

# Monetary Policy Statement

March 2014<sup>1</sup>

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

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This document is also available on [www.rbnz.govt.nz](http://www.rbnz.govt.nz)

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<sup>1</sup> Projections finalised on 26 February 2014. Policy assessment finalised on 12 March 2014.

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# 1 Policy assessment

The Reserve Bank today increased the OCR by 25 basis points to 2.75 percent.

New Zealand's economic expansion has considerable momentum, and growth is becoming more broad-based. GDP is estimated to have grown by 3.3 percent in the year to March. Growth is gradually increasing in New Zealand's trading partners. However, improvements in major economies have required exceptional support from monetary policy. Global financial conditions continue to be very accommodating, with bond yields in most advanced countries low and equity markets performing strongly.

Prices for New Zealand's export commodities remain very high, and especially for dairy. Domestically, the extended period of low interest rates and continued strong growth in construction sector activity have supported recovery. A rapid increase in net immigration over the past 18 months has also boosted housing and consumer demand. Confidence is very high among consumers and businesses, and hiring and investment intentions continue to increase.

Growth in demand has been absorbing spare capacity, and inflationary pressures are becoming apparent, especially in the non-tradables sector. In the tradables sector, weak import price inflation and the high exchange rate have held down inflation. The high exchange rate remains a headwind to the tradables sector. The Bank does not believe the current level of the exchange rate is sustainable in the long run.

There has been some moderation in the housing market. Restrictions on high loan-to-value ratio mortgage lending are starting to ease pressure, and rising interest rates will have a further moderating influence. However, the increase in net immigration flows will remain an offsetting influence.

While headline inflation has been moderate, inflationary pressures are increasing and are expected to continue doing so over the next two years. In this environment it is important that inflation expectations remain contained. To achieve this it is necessary to raise interest rates towards a level at which they are no longer adding to demand. The Bank is commencing this adjustment today. The speed and extent to which the OCR will be raised will depend on economic data and our continuing assessment of emerging inflationary pressures.

By increasing the OCR as needed to keep future average inflation near the 2 percent target mid-point, the Bank is seeking to ensure that the economic expansion can be sustained.

Graeme Wheeler



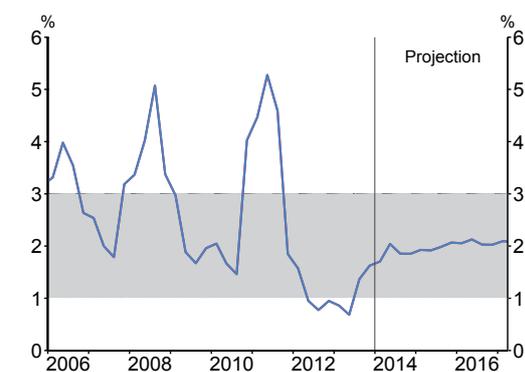
Governor

## 2 Key policy judgements

Economic growth has increased over the past 18 months and become increasingly broad-based. Spare capacity that developed initially during the 2008/09 recession has been absorbed. Inflation is rising, and momentum in demand growth will cause inflationary pressures to increase further over the medium term. Growth continues to strengthen in New Zealand's trading partner economies.

Monetary policy's goal in setting the Official Cash Rate (OCR) is to steer the annual rate of inflation towards 2 percent over the medium term (figure 2.1). Steering inflation towards the middle of the target band provides space to absorb unanticipated inflation developments. With the economy growing rapidly, CPI inflation at 1.6 percent in the year to December 2013 and inflationary pressures rising, the current degree of monetary stimulus is no longer necessary. Therefore the OCR is projected to increase.

Figure 2.1  
CPI inflation  
(annual)



How inflationary pressures develop, and consequently how far interest rates need to move, will depend importantly on how households and businesses respond to the economic environment. The extent of the pick-up in construction activity, how migration flows develop, how persistent the recent moderation in house price inflation is, and how households respond to rising interest rates after an extended period of very low rates,

will all substantially affect future inflation. The Bank's judgements on these factors are discussed below.

### The terms of trade

Reflecting strong prices and demand for New Zealand's commodity exports, the terms of trade are at a 40-year high. While dairy prices have received considerable focus, global prices for many other commodities are also at high levels. For dairy products in particular, global supply is expected to increase over coming years, while strong demand from emerging Asia is expected to continue. Given those forces, the projection makes a judgement that the terms of trade, while moderating, will remain elevated by historical standards. The strength in the terms of trade will continue to boost New Zealand incomes, spending power and demand growth over the medium term.

While demand growth in emerging economies is boosting commodity prices, there are still risks that could cause the terms of trade to deteriorate more markedly than projected. Weaker demand and weaker prices for New Zealand's exports could arise if financial disruption occurred in China following the rapid increase in debt over recent years. The withdrawal of monetary stimulus in the United States could also lead to greater volatility in emerging economies' financial markets than has been seen thus far. At the same time, there is a risk that high prices encourage global supply of dairy and other commodities to rise more than expected.

### The New Zealand dollar

New Zealand's relatively favourable outlook for growth, and expectations that inflationary pressures will rise more quickly here than in other economies have contributed to the New Zealand dollar remaining elevated. Strong demand for commodity exports and strength in commodity export prices have also played a part.

The New Zealand dollar Trade Weighted Index (TWI) is expected to moderate gradually over coming years. Nevertheless, the elevated level of the New Zealand dollar remains a headwind to the tradable sector and continues to keep tradables inflation low.

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## Construction and the Canterbury rebuild

Increases in construction activity will continue to provide a significant boost to demand over coming years. Nationwide construction spending is expected to rise as a share of GDP, to a level similar to that in the mid-2000s, and remain strong for several years. An important driver is reconstruction in Canterbury, which is expected to total about \$40 billion (in 2013 dollars). Construction activity elsewhere in New Zealand is also expected to increase over the projection, particularly in Auckland in response to a shortage of housing.

Strong construction activity is expected to underpin non-tradables inflation over coming years. The Bank's forecast includes a view that cost spill-overs from Canterbury reconstruction to other regions and industries will be limited. However, the risk of stronger cost spill-overs is increasing, with the labour market in Canterbury having tightened and capacity pressures increasing in other sectors.

## Net immigration

Net inward migration increased sharply over the past 18 months. The increase in population has boosted demand and inflation in the housing market, as well as wider consumer demand. While annual net immigration is expected to ease gradually, it will remain above average through the projection period.

A significant share of the increase in net immigration comes from a drop in departures of New Zealand citizens to Australia, in a period when New Zealand's unemployment rate has been decreasing and Australia's increasing. A judgement behind our projections is that migration flows will ease gradually, as economic conditions improve in Australia and other economies. Experience of past migration cycles does, however, remind us that turning points are hard to predict, and flows can reverse quickly.

## The housing market and household demand

House prices rose by nearly 9 percent in the year to the January 2014 quarter. There are signs that housing

market momentum may have eased in recent months, and house price inflation is forecast to moderate steadily over the projection. The projection takes a view that speed limits on high loan-to-value lending will contribute to a moderation in the housing market over 2014. Mortgage rate increases, combined with high household debt, are also expected to weigh on house price inflation, offsetting the boost to demand from high net immigration. Box B provides more-detailed discussion of how such forces are affecting the housing market.

Against a backdrop of high house price inflation, growing incomes and low interest rates, real household spending accelerated over the past year. Annual consumption growth is expected to remain near 3.5 percent over the next two years, supported by continued income growth. As consumption growth continues, the household saving rate is projected to fall over the second half of the projection. That said, the cycle in consumption and saving is expected to be modest compared with that in the mid-2000s, reflecting the view that household prudence and high debt will influence household decisions.

After an extended period of low interest rates and with household debt still high, there is perhaps more uncertainty than normal about how households will respond to rising interest rates. The Bank will monitor how spending and demand in the household sector develop over coming quarters.

## Inflation and monetary policy

Over the past 18 months growth in demand has absorbed spare capacity in the economy. Inflation has begun to increase and inflationary pressures are expected to increase further over the medium term. This is expected to be the case despite the increase in the growth rate of the economy's productive capacity. The Bank's estimate of potential GDP growth has been revised up following recent increases in net immigration and labour market participation, and upward revisions to business investment.

In setting the OCR, monetary policy aims to steer annual inflation towards 2 percent over the medium term. In the face of weak inflationary pressures following

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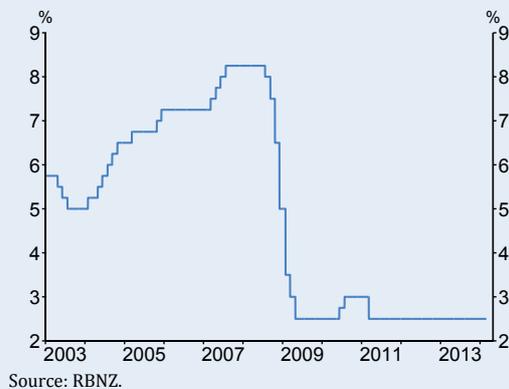
the 2008/09 recession, interest rates were low for an extended period, supporting the recovery. With inflation now rising and inflationary pressures building, there is a need to return interest rates to more-normal levels. Doing this will help to ensure that economic activity moves more in line with the potential growth of the economy, promoting a more-sustainable expansion.

The Bank's assessment is that the OCR will need to rise by about 2 percentage points over the next two years for inflation to settle around target. That assessment is conditional on the economic outlook, and will be re-assessed over time as new data are released and events unfold.

## Box A Recent monetary policy decisions

In recent years it has been appropriate to hold the OCR at the historically low level of 2.5 percent (figure A1). This reflected a balance between New Zealand's gradual recovery from the 2008/09 recession – with related weak inflation – and the likelihood that medium-term inflationary pressures would increase.

Figure A1  
Official cash rate



Low interest rates, combined with high export prices and strong domestic drivers of demand growth (such as construction activity) have supported a recovery in GDP in recent years. The economy has now been growing faster than potential growth for some time, with growth increasingly widespread and self-sustaining. As a result, spare capacity in the economy has been gradually absorbed.

While it was appropriate for interest rates to remain low as the recovery became established, strengthening demand has resulted in increases in inflationary pressures, particularly in the non-traded

sector. With signs of strong momentum in economic activity, inflationary pressures are expected to become more pronounced over the next two years (figure A2). As the outlook for economic output has strengthened over the past year, the Bank's projection for the 90-day interest rate has been gradually revised upward (figure A3).

