RESERVE BANK
OF NEW ZEALAND
TE PŪTEA MATUA

Monetary Policy Statement

September 2014[1]

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

Contents

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[1] Projections finalised on 28 August 2014. Policy assessment finalised on 10 September 2014.

1 Policy assessment

The Reserve Bank today left the Official Cash Rate unchanged at 3.5 percent.

New Zealand's economy is expected to grow at an annual pace of 3.7 percent over 2014. Global financial conditions remain very accommodative and are reflected in low interest rates, narrow risk spreads, and low volatility across a range of asset markets. Accommodative financial conditions are supporting a moderate rate of global growth, albeit uneven across regions.

New Zealand's economic growth continues to be supported by increasing construction activity and ongoing strength in consumption and business investment. A high level of net immigration is adding to domestic demand as well as productive capacity. Economic growth is projected to moderate in response to recent commodity price declines and the impact of policy tightening. The high exchange rate continues to restrain growth in the traded sectors.

The exchange rate has yet to adjust materially to the lower commodity prices. Its current level remains unjustified and unsustainable. We expect a further significant depreciation, which should be reinforced as monetary policy in the US begins to normalise.

The economy appears to be adjusting to the policy measures taken by the Bank over the past year. House price inflation continues to ease, despite strong net immigration. CPI inflation remains moderate, reflecting subdued wage increases, well-anchored inflation expectations, weak global inflation, and the high New Zealand dollar. However, spare capacity is being absorbed, and annual non-tradables inflation is expected to increase. Risks also remain around how strongly net immigration will affect housing demand, and the extent to which pressures in the construction sector will impact broader inflation.

In light of these uncertainties, and in order to better assess the moderating effects of the recent policy tightening and export price reductions, it is prudent to undertake a period of monitoring and assessment before considering further policy adjustment. Nevertheless, we expect some further policy tightening will be necessary to keep future average inflation near the 2 percent target mid-point and ensure that the economic expansion can be sustained.

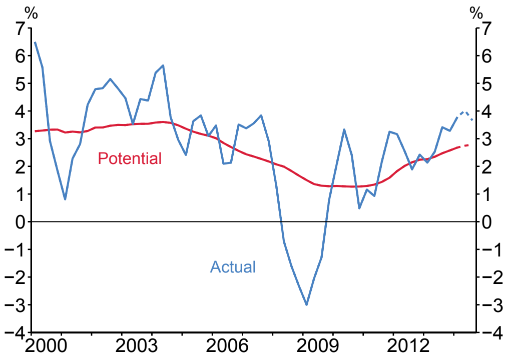
Graeme Wheeler

Governor

2 Key policy judgements

Growth in the New Zealand economy has picked up over the past 18 months, and is estimated to be 3.7 percent in the year to September. Growth in output has been exceeding that in supply capacity for some time (figure 2.1), and inflationary pressures have been increasing. Nonetheless, we project growth to slow to a more sustainable pace over the next few years, keeping annual CPI inflation contained near the 2 percent target midpoint.

Figure 2.1
GDP and estimated potential output growth
(annual, dashed lines represent forecasts)



Source: Statistics New Zealand, RBNZ estimates.

There have been several key drivers of the pick-up in growth over the past 18 months. Reconstruction work continued to accelerate in Canterbury, and building work in Auckland and other regions has increased more recently. High house price inflation continued to support growth in household demand. Net immigration flows rose from near zero over 2012 to an annual rate of 41,000 people in the year to July 2014. Prices for New Zealand's commodity exports rose to record highs through 2013, boosting national income substantially. Throughout the period since the global financial crisis, low interest rates have been supporting the recovery in domestic demand.

Some of these factors will continue to be important over the next two years. Construction output is growing rapidly this year, and is expected to settle at a high level. Net immigration has continued increasing strongly over the year to date. However, house price inflation has moderated. Prices for dairy and forestry exports have fallen sharply over the year, slightly further than anticipated in the June *Statement*. The exchange rate remains high and is a drag on growth. Looking abroad, economic growth is uneven across advanced economies, and in aggregate is picking up only gradually. Combined with low global inflation, this outlook means monetary policy in the major advanced economies is likely to remain supportive for some time to come.

In October 2013, in response to financial stability risks associated with high house price inflation, the Bank introduced speed limits on high loan-to-value ratio (LVR) mortgage lending, and these have contributed to the slowing in house price inflation. From March to July 2014, with demand and inflationary pressures increasing, the Bank increased the Official Cash Rate (OCR) by 100 basis points.

There are signs that the OCR increases are starting to have the desired effect of slowing growth in demand to a more sustainable rate, and keeping inflation and inflation expectations well anchored. However, it typically takes 18 to 24 months for monetary policy to have its full effects, and the transmission of monetary policy to output and inflation can be quite variable from one business cycle to the next. It is therefore prudent to take time to assess how recent policy changes are passing through the economy and examine how the economy is responding to a range of other factors. In particular, we are paying close attention to:

- how the housing market is responding to policy changes and increasing net immigration;
- how capacity pressures are driving domestic inflation;
- how businesses and households form inflation expectations and set prices in the current low-inflation environment; and
- how the exchange rate is responding to the fall in export prices.

The housing market and domestic demand

Annual house price inflation began increasing in mid-2011, reaching 10 percent in September 2013. It has subsequently eased to 6 percent, reflecting the introduction of restrictions on high-LVR mortgage lending and OCR increases.

At 6 percent, house price inflation is weaker than mortgage interest rates and strong net immigration would normally have suggested. Our projection takes a view that net immigration is having a more muted and more lagged effect on house prices than in past cycles. This, along with higher interest rates, strong construction activity that increases housing supply, and falling net immigration, is behind the expectation that house price inflation will continue easing over the forecast horizon.

The composition of net immigration could help explain a smaller or slower boost to housing demand than in the past. Bank research suggests that reductions in departures boost housing demand by less than increases in arrivals.[1] While arrivals have picked up in recent months, the larger part played early in the migration cycle by reduced departures may still be having some effect. Further, a large share of the increased arrivals comprises younger working-aged people and people on temporary work visas. These groups may demand less housing than permanent arrivals or those with families.

Reflecting monetary policy tightening, mortgage rates have risen since 2013. The two-year fixed mortgage rate is up about 60 basis points on its early 2013 levels, while the rate on floating mortgages has increased by about 100 basis points since last year. Due to high household debt and high house prices, interest rate increases may be having a stronger effect on household demand than in the past.

A risk to the projection is that migration flows begin feeding into house price inflation with the same strength as in past cycles – that is, the composition of migration will only temporarily dampen the effects on housing demand. Another is that that fixed mortgage rates remain low even as the OCR and floating rates rise. Falling global interest rates are putting downward pressure on longer-term New Zealand wholesale rates, and since the June *Statement* financial markets have lowered their expectations of future OCR increases. Both could influence the pricing of fixed-rate mortgages. Either a stronger flow-through from net immigration or continued low fixed mortgage rates could see house price inflation pick up over coming quarters, rather than easing as projected, contributing to stronger domestic demand and inflationary pressures.

Capacity pressure and domestic inflation

Growth in output has out-stripped that in productive capacity over the past 18 months, and our estimates suggest the output gap has reached about 1 percent of potential output. Domestic inflation has risen, especially in the construction sector.

Nonetheless, the rate of non-tradables inflation remains lower than what is suggested by the normal influences – capacity pressure, inflation expectations and pass-through from import price inflation. Given our view of capacity pressures and price setting behaviour, as well as interest rate rises, we expect annual non-tradables inflation to rise gradually to around 3.5 percent over the projection.

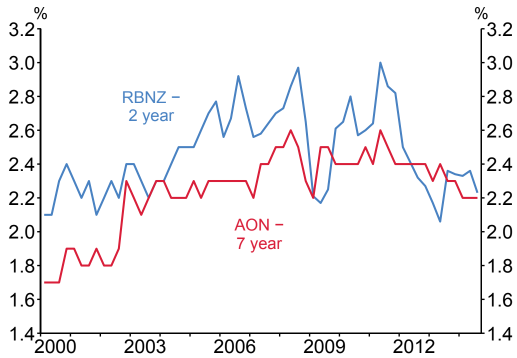
One factor helping to explain the projected gradual pick-up of inflation is evidence that productive capacity is growing, attenuating the increase in capacity pressure. Potential growth over 2014 is estimated to be slightly more than 2.8 percent, 0.4 percentage points higher than projected in December 2013. The higher estimate of potential growth reflects growth in business investment and a trend increase in the labour force. Net immigration has also helped to alleviate wage inflation pressures in Canterbury and the construction sector more widely. At the same time, the specific demand for resources for the Canterbury rebuild may be distorting the measurement of capacity pressure. This is something we will be watching carefully over the coming months.

