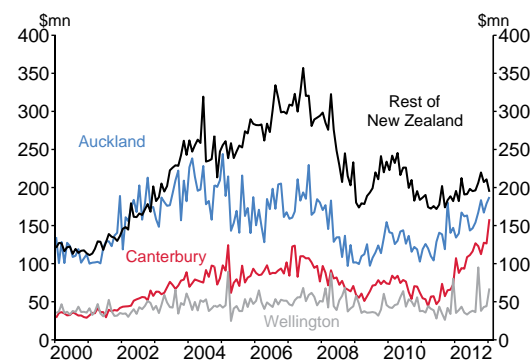
### Domestic demand

The New Zealand economy is estimated to have grown 1.4 percent in the six months to March 2013, after growing only 0.5 percent in the preceding six months. Stronger growth has been supported by a further acceleration in construction, stronger household spending and increased housing demand. Surveys of business activity, such

as the Quarterly Survey of Business Opinion (QSBO), Performance of Manufacturing Index and Performance of Services Index, have improved in recent months and indicate that the recent strengthening in growth is reasonably broad based across sectors.

A key driver of domestic growth through the middle of 2012 was accelerating construction activity. Continued strength in building consent issuance indicates that construction has remained a key driver of economic growth moving into 2013 (figure 4.2). To date, building activity has been driven by growth in Canterbury as earthquake-related repairs and reconstruction have begun to gather pace, and consent issuance points to further acceleration in the near term. An ongoing switch from lower value to higher value repairs and rebuilds should facilitate a continued increase in construction. Indeed, while the number of consents issued in Canterbury per month has been declining, the value of consents continues to lift strongly. In addition, residential consent issuance outside of Canterbury has been increasing modestly for the past year – suggesting that residential investment elsewhere in New Zealand is beginning to lift.

Figure 4.2  
Residential consent issuance  
(monthly, seasonally adjusted)



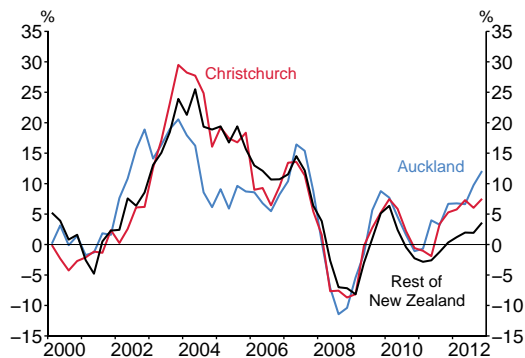
Source: Statistics New Zealand.

Housing turnover continues to gather momentum and house prices are now around 7 percent higher than a year ago. While the pick-up to date has been most pronounced in Auckland, strength in the housing market is becoming more widespread with house price inflation increasing throughout New Zealand (figure 4.3. opposite). Higher housing demand has been supported in part by an easing in credit conditions. As discussed in chapter 3, mortgage



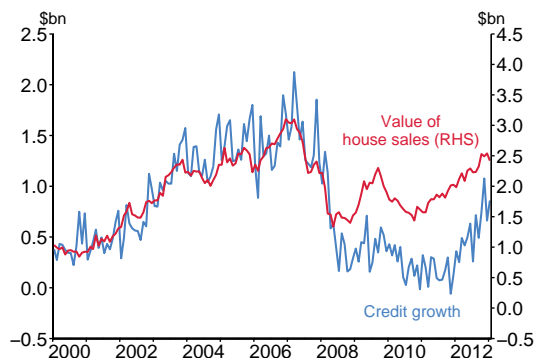
rates, which have been low for the past few years, have fallen further in recent months reflecting a decline in bank funding costs. In addition, it appears that loans with a high loan-to-value ratio have been increasing as a share of total new lending. Moreover, household caution towards debt may be waning, with housing credit growth picking up (figure 4.4).

**Figure 4.3**  
House price inflation  
(annual)



Source: REINZ, RBNZ estimates.

**Figure 4.4**  
Household credit growth and house sales  
(monthly)



Source: REINZ, RBNZ.

While housing demand is increasing, supply remains tight. The number of new listings is growing only slowly and the supply of new houses is limited given low levels of residential investment in recent years. As a result, total inventory on the market is low and the ratio of listings-to-house-sales – a measure of tightness in the housing market – is at levels last seen in 2007.

A soft labour market and a degree of debt consolidation have dampened household consumption spending over the past two years. However, household

spending picked up strongly in the final quarter of 2012 after being particularly weak in the middle of the year. An improvement in consumer confidence and continued lift in housing market activity have supported this pick-up in spending.

Strengthening economic activity has not yet passed through to a sustained improvement in the labour market. While the labour market remains soft, headline employment data from the Household Labour Force Survey (HLFS) appear to be overstating the weakness in the labour market (see box C, overleaf). Employment growth from the Quarterly Employment Survey (QES), which is a survey of businesses, has remained steady at around 2 percent – more consistent with measured and expected GDP growth at around the same level.

Stronger domestic demand and a stabilisation in global economic and financial conditions have seen business investment continue to increase from subdued levels. Headline indicators of business sentiment have improved and firms' investment intentions indicate moderate growth in investment continuing in the near term. This moderate growth is reflected in a sustained uptrend in capital imports and commercial vehicle registrations.

## External sector

Economic growth in New Zealand's trading partners slowed through most of 2012 but now appears to have stabilised (figure 4.5, p. 20). Accommodative monetary policy has been a key factor supporting activity in both advanced and developing economies. Growth in Australia and emerging Asia, which comprise the majority of our export basket, has continued at a faster pace than in other regions. While weakness in the United States and the euro area through 2012 weighed on demand for New Zealand's exports and those of our other trading partners, survey indicators of economic growth have begun to improve in most economies.

Conditions have improved in most of our trading partner economies in Asia. A moderate improvement in global activity since the middle of 2012 provided some support to exports. Industrial production growth in the region has also increased. Economic growth in China is

(continued on p. 20)

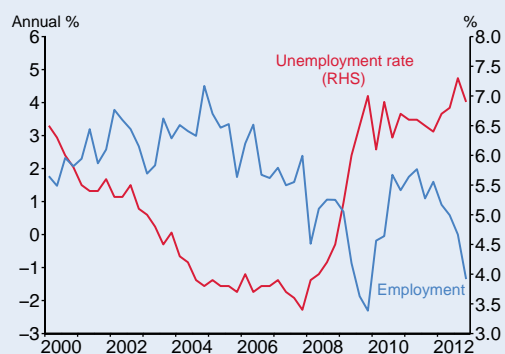
## Box C

### Understanding recent labour market developments

The Reserve Bank uses a range of data when assessing current conditions in the labour market. Occasionally labour market indicators diverge from each other, and using a range of data enables a more balanced assessment of the labour market to be made.