Figure A2  
CPI inflation  
(annual)

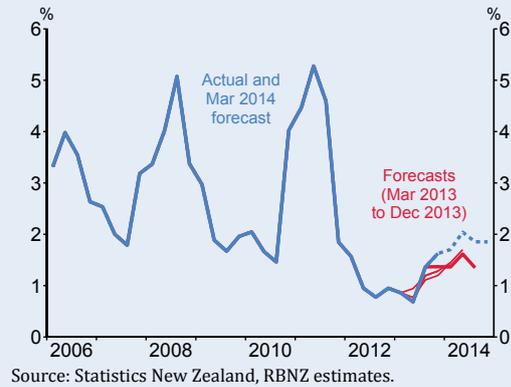
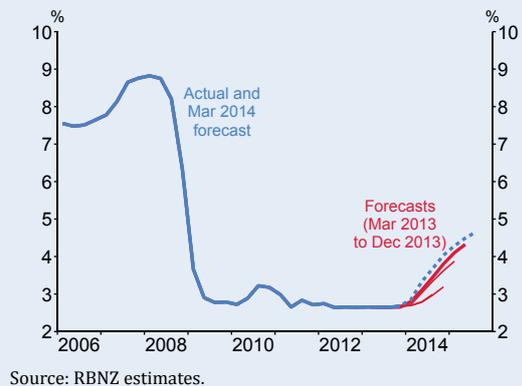


Figure A3  
90 day interest rate



### 3 Financial market developments

Financial market sentiment remains positive, with global equity market indices close to new highs. The United States Federal Reserve began its long-awaited move towards tapering asset purchases in December, but this has not led to higher bond rates. In fact, the United States' bond market has been well supported as economic growth indicators in that country have disappointed, keeping yields low.

In New Zealand, monetary policy expectations have not changed significantly, with the 2-year swap rate trading in a very narrow range since the December *Statement*. Following the January OCR review, the overnight indexed swaps (OIS) market moved to show a high probability of the Reserve Bank raising the OCR by 25 basis points at the March *Statement*, followed by a series of further increases during the following two years. At the time of writing about 110 basis points of OCR increases are priced in for calendar year 2014.

Marginal funding costs for local trading banks have fallen due to lower term deposit spreads to wholesale rates. Re-financing long-term debt has been relatively easy in the current global financial environment. Interest rates on fixed-rate mortgages are up slightly since the December *Statement*, a lagged response to the higher wholesale rates of November. Borrowers continue to gradually migrate from floating to fixed-rate mortgages.

The New Zealand dollar TWI has remained in a tight range since mid-September, between about 76 and 79.

#### International market developments

Global developed equity markets ended 2013 on a strong note, continuing the positive run seen through most of the year. Benchmark indices in the United States, Europe and Japan all reached new highs. The MSCI World Equity Index (developed markets) in United States dollar terms ended 2013 up 27 percent. Emerging market equities continued to significantly lag as investors pulled money out of those regions. The MSCI emerging market equity index was down 2 percent in United States dollar terms in 2013.

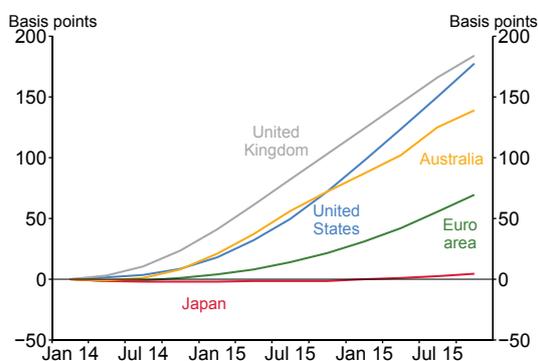
From early January 2014, investors became more risk averse. This reflected concerns about slowing growth and financial stability in China, a mixed corporate earnings season and softer economic data in the United States, and various idiosyncratic events in emerging market countries. Some key equity indices fell in the order of 6 to 7 percent, emerging market currencies depreciated and investors headed towards the safety of advanced-economy government bond markets. However, that period of risk aversion did not last long and equity markets bounced back to the levels of end-2013 (figure 3.1). At the time of writing, European equity market indices showed a marked decline, as political tensions escalated in Ukraine and reinforced flight-to-safety portfolio flows.

Figure 3.1  
MSCI World Equity Indices  
(United States dollar indices rebased to 1 January 2012 = 100)



Monetary policy remains a key focus for financial markets as the time to reduce policy stimulus in major economies draws closer. Of the major central banks, only the United States Federal Reserve has started that process while the others have made only modest tweaks in communication. Market expectations show that global short-term interest rates are expected to remain historically low through 2014, before a more convincing pick-up emerges in 2015 (figure 3.2, overleaf).

Figure 3.2  
3-month interest rate futures – change expected from March 2014 level



Source: Bloomberg.

The United States Federal Reserve took the first step back towards conventional monetary policy in December, reducing the pace of its asset purchases of Treasuries and agency bonds by USD 10 billion to USD 75 billion. At the end of January, this was reduced by a further USD 10 billion to USD 65 billion per month. Guidance by officials has been that asset purchases will continue to be reduced in measured steps, and it would take a significant change in economic outlook for the Federal Reserve to divert from that course.

Market reaction across the United States dollar, equity and bond markets has been limited due to markets anticipating the change in United States monetary policy. That likely reflects the clear guidance provided on the outlook for the Federal Funds Rate. New Federal Reserve Chair Janet Yellen promised continuity in monetary policy, clarifying the Federal Reserve's forward guidance that the policy rate is likely to remain low well past the time that the unemployment rate declines below 6.5 percent. Current Federal Funds futures pricing predicts the first rate hike will be in mid-2015, consistent with Federal Open Market Committee members' expectations.

Other major developed central banks have made little change to their monetary policy stance. In early March the European Central Bank (ECB) reiterated forward guidance that the key ECB policy rates would remain at present or lower levels for an extended period. The Bank of England believes that the degree of monetary

stimulus will need to remain exceptional for some time. The Bank of Japan continued with its stated policy aim of doubling the monetary base by the end of 2015 by buying government bonds (and other assets in much smaller volume) on the secondary market. The Reserve Bank of Australia believes that the most prudent course is likely to be a period of stability in interest rates.

Risk appetite for exposure to emerging markets deteriorated early this year, resulting in gross portfolio outflows. One data provider, EPFR Global, reported that in the six weeks to mid-February investors had withdrawn USD 30 billion from emerging market bond and equity funds, greater than total withdrawals for all of 2013. A number of factors were behind the sell-down, including increased concern about risk in China's shadow banking sector, concerns about declining global liquidity as the Federal Reserve continues to taper its asset purchases, and some idiosyncratic economic and political factors in a number of countries.

As emerging market currencies fell, the central banks of Brazil, South Africa, Turkey and India increased interest rates to stem the outflow of portfolio capital and reduce inflation risks. In a separate and more recent idiosyncratic event, Russia's central bank raised its policy rate by 150 basis points to 7 percent to stem the decline in the rouble as political tensions escalated in Ukraine.

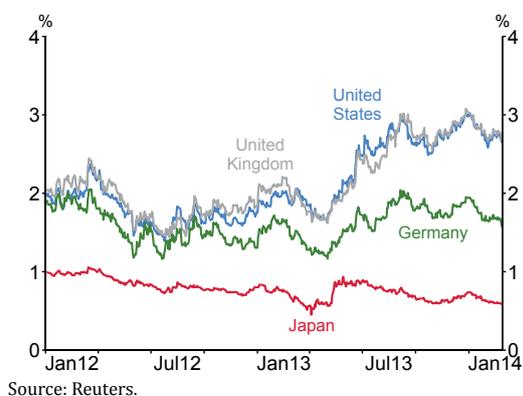
Market analysts believe that the People's Bank of China's (PBoC's) stance on monetary policy has changed. They believe that the PBoC's actions are behind a recent unusual depreciation of the Renminbi to introduce two-way risk into the currency before further liberalisation of its financial markets. To achieve this, the central bank looks to have bought foreign currency and thereby eased domestic liquidity pressures, resulting in a reduction in money market rates.

## Financing and credit

Through much of last year (and more so over the second half), the market was focused on the anticipated tapering of asset purchases by the United States Federal Reserve. At times, this led to increased volatility in bond yields alongside a significant 140 basis point increase in

the United States 10-year Treasury bond rate between May and September. However, by the time the Federal Reserve announced its tapering policy in mid-December the market was well prepared, so market reaction was limited. Since then, global bond markets have been well supported, with the current United States 10-year government bond rate of 2.7 percent slightly lower compared to the pre-taper level (figure 3.3).

Figure 3.3  
10-year government bond yields

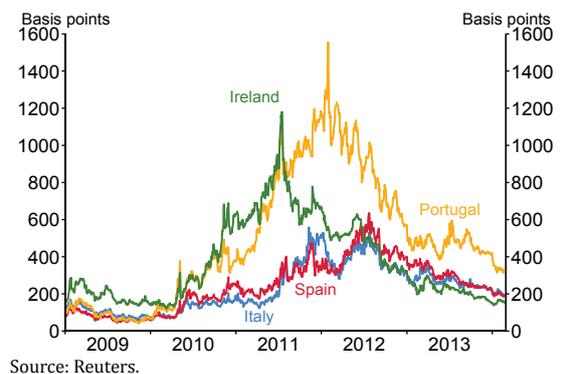


Global government bond yields in Europe followed a similar path, with bond markets well supported given policy rates remained close to zero. The largest movements have been in the peripheral countries that have received international bail-outs in recent years. Financial market fragmentation in the euro area appears to be receding, with lending and borrowing rates converging. Funding conditions for Europe's weakest banks are the best since the onset of the European debt crisis, despite the lack of progress towards an effective euro area banking union. These banks have seen strong demand for their debt at the lowest yields since the crisis.

At a country level, financially troubled nations such as Portugal and Ireland have successfully returned to the bond market, with investors keen to add these new issues to their portfolios. Portugal covered a third of its funding needs for 2014 in an issue earlier this year, while Ireland is already fully funded for 2014 and has begun to pre-fund for 2015. Spain saw extremely high demand of €40 billion for a new syndicated 10-year issue. Spreads

of these nations' 10-year bond yields to Germany's yields remain high but are down to about three-year lows (figure 3.4).

Figure 3.4  
10-year government bond spreads to Germany



Corporate credit spreads have continued to decline. The spread on Barclays Capital's global corporate bond index fell to 115 basis points in late February, the lowest level since the end of 2007.

Conditions have been more challenging in emerging markets, with the emerging markets to United States sovereign spread higher compared to the levels of one year ago (310 basis points vs 250 basis points), indicating that investors are shifting portfolio flows away from this region.