Inflation expectations remain well anchored, which is helping to limit increases in actual inflation (figure 2.2). While some measures of expected inflation one-to-

1 McDonald (2013) 'Migration and the housing market', Reserve Bank of New Zealand Analytical Notes, AN2013/10.

two years ahead picked up through 2013, the increase appears to reflect shorter-term cyclical movements in inflation, rather than expectations becoming un-anchored. The path has been much smoother for expectations of inflation at longer horizons. Reflecting low CPI and wage inflation out-turns, both the two- and seven-year-ahead measures in figure 2.2 have trended down over the past three years.

Figure 2.2
Measures of expected annual inflation



Source: AON-Hewitt, RBNZ.

Tradables inflation is expected to remain near or below zero for some time. Low global inflation, reflecting the slow absorption of spare capacity in advanced economies, is weighing on international prices of New Zealand's imports. At the same time, the high New Zealand dollar exchange rate and a competitive domestic environment are slowing inflation in the domestic prices of tradable goods.

Overall, we expect the pick-up in inflation to be a gradual one, and have taken a view that the current degree of capacity pressure is passing into inflation less strongly and quickly than normal. At the same time, well-anchored inflation expectations and weak import price inflation are helping to moderate the increase.

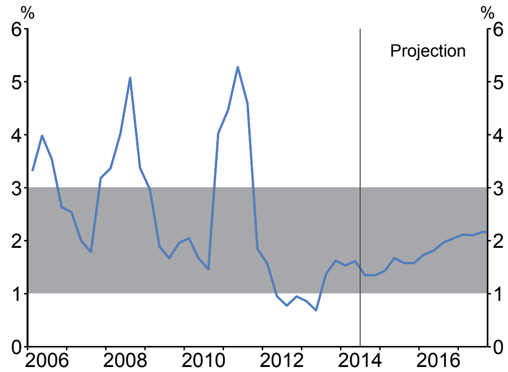
The exchange rate's response to the terms of trade

The terms of trade rose sharply over 2013, driven by very high prices for New Zealand's commodity exports. The terms of trade are generally an important driver of New Zealand's exchange rate and the increase helped explain the high New Zealand dollar over that period. However, dairy and forestry prices in particular have fallen significantly this year, lowering overall commodity prices by 12 percent from their peak. The exchange rate has yet to adjust materially to the lower commodity prices.

Inflation and monetary policy

CPI inflation has increased over the past year, but remains modest at an annual rate of 1.6 percent in the June quarter (figure 2.3). Reflecting the high exchange rate and spare capacity globally, tradables sector inflation is very low. Annual non-tradables inflation is at 2.7 percent with domestic capacity pressure rising, and is especially strong in the construction sector.

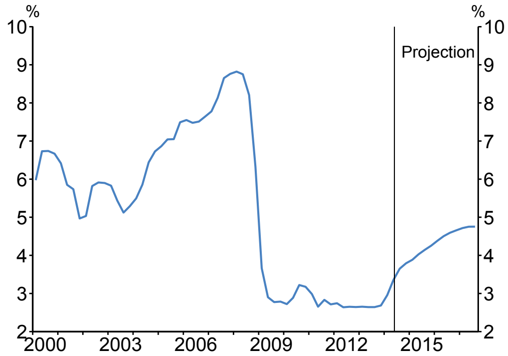
Figure 2.3
CPI inflation
(annual)



Source: Statistics New Zealand, RBNZ estimates.

At current levels interest rates are still providing support to demand growth. It is expected that the OCR will need to increase towards a more neutral level for annual CPI inflation to settle around the 2 percent target mid-point and growth to continue at a sustainable pace (figure 2.4, overleaf). However, with the OCR having increased 100 basis points since the start of this year it is prudent to spend some time assessing how the economy is responding to higher interest rates and the collection of other forces acting on it. Of particular interest at present are how the housing market and domestic demand are developing, how capacity pressure is passing into inflation, and how the exchange rate will respond to falling export prices.

Figure 2.4
90-day interest rate



Source: RBNZ

3 Financial market developments

Low volatility across a number of asset classes remains a dominant theme in global financial markets. This has contributed to continued strength in global equity markets and a fall in bond yields since the June *Statement*. In addition, generally stable global growth, low inflationary pressures, and easy global monetary policy have all been factors contributing to this.

These international trends have flowed through to New Zealand markets, putting downward pressure on New Zealand interest rates, especially at longer maturities. With OCR increases putting upward pressure on short-term interest rates, the yield curve has flattened.

After the New Zealand dollar trade-weighted index (TWI) rose to a record high of just over 82 in early July, the index fell to around 79 by the end of August. The fall reflects weaker-than-expected inflation and falling dairy prices, which contributed to expectations for fewer increases in the OCR.

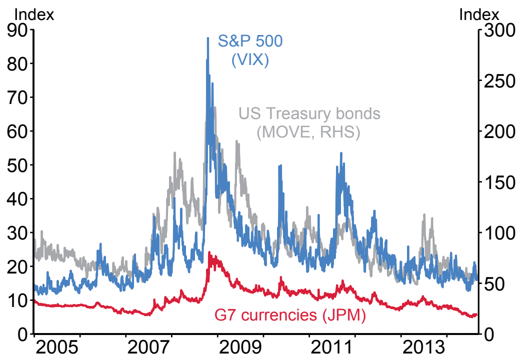
Floating mortgage rates have risen over the past quarter, reflecting the 50 basis points of OCR hikes over June and July. By contrast, fixed mortgage rates are only marginally higher, although have moved significantly higher over the past year. In response to relatively low fixed rates, borrowers continue to migrate steadily from floating- to fixed-rate mortgages.

International market developments

Global equity prices have continued to rise since the June *Statement*, extending the upward trend of the past five years. Concerns over an escalation in military actions in Ukraine and the Middle East have to date caused only a minor correction outside Europe. In the United States equity markets have performed well, with benchmark indices recording new highs supported by improving economic growth after negative growth in the first quarter. By comparison, major equity markets in the euro area have been softer. Behind this have been concerns that the Ukraine-Russia conflict could weigh on economic growth and company earnings in Europe, while weak economic data have also contributed. After a soft start to the year, emerging-market equities have rebounded strongly, in line with the general economic improvement in emerging economies.

Volatility has remained low across a number of asset classes in the past quarter, including in equity, bond and currency markets (figure 3.1). Volatility in equity markets, as measured by the VIX index, rose slightly during July in response to geopolitical concerns, but has since moved back down. Volatility has remained very low across bond and currency markets.

Figure 3.1
Volatility indices

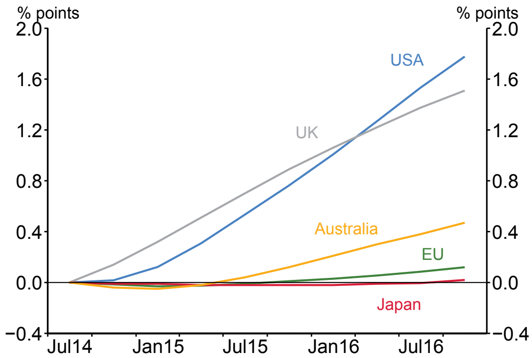


Source: Bloomberg.

Low market volatility is often associated with high risk appetite. A significant factor behind the subdued volatility is easy monetary policy from a number of major central banks, including asset purchases and low policy rates. These policy settings encourage investors to shift cash into riskier asset classes in search of higher returns. There has been some concern that investors have been down-weighting the true riskiness of some assets, which could lead to losses if volatility returns to markets. Other factors behind the subdued volatility and higher risk appetite include steady global growth and low inflation. These have led to higher equity prices and a compression in bond spreads, including lower-credit-rated high-yield or 'junk' bonds. The effect on New Zealand has been to add upward pressure on the New Zealand dollar and to lower longer-term interest rates, such as government bond yields and swap rates.

With global monetary policy a dominant influence on current asset pricing, expected policy settings remain a major focus for markets. Over recent months, low price and wage inflation have caused the expected start date of policy rate normalisation to be pushed out in most major economies. This has been particularly evident in the United States and United Kingdom where, despite strengthening economic growth, price pressures have remained only modest. Current market pricing places the first rate hike by the Federal Reserve around the middle of 2015, while the Bank of England is expected to hike around March 2015 (figure 3.2). Market pricing suggests the expected start of policy tightening has also been pushed out in Australia, as the economy transitions away from mining investment and growth slows. The Reserve Bank of Australia has said in numerous statements that "the most prudent course is likely to be a period of stability in interest rates". The next policy rate hike is not expected until late 2015.

Figure 3.2
Market expectations of policy rate moves
(change from current)



Source: Bloomberg.