Recently, the HLFS has diverged from other labour market indicators and measures of capacity in the economy. The HLFS suggests that labour market conditions have deteriorated significantly over the past six months. The unemployment rate unexpectedly fell in the December quarter due to a sharp fall in the participation rate, while the number of people employed contracted at an annual rate last seen during the 2008/09 recession (figure C1).

Figure C1  
Employment growth, unemployment



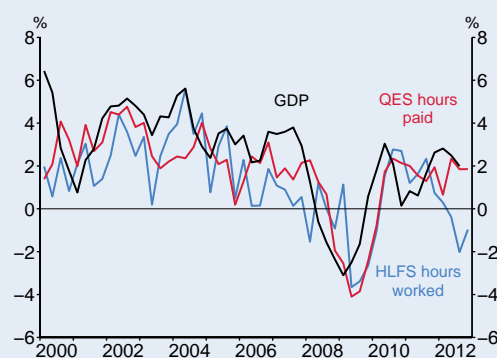
Source: Statistics New Zealand.

While unemployment remains high, it is likely that some of the recent developments in the HLFS are overstating the degree of weakness in the labour market, and that headline employment from the HLFS may not be as good an indicator of labour market activity as usual. Several other labour market indicators suggest that, while the labour market remains soft, it has not deteriorated recently. Unemployment beneficiary numbers have remained broadly steady, as have the number of firms reporting difficulty in finding staff.

The recent fall in HLFS employment was partly due to a fall in part-time employment, particularly among

those working only a small number of hours. So while employment fell substantially, hours worked remained flat for the quarter. Hours worked is a better measure of labour resource utilisation than headline employment figures. However, HLFS hours worked continues to diverge from the QES hours paid, suggesting that other factors are also contributing to the divergence between the two series (figure C2).

Figure C2  
Growth in hours and GDP  
(annual)



Source: Statistics New Zealand.

Some of the divergence between the HLFS and QES can be explained by differences in survey methodology and scope. The HLFS is a survey of households, while the QES is a survey of businesses. The HLFS includes those who are self-employed and those who are employed in the agricultural sector, while the QES does not.

Statistics New Zealand estimates an alternative measure of HLFS employment growth, accounting for the differences in scope between the QES and HLFS. The HLFS and QES showed similar rates of employment growth in the December 2012 quarter once these differences were accounted for. Self-employment and employment in the agricultural sector contributed significantly to the fall in HLFS employment in the December 2012 quarter. However, while these components are typically quite volatile on a quarterly basis, the magnitudes of these movements appear inconsistent with other indicators of economic activity.

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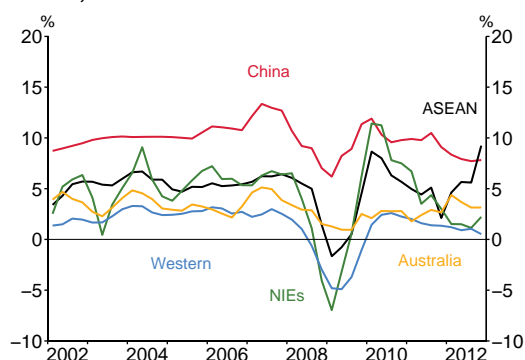
Important divergences also exist between the QES and HLFS at an industry level, particularly in rebuild-related industries such as construction. Industry-level comparisons between the two surveys should be treated with caution, as allocating HLFS respondents by industry can be problematic. But it appears that some of the divergence in construction industry employment between the two surveys can be explained by a compositional shift from self-employment to employment. Movements from self-employment to employment cause an increase in filled jobs in the QES, but leave HLFS employment unchanged. Nonetheless, movement from self-employment to employment does not explain all of the divergence for the construction industry.

A number of additional issues may be causing employment in Canterbury, according to the HLFS, to be understated. Statistics New Zealand acknowledges that a small deterioration in survey quality is likely to have occurred due to the Canterbury earthquakes and

subsequent delay of the Census. Changes in the size and demographic characteristics of the Canterbury population will mean that sampling errors for Canterbury have increased following the earthquakes. The HLFS sample will be revised following the 2013 Census, and demographic and regional information will be updated. This information will help Statistics New Zealand better understand recent changes to the population in Canterbury and will help to enhance the reliability of the survey.

Despite recent difficulties associated with the earthquakes, the HLFS continues to provide important information regarding labour market conditions, particularly for certain segments of the labour market. However, the HLFS appears to be overstating the degree of weakness in the labour market at present. According to a range of data, there has been modest growth in employment over the past year, consistent with realised and expected GDP growth.

Figure 4.5  
GDP growth in selected trading partners  
(annual)



Source: Havar Analytics.

Note: ASEAN includes Thailand, Malaysia, Indonesia and The Philippines. NIEs include South Korea, Taiwan, Hong Kong and Singapore. Western includes the United Kingdom, the United States, Canada and the euro area.

being supported by easy financing conditions, which have led to a pick-up in investment. An improvement in growth in China has provided support to other economies in the region.

In Australia, growth has softened over recent quarters. Investment in the resource sector continues to grow strongly, though the pace of growth appears to be slowing. Inflation remains contained, reflecting both subdued conditions in the non-mining sectors of the economy and the continued strength of the Australian dollar. Housing starts have increased in recent months, but residential investment remains relatively weak.

Growth in major developed economies remained weak towards the end of 2012. Activity in the euro area continues to contract at a moderate pace. GDP growth in the United States was unexpectedly weak in Q4, but this was predominantly due to one-off factors. Improvement in the United States housing market has continued into 2013, supporting economic activity, but uncertainty regarding the future pace of fiscal consolidation has dampened consumer and business confidence.

Despite recent improvements in economic indicators, as well as an improvement in financial market sentiment (as discussed in chapter 3), global activity still remains below trend and inflationary pressures in New Zealand's trading partners are generally low. This has dampened the prices of imported consumer and manufactured products, contributing to low rates of tradable inflation.