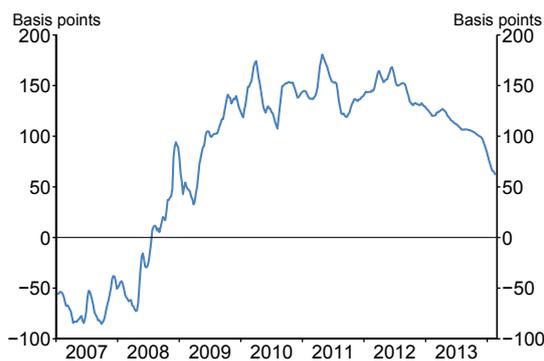
As with global markets, yields on Australian and New Zealand government bonds are lower than at the time of the December *Statement*. The NZ-US 10-year bond spread has fallen back down to about 180 basis points, after peaking at 215 basis points in October.

The issuance of New Zealand dollar-denominated debt by overseas entities (Kauris) has remained strong, with \$2.3 billion worth launched in the first two months of the year. This follows on from the more than \$5 billion of issues last year. Issuers are meeting the demands of investors who want exposure to the New Zealand dollar, a high credit rating and good relative yields. At the same time the issuers can diversify their funding base and swap that debt back into their home currencies at attractive rates for them.

Local bank funding costs continue to fall. This reflects strong deposit growth of around 10 percent over the past year, which is covering the funding needs for new credit, and favourable global funding conditions. The key driver of falling marginal funding costs is retail deposits. Retail deposits make up more than 50 percent of total bank funding. For banks, deposit flows have surprised to the upside over at least the past six months, so there is a lack of competitive pressure to seek this source of funding. Within retail deposits there has been a compositional change towards more on-call savings at the expense of term deposits. Savers are less inclined to lock in a term deposit when interest rates are expected to rise, and there has been some competitive pressure to offer attractive “bonus” rates for on-call savings accounts.

Despite rising wholesale rates as the market prices in tighter monetary policy (see later), the 6-month term deposit rate has remained steady for the last nine months. Thus, the term deposit spread to bank bills has fallen by 60 basis points over that period (figure 3.5).

Figure 3.5  
6-month term deposit spread to 6-month bank



Source: RBNZ.

That said, there have been recent signs that credit growth has now caught up with deposit growth. If recent trends continue, banks will need to look increasingly to offshore wholesale markets for new sources of funding.

## Foreign exchange market

The New Zealand dollar TWI has oscillated within a fairly tight range – about 76 to 79 – since September. Remarkably, since the December *Statement* there has been little point-to-point movement in the key cross rates we monitor. Investors have recognised the positives for New Zealand’s outlook in the forms of the high terms of trade and domestic growth momentum. The consequent expectation of rising interest rate differentials has been priced into the yield curve, as discussed overleaf, which is also reflected in the current level of the exchange rate.

Figure 3.6  
New Zealand dollar cross rates  
(indexed to 100 at 1 January 2012)



Source: Reuters.

Of the five currencies that make up the TWI basket the yen has been the strongest to date in 2014 (figure 3.6). This reverses the trend in 2013 when the yen weakened significantly and speculative accounts held significant short positions. These positions have been gradually unwound as the outlook for the USD-JPY currency has become more balanced.

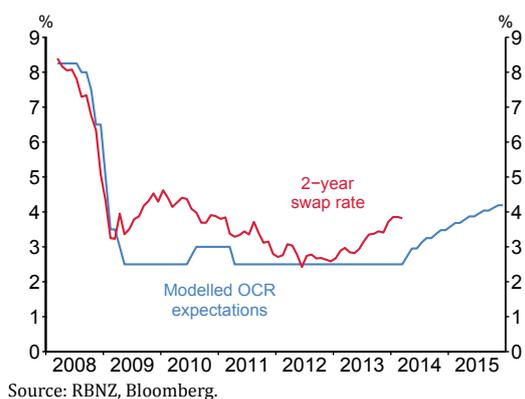
In January, the NZD-AUD cross rate traded close to 0.95, before retreating as views on the two currencies became more balanced, in contrast to the prevailing trend.

## Other domestic financial market developments

The NZX50 was up just over 5 percent in the first two months of the year, following the 16 percent gain in 2013. The positive domestic economic outlook and trends in global equities have been supporting factors.

The OIS market suggests that expectations of OCR increases through the next year or so have changed little since the December *Statement*. To be sure, leading up to the January review there was some variation in pricing for that meeting, but overall pricing has been relatively stable. This is reflected in the very narrow trading range of about 10 basis points for the 2-year swap rate since the December *Statement*. The OIS market shows some 24 basis points of OCR rate hikes have been priced in for the March *Statement*, a total of 63 basis points by June, and 110 basis points by the end of the year (figure 3.7). Swaps pricing is consistent with about 170 basis points of interest rate increases by the end of 2015.

Figure 3.7  
2-year swap rate, OCR and modelled market expectations of OCR



Market liaison suggests that offshore investors are more inclined than domestic investors to believe that too much monetary tightening is priced into the curve. In their view, a profitable strategy is to put on trades that would benefit from a reduced pace of tightening than is currently priced.

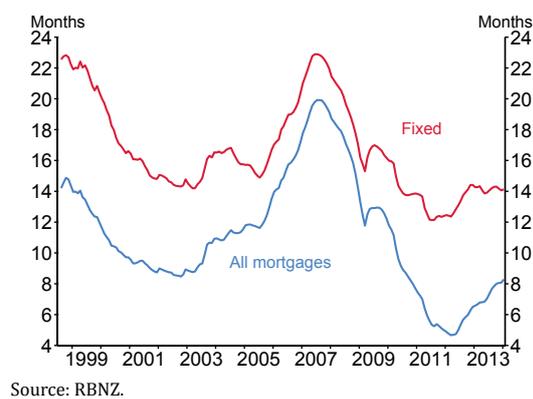
The yield curve has continued to flatten, as is typical leading up to a tightening cycle. Whereas the

2-year swap rate is flat relative to mid-December, the 10-year swap rate has fallen by about 15 basis points.

Reflecting higher wholesale rates up until the December *Statement*, fixed-term mortgage rates increased. Since then, mortgage rates have stabilised consistent with the stabilisation of short-term swap rates. Some banks have offered mortgage specials for 2- and 3-year fixed rates, as banks compete to attract borrowers looking to lock in current rates and move away from floating-rate mortgages.

The proportion of mortgages on fixed terms continues to grow. At the end of January, 40 percent of mortgages remained on floating rates, down from 53 percent a year earlier. The bulk of fixed-rate mortgages are at short durations, with the average time to re-price these sitting at 14 months (figure 3.8). Some 73 percent of mortgages are floating or at a fixed rate of less than one year. Over the past six months there has been an uptick in borrowers fixing for more than two years, but this still makes up a small proportion of the total.

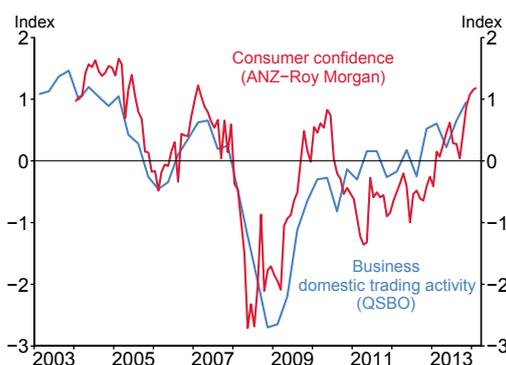
Figure 3.8  
Average time to re-price mortgage book



## 4 Current economic conditions

Real GDP in the March quarter 2014 is estimated to be 3.3 percent higher than a year earlier. With stronger demand growth, consumer and business sentiment have increased substantially (figure 4.1). The expansion in GDP over the past three years has steadily absorbed spare resources and inflationary pressures have started to build. Annual CPI inflation is estimated to be 1.7 percent in the March quarter.

**Figure 4.1**  
Consumer confidence and experienced own activity by businesses  
(standardised, seasonally adjusted)

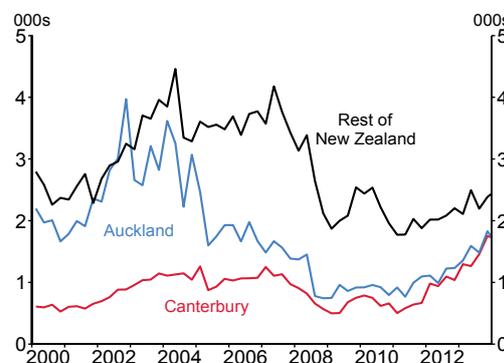


Source: NZIER, ANZ Roy Morgan, RBNZ estimates.

### Domestic demand

Construction has been a key driver of aggregate GDP growth. Post-earthquake reconstruction in Canterbury has contributed to strong increases in building work, with a significant further increase in both residential and non-residential building expected over the coming year. Residential construction has also continued to increase in Auckland, where there is a shortage of dwellings, and in other parts of the country. Dwelling construction outside Canterbury remains at a low level by historical standards (figure 4.2).

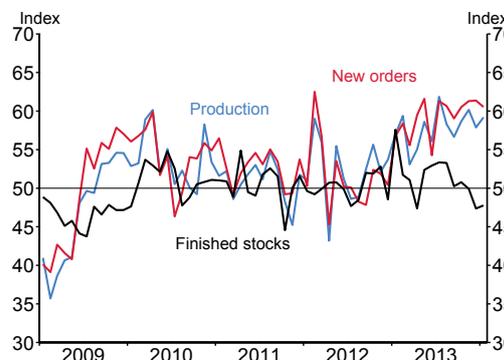
**Figure 4.2**  
New dwelling consent issuance  
(quarterly, seasonally adjusted)



Source: Statistics New Zealand.

Through the production of building materials, parts of New Zealand's manufacturing sector have a significant exposure to the construction sector.<sup>1</sup> Partly reflecting this, in 2013 the Performance of Manufacturing Index has moved firmly to levels that indicate expansion. Driving that increase are strong orders and production (figure 4.3), while the accumulation of stock is reportedly low. In addition to domestic demand for manufacturing goods, external demand for New Zealand's manufactured exports appears to have held up.

**Figure 4.3**  
Performance of Manufacturing Index  
(seasonally adjusted)

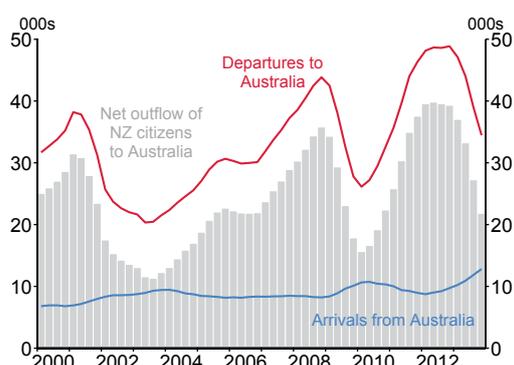


Source: BNZ-BusinessNZ.