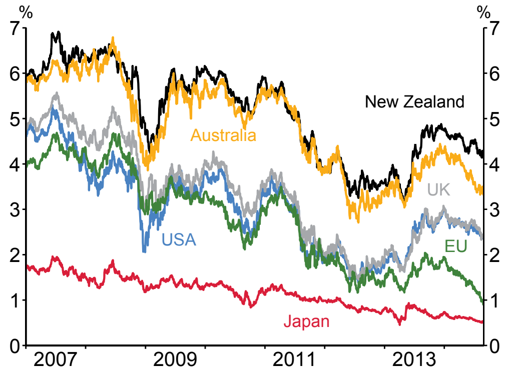
The situation for the European Central Bank (ECB) is slightly different, with subdued growth and inflation leading to more easing in monetary policy. ECB President Mario Draghi announced at the September meeting that the ECB was cutting its three policy rates by 10 basis points each, including taking the deposit rate to an unprecedented -0.2 percent. A programme of asset-backed securities (ABS) purchases was also announced. Some analysts believe that government bond purchases may also be undertaken either late this year or early 2015, depending on inflation outcomes.

Financing and credit

Global bond rates have trended lower over the past quarter, continuing the downward movement seen since the start of 2014 (figure 3.3). European bond yields have shown the largest falls, with several European governments' 10-year bond yields hitting record lows over the past month. German 10-year bond yields fell below 0.9 percent, down from around 1.4 percent at the start of June. Spanish 10-year government bond yields have more than halved over the past year, from above 4.5 percent to around 2.2 percent. United States 10-year Treasury yields have continued to trend lower, reaching as low as 2.33 percent in late-August after beginning the year around 3.0 percent. In Japan, yields are at the lowest since just after the Bank of Japan announced its large-scale asset purchases in April last year, with the 10-year rate drifting below the 0.5 percent mark in mid-August.

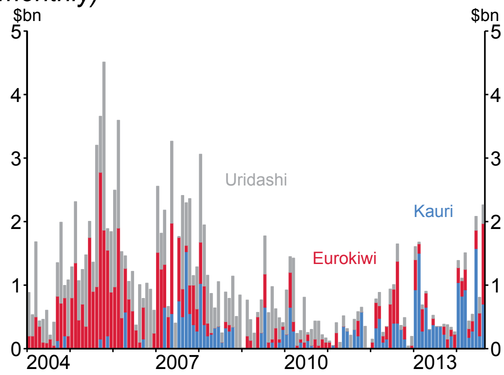
There are a number of reasons for the fall in global bond rates. In Europe both real and nominal bond yields have fallen, reflecting a lower growth outlook and lower inflation expectations, which in turn have led to expectations of additional policy easing by the ECB. Tensions between Ukraine and Russia have also contributed to less appetite for European equities, with funds instead flowing into government bonds. The reduction in German bond yields has been a major factor in the recent fall in United States government bond yields, as bond investors are attracted to the relatively high yields available in the United States. Expectations that very supportive monetary policy will continue in the United States have also supported the bond market. In addition, analysis from the Federal Reserve has shown a fall in term premia in 2014, which is linked to the low global policy rates and low volatility.

Figure 3.3
10-year government bond yields



Source: Reuters.

Figure 3.4
Gross issuance of Kauris, Uridashis, and Eurokiwis
(monthly)



Source: Bloomberg, Reuters, RBNZ.

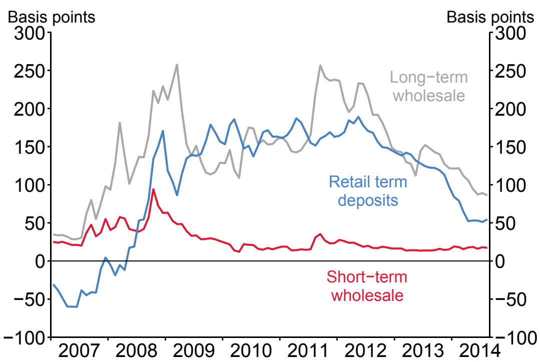
The trend of lower government bond yields has flowed through to the New Zealand and Australian markets, although Australian rates have moved more than New Zealand rates. From the June *Statement* until the end of August, the yield on 10-year New Zealand government bonds fell by 38 basis points to 4.07 percent. Over the same period, yields on Australian 10-year government bond yields fell by 53 basis points to 3.29 percent. The spread between the New Zealand 10-year rate and the United States 10-year rate has narrowed slightly to around 173 basis points, while the spread to the Australian 10-year rate has widened from 58 to 78 basis points.

Issuance of New Zealand dollar-denominated debt by overseas entities (Kauris, Eurokiwis and Uridashis) has picked up over the past quarter (figure 3.4). To the extent that overseas investors have purchased these bonds, this has added upward pressure to the New Zealand dollar. Total issues have averaged NZ $1.3 billion per month in 2014, above the $650 million average for 2013. However, this is still well below the mid-2000s average of over $2 billion per month. The increase in issuance this year has been aided by the rise in New Zealand yields compared with global yields and ongoing appetite for higher yielding fixed interest investments.

Following a period of steady decline, global credit spreads stabilised over recent months, with the spread for investment grade credit hovering at just over 100 basis points. The global 'junk' bond market recently suffered a minor setback as retail investors withdrew funds, but higher spreads then attracted institutional fund flows.

After trending lower since mid-2012, bank funding margins have stabilised over recent months at an estimated 40 basis points over the OCR. Long-term wholesale rate spreads have fallen significantly since the Global Financial Crisis and European Sovereign Debt Crisis, but have stabilised over the past few months (figure 3.5). After contributing to falling funding costs since 2012, the spread to the OCR on retail term deposits has flattened out this year, as deposit growth has slowed.

Figure 3.5
Marginal bank funding costs
(basis points over OCR)

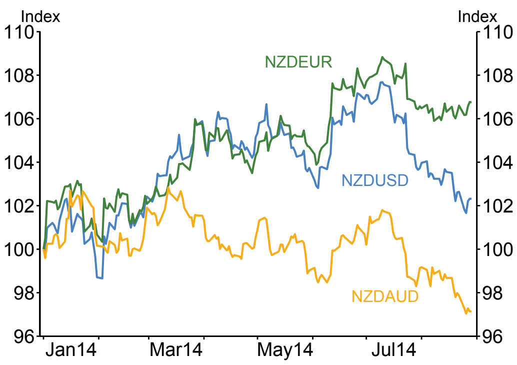


Source: RBNZ estimates.

Foreign exchange market

The New Zealand dollar TWI hit a new post-float high in early July as investors were attracted by New Zealand's relatively high interest rates and strong economic outlook. Since then the New Zealand dollar has weakened for a number of reasons, including lower market expectations for further OCR increases, partly reflecting weaker-than-expected inflation and lower dairy prices, and a strengthening US dollar. The NZD-USD cross rate was around USD 0.8340 at the end of August, similar to where it was at the start of June but down from its peak of USD 0.8835 in July. The New Zealand dollar has also weakened against the Australian dollar and the euro since July (figure 3.6). The New Zealand dollar is now around its lowest cross rate against the Australian dollar for a year, more reflecting expectations of slowing momentum in the New Zealand economy than a pick-up in the Australian economy. Depreciation against the euro has been less than against the Australian dollar and US dollar, with recent weakness in the euro area economy and expectations for further easing from the ECB resulting in the euro weakening against other major currencies.

Figure 3.6
New Zealand dollar cross rates
(1 January 2014 = 100)



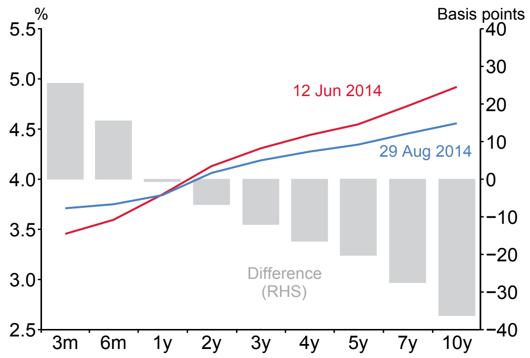
Source: Reuters.

Other domestic financial market developments

The overnight indexed swap (OIS) market suggests that a smaller total increase in the OCR is expected than before the June *Statement*. Following a series of weaker-than-expected data outturns, including lower-than-expected inflation, falling dairy prices, and easing house price inflation, markets are pricing in an OCR of 3.97 percent by the end of 2015, compared with 4.20 percent following the June *Statement*. The OIS market is pricing in a 16 percent chance of another 25 basis point hike by the end of this year. Market pricing suggests the next full 25 basis point hike is expected by April 2015.

Falling global bond rates have put downward pressure on New Zealand interest rates at longer maturities (figure 3.7). The two-year swap rate has fallen slightly since the June *Statement*, while the 10-year swap rate has moved more than 35 basis points lower. Market contacts suggest swap rates have been capped by overseas investors who find New Zealand rates attractive relative to low rates globally. Offshore bond issuance and Kauri issuance have added further downward pressure on interest rates.