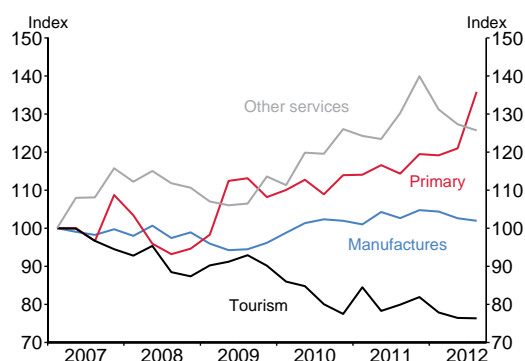
In contrast, prices of New Zealand's export commodities have continued to improve from recent lows in mid-2012. While these price increases will, in part, reflect improving global conditions (particularly in Asia), slower growth in global dairy supply and concerns about the impact that dry conditions in New Zealand will have on milk production have also been supporting dairy prices.

While global conditions have improved recently, they continue to drag on the New Zealand economy. The New Zealand economy has performed well relative to many major economies in recent years, including the euro area, the United Kingdom and Japan – despite the considerable degree of monetary stimulus in place in these economies. Though the New Zealand dollar also reflects a high terms of trade and recent improvements in market sentiment, the relative performance and outlook of the domestic economy have contributed to New Zealand interest rates being higher than in most trading partners and the New Zealand dollar remaining persistently elevated.

The high New Zealand dollar continues to dampen export receipts and has resulted in increased competitive pressures in the tradable sector more generally. Though global activity and trade volumes have been gradually increasing during the past couple of years, some components of export volumes remain particularly weak. Exports of travel services continue to decline with part of this weakness attributed to the impact of the New Zealand dollar eroding the spending power of tourists. Manufactured exports have grown very little in the past five years, although this will partly reflect the secular decline in manufacturing as a share of GDP. Nonetheless, business surveys indicate that sluggish growth in manufactured exports will continue in the near term at least. Growth in other services, such as transport and professional services, flattened off during 2012, after being boosted by the Rugby World Cup in late 2011, while primary export volumes have grown strongly over the past couple of years – largely reflecting favourable growing conditions (figure 4.6).

At the same time, the high New Zealand dollar has lowered the relative price of imports, encouraging substitution towards imported goods and services. This has contributed to the real import share of aggregate

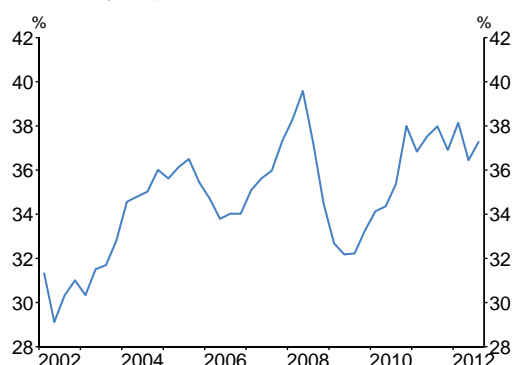
Figure 4.6  
Export volumes  
(seasonally adjusted, 2007Q1=100)



Source: Statistics New Zealand.

GDP trending up over the past decade (figure 4.7). The New Zealand dollar is negatively affecting import-competing firms, with domestic sales in the manufacturing sector remaining very low since the 2008/09 recession. Prolonged weakness in construction over this time accounts for a considerable degree of the current weakness. Continued acceleration in construction will support domestic manufacturing sales and survey indicators of manufacturers' domestic deliveries have increased in recent months.

Figure 4.7  
Real import share of GDP  
(seasonally adjusted)

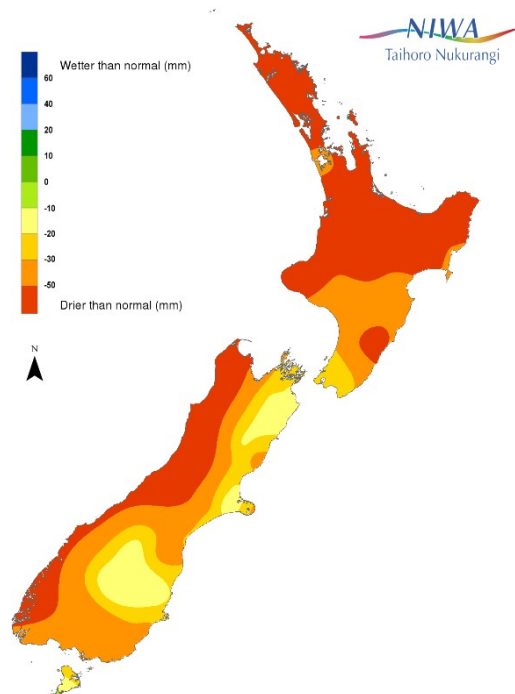


Source: Statistics New Zealand.

The New Zealand dollar has also had some positive effects, most notably boosting the purchasing power of consumers and businesses. The high New Zealand dollar has helped to lower inflation and reduce the domestic cost of imported materials and consumer goods. The strong New Zealand dollar has also meant that interest rates are lower than would otherwise have been the case.

In addition to the high New Zealand dollar affecting the traded goods sector, increasingly dry conditions across New Zealand (figure 4.8) are weighing on agricultural production. Dry conditions will result in weakness in milk production over the latter part of the dairy season. Animal slaughter will likely be stronger in the first half of 2013, but this will have negative implications for production further out. If dry conditions persist or intensify they could substantially reduce economic output more generally.

Figure 4.8  
Soil moisture anomaly  
(deviation from average 1981-2010)



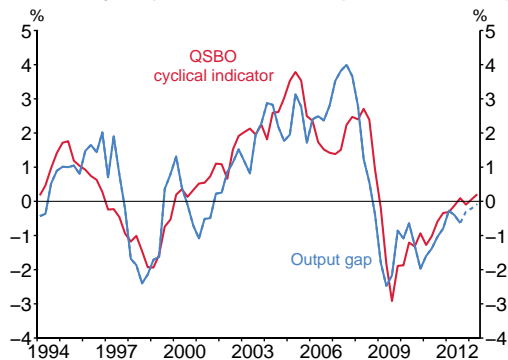
Source: NIWA.  
Note: Soil moisture anomaly at 9am 5 March 2013.