<sup>1</sup> From Statistics New Zealand's input-output tables for 2007, a 1 percent expansion in construction output requires a 0.38 percent expansion in manufacturing activity. See Gael Price (2012), 'Building a picture of New Zealand manufacturing', AN 2012/11, Reserve Bank of New Zealand.

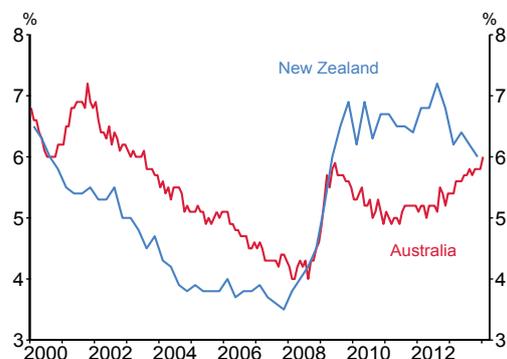
Strong net immigration is supporting domestic demand growth. Net permanent and long-term migration has increased from an annual net outflow of around 4,000 people in mid-2012 to a net inflow of around 26,000 people in January 2014. A large part of the increase comes from a drop in departures of New Zealand citizens to Australia (figure 4.4), as the labour market outlook in New Zealand continues to strengthen while that in Australia has softened (figure 4.5).

**Figure 4.4**  
Migration of New Zealand citizens with Australia, permanent and long-term  
(annual totals of quarterly data, seasonally adjusted)



Source: Statistics New Zealand.

**Figure 4.5**  
Unemployment rate in Australia and New Zealand  
(seasonally adjusted)



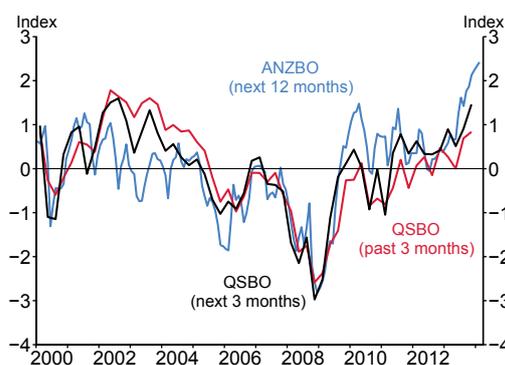
Source: Statistics New Zealand, Haver Analytics.

Housing shortages in Auckland and Canterbury, strong net immigration and low interest rates have resulted in high annual house price inflation. However, momentum in the housing market appears to have eased in recent months. Box B discusses this in more detail.

Real consumer spending is currently growing at about 3.5 percent in annual terms. Nominal spending outpaced income growth between March 2011 and March 2013, resulting in the household saving rate deteriorating by 1.6 percentage points and becoming negative. Reflecting the boost to incomes from the high terms of trade, saving is estimated to have improved in the year to March 2014.

Business conditions improved considerably through the second half of 2013. Increasing final demand has led to a pick-up in survey measures of profitability (figure 4.6) and placed growing pressure on productive resources. As a result, businesses have increased their demand for both labour and physical capital.

**Figure 4.6**  
Surveyed profits  
(standardised, seasonally adjusted)



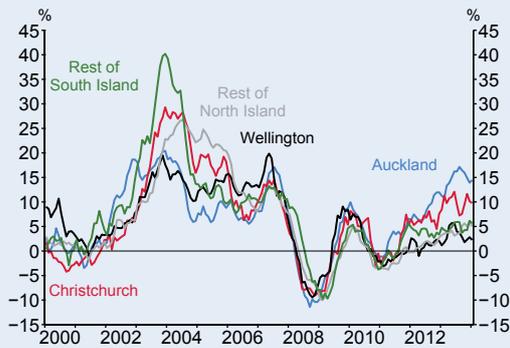
Source: NZIER, ANZ National Bank, RBNZ estimates.

Business investment strengthened through the middle of 2013, adding to growth in both domestic demand and imports. Labour demand has been growing, with filled jobs having increased by 1.9 percent and the number of people employed by 3 percent in the year to December 2013 (figure 4.7, p. 16.).

**Box B**  
**Recent developments in the housing market**

Growth in house prices increased rapidly over the past year, particularly in Auckland and Canterbury (figure B1). However, momentum in the housing market appears to have moderated in recent months due to the speed limit on high loan-to-value (LVR) lending and rising mortgage interest rates.

**Figure B1**  
**House price inflation by region**  
*(annual, three month moving average)*



Source: REINZ, RBNZ estimates.

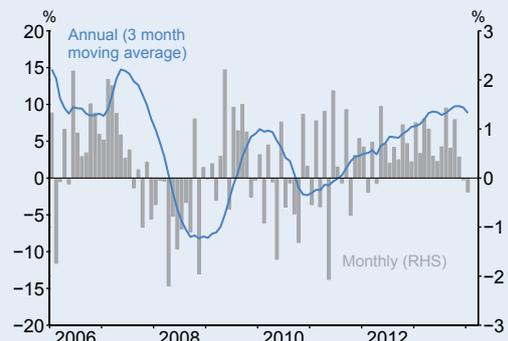
In January, house sales fell for the fourth consecutive month (figure B2). Since September, house sales have fallen 12 percent, with this decline reasonably broad-based across regions. The slowing in sales activity now also appears to be showing up in prices. In seasonally-adjusted terms, house prices were flat in the month of December and fell 0.3 percent in January (figure B3). Annual house price inflation has eased to 8.8 percent in January 2014 from 9.7 percent in October.

**Figure B2**  
**House sales**  
*(monthly, seasonally adjusted)*



Source: REINZ.

**Figure B3**  
**Nationwide house price inflation**  
*(annual)*

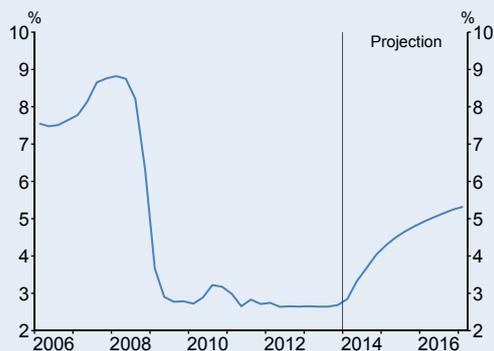


Source: REINZ.

Much of the easing in house price inflation is likely to be related to the impact of speed limits on high LVR lending that came into effect on 1 October 2013. Evidence to date is consistent with our December MPS projection that LVR restrictions would subtract between 1 and 4 percentage points from annual house price inflation over the first year of implementation. However, the recent weakness in housing market data suggests that the impact of the LVR policy may be more front-loaded.

Rising mortgage interest rates are also slowing the housing market. Mortgage interest rates have increased over the past six months and interest rates are expected to rise further over the projection horizon (figure B4).

Figure B4  
90-day interest rate

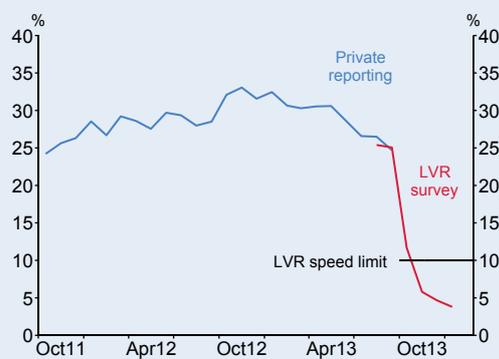


Source: RBNZ estimates.

It is too early to determine how persistent the slowing in housing market momentum will be. After declining to below 5 percent of new mortgage lending in January (figure B5), the proportion of high LVR lending

may increase over the coming year as banks adjust fully to the introduction of the LVR restrictions. There is also uncertainty about the extent to which the increase in net immigration over 2013 is currently supporting house prices.

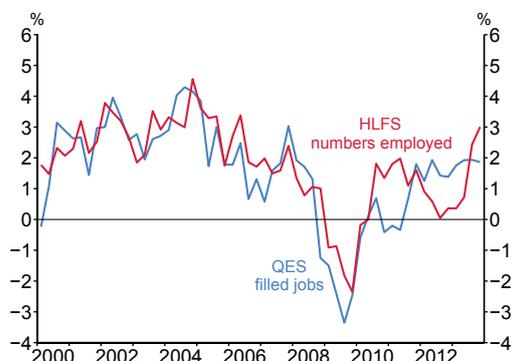
Figure B5  
Share of new residential mortgages at LVRs greater than 80 percent (monthly)



Source: RBNZ.

Note: LVR survey data are after exemptions.

Figure 4.7  
Persons employed and jobs filled  
(annual, seasonally adjusted)



Source: Statistics New Zealand.

Partly offsetting robust demand by businesses and households is continuing fiscal consolidation. Fiscal consolidation is occurring through a combination of limited growth in government spending and increases in taxes on tobacco and petrol.

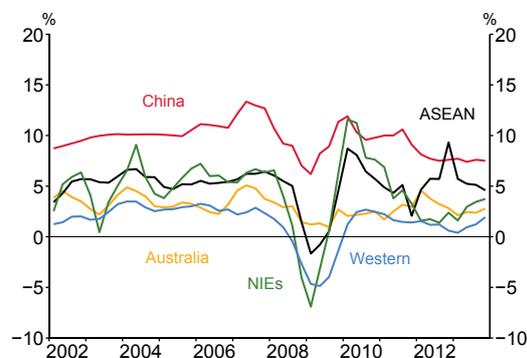
### External conditions

New Zealand's trading partners' GDP grew at a moderate pace over 2013 (figure 4.8). Growth in major advanced economies has improved, and is an important influence on activity in emerging markets. Spare capacity remains in trading partner economies, holding down global inflation and growth in New Zealand's import prices. Considerable monetary stimulus remains in place in major advanced economies.

Growth in the United States reached 2.5 percent in the year to December 2013. While fiscal consolidation has weighed on growth over the past few years, consumption has continued to rise steadily. Labour market conditions continue to gradually improve.

In the euro area, growth has increased to 0.5 percent in the year to December 2013, and the economy expanded in each of the last three quarters of 2013. Survey measures of business activity improved substantially over 2013, and suggest moderate growth at the beginning of 2014. Fiscal consolidation continues, albeit at a reduced pace.

Figure 4.8  
GDP growth in selected trading partner  
economies  
(annual)



Source: Haver Analytics.

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

Japan is currently growing at an annual rate of 2.7 percent, significantly higher than the average of the past decade. Domestic demand has expanded rapidly as a result of both fiscal and monetary stimulus over the past year.