Figure 3.7
Wholesale bank bill and swap rates

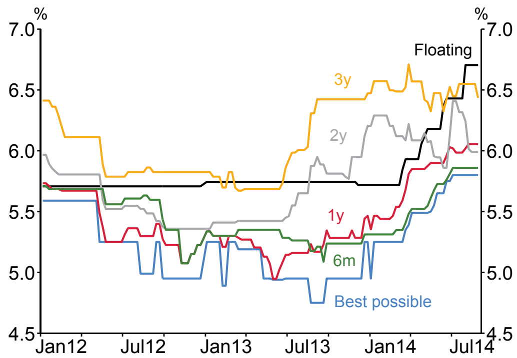


Source: Bloomberg.

Floating mortgage rates have matched the 50 basis point increase in the OCR since before the June *Statement*. Fixed mortgage rates are in general slightly above where they were at the end of May (figure 3.8). The average two-year fixed mortgage rate from the big four banks is currently 5.99 percent, up slightly from 5.95 percent at the end of May. Banks increased their fixed mortgage rates following the June *Statement* as swap rates rose, but have since cut them again as swap rates retreated. Competition between banks remains strong, particularly at the two-year fix point. Banks have also been competing strongly offering up 'cash-back' offers as part of fixed mortgage rate deals.

While fixed mortgage rates have moved only marginally since the end of May, over the past year rates have risen more substantially. The best possible rate over all durations from the major banks has risen from a low of 4.75 percent in September 2013 to 5.8 percent at the end of August 2014. This fully reflects the 100 basis points of hikes in the OCR this year, much of which was anticipated by markets and thereby priced into the mortgage curve long before the first OCR increase actually occurred.

Figure 3.8
Average mortgage rates by term and the best possible rate



Source: interest.co.nz, RBNZ estimates

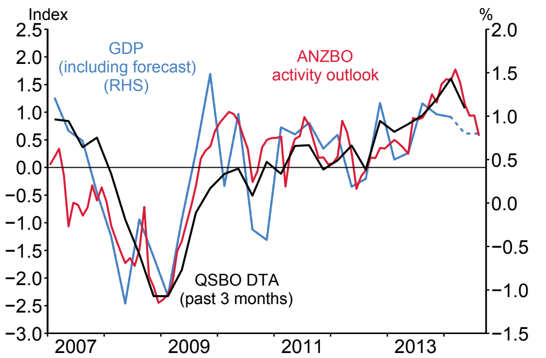
The attractiveness of fixed mortgage rates compared with the higher floating rate is encouraging householders to fix their mortgages. The trend towards fixed rates is not new, with the proportion of mortgage holders on floating rates steadily declining since its peak of 63.0 percent in April 2012 to 29.9 percent in July 2014.

The recent trend has been for borrowers to fix at the longer durations of two or three years. There were about $11.3 billion of mortgage flows into the one-to-three year fixed-rate buckets in the three months to July, up from only $3.9 billion over the same period a year ago. These flows pushed up the average time to re-price mortgages to 10.9 months in July, more than double the low of 4.7 months in 2012.

4 Current economic conditions

The New Zealand economy continues to grow at a robust pace, but at a slower rate than in recent quarters. This is consistent with recent declines in surveyed business sentiment (figure 4.1), that partly reflects declining commodity prices, easing house price inflation and rising interest rates. Nonetheless, the economy continues to grow faster than estimated potential output, and pressures on capacity have increased. Annual CPI inflation increased to 1.6 percent in the June 2014 quarter.

Figure 4.1
Quarterly GDP growth and businesses' reported activity
(seasonally adjusted)



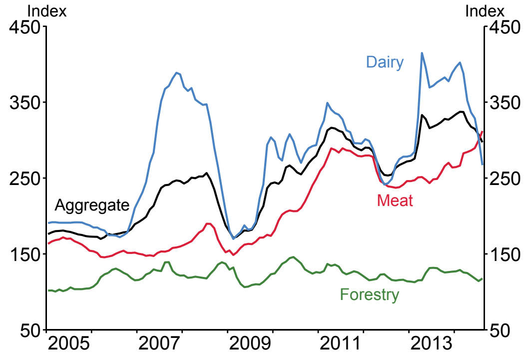
Source: NZIER, ANZ Bank, NZIER, Statistics New Zealand, RBNZ estimates.
Note: The QSBO DTA and ANZBO own activity outlook are standardised.

External demand

New Zealand's trading partners have been growing at a moderate pace, notwithstanding recent volatility in the United States and Japan. The nature of the global recovery has meant that the considerable spare capacity in major advanced economies is being absorbed only slowly.

International prices for New Zealand's agricultural exports have declined further in the past three months and are supporting domestic demand to a lesser degree than at the start of 2014. The ANZ commodity price index has declined by 12 percent since February. These declines have been led by dairy and forestry prices, with meat prices providing a partial offset (figure 4.2).

Figure 4.2
Export commodity price indices
(world terms)



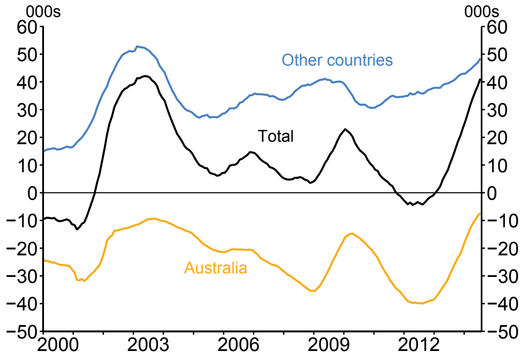
Source: ANZ Bank.

Dairy prices have fallen by 45 percent in GlobalDairyTrade auctions since peaking in February. While global dairy supply has increased, an important reason for the recent falls appears to be a build up of inventory in China. These inventories are expected to clear in coming months, with underlying consumer demand for dairy products in China remaining robust. In contrast, much of the 7.5 percent decline in forestry prices since April (as measured in the ANZ Commodity Price Index) appears to be a response to softening demand from China, related to the slowdown in the Chinese property sector.

With slow growth in major economies, and New Zealand's prospects relatively strong, net immigration has risen further in recent months and is providing increasing support for housing and consumer demand. Over the past year, net immigration has boosted New Zealand's population by 41,000 people (0.9 percent). Arrivals have picked up in recent months, after reductions in departures had played the greater role in the early part of the migration cycle.

Trans-Tasman flows are a key part of the net immigration story, although arrivals from other countries are becoming increasingly important. About 70 percent of the total increase in net immigration between July 2012 and July 2014 was a result of fewer departures to Australia and an increase in arrivals from Australia (figure 4.3). A key factor behind trans-Tasman flows is increased slack in the Australian labour market as Australian mining investment slows.

Figure 4.3
Permanent and long-term net immigration flows
(annual total)



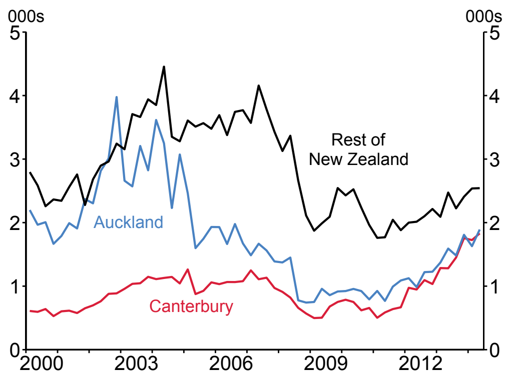
Source: Statistics New Zealand.

Domestic demand

Construction output has grown at an annual average rate above 12 percent in the year to March 2014. Further increases in residential consent issuance point to strength through the middle of 2014. The number of new dwelling consents issued in the three months to July was 18 percent higher than over the same period in 2013, underpinned by strong growth in both Canterbury and Auckland (figure 4.4). To date, the increase in non-residential building has been primarily in Canterbury, and consent issuance there has accelerated in recent months.

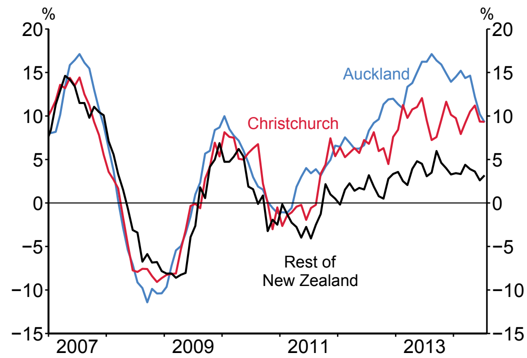
House price inflation has moderated further in the past three months, despite continued strong immigration. Rising mortgage interest rates and the introduction of LVR restrictions in October last year have helped restrain rising housing demand. From a peak of 9.8 percent in November last year, annual house price inflation on a three-month moving average basis eased to 6.2 percent in July 2014. The moderation in nationwide house price inflation has been led by Auckland (figure 4.5). Monthly house sales in the three months to July were 12 percent lower than last year and have stabilised (figure 4.6), suggesting that house price inflation may also stabilise through the middle of 2014.