## Capacity pressures and inflation

The New Zealand economy is still operating with some spare capacity – a result of the modest pace of growth in recent years. However, spare capacity has been dissipating, in part due to slow growth in the supply potential of the economy. Low growth in the working age population (reflecting weak net migration), and subdued business investment, reducing the rate of capital formation, are both contributing to slow growth in the supply potential of the economy.

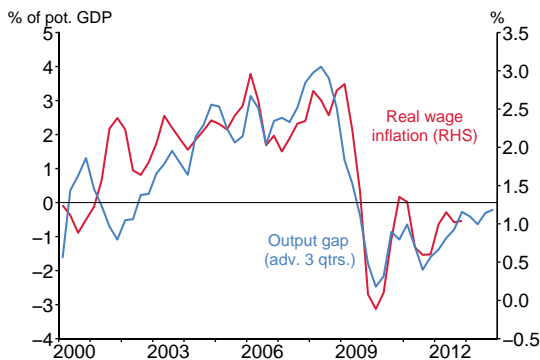
There is uncertainty about how much spare capacity remains, with the range of indicators providing somewhat different signals. The unemployment rate has remained high at 6.9 percent – which in isolation suggests considerable spare capacity remaining in the labour market and the economy more generally. However, various survey measures of capacity pressures, such as capacity utilisation and difficulty in finding skilled labour, have tightened in recent years to around long-run averages. Underlying this, capacity indicators suggest pressures in Canterbury are stronger, while they are around average elsewhere in New Zealand. Overall, survey measures point to a gradual tightening in capacity in recent years (figure 4.9). Consistent with this, real wage inflation, while still modest, has lifted over the past year (figure 4.10).

**Figure 4.9**  
Output gap and QSBO cyclical indicator  
(seasonally adjusted, share of potential GDP)



Source: NZIER, RBNZ estimates.  
Note: The QSBO cyclical indicator is a combination model of capacity indicators from the QSBO, fitted to cyclical movements in GDP up to 2007.

**Figure 4.10**  
Output gap and annual real wage inflation



Source: Statistics New Zealand, RBNZ estimates.  
Note: Real wage inflation is private sector unadjusted LCI wage inflation less 2-year ahead inflation expectations.

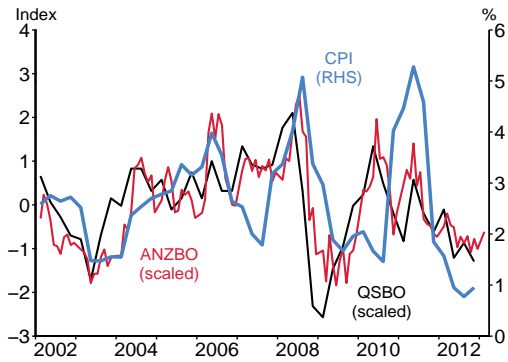
Consistent with spare capacity in the economy, annual non-tradable inflation is currently below average at 2.4 percent in the December quarter 2012. While non-tradable inflation is being dampened by continued declines in communications prices (see box A), most prices are evolving in line with some lift in cyclical pressures.

The high New Zealand dollar and subdued inflation in trading partner economies have contributed to continued declines in tradable prices, which fell by around 1 percent in 2012.

As a result of very weak tradable pressures and modest domestic inflationary pressures, annual CPI inflation remained at 0.9 percent in the December quarter 2012. Soft inflationary pressures, mostly related to tradable inflation, have persisted into 2013. Firms' pricing intentions remain at below average rates (figure 4.11) and measures of core inflation are in the lower part of the target band. Nonetheless, inflation expectations remain around 2 percent (figure 4.12).

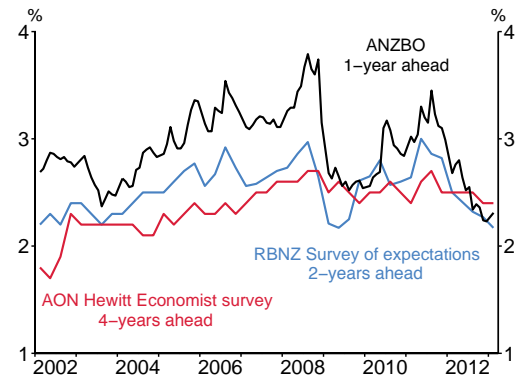
However, with activity lifting, the excess capacity that has dampened domestic inflation over the past year has been dissipating. Some pockets of pricing pressure are emerging – largely related to housing and construction costs. Rental costs continue to lift; increases have been particularly pronounced in Canterbury given on-going supply constraints but are also moderate in Auckland. Moreover, construction cost inflation is increasing, albeit from a low base, with price pressures centered in Canterbury to date.

Figure 4.11  
Firms' pricing intentions and annual CPI inflation



Source: ANZ Bank, NZIER, Statistics New Zealand.

Figure 4.12  
Inflation expectations  
(annual)



Source: AON Hewitt, ANZ Bank, RBNZ.

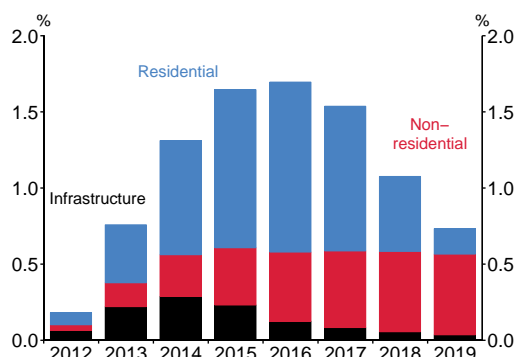
## 5 The macroeconomic outlook

The economy is projected to expand by 2 to 3 percent per annum over the next few years. Residential investment will rise strongly, supported by post-earthquake reconstruction and repairs, as well as a recovery in dwelling construction outside of Canterbury. Recent momentum in the housing market will also support growth, as will low interest rates. However, fiscal consolidation and a continued elevated exchange rate will act as headwinds for economic activity over the period. Overall, resource pressures are expected to build as the economy continues to recover. This will see inflation lift from currently subdued rates, to settle near the mid-point of the target range towards the end of the forecast horizon.