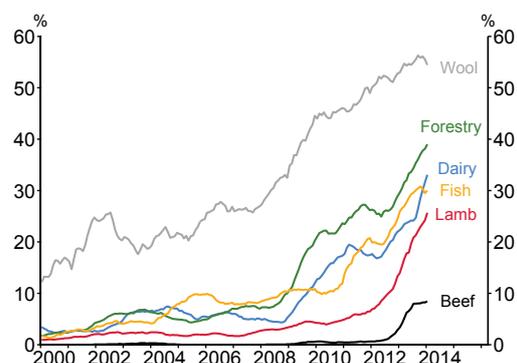
The Australian economy grew at a below-average pace of 2.8 percent over the year to December 2013, as resource investment declined. Lower interest rates appear to be supporting the housing market, and are beginning to support other sectors with stronger growth in retail sales and improvements in business confidence. The labour market has continued to soften, with employment growth slowing to zero on an annual basis. The unemployment rate has reached 6 percent, which is its highest level in over a decade.

In China, GDP grew 7.7 percent in the year to December 2013. Domestic demand appears to have slowed slightly towards the end of the year, as support from government infrastructure investment has begun to fade, and liquidity conditions have tightened. However, exports to large advanced economies have begun to increase, reflecting the continued recovery in those economies.

Overall, trading partner growth has seen demand for New Zealand's goods exports remain robust. Increasing rates of urbanisation and protein consumption in China are

supporting demand for many of New Zealand's commodity exports (figure 4.9).

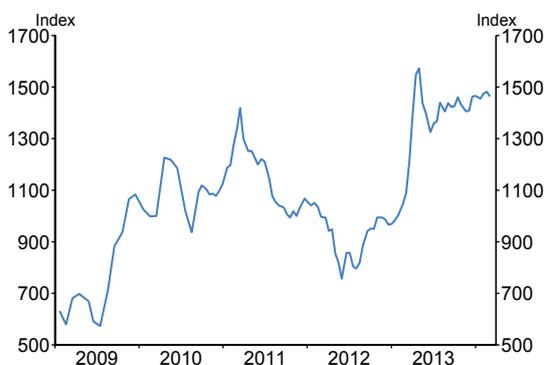
**Figure 4.9**  
Share of primary exports to China  
(annual total)



Source: Statistics New Zealand.

Consequently, global prices of New Zealand's commodities are extremely high, particularly for dairy. Dairy prices increased substantially in the first half of 2013 and remain at those high levels (figure 4.10). Following last summer's drought, milk production in New Zealand has been strong thus far in the 2013/14 season. High supplementary feed stocks should provide some support for milk production in the event that soil moisture conditions in the North Island deteriorate further over the remainder of the season.

**Figure 4.10**  
Global Dairy Trade price index

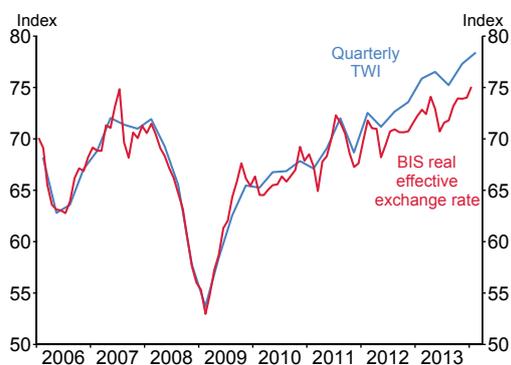


Source: GlobalDairyTrade.

There are signs of recovery in New Zealand tourism revenue. While Australian visitors still make up the majority of tourists into New Zealand, the number of visitors from China increased substantially in 2013. Visitors from Europe and the United States have also increased more recently.

The New Zealand dollar exchange rate remains high, including in real effective terms (that is adjusting for differences in inflation between countries) (figure 4.11). While strength in the exchange rate is being supported by strong demand for commodity exports, the high exchange rate remains a drag on incomes and competitiveness in the tradables sector. The high exchange rate is dampening the New Zealand price of imported goods, lowering tradables inflation and supporting demand by households and businesses for imported goods.

**Figure 4.11**  
New Zealand dollar exchange rates



Source: RBNZ, Bank for International Settlements.

Note: The BIS real effective exchange rate series is for the BIS's broad 61 country basket and is re-based to equal the TWI index value in January 2006.

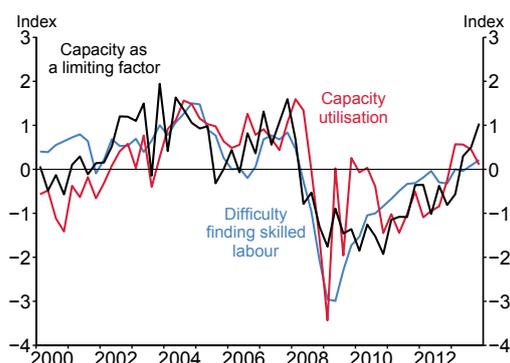
### Cyclical and inflationary pressures

Business surveys suggest capacity pressures are developing in relation to physical capital, and also to some degree in the labour market (figure 4.12, overleaf). While pressures in the labour market are strongest in Canterbury, surveys suggest that pressures in the labour market are also developing in the rest of the country.

Business surveys are pointing to tighter labour market conditions than some labour market data would suggest. While the unemployment rate has fallen to 6

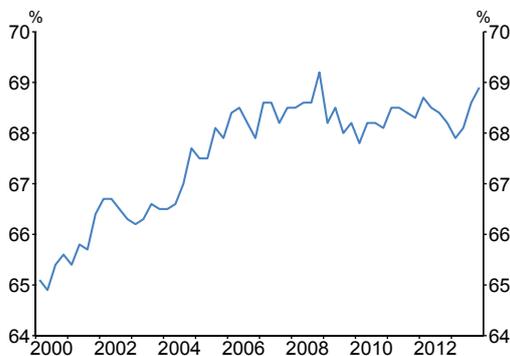
percent, increasing labour force participation (figure 4.13) is limiting the degree of the fall in the unemployment rate. Increasing rates of participation over 2013 are being encouraged by the cyclical improvement in the economy and employment growth.

**Figure 4.12**  
**Surveyed capacity measures**  
*(standardised, seasonally adjusted)*



Source: NZIER, RBNZ estimates.

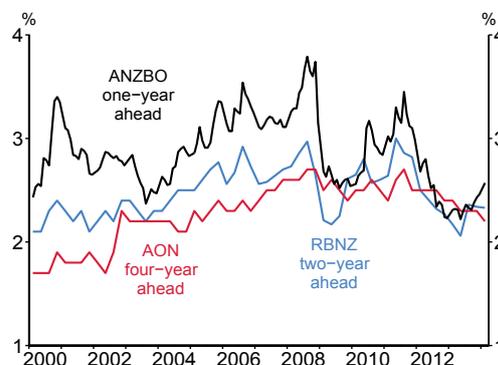
**Figure 4.13**  
**Labour force participation rate**



Source: Statistics New Zealand.

Nominal wage inflation has so far been subdued: the Labour Cost Index measure of private sector wages increased by just 1.7 percent in the year to December. In part, this reflects lingering unemployment, low headline inflation over the past year and the declines in inflation expectations in recent years (figure 4.14). Nevertheless, real wage inflation – wages adjusted for inflation expectations – is broadly consistent with the pick-up in economic growth and measures of labour market tightness.

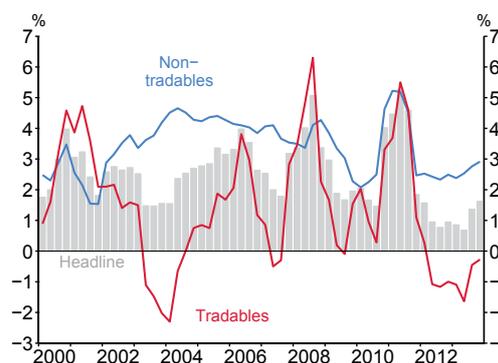
**Figure 4.14**  
**Inflation expectations**  
*(annual)*



Source: RBNZ, Aon Hewitt, ANZ National Bank.

CPI inflation increased to 1.6 percent in the year to December 2013, as the drag from low tradable inflation reduced, and pressures in the non-traded sector continued to accumulate (figure 4.15). While still negative, tradables inflation has increased over the past six months. The Bank will monitor whether firms' pricing behaviour in response to the high exchange rate is changing as domestic demand conditions strengthen.

**Figure 4.15**  
**CPI inflation**  
*(annual)*

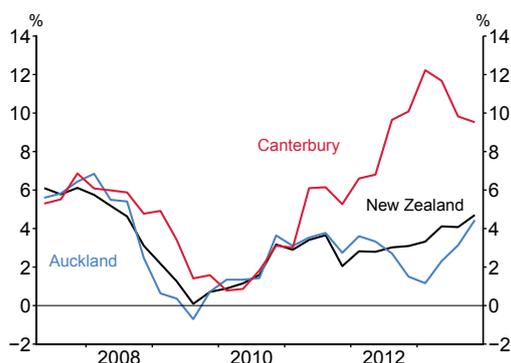


Source: Statistics New Zealand.

The absorption of spare capacity in the economy has contributed to non-tradables inflation increasing to about 3 percent. An important contributor to increasing non-tradables inflation has been the pick-up in construction cost inflation. Construction cost inflation in Canterbury has

moderated in recent months, but has been increasing in Auckland (figure 4.16). At 4.7 percent, construction cost inflation is at its historical average rate, and is currently evolving in line with aggregate capacity pressures in the economy.

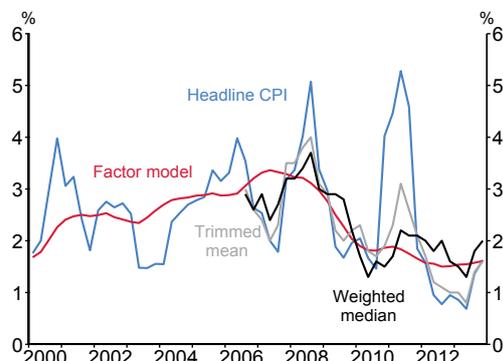
**Figure 4.16**  
Construction cost inflation  
(annual)



Source: Statistics New Zealand.

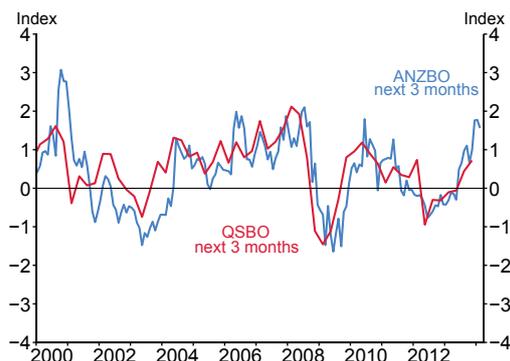
Measures of underlying inflation have picked up, indicating broader-based increases in inflationary pressures in the economy (figure 4.17). Surveyed pricing intentions have continued to pick up over the past two years (figure 4.18), indicating increasing domestic inflationary pressure.