Figure 4.4
Number of new dwelling consents
(quarterly total)



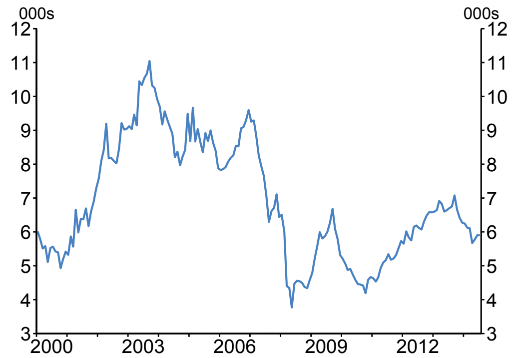
Source: Statistics New Zealand.
Note: 'Quarterly' corrects original release which was labelled 'annual', in error.

Figure 4.5
Stratified house price inflation by region
(annual, 3 month moving average)



Source: REINZ, RBNZ estimates.

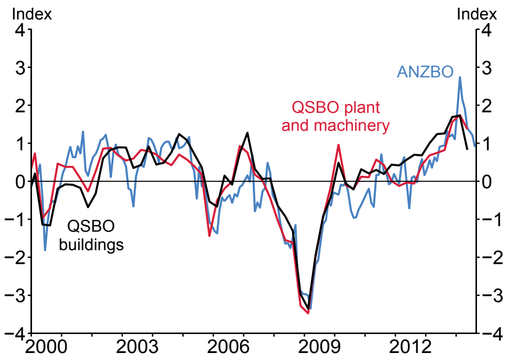
Figure 4.6
Monthly house sales



Source: REINZ.

Strong business confidence has translated through to increased investment. Real business investment rose by 10 percent in the year to March 2014. Surveyed investment intentions remain above long-term averages and point to further growth in business investment over the remainder of 2014, albeit at a more gradual pace (figure 4.7). The volumes of mechanical and electrical machinery imports have increased 5 and 9 percent respectively over the past six months, and the number of commercial vehicle registrations is at historically high levels.

Figure 4.7
Investment intentions
(standardised, seasonally adjusted)



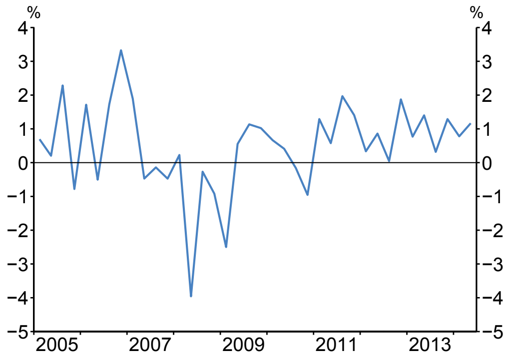
Source: ANZ Bank, NZIER, RBNZ estimates.

Businesses' demand for labour has increased and the improving labour market is boosting household income and supporting spending. Nominal earnings increased at an annual pace of 6.2 percent in the June quarter (figure 4.8) and consumer confidence remains above average, despite some decline in sentiment in recent months. Retail trade volumes increased at a quarterly rate of 1.2 percent in June. The growth in retail sales volumes points to moderate growth in real consumption through the middle of 2014 (figure 4.9).

Figure 4.8
Growth in total gross weekly earnings
(annual)

Source: Statistics New Zealand.

Figure 4.9
Growth in real retail sales
(quarterly, seasonally adjusted)



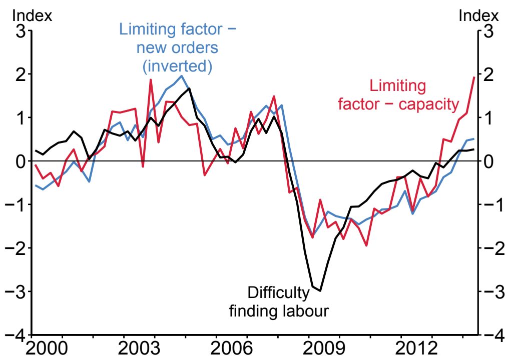
Source: Statistics New Zealand.

Capacity pressure and inflation

Potential output is currently estimated to have grown by 2.8 percent in the year to the September 2014 quarter, boosted by strong investment, increasing rates of labour force participation and net immigration.

Although the pace of economic growth is beginning to moderate, the economy continues to grow at a faster pace than potential output and capacity pressures have increased. The output gap is currently estimated to be about 1 percent of potential output. There appears to be more pressure in the goods market than the labour market (figure 4.10), consistent with usual lags between the real economy and hiring, and the recent boosts to labour supply. Nevertheless, the labour market is tightening, with the unemployment rate declining for four consecutive quarters to 5.6 percent in the June quarter.

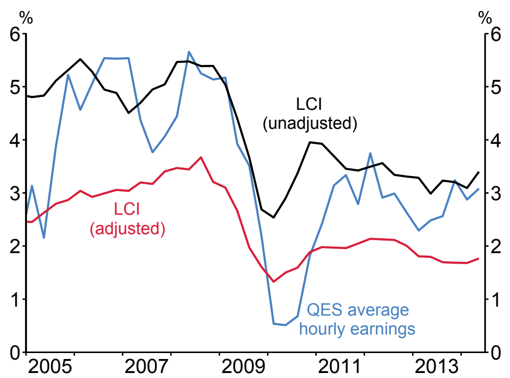
Figure 4.10
Survey measures of capacity pressure
(standardised)



Source: NZIER, RBNZ estimates.

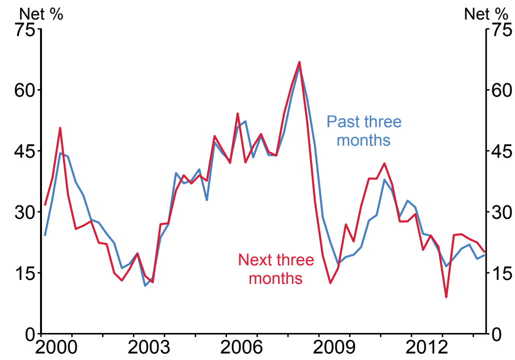
While the output gap is positive, subdued wage inflation is consistent with some remaining slack in the labour market. Nominal wage growth has been steady across a range of measures over the past three quarters (figure 4.11). Low nominal wage increases, combined with a high exchange rate, appear to be limiting cost pressure for firms (figure 4.12), keeping inflation contained.

Figure 4.11
Nominal wage inflation
(annual)



Source: Statistics New Zealand.

Figure 4.12
Reported costs and cost expectations

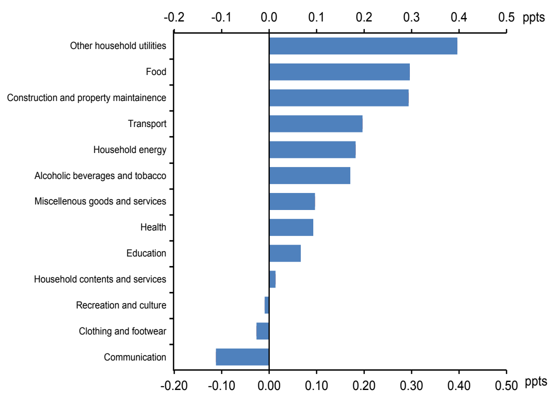


Source: NZIER.

Annual CPI inflation increased to 1.6 percent in the June 2014 quarter, from 0.7 percent in June 2013. Recent increases in inflation appear to have boosted inflation expectations at short horizons over 2013, though expectations of inflation at longer horizons have trended down.

Rising food prices and housing-related costs made the largest contributions to annual CPI inflation in the June quarter, followed by increases in transport costs (figure 4.13). Annual CPI inflation is projected to moderate to 1.3 percent in the September 2014 quarter as some of the increases in transport costs unwind, declines in communication prices continue, and tradables inflation remains low.

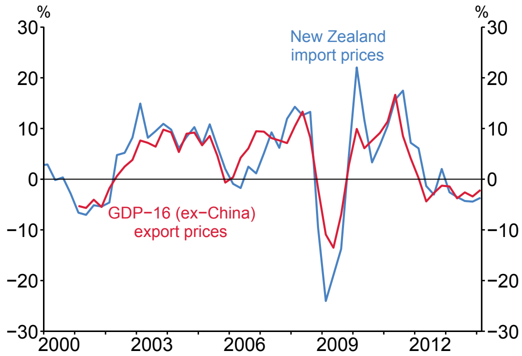
Figure 4.13
Contributions to annual CPI inflation
(year to June 2014)



Source: Statistics New Zealand, RBNZ estimates.