### Outlook

GDP is forecast to increase by 2 to 3 percent per annum over the projection, supported by a lift in investment spending. In particular, post-earthquake reconstruction and repairs will significantly boost both residential and non-residential investment (figure 5.1). As outlined in the December *Statement*, the cost of reconstruction activity is assumed to total \$30 billion (in 2011 dollars). As discussed in chapter 2, there remains considerable uncertainty around the cost and timing of the reconstruction process.

Figure 5.1  
Earthquake related investment and reconstruction  
(annual, share of potential GDP)



Source: RBNZ estimates.

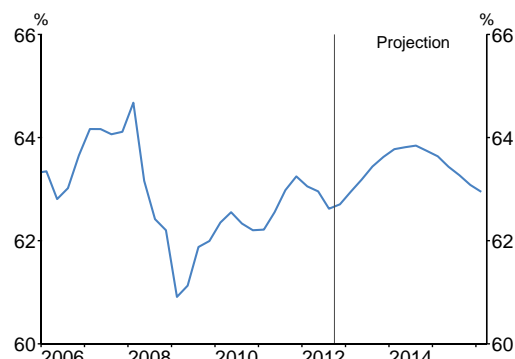
Residential investment more generally is also expected to increase from current subdued levels. House building will recover towards more normal levels, supported by continued low interest rates, rising house

prices and modest population growth. Combined with the boost provided from post-earthquake reconstruction and repairs, overall residential investment is projected to rise strongly in coming years.

In addition, recent momentum in the housing market is assumed to build further. Annual house price inflation is forecast to peak at 8.5 percent in 2014. From there, an increase in the housing stock and elevated household debt levels is assumed to restrain house price inflation.

As activity increases, a recovery in the labour market and an associated rise in labour incomes will support household consumption (figure 5.2). In addition, a strengthening housing market will boost the household sector. However, high debt levels and continued household caution are expected to contain the extent of pick-up in household consumption, with the rise in the household saving rate expected to be maintained.

Figure 5.2  
Private consumption  
(seasonally adjusted, share of potential GDP)



Source: Statistics New Zealand, RBNZ estimates.

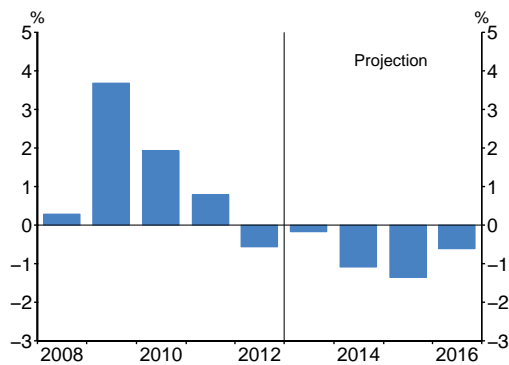
Household consumption will also be dampened by fiscal consolidation. The Government has reiterated its intention to return to fiscal surplus by 2014/15. Revenue will rise in line with a pick-up in domestic activity. Fiscal drag will also constrain household income growth over the period. In part, the deficit is also being closed through an increase in indirect tax rates. These taxes increase the price level and constrain growth in consumers' real disposable income. Increases in tobacco excise taxes add 0.2 percentage points to annual inflation each year in the projection, while the recent increase in petrol taxes and road user charges add around 0.1 percentage points.



The Government is also aiming to limit spending growth over the next few years, supported by a focus on improved state sector efficiency. The Government has also tightened the availability of social and student support packages, and reduced contributions to retirement savings schemes.

Overall, the Government's projected return to surplus represents a significant fiscal consolidation, which will dampen the momentum in demand over the next few years. The measures discussed above result in a structural fiscal tightening of around 3.2 percent of GDP over the next four years (figure 5.3).

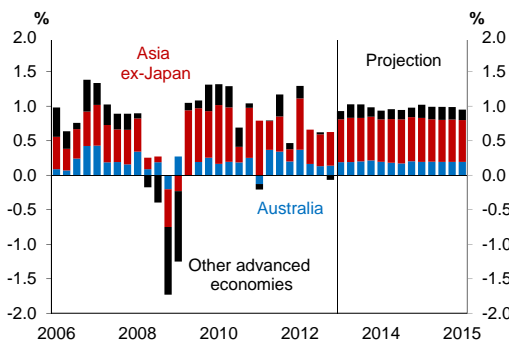
**Figure 5.3**  
Fiscal impulse  
(share of nominal GDP, June years)



Source: The Treasury.

Growth in New Zealand's trading partners is expected to be around average in 2013, before picking up later in the projection period (figure 5.4).

**Figure 5.4**  
Trading partner GDP growth  
(quarterly, seasonally adjusted)



Source: Haver Analytics, RBNZ estimates.

Note: Asia ex-Japan includes Hong Kong, Indonesia, Malaysia, Singapore, South Korea, Taiwan, Thailand and The Philippines. Other advanced economies include the United Kingdom, the United States, Canada, Japan and the euro area.

Growth in China is expected to increase modestly over 2013 as a relaxation in credit conditions supports domestic demand. Growth in the rest of Asia will pick up as growth in China and a gradual improvement in global activity provides support to the region's exports. Growth and inflation are expected to increase in Japan, but the degree to which this occurs will depend on the effectiveness of the easier monetary and fiscal policy stance adopted by the recently elected Government.

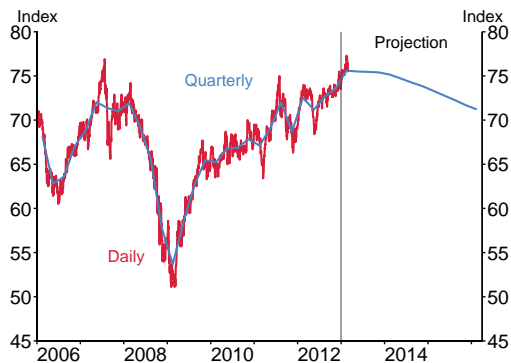
Australia is assumed to grow at a below average rate in 2013, as resource investment reaches its peak. There is a risk of growth weakening further in 2014 if resource investment declines more sharply than is currently expected and if other sources of spending fail to make up the difference. However, New Zealand's exports are likely to be more exposed to consumption and residential investment in Australia than resource investment. Interest rate cuts over the past 18 months should help to support growth in consumption and residential investment over the next few years.