**Figure 4.17**  
Headline and selected core inflation measures  
(annual)



Source: Statistics New Zealand, RBNZ estimates.

**Figure 4.18**  
Pricing intentions  
(standardised, seasonally adjusted)

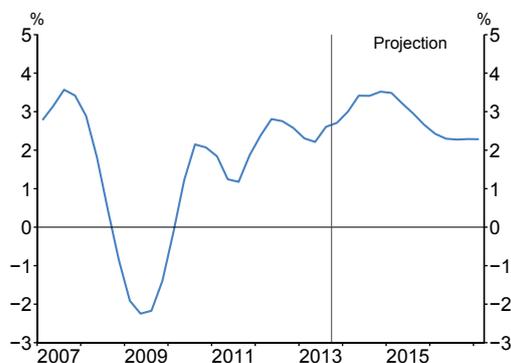


Source: NZIER, ANZ National Bank, RBNZ estimates.

## 5 The macroeconomic outlook

The New Zealand economy is expected to grow at an average annual pace of about 3.5 percent over the next year, with growth moderating thereafter (figure 5.1). Growing pressure on productive resources is expected to cause inflationary pressures to increase further. In that environment, interest rates are projected to rise to contain this increase such that CPI inflation settles near 2 percent over the medium term.

Figure 5.1  
GDP growth  
(annual average)

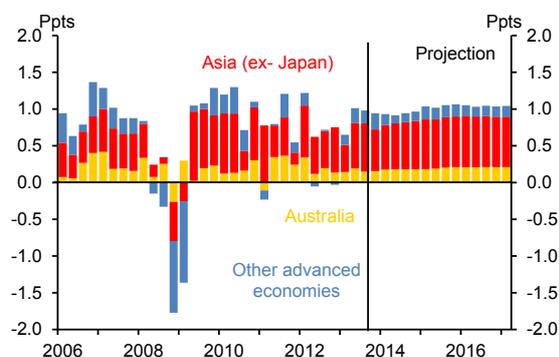


Source: Statistics New Zealand, RBNZ estimates.

### External demand

Economic growth in New Zealand's main trading partners is expected to continue recovering over the projection (figure 5.2). Highly accommodative monetary policy and slowing fiscal consolidation are expected to continue supporting growth in developed economies. Growth in the United States is expected to reach an annual pace of around 3 percent, as the housing market and labour market continue to recover. The euro area is also expected to continue to grow, but at a more modest annual pace of around 1 percent.

Figure 5.2  
Trading partner GDP growth  
(contributions to quarterly growth, seasonally adjusted)



Source: Haver Analytics, RBNZ estimates.

Note: Asia ex-Japan includes China, Hong Kong, India, 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 continue at an annual pace of about 7 percent, somewhat slower than in recent years. Similarly, many emerging and newly industrialised Asian economies are forecast to grow at a moderate pace by past standards. While the boost to demand from investment growth in China is likely to ease, its exports and those of many other Asian economies should continue to rise as major advanced economies recover.

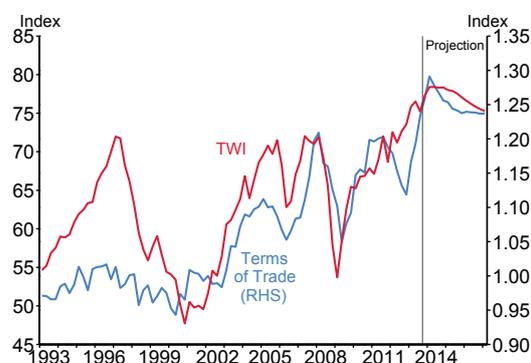
Economic growth in Australia is expected to remain below average in 2014 as investment in the resource sector declines from high levels. Low interest rates should continue to support the non-resource sectors of the economy, and resource exports are expected to increase rapidly in coming years. As a result, annual economic growth is expected to increase to around 3 percent in 2015.

Rising demand in New Zealand's trading partners, and particularly China, will result in continued growth in demand for New Zealand's exports over the projection. Export prices are expected to remain high relative to history, though ease by about 3 percent over the next year due to an assumed moderation in global dairy prices.

Substantial excess capacity in developed economies will be absorbed only gradually by growing demand, and low inflation in New Zealand's import prices should continue. Inflation in the US and euro area declined over 2013 and is expected to remain weak. In Australia and in Asian trading partners also, inflation is likely to remain low. Overall, CPI inflation in a group of New Zealand's major trading partners is expected to average below 2 percent over the forecast horizon. Combining the outlooks for import and export prices, the terms of trade are projected to ease by around 4 percent over the next year, and then settle at a level about 10 percent above the average of the past decade.

The New Zealand dollar is assumed to remain elevated over the projection, depreciating only gradually. The elevated New Zealand dollar partly reflects New Zealand's favourable growth outlook relative to our trading partners and the persistently high terms of trade (figure 5.3). Revisions to GDP data released in December showed that the terms of trade and net export volumes have both been higher over history than previously thought. Past external sector performance can now explain more of the exchange rate's high level than previously thought. Nonetheless, the high exchange rate is expected to remain a drag on economic output over the projection.

**Figure 5.3**  
SNA terms of trade and New Zealand dollar TWI

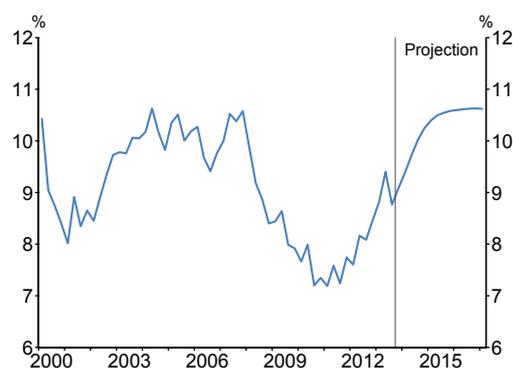


Source: Statistics New Zealand, RBNZ estimates.

## Domestic demand

Strong construction activity is expected to remain a key influence on economic conditions. Construction output is expected to increase as a share of the economy over the next year before stabilising at about 10.5 percent of potential GDP – a similar share as in the mid-2000s (figure 5.4). The profile of reconstruction work in Canterbury is expected to be prolonged, increasing further over the next year before flattening as a share of GDP for a few years thereafter.

**Figure 5.4**  
Construction expenditure  
(quarterly, seasonally adjusted, share of potential GDP)



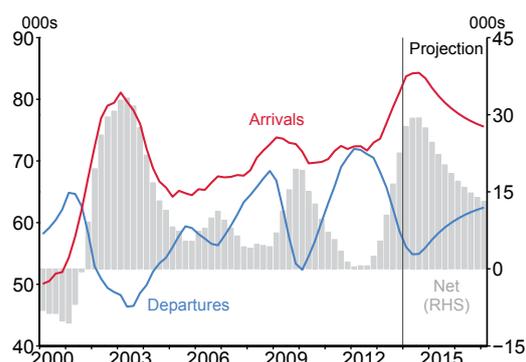
Source: Statistics New Zealand, RBNZ estimates.  
Note: Construction expenditure sums gross fixed capital formation of residential buildings, non-residential building and other construction (from quarterly expenditure GDP).

Residential investment outside Canterbury is expected to continue increasing gradually over the projection, and to be concentrated in Auckland where supply shortages are acute. The pace of building in Auckland will be supported by the Auckland Housing Accord, which fast-tracks the consent process in "Special Housing Areas" in Auckland.

Following the strong increases over the past 18 months, net immigration is expected to ease gradually over coming years (figure 5.5, overleaf), as economic conditions in other economies, particularly in Australia, improve. Though easing, net immigration will continue to add to demand over the projection, including for housing, and make some contribution to labour requirements for

the Canterbury rebuild. The increased supply of labour as a result of net immigration contributes to stronger potential growth in the economy.

**Figure 5.5**  
Working-age permanent and long-term migration  
(annual total)

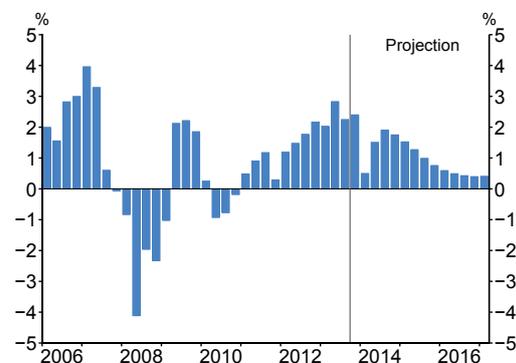


Source: Statistics New Zealand, RBNZ estimates.

Low mortgage interest rates and strong demand for housing, particularly in Auckland, are supporting house price inflation. However, several factors should cause house price inflation to moderate in coming years (figure 5.6). LVR restrictions are expected to dampen house price inflation over 2014. Rising interest rates, a projected easing in migration flows, and the increase in housing supply should reduce the imbalances in the housing market and moderate price pressures.

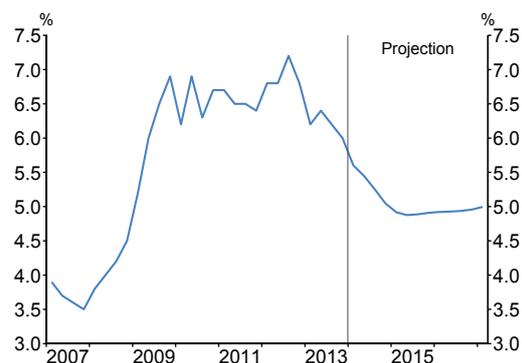
Strengthening economic activity will underpin continued growth in employment. The unemployment rate is projected to decline to around 5 percent in 2015 (figure 5.7). Underlying this projection is the assumption that labour force participation remains around its current high level.

**Figure 5.6**  
House price inflation  
(quarterly, seasonally adjusted)



Source: Property IQ, RBNZ estimates.

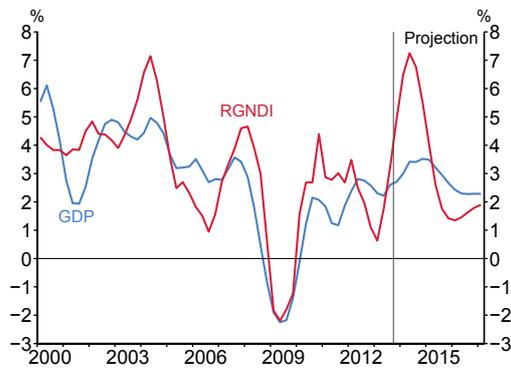
**Figure 5.7**  
Unemployment rate  
(seasonally adjusted)



Source: Statistics New Zealand, RBNZ estimates.