Annual tradables inflation increased to 0.1 percent in the June quarter. Benign global inflation, reflecting excess capacity in trading partner economies, is supressing the international prices of many of New Zealand's imports (figure 4.14). International oil and food prices have also been broadly stable, albeit at a high level, since 2011. Tradable prices have also been dampened by the elevated exchange rate.

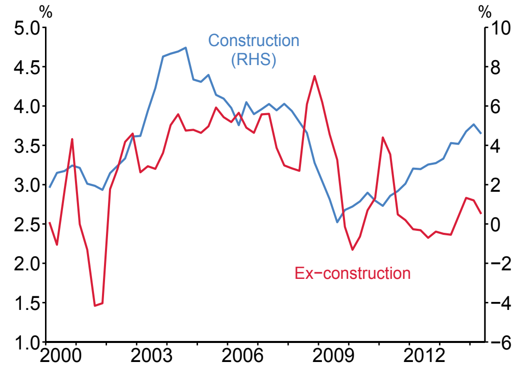
Figure 4.14
Trading partner export price inflation and New Zealand import price inflation
(annual, US dollar terms)



Source: Haver Analytics, Statistics New Zealand, RBNZ estimates.
Note: GDP-16 is an aggregate of 16 of New Zealand's major trading partner economies. China is excluded due to data availability.

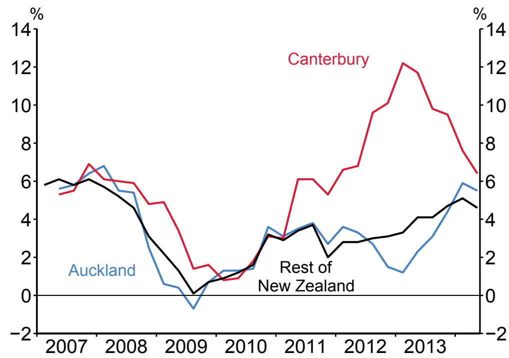
Annual non-tradables inflation was 2.7 percent in the June 2014 quarter. Non-tradables inflation has been centred on construction, with limited evidence of spill-over to generalised inflation to date (figure 4.15). CPI construction costs increased by 1.2 percent in the June quarter, with the annual rate of increase at 4.6 percent. Construction cost inflation has been strong both in Canterbury and elsewhere (figure 4.16).

Figure 4.15
Composition of non-tradables inflation
(annual, ex-GST)



Source: Statistics New Zealand, RBNZ estimates.

Figure 4.16
Construction cost inflation by region
(annual)



Source: Statistics New Zealand.

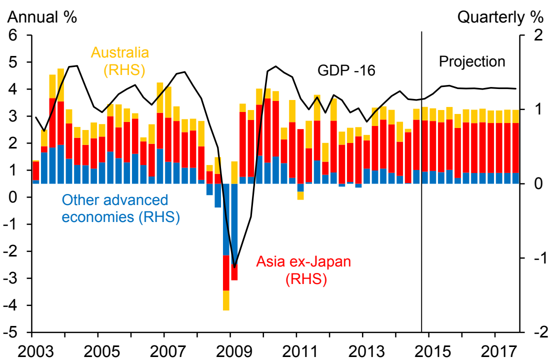
5 The macroeconomic outlook

Growth in the New Zealand economy is projected to moderate to a more sustainable pace in coming years. While the boost to growth from construction, net immigration and recent high export prices will wane, domestic demand is expected to become increasingly broad-based and self-sustaining. Consequently, the gradual removal of monetary stimulus is needed to limit inflationary pressures and ensure that annual CPI inflation settles around 2 percent over the medium term.

External outlook

Economic growth across New Zealand's major trading partners is expected to remain near its average pace over the projection. New Zealand is expected to benefit from its increasing share of trade with the fast-growing Asian economies (figure 5.1).

Figure 5.1
Trading partner GDP 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. GDP-16 is an aggregate of 16 of New Zealand's major trading partner economies.

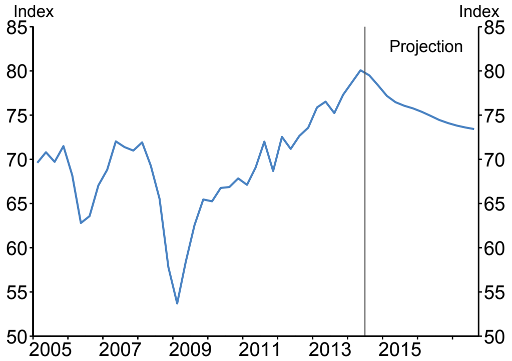
In China, government stimulus has helped maintain aggregate economic growth around the Government's target rate of 7.5 percent per annum. This is despite the weakening property market, which poses a key risk to economic growth given its linkages to other sectors. Domestic demand will continue to benefit from the process of urbanisation and implementation of the Government's reform agenda, and annual GDP growth of about 7 percent is expected over the next few years.

In Australia, GDP is expected to grow at a below-trend pace until the end of 2015 as the transition from mining investment-driven growth to broader growth continues. Investment in the resources sector is projected to continue to decline in coming years, with rising resource exports providing only a partial offset. Stimulatory policy settings in Australia should support the return to trend rates of growth by boosting other parts of the economy. The unemployment rate is likely to remain near 6 percent over the coming year. Performance of the New Zealand and Australian labour markets is expected to continue to diverge over this time, which could support further net immigration to New Zealand.

Economic growth is strengthening in the United States and the United Kingdom. Monetary authorities are preparing to gradually remove the exceptional monetary policy stimulus of recent years, to maintain growth at sustainable rates and ensure price stability. Rising growth in advanced economies will boost demand for the exports of New Zealand's Asian trading partners, and their incomes. The growth outlook in the euro area and Japan is weaker, and further policy easing is likely. Tension between Russia and Ukraine has affected the fragile recovery in the euro area, and an escalation in tension could slow the expected recovery further.

Global inflation is expected to increase modestly as spare capacity in major trading partner economies is absorbed only gradually. This will help to limit import price inflation in New Zealand, although its impact will be partly offset by an assumed depreciation in the New Zealand dollar TWI, reflecting the adjustment to domestic economic growth and rising interest rates in some of the major economies. The New Zealand dollar is assumed to remain relatively strong given New Zealand's relatively favourable economic outlook and positive interest rate differentials (figure 5.2, overleaf). While the high New Zealand dollar boosts domestic purchasing power, it will remain a significant headwind for export and import-competing industries.

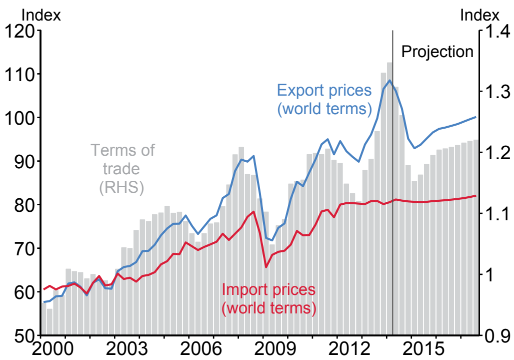
Figure 5.2
New Zealand dollar trade-weighted index



Source: RBNZ estimates.

Demand for New Zealand's exports will continue to increase with global income growth, and with an increasing share of New Zealand's exports going to faster-growing economies in Asia. Strong growth in Chinese demand will remain a key support for soft commodities. Consequently, while prices of New Zealand's export commodities have fallen considerably in 2014 – driven by dairy and forestry – they are expected to recover over the projection. The projected recovery in export prices and subdued import price outlook result in the terms of trade increasing by about 5 percent through 2015, and remaining historically high (figure 5.3).

Figure 5.3
SNA terms of trade and components
(seasonally adjusted)



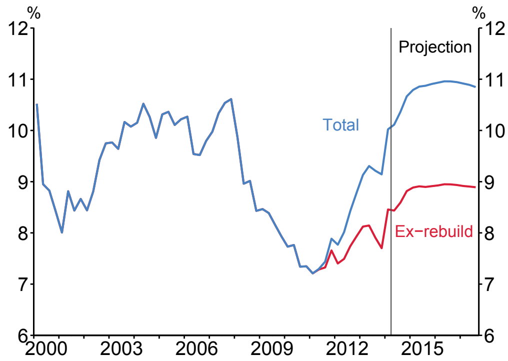
Source: Statistics New Zealand, RBNZ estimates.

Domestic demand

Growth in the New Zealand economy is expected to moderate to a more sustainable pace over the projection, after outpacing estimated growth in potential output for some time.

Strong construction demand will remain a key contributor to economic output over the projection. Construction output is expected to increase strongly over the next year before stabilising about 11 percent of potential output – a similar share to that seen at the peak of the last cycle (figure 5.4).