The euro area and the United States face significant challenges to growth over the next few years. High public debt levels have resulted in the need for significant fiscal consolidation in many euro area countries and the United States. A deterioration in the euro area remains a risk, as highlighted by political uncertainty in Italy. Although the United States avoided a sharp legislated tightening in fiscal policy at the beginning of 2013, political circumstances continue to generate uncertainty about the degree of fiscal consolidation that will take place.

The soft outlook for Western economies and associated stimulatory global monetary policy are expected to result in the New Zealand dollar TWI remaining elevated (figure 5.5, overleaf). The TWI is assumed to moderate over the medium term towards long-run average levels, at a rate based on interest rate differentials.

A high exchange rate will dampen export earnings over the next few years. New Zealand's trade balance is also projected to deteriorate in coming years. While growth in export volumes will be supported by strength in primary exports and other services, exports of travel services will remain weak. In addition, imports will rise,

**Figure 5.5**  
New Zealand dollar TWI

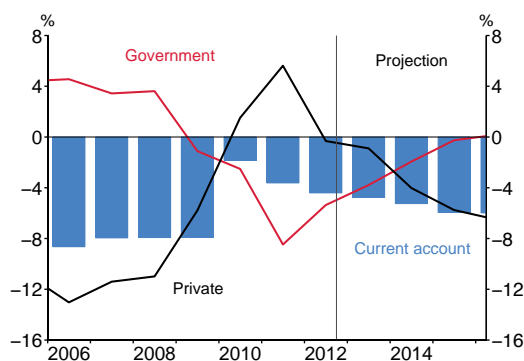


Source: RBNZ estimates.

supported by increases in investment spending and an elevated exchange rate.

The current account is projected to widen over the next few years (figure 5.6). Fiscal consolidation will see government saving increase, while the higher household savings rate is expected to be maintained. However, investment is projected to increase strongly, as rebuild activity continues to rise, underlying residential investment recovers and business investment continues to strengthen.

**Figure 5.6**  
Sectoral decomposition of current account  
(annual, share of nominal GDP)



Source: Statistics New Zealand, RBNZ estimates.

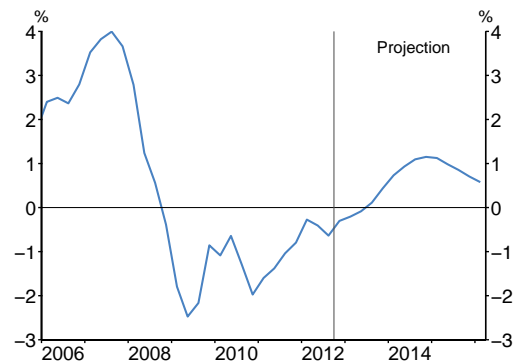
## Inflationary pressures

An elevated New Zealand dollar will continue to dampen tradable inflation. As a result, annual inflation is expected to remain around the lower part of the band over the coming year.

Further ahead, resource pressures are expected to accumulate (figure 5.7), in response to a rise in investment

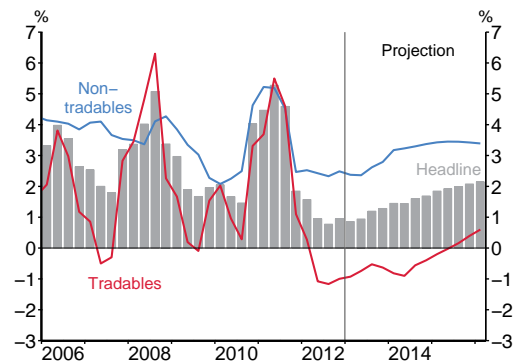
spending, strength in the housing market and low interest rates. As a result, domestic inflationary pressures will begin to build. This increase in domestic demand, coupled with increases in indirect taxes, offsets subdued tradable inflation, with annual CPI inflation expected to rise and settle near 2 percent in the latter part of the projection (figure 5.8).

**Figure 5.7**  
Output gap  
(share of potential output)



Source: RBNZ estimates.

**Figure 5.8**  
CPI, tradable and non-tradable inflation  
(annual)



Source: Statistics New Zealand, RBNZ estimates.

# 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 seasonally adjusted)

		<b>GDP Quarterly</b>	<b>CPI Quarterly</b>	<b>CPI Annual</b>	<b>TWI</b>	<b>90-day bank bill rate</b>
2005	Mar	1.0	0.4	2.8	69.6	6.9
	Jun	1.9	0.9	2.8	70.8	7.0
	Sep	0.4	1.1	3.4	69.7	7.0
	Dec	-0.3	0.7	3.2	71.5	7.5
2006	Mar	1.4	0.6	3.3	68.2	7.5
	Jun	0.7	1.5	4.0	62.8	7.5
	Sep	0.5	0.7	3.5	63.6	7.5
	Dec	1.0	-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	0.2	1.2	3.2	71.0	8.8
2008	Mar	-0.4	0.7	3.4	71.9	8.8
	Jun	-1.0	1.6	4.0	69.3	8.8
	Sep	-0.3	1.5	5.1	65.5	8.2
	Dec	-0.6	-0.5	3.4	57.8	6.3
2009	Mar	-1.1	0.3	3.0	53.7	3.7
	Jun	-0.4	0.6	1.9	58.4	2.9
	Sep	0.6	1.3	1.7	62.6	2.8
	Dec	1.6	-0.2	2.0	65.5	2.8
2010	Mar	0.1	0.4	2.0	65.3	2.7
	Jun	0.8	0.2	1.7	66.8	2.9
	Sep	-0.3	1.1	1.5	66.9	3.2
	Dec	-0.3	2.3	4.0	67.8	3.2
2011	Mar	0.7	0.8	4.5	67.1	3.0
	Jun	0.6	1.0	5.3	69.1	2.7
	Sep	0.7	0.4	4.6	72.0	2.8
	Dec	0.6	-0.3	1.8	68.7	2.7
2012	Mar	0.9	0.5	1.6	72.5	2.7
	Jun	0.3	0.3	1.0	71.2	2.6
	Sep	0.2	0.3	0.8	72.6	2.7
	Dec	0.8	-0.2	0.9	73.6	2.6
2013	Mar	0.6	0.4	0.9	75.6	2.7
	Jun	0.7	0.4	0.9	75.5	2.7
	Sep	0.8	0.5	1.2	75.5	2.7
	Dec	0.9	-0.1	1.3	75.4	2.7
2014	Mar	0.9	0.6	1.4	75.1	2.7
	Jun	0.8	0.4	1.4	74.7	2.8
	Sep	0.8	0.7	1.6	74.3	3.0
	Dec	0.7	0.0	1.7	73.8	3.2
2015	Mar	0.6	0.7	1.8	73.3	3.3
	Jun	0.5	0.5	1.9	72.8	3.5
	Sep	0.5	0.7	2.0	72.3	3.7
	Dec	0.4	0.1	2.1	71.7	3.8
2016	Mar	0.5	0.8	2.1	71.2	4.0

<sup>1</sup> Notes for these tables follow on pages 31 and 32.