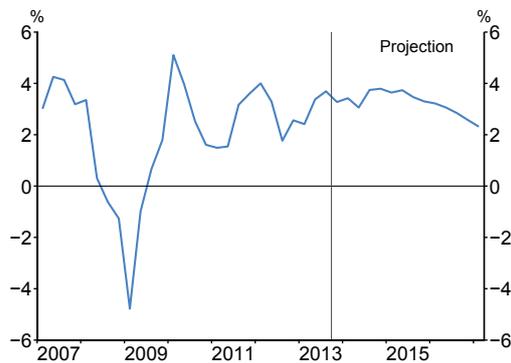
National income is boosted substantially by the high terms of trade over the projection (figure 5.8). Along with the recovery in the labour market, this supports moderate growth in labour incomes that contributes to real household consumption growing at about 3.5 percent per annum over the next two years (figure 5.9). Stimulatory interest rates and continued gains in real house prices support rising household spending, and low import price inflation increases households' purchasing power.

Figure 5.8  
GDP and real gross national disposable income growth (RGNDI)  
(annual average)



Source: Statistics New Zealand, RBNZ estimates.

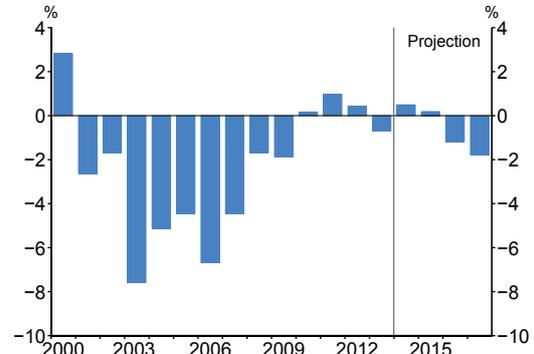
Figure 5.9  
Private consumption growth  
(annual)



Source: Statistics New Zealand, RBNZ estimates.

Consumption growth eases over the latter part of the projection as income growth moderates and interest rates rise, but does not fall to the same degree as income growth. The result is that households dissave, although the deterioration in their saving rate is expected to be much less than in the mid-2000s (figure 5.10).

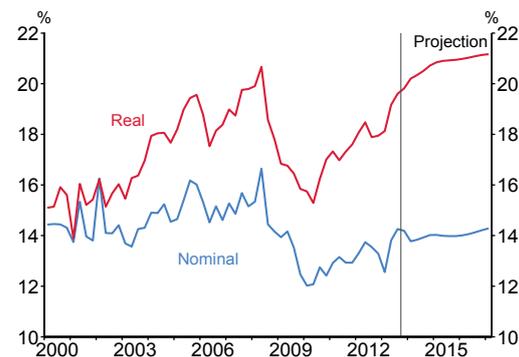
Figure 5.10  
Household saving rate  
(March years, share of disposable income)



Source: Statistics New Zealand, RBNZ estimates.

Business investment is expected to continue increasing in line with economic output over the projection (figure 5.11), in response to growing demand and pressure on productive resources. The high exchange rate and low prices for imported capital equipment over recent years have helped business investment to increase substantially as a share of real GDP, even as the upswing in nominal spending has been more gradual.

Figure 5.11  
Business investment  
(quarterly, seasonally adjusted, share of GDP)



Source: Statistics New Zealand, RBNZ estimates.

Consistent with the *Half Year Economic and Fiscal Update 2013*, continued fiscal consolidation is assumed to dampen gross national expenditure by 2.4 percent between 2014 and 2017. The projected operating surplus and subsequent reduction in debt are to be achieved through limited growth in new government expenditure and stronger growth in revenue – partly due to increases in indirect taxes that boost headline inflation.

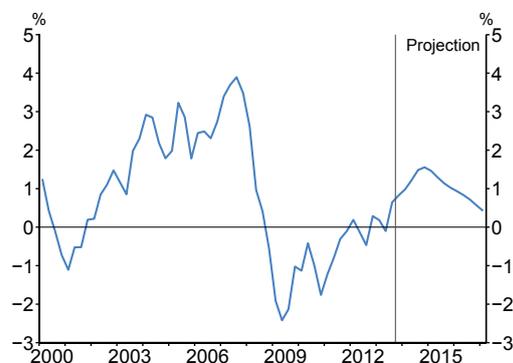
Economic output is further dampened over the projection by the elevated New Zealand dollar, which weighs on incomes and competitiveness in the tradables sector. Combined with growing household and business spending, the high exchange rate contributes to rising import penetration over the projection while export volumes remain flat as a share of the economy.

### Capacity pressures and inflation

While CPI inflation is currently below 2 percent, demand pressure suggests that inflation will increase. Strong demand growth over the coming years is expected to result in a tightening in the labour market and increasing pressure on physical capital. The output gap is projected to increase over the next year to around 1.5 percent of potential GDP (figure 5.12), resulting in building inflationary pressures. Those pressures are expected to be most pronounced in the construction sector. The output gap moderates over the second half of the projection, partly reflecting easing demand pressures associated with the declining terms of trade, net immigration flows and house price inflation.

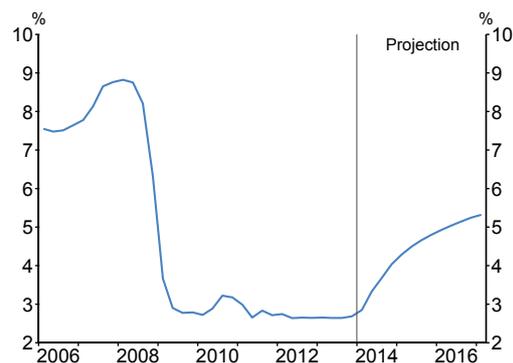
Within that forecast, the 90-day rate increases (figure 5.13) to offset inflationary pressures so that CPI inflation settles around 2 percent (figure 5.14). Underlying the headline inflation rate, non-tradables inflation increases to about 4 percent, reflecting the degree of domestic capacity pressure. Tradables inflation remains negative for much of the projection, due to the high New Zealand dollar and low imported inflation, but increases very gradually.

Figure 5.12  
Output gap  
(seasonally adjusted, share of potential GDP)



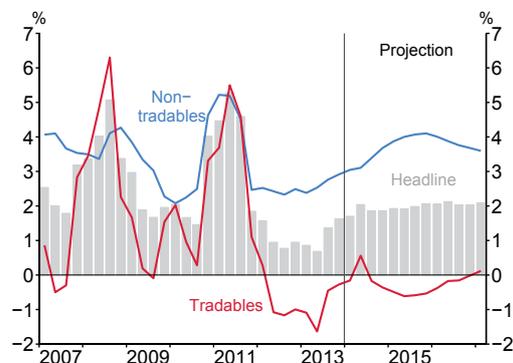
Source: RBNZ estimates.

Figure 5.13  
90-day interest rate



Source: RBNZ estimates.

Figure 5.14  
Annual CPI inflation and components



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)

		GDP Quarterly	CPI Quarterly	CPI Annual	TWI	90-day bank bill rate
2006	Mar	1.3	0.6	3.3	68.2	7.5
	Jun	0.7	1.5	4.0	62.8	7.5
	Sep	0.4	0.7	3.5	63.6	7.5
	Dec	1.0	-0.2	2.6	67.0	7.6
2007	Mar	1.2	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	0.1	1.2	3.2	71.0	8.8
2008	Mar	-0.4	0.7	3.4	71.9	8.8
	Jun	-1.2	1.6	4.0	69.3	8.8
	Sep	-0.2	1.5	5.1	65.5	8.2
	Dec	-0.6	-0.5	3.4	57.8	6.3
2009	Mar	-1.0	0.3	3.0	53.7	3.7
	Jun	-0.2	0.6	1.9	58.4	2.9
	Sep	0.6	1.3	1.7	62.6	2.8
	Dec	1.5	-0.2	2.0	65.5	2.8
2010	Mar	0.2	0.4	2.0	65.3	2.7
	Jun	1.0	0.2	1.7	66.8	2.9
	Sep	-0.3	1.1	1.5	66.9	3.2
	Dec	-0.5	2.3	4.0	67.8	3.2
2011	Mar	0.9	0.8	4.5	67.1	3.0
	Jun	0.8	1.0	5.3	69.1	2.7
	Sep	0.9	0.4	4.6	72.0	2.8
	Dec	0.7	-0.3	1.8	68.7	2.7
2012	Mar	0.9	0.5	1.6	72.5	2.7
	Jun	0.2	0.3	1.0	71.2	2.6
	Sep	0.2	0.3	0.8	72.6	2.7
	Dec	1.3	-0.2	0.9	73.6	2.6
2013	Mar	0.5	0.4	0.9	75.9	2.7
	Jun	0.3	0.2	0.7	76.5	2.6
	Sep	1.4	0.9	1.4	75.2	2.6
	Dec	0.8	0.1	1.6	77.3	2.7
2014	Mar	0.8	0.5	1.7	78.4	2.8
	Jun	0.9	0.5	2.0	78.4	3.3
	Sep	0.9	0.8	1.9	78.3	3.7
	Dec	0.7	0.1	1.9	78.3	4.0
2015	Mar	0.6	0.6	1.9	78.0	4.3
	Jun	0.5	0.5	1.9	77.9	4.5
	Sep	0.5	0.8	2.0	77.6	4.7
	Dec	0.6	0.2	2.1	77.1	4.8
2016	Mar	0.6	0.6	2.1	76.6	4.9
	Jun	0.6	0.6	2.1	76.2	5.0
	Sep	0.6	0.7	2.0	75.8	5.1
	Dec	0.5	0.2	2.0	75.5	5.2
2017	Mar	0.5	0.6	2.1	75.3	5.3

<sup>1</sup> Notes for these tables follow on pages 29 and 30.