Figure 5.4
SNA expenditure on construction
(seasonally adjusted, share of potential output)

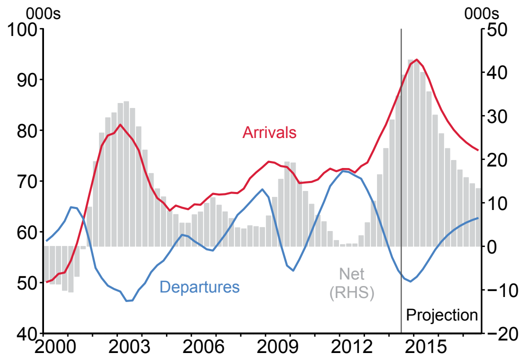


Source: Statistics New Zealand, RBNZ estimates.
Note: Construction expenditure sums gross fixed capital formation of residential buildings, non-residential buildings and other construction (from quarterly expenditure GDP). Ex-rebuild construction expenditure subtracts RBNZ estimates of the direct impact of the rebuild on construction expenditure.

Earthquake reconstruction will remain a key source of construction demand for a prolonged period. As the shift towards significant residential repairs and complete rebuilds progresses, and as large commercial projects get under way, reconstruction is expected to increase as a share of the economy over the next year before stabilising. Outside Canterbury, growth in building is expected to be strongest in Auckland where strong activity is expected to be required to accommodate future population growth.

After increasing substantially to peak at the end of 2014, net immigration is expected to ease as economic conditions and labour markets in other countries improve (figure 5.5). Nonetheless, the cumulative boost to the population is expected to be substantial, with net immigration assumed to add more than 50,000 to the working-age population over the projection (an increase of about 1.5 percent).

Figure 5.5
Permanent and long-term working-age migration
(annual)

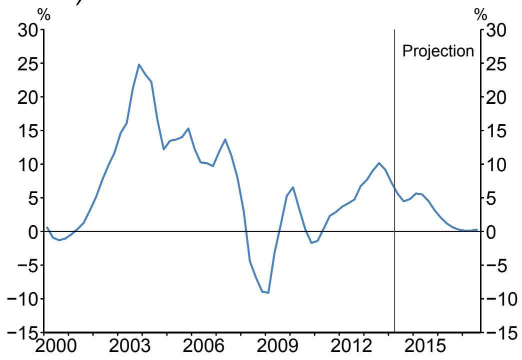


Source: Statistics New Zealand, RBNZ estimates.

The boost to population will be an important contributor to demand pressure in coming years by increasing consumer and housing demand. However, increased aggregate demand pressure will be partly alleviated by the associated increase in labour supply. As noted in chapter 2, net immigration is assumed to have a more muted and more lagged effect on housing demand than in previous cycles.

Annual house price inflation is projected to moderate over the medium term from current rates of around 6 percent (figure 5.6), as mortgage interest rates increase, migration flows normalise and increased dwelling construction alleviates supply shortages. As chapter 2 notes, house price inflation is weak compared with what past relationships with net immigration, interest rates and other factors would suggest, and the projection assumes that this weakness continues.

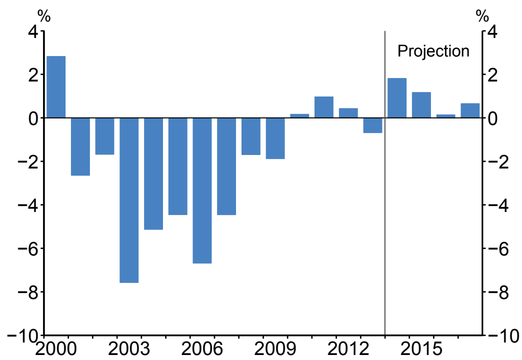
Figure 5.6
House price inflation
(annual)



Source: Corelogic NZ, RBNZ estimates.

Growth in household spending is expected to continue at a robust annual pace of around 3.5 percent through 2015. An improving labour market that contributes to growth in real incomes and low tradables inflation that boosts consumers' purchasing power are supporting spending growth. Beyond 2015, consumption growth moderates as income growth slows and interest rates rise to more neutral levels. The significant improvement in household saving behaviour in recent years, compared to dissaving during the mid-2000s, is assumed to persist with the household saving rate positive over the projection (figure 5.7).

Figure 5.7
Household saving rate
(March years, percent of disposable income)

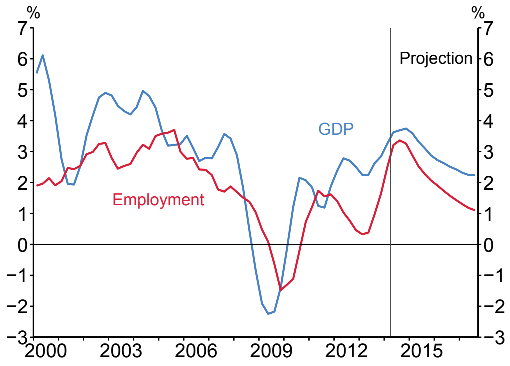


Source: Statistics New Zealand, RBNZ estimates.

Even as the pace of economic growth eases, conditions for businesses should remain favourable. Business investment is expected to increase at a moderate pace to alleviate resource pressures.

Employment is projected to strengthen in line with GDP (figure 5.8). At the same time, growth in labour supply is supported by high net immigration and historically high rates of labour force participation. Overall, employment growth is strong enough to more than absorb the increasing labour supply, resulting in the unemployment rate falling to around 5 percent (figure 5.9).

Figure 5.8
GDP and employment growth
(annual average)



Source: Statistics New Zealand, RBNZ estimates.

Figure 5.9
Unemployment rate
(seasonally adjusted)

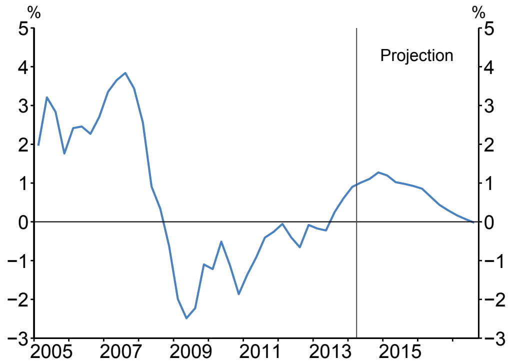
Source: Statistics New Zealand, RBNZ estimates.

Consistent with the *Pre-election Economic and Fiscal Update*, fiscal consolidation is expected to dampen economic output by a cumulative 1.7 percent over the projection.

Capacity pressure and inflation

With the New Zealand economy growing at an above-trend pace over the past 18 months, pressure on productive capacity has increased (figure 5.10). Capacity pressures have been most pronounced in the construction sector and are expected to remain so. Capacity pressures will ease over the projection as the impulse to growth from construction, export prices, and net immigration dissipates, and interest rates increase to more-neutral levels.

Figure 5.10
Output gap
(percent of potential output)



Source: RBNZ estimates.

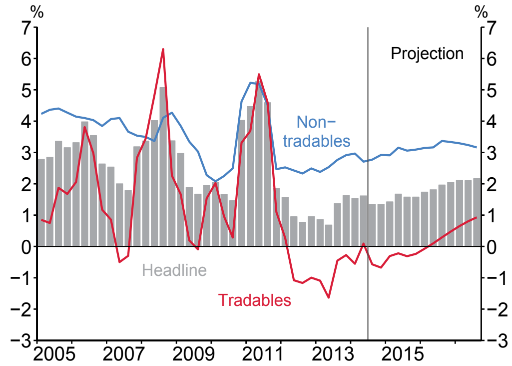
Inflation expectations are well anchored and are expected to remain so in coming years as monetary policy targets 2 percent annual CPI inflation over the medium term. Various measures of medium-term inflation expectations have been broadly flat over the past year, and are currently lower than they were in the second half of the last decade. Well anchored inflation expectations will help ensure inflation remains near 2 percent. Reflecting this, wage growth is projected to rise only modestly – from 2.6 percent to 3 percent – with increased labour supply also alleviating pressure on wages.

Non-tradables inflation has been relatively low over the past year, but is projected to rise to be consistent with capacity constraints in the economy. However, the pick-up in non-tradables inflation is assumed to be gradual, and annual non-tradables inflation is forecast to peak at 3.4 percent in 2016. Inflationary pressures are expected to remain strongest in the construction sector, with construction cost inflation outpacing aggregate non-tradables inflation.

Tradables inflation is projected to increase over the medium term, reflecting the assumed depreciation in the New Zealand dollar. However, the subdued global inflation environment will limit the pick-up in tradables inflation.

Combined, the increases in tradables and non-tradables inflation see CPI inflation increase gradually to settle at around 2 percent over the medium term (figure 5.11). Beyond our three-year projection period, reconstruction in Canterbury will continue to affect the outlook for an extended period. In the absence of other large shocks, growth would be expected to settle at around trend, with annual inflation settling at 2 percent and interest rate settings around neutral.

Figure 5.11
CPI inflation, and components
(annual)



Source: Statistics New Zealand, RBNZ estimates.