Table B

## Measures and indicators of inflation and inflation expectations

	2011			2012			2013	
	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar
<b>Inflation (annual rates)</b>								
CPI	5.3	4.6	1.8	1.6	1.0	0.8	0.9	
CPI non-tradable	5.2	4.5	2.5	2.5	2.4	2.3	2.5	
CPI tradable	5.5	4.6	1.1	0.3	-1.1	-1.2	-1.0	
Sectoral factor model estimate of core inflation ex-GST	2.1	1.9	1.7	1.5	1.5	1.4	1.4	
CPI trimmed mean (of annual price change) ex-GST	3.1	2.6	2.1	1.7	1.2	1.1	1.0	
CPI weighted median (of annual price change) ex-GST	2.2	2.1	2.1	2.0	1.8	2.0	1.6	
GDP deflator (derived from expenditure data)	3.4	3.0	0.3	-0.3	2.5	-2.3	n/a	
PPI - Input prices	4.8	4.7	4.2	2.3	1.9	0.3	-0.5	
PPI - Output prices	4.5	3.5	3.4	1.6	0.5	-0.6	-0.8	
<b>Inflation expectations</b>								
RBNZ survey of expectations - Inflation one-year-ahead	3.1	2.9	2.7	2.2	2.0	2.0	1.8	1.7
RBNZ survey of expectations - Inflation two-years-ahead	3.0	2.9	2.8	2.5	2.4	2.3	2.3	2.2
ANZ Bank Business Outlook - Inflation one-year-ahead (quarterly average to date)	3.2	3.3	3.1	2.7	2.7	2.4	2.3	2.3
AON Hewitt Economist Survey - Inflation one-year-ahead	3.0	2.8	2.5	2.3	2.2	2.0	2.0	1.9
AON Hewitt Economist Survey - Inflation four-years-ahead	2.6	2.7	2.5	2.5	2.5	2.5	2.4	2.4
<b>Pricing and costs (net balances)</b>								
ANZ Bank Business Outlook - Pricing intentions, next 3 months (quarterly average to date)	29.5	23.0	18.1	20.4	17.9	16.9	15.5	18.2
QSBO Average selling prices, next three months (economy wide)	35.3	29.4	33.8	30.2	24.6	25.3	22.9	n/a
QSBO Average costs, past three months (economy wide)	31.0	22.0	17.0	23.0	10.0	14.0	9.0	n/a
<b>Asset prices (annual percentage changes)</b>								
Quarterly house price index (Quotable Value Limited)	0.4	2.4	2.9	3.5	4.2	4.6	n/a	n/a
REINZ Farm Price Index (quarterly average to date)	12.7	13.7	5.9	19.9	0.7	-4.4	6.0	-3.2
NZX 50 (end of quarter)	5.3	16.0	5.2	-1.0	2.0	-1.4	14.7	n/a

Table C

## Composition of real GDP growth

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

March year	Actuals									Projections			
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016		
Final consumption expenditure													
Private	4.7	2.8	3.5	-1.6	0.6	2.0	2.4	1.4	3.2	2.8	1.5		
Public authority	4.7	3.4	4.9	4.5	0.2	1.4	1.8	0.5	0.0	0.7	0.5		
Total	4.7	2.9	3.8	-0.3	0.5	1.9	2.3	1.2	2.5	2.3	1.3		
Gross fixed capital formation													
Market sector:													
Residential	-5.0	-2.1	1.8	-21.3	-9.1	1.8	-10.6	19.8	27.5	18.1	3.4		
Business	10.3	-3.4	10.4	-7.6	-13.1	5.7	7.0	6.2	7.8	7.5	2.8		
Non-market government sector	6.4	2.3	-10.7	27.8	-3.4	-14.8	-15.2	-2.1	8.0	4.1	4.1		
Total	6.5	-2.8	7.1	-8.1	-11.6	3.1	2.3	7.7	11.1	9.3	3.0		
Final domestic expenditure	5.1	1.5	4.6	-2.2	-2.3	2.1	2.3	2.6	4.4	4.0	1.7		
Stockbuilding <sup>1</sup>	-0.5	-1.1	1.1	-0.5	-1.2	1.2	0.7	-1.8	1.4	0.1	-0.0		
Gross national expenditure	4.8	0.2	5.9	-2.3	-3.1	2.9	3.6	1.0	5.0	4.1	1.7		
Exports of goods and services	-0.1	3.3	3.5	-2.7	5.0	2.7	2.5	1.3	0.9	2.2	2.6		
Imports of goods and services	4.4	-1.3	10.6	-4.0	-8.9	11.3	6.2	-1.1	7.2	5.0	1.5		
Expenditure on GDP	3.4	1.6	3.5	-1.8	1.5	0.2	2.3	1.9	2.8	3.2	2.1		
GDP (production)	3.4	2.9	2.9	-1.9	-0.5	1.5	1.9	2.1	2.9	3.2	2.1		
GDP (production, March qtr to March qtr)	3.4	3.5	1.3	-3.1	1.8	0.8	2.8	1.9	3.3	2.8	1.9		

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

Table D  
Summary of economic projections  
(annual percent change, unless specified otherwise)