Table B  
Measures of inflation, inflationary pressures and asset prices

	2012			2013			2014	
	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar
<b>Inflation (annual rates)</b>								
CPI	1.0	0.8	0.9	0.9	0.7	1.4	1.6	
CPI non-tradables	2.4	2.3	2.5	2.4	2.5	2.8	2.9	
CPI tradables	-1.1	-1.2	-1.0	-1.1	-1.6	-0.5	-0.3	
Sectoral factor model estimate of core inflation	1.6	1.5	1.5	1.5	1.5	1.6	1.6	
CPI trimmed mean (of annual price change)	1.2	1.1	1.0	1.0	0.8	1.4	1.6	
CPI weighted median (of annual price change)	1.8	2.0	1.6	1.5	1.3	1.8	2.0	
GDP deflator (derived from expenditure data)	1.3	-1.2	-2.3	0.3	0.1	3.1		
PPI - Input prices	1.9	0.3	-0.5	0.0	0.0	3.3	2.8	
PPI - Output prices	0.5	-0.6	-0.8	0.1	0.8	4.1	3.8	
<b>Inflation expectations</b>								
RBNZ survey of expectations - inflation one-year-ahead	2.0	2.0	1.8	1.7	1.5	1.9	1.9	2.0
RBNZ survey of expectations - inflation two-years-ahead	2.4	2.3	2.3	2.2	2.1	2.4	2.3	2.3
ANZ Bank Business Outlook - inflation one-year-ahead (quarterly average to date)	2.7	2.6	2.4	2.2	2.3	2.3	2.3	2.4
AON Hewitt Economist Survey - inflation one-year-ahead	2.2	2.0	2.0	1.9	1.8	2.0	2.0	
AON Hewitt Economist Survey - inflation four-years-ahead	2.5	2.5	2.4	2.4	2.3	2.3	2.3	
<b>Pricing and costs (net balances)</b>								
ANZ Bank Business Outlook - Pricing intentions, next 3 months (quarterly average to date)	20.0	17.2	16.0	16.0	20.3	25.2	26.9	27.9
QSBO Average selling prices, next three months (economy wide)	9.9	13.2	8.7	10.6	22.3	24.0	23.3	
QSBO Average costs, past three months (economy wide)	24.0	24.8	20.9	16.1	25.6	21.8	22.2	
<b>Asset prices (annual percentage changes)</b>								
Quarterly House Price Index (Quotable Value Limited)	4.2	4.8	6.8	7.7	9.1	9.6		
REINZ Farm Price Index (quarterly average to date)	-1.6	-1.6	3.8	-6.5	-1.8	10.8	4.4	
NZX 50 (quarterly average to date)	-0.3	8.4	21.0	26.9	28.9	26.7	20.6	15.7

Table C

## Composition of real GDP growth

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

March year	Actuals										Projections					
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017					
Final consumption expenditure																
Private	2.3	3.7	-1.6	1.6	2.4	3.1	2.5	3.4	3.6	3.4	2.7					
Public authority	3.6	4.8	4.5	-0.0	2.0	0.2	-0.6	1.4	0.5	0.6	0.5					
Total	2.6	4.0	-0.3	1.2	2.3	2.4	1.8	3.0	2.9	2.8	2.3					
Gross fixed capital formation																
Residential	-2.1	1.8	-21.3	-8.6	0.3	-0.5	19.2	16.1	19.0	9.7	2.9					
Other	-2.9	8.8	-4.6	-9.7	2.1	5.2	5.0	11.3	8.1	4.2	3.2					
Total	-2.7	7.4	-7.8	-9.5	1.8	4.3	7.2	12.1	10.0	5.2	3.1					
Final domestic expenditure	1.2	4.8	-2.2	-1.3	2.2	2.8	3.0	5.1	4.6	3.5	2.5					
Stockbuilding <sup>1</sup>	-1.1	1.1	-0.5	-1.1	1.1	0.5	-0.4	0.1	0.1	0.1	-0.0					
Gross national expenditure	0.1	6.0	-2.4	-2.2	3.4	3.7	2.1	5.5	4.7	3.5	2.5					
Exports of goods and services	3.8	3.7	-2.7	4.0	2.9	2.8	2.6	0.0	2.6	2.4	3.0					
Imports of goods and services	-1.6	10.8	-4.0	-8.9	11.4	6.6	1.2	7.7	6.3	5.3	3.3					
Expenditure on GDP	1.8	3.5	-1.9	2.2	0.7	2.3	2.6	2.8	3.5	2.4	2.3					
GDP (production)	2.8	2.9	-1.9	-0.1	1.8	2.4	2.3	3.0	3.5	2.4	2.3					
GDP (production, March qtr to March qtr)	3.4	1.3	-3.0	2.1	1.2	3.2	2.1	3.3	3.2	2.2	2.2					

<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	Actuals										Projections		
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		
<b>Price measures</b>													
CPI	2.5	3.4	3.0	2.0	4.5	1.6	0.9	1.7	1.9	2.1	2.1		
Labour costs	3.0	3.5	3.1	1.3	2.0	2.1	1.8	1.8	2.1	2.3	2.3		
Export prices (in New Zealand dollars)	2.3	11.5	7.2	-7.5	7.9	-3.2	-5.3	7.9	-2.7	1.0	2.5		
Import prices (in New Zealand dollars)	0.6	0.1	17.6	-11.2	3.5	-1.8	-4.3	-2.6	0.3	2.2	2.7		
<b>Monetary conditions</b>													
90-day rate (year average)	7.6	8.6	6.7	2.8	3.1	2.7	2.6	2.7	3.8	4.7	5.2		
TWI (year average)	65.6	71.6	61.6	62.9	67.1	70.6	73.3	76.9	78.3	77.3	75.7		
<b>Output</b>													
GDP (production, annual average % change)	2.8	2.9	-1.9	-0.1	1.8	2.4	2.3	3.0	3.5	2.4	2.3		
Potential output (annual average % change)	2.6	2.2	1.7	1.3	1.3	1.5	2.1	2.4	2.6	2.8	2.8		
Output gap (% of potential GDP, year average)	2.7	3.4	-0.3	-1.7	-1.1	-0.3	0.0	0.6	1.4	1.1	0.6		
<b>Labour market</b>													
Total employment (seasonally adjusted)	2.0	1.3	-0.9	-0.2	1.8	0.9	0.4	3.5	2.1	0.9	0.8		
Unemployment rate (March qtr, seasonally adjusted)	3.9	3.8	5.2	6.2	6.7	6.8	6.2	5.6	4.9	4.9	5.0		
Trend labour productivity	1.1	1.0	0.9	0.9	0.9	1.0	1.0	1.0	1.1	1.1	1.2		
<b>Key balances</b>													
Government operating balance (% of GDP, year to June)	3.4	3.1	-2.1	-3.3	-9.2	-4.5	-2.1	-1.0	0.2	0.8	1.6		
Current account balance (% of GDP)	-6.9	-6.8	-7.1	-1.5	-2.8	-3.1	-3.9	-3.2	-3.7	-5.2	-5.6		
Terms of trade (SNA measure, annual average % change)	-1.6	8.8	-2.4	-4.1	7.7	1.5	-4.2	8.9	1.6	-1.8	-0.2		
Household saving rate (% of disposable income)	-4.5	-1.7	-1.9	0.2	1.0	0.4	-0.7	0.5	0.2	-1.2	-1.8		
<b>World economy</b>													
Trading partner GDP (annual average % change)	3.8	4.2	0.2	1.1	4.4	3.5	3.2	3.5	3.8	4.2	4.2		
Trading partner CPI (TWI weighted, annual % change)	1.9	3.3	0.9	1.7	2.2	2.2	1.6	1.6	2.0	1.9	1.9		

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## Notes to the tables

CPI	Consumers Price Index.
Weighted median inflation	To calculate weighted median inflation, first the percentage changes in all components of the CPI are ranked. The weighted median is the rate of price change that half of all weighted price movements are below, and half are above.
Trimmed mean inflation	To calculate trimmed mean inflation, first percentage changes in all components of the CPI are ranked, then the price changes for a specified weight of the CPI are removed. The trimmed mean is the average of the remaining price changes.
Sectoral factor model estimate of core inflation	Estimates core inflation by up weighting those components of the CPI that most closely reflect the general trend in the CPI inflation and down weighting those that do not. The weightings evolve over time as the volatility of each component changes.
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.
Other investment	RBNZ definition. Total investment - residential investment.
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.

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Unemployment rate	Household Labour Force Survey.
Household saving rate	Household Income and Outlay Account.
Government operating balance	Operating balance before gains and losses. Source: The Treasury, adjusted by the Reserve Bank.
Labour productivity	The series shown is the annual percentage change in a trend measure of labour productivity. Labour productivity is defined as GDP (production) divided by Household Labour Force Survey hours worked.
Labour cost	Private sector all salary and wage rates. Labour Cost Index.
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

Ballantynes Ltd	KPMG
Canterbury Development Corporation	Mainfreight Ltd
Canterbury Earthquake Recovery Authority	Meat Industry Association of New Zealand (Inc)
Carter Group Ltd	Ministry of Business Innovation and Employment
Christchurch Central Development Unit	Motim Technologies Ltd
Christchurch City Council	NZ Manufacturers and Exporters Association
Council of Trade Unions	New Zealand Retailers Association Incorporated
Employers & Manufacturers Association (EMA) Inc.	NZ Transport Agency
Ezibuy Limited	Opus International Consultants Limited
Fletcher Construction Company Ltd	Ports of Auckland Limited
Fulton Hogan Ltd	Smith City Group Ltd
Global Culture Group Ltd	Snowy Peak Ltd
Hawkins Group Ltd	Tait Ltd
	Tax Management NZ

## Appendix C

### The Official Cash Rate chronology

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

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Date	Percentage	Date	Percentage
29 January 2009	3.50	15 September 2011	2.50
12 March 2009	3.00	27 October 2011	2.50
30 April 2009	2.50	8 December 2011	2.50
11 June 2009	2.50	26 January 2012	2.50
30 July 2009	2.50	8 March 2012	2.50
10 September 2009	2.50	26 April 2012	2.50
29 October 2009	2.50	14 June 2012	2.50
10 December 2009	2.50	26 July 2012	2.50
28 January 2010	2.50	13 September 2012	2.50
11 March 2010	2.50	25 October 2012	2.50
29 April 2010	2.50	6 December 2012	2.50
10 June 2010	2.75	31 January 2013	2.50
29 July 2010	3.00	14 March 2013	2.50
16 September 2010	3.00	24 April 2013	2.50
28 October 2010	3.00	13 June 2013	2.50
9 December 2010	3.00	25 July 2013	2.50
27 January 2011	3.00	12 September 2013	2.50
10 March 2011	2.50	31 October 2013	2.50
28 April 2011	2.50	12 December 2013	2.50
9 June 2011	2.50	30 January 2014	2.50
28 July 2011	2.50		

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## Appendix D

# 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.

### 2014

24 April 2014	OCR announcement
12 June 2014	<i>Monetary Policy Statement</i> and OCR announcement (media conference and webcast)
24 July 2014	OCR announcement
11 September 2014	<i>Monetary Policy Statement</i> and OCR announcement (media conference and webcast)
30 October 2014	OCR announcement
11 December 2014	<i>Monetary Policy Statement</i> and OCR announcement (media conference and webcast)

### 2015

29 January 2015	OCR announcement
12 March 2015	<i>Monetary Policy Statement</i> and OCR announcement (media conference and webcast)
30 April 2015	OCR announcement
11 June 2015	<i>Monetary Policy Statement</i> and OCR announcement (media conference and webcast)

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# Appendix E

## 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