March year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>Price measures</b>											
CPI	3.3	2.5	3.4	3.0	2.0	4.5	1.6	0.9	1.4	1.8	2.1
Labour costs	3.0	3.0	3.5	3.1	1.3	2.0	2.1	2.1	2.1	2.1	2.3
Export prices (in New Zealand dollars)	3.0	2.4	11.9	7.5	-8.3	8.0	-3.5	-4.2	2.6	2.8	3.2
Import prices (in New Zealand dollars)	7.3	0.7	0.4	17.3	-10.9	3.5	-1.6	-2.3	-0.1	2.6	4.2
<b>Monetary conditions</b>											
90-day rate (year average)	7.3	7.6	8.6	6.7	2.8	3.1	2.7	2.6	2.7	3.1	3.8
TWI (year average)	70.1	65.6	71.6	61.6	62.9	67.1	70.6	73.2	75.4	74.0	72.0
<b>Output</b>											
GDP (production, annual average % change)	3.4	2.9	2.9	-1.9	-0.5	1.5	1.9	2.1	2.9	3.2	2.1
Potential output (annual average % change)	3.1	2.6	2.1	1.7	1.1	1.2	1.4	1.6	2.1	2.4	2.4
Output gap (% of potential GDP, year average)	2.5	2.8	3.6	-0.1	-1.6	-1.4	-0.9	-0.4	0.3	1.1	0.8
<b>Labour market</b>											
Total employment (seasonally adjusted)	2.8	2.0	-0.3	0.7	-0.2	1.8	0.9	-0.5	3.1	2.1	0.9
Unemployment rate (March qtr, seasonally adjusted)	4.0	3.9	3.9	5.2	6.1	6.6	6.7	6.7	6.0	5.1	4.8
Trend labour productivity	1.2	1.1	0.9	0.7	0.7	0.8	0.9	1.0	1.0	0.9	0.9
<b>Key balances</b>											
Government operating balance (% of GDP, year to June)	4.4	3.4	3.1	-2.1	-3.3	-9.2	-4.1	-3.9	-1.2	-0.2	0.5
Current account balance (% of GDP)	-8.6	-8.0	-7.9	-7.9	-1.8	-3.6	-4.4	-4.8	-5.2	-5.9	-6.0
Terms of trade (SNA measure, annual average % change)	-1.1	-1.4	8.5	-2.0	-4.6	7.7	1.3	-4.5	3.7	0.5	-0.5
Household saving rate (% of disposable income)	-8.2	-7.1	-3.6	-4.1	-0.5	0.2	-0.1	-1.1	-0.3	0.5	1.2
<b>World economy</b>											
Trading partner GDP (annual average % change)	3.8	3.8	4.3	0.2	1.1	4.4	3.4	3.1	3.7	3.9	4.0
Trading partner CPI (TWI weighted, annual % change)	2.4	1.9	3.3	0.9	1.7	2.2	2.2	1.8	1.8	2.3	2.0

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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. System of National Accounts.
Export prices	Domestic currency export prices. System of National Accounts.
Terms of trade	Constructed using domestic currency export and import prices. System of National Accounts
Private consumption	System of National Accounts.
Public authority consumption	System of National Accounts.
Residential investment	RBNZ definition. Private sector and government market sector residential investment. System of National Accounts.
Business investment	RBNZ definition. Total investment less the sum of non-market investment and residential investment. System of National Accounts.
Non-market investment	RBNZ definition. The System of National Accounts annual nominal government non-market/market investment ratio is interpolated into quarterly data. This ratio is used to split quarterly expenditure GDP government investment into market and non-market components.
Final domestic expenditure	RBNZ definition. The sum of total consumption and total investment. System of National Accounts.
Stockbuilding	Percentage point contribution to the growth of GDP by stocks. System of National Accounts.
Gross Domestic Income	The real purchasing power of domestic income, taking into account changes in the terms of trade. System of National Accounts.
Gross national expenditure	Final domestic expenditure plus stocks. System of National Accounts.
Exports of goods and services	System of National Accounts.
Imports of goods and services	System of National Accounts.
GDP (production)	Gross Domestic Product. System of National Accounts.
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	Balance of Payments.
Total employment	Household Labour Force Survey.
Unemployment rate	Household Labour Force Survey.
Household saving rate	Household Income and Outlay Account.

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Government operating balance	Operating balance before gains and losses. Historical source: The Treasury. Adjusted by the Reserve Bank over the projection period.
Labour productivity	The series shown is the annual percentage change in a trend measure of labour productivity. Labour productivity is defined as GDP (production) divided by Household Labour Force Survey hours worked.
Labour costs	Private sector all salary and wage rates. Labour Cost Index.
Quarterly percent change	$(\text{Quarter}/\text{Quarter}_{-1} - 1) * 100$
Annual percent change	$(\text{Quarter}/\text{Quarter}_{-4} - 1) * 100$
Annual average percent change	$(\text{Year}/\text{Year}_{-1} - 1) * 100$

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

Barfoot & Thompson Ltd	Meat Industry Association
Council of Trade Unions	Motim Technologies
Debtworks (NZ) Ltd	Motor Trade Finance Ltd
Employers and Manufacturers Association (Northern)	New Zealand Exporters and Manufacturers Association
Export New Zealand	New Zealand Retail Association
Fletcher Building Ltd	New Zealand Transport Agency
Fulton Hogan	Paymark Ltd
Global Culture	Scott Technology Ltd
HamiltonJet New Zealand	Smith City
Hawkins Construction	Tait Communications Ltd
Mainfreight	The Warehouse Ltd
Ministry of Business, Innovation and Employment	

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## Appendix C

# 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 (OCR) announcements. 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.

Announcements are made at 9.00am on the day concerned and are posted to the website shortly after.

### 2013

24 April 2013*	OCR announcement
13 June 2013	<i>Monetary Policy Statement</i> and OCR announcement (Media conference and webcast)
25 July 2013	OCR announcement
12 September 2013	<i>Monetary Policy Statement</i> and OCR announcement (Media conference and webcast)
31 October 2013	OCR announcement
12 December 2013	<i>Monetary Policy Statement</i> and OCR announcement (Media conference and webcast)

### 2014

30 January 2014	OCR announcement
13 March 2014	<i>Monetary Policy Statement</i> and OCR announcement (Media conference and webcast)
24 April 2014	OCR announcement
12 June 2014	<i>Monetary Policy Statement</i> and OCR announcement (Media conference and webcast)

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\* Please note: this announcement will be held on a Wednesday, as Thursday 25 April is a public holiday.

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# Appendix D

## 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, including asset 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, with a focus on keeping future average inflation near the 2 per cent target midpoint.

### 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, have regard to the efficiency and soundness of the financial system, and 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



**Graeme Wheeler**

Governor Designate  
Reserve Bank of New  
Zealand

Dated at Wellington 20 September 2012