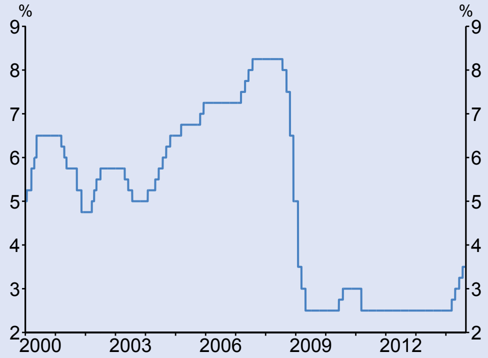
Box A
Review of recent monetary policy decisions and economic conditions

Reflecting the spare capacity that initially developed in the 2008/09 recession, the OCR has been low for an extended period. The OCR was raised by 25 basis points from 2.5 percent at the March *Monetary Policy Statement*. It was subsequently raised by 25 basis points in each of April, June, and July (figure A1).

Since monetary policy tightening began in March, demand and income growth have remained strong and capacity pressure has continued to rise. Annual non-tradables inflation was 2.7 percent in the June quarter. For both wages and non-tradables prices, increases have been notable in the construction sector. Tradables inflation remains very low, as has been expected given the high exchange rate and weak world inflation.

At the July OCR Review, the Bank noted that interest rate increases were starting to have an effect in moderating economic growth and containing inflationary pressures. Interest rates remained low and further increases were expected to be needed for annual CPI inflation to settle at 2 percent. However, it was prudent to have a period of assessment before adjusting interest rates further towards a more-neutral level. The profile of future OCR rises would take account of developments in the inflation outlook, including how interest rate increases were being transmitting through the economy.

Figure A1
Official Cash Rate



Source: RBNZ.

Appendix A[1]

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	-1.1	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	-0.4	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	0.6	-0.3	1.8	68.7	2.7
2012	Mar	0.8	0.5	1.6	72.5	2.7
	Jun	0.2	0.3	1.0	71.2	2.6
	Sep	0.3	0.3	0.8	72.6	2.7
	Dec	1.2	-0.2	0.9	73.6	2.6
2013	Mar	0.5	0.4	0.9	75.9	2.7
	Jun	0.6	0.2	0.7	76.5	2.6
	Sep	1.1	0.9	1.4	75.2	2.6
	Dec	1.0	0.1	1.6	77.3	2.7
2014	Mar	1.0	0.3	1.5	78.7	3.0
	Jun	0.8	0.3	1.6	80.1	3.4
	Sep	0.8	0.7	1.3	79.5	3.7
	Dec	0.9	0.1	1.3	78.4	3.8
2015	Mar	0.7	0.4	1.4	77.2	3.9
	Jun	0.6	0.5	1.7	76.5	4.0
	Sep	0.7	0.6	1.6	76.1	4.1
	Dec	0.7	0.1	1.6	75.8	4.3
2016	Mar	0.6	0.6	1.7	75.4	4.4
	Jun	0.5	0.6	1.8	74.9	4.5
	Sep	0.5	0.7	2.0	74.4	4.6
	Dec	0.6	0.2	2.0	74.1	4.7
2017	Mar	0.6	0.6	2.1	73.8	4.7
	Jun	0.6	0.6	2.1	73.6	4.8
	Sep	0.6	0.8	2.2	73.4	4.8

[1] Notes for these tables follow on pages 27 and 28.

Table B

Measures of inflation, inflationary pressures and asset prices

	2012		2013				2014	
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep
Inflation (annual rates)								
CPI	0.9	0.9	0.7	1.4	1.6	1.5	1.6	
CPI non-tradables	2.5	2.4	2.5	2.8	2.9	3.0	2.7	
CPI tradables	-1.0	-1.1	-1.6	-0.5	-0.3	-0.6	0.1	
Sectoral factor model estimate of core inflation ex-GST	1.5	1.5	1.5	1.6	1.6	1.6	1.6	
CPI trimmed mean (of annual price change) ex-GST	1.0	1.0	0.8	1.4	1.6	1.5	1.7	
CPI weighted median (of annual price change) ex-GST	1.6	1.5	1.3	1.8	2.0	1.7	2.2	
GDP deflator (derived from expenditure data)	-2.2	0.3	0.3	3.4	7.3	6.3		
PPI - Input prices	-0.5	0.0	0.0	3.3	2.8	3.1	1.4	
PPI - Output prices	-0.8	0.1	0.8	4.1	3.8	4.0	2.5	
Inflation expectations								
RBNZ survey of expectations - inflation one-year-ahead	1.8	1.7	1.5	1.9	1.9	2.0	2.1	2.0
RBNZ survey of expectations - inflation two-years-ahead	2.3	2.2	2.1	2.4	2.3	2.3	2.4	2.2
ANZ Bank Business Outlook - inflation one-year-ahead (quarterly average to date)	2.3	2.3	2.3	2.3	2.4	2.6	2.6	2.6
AON Hewitt Economist Survey - inflation one-year-ahead	2.0	1.9	1.8	2.0	2.0	2.2	2.1	2.1
AON Hewitt Economist Survey - inflation four-years-ahead	2.4	2.4	2.3	2.3	2.3	2.2	2.3	2.2
Pricing and costs (net balances)								
ANZ Bank Business Outlook - Pricing intentions, next 3 months (quarterly average to date)	15.5	20.3	22.2	29.4	26.0	31.6	27.5	24.6
QSBO Average selling prices, next three months (economy wide)	8.7	10.7	18.1	24.0	23.3	37.2	33.3	
QSBO Average costs, past three months (economy wide)	20.5	16.6	18.6	21.0	21.9	18.4	19.4	
Asset prices (annual percentage changes)								
Quarterly house price index (Quotable Value Limited)	6.8	7.7	9.1	10.2	9.2	7.3		
REINZ Farm Price Index (quarterly average to date)	3.8	-6.5	-1.8	10.8	5.7	9.0	15.3	5.6
NZX 50 (quarterly average to date)	21.0	26.9	28.9	26.7	20.6	16.5	14.6	12.0

Table C

Composition of real GDP growth

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

	Actuals								Projections		
March year	**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	2.6	3.4	3.3	3.5	2.3
Public authority	3.6	4.8	4.5	-0.0	2.0	0.2	-1.0	1.9	1.3	1.2	1.8
Total	2.6	4.0	-0.3	1.2	2.3	2.4	1.8	3.0	2.8	3.0	2.2
Gross fixed capital formation											
Residential	-2.1	1.8	-21.3	-8.6	0.3	-0.5	19.4	16.9	16.0	11.2	4.9
Other	-2.9	8.8	-4.6	-9.7	2.1	5.4	5.1	9.3	6.9	6.5	3.7
Total	-2.7	7.4	-7.8	-9.5	1.8	4.4	7.3	10.6	8.6	7.4	3.9
Final domestic expenditure	1.2	4.8	-2.2	-1.3	2.2	2.9	3.0	4.8	4.2	4.1	2.6
Stockbuilding [1]	-1.1	1.1	-0.5	-1.1	1.1	0.5	-0.5	0.3	0.4	-0.3	-0.0
Gross national expenditure	0.1	6.0	-2.4	-2.2	3.4	3.7	2.0	5.1	4.9	3.8	2.6
Exports of goods and services	3.8	3.7	-2.7	4.0	2.9	2.8	2.6	0.3	3.5	1.7	3.1
Imports of goods and services	-1.6	10.8	-3.9	-8.9	11.4	6.6	1.2	7.9	6.2	4.6	3.6
Expenditure on GDP	1.8	3.5	-1.9	2.2	0.7	2.3	2.5	2.5	3.9	2.8	2.3
GDP (production)	2.8	2.9	-1.9	-0.1	1.8	2.4	2.2	3.3	3.6	2.7	2.3
GDP (production, March qtr to March qtr)	3.4	1.3	-3.0	2.1	1.2	3.2	2.1	3.8	3.2	2.6	2.2

[1] Percentage point contribution to the growth rate of GDP.

Table D

Summary of economic projections

(annual percent change, unless specified otherwise)

	Actuals								Projections		
March year	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Price measures											
CPI	2.5	3.4	3.0	2.0	4.5	1.6	0.9	1.5	1.4	1.7	2.1
Labour costs	3.0	3.5	3.1	1.3	2.0	2.1	1.8	1.7	2.1	2.2	2.1
Export prices (in New Zealand dollars)	2.3	11.5	7.3	-7.5	8.0	-3.2	-5.2	11.5	-12.7	7.3	3.9
Import prices (in New Zealand dollars)	0.6	0.1	17.6	-11.2	3.5	-1.8	-4.3	-3.1	2.1	2.7	2.9
Monetary conditions											
90-day rate (year average)	7.6	8.6	6.7	2.8	3.1	2.7	2.6	2.7	3.7	4.2	4.6
TWI (year average)	65.6	71.6	61.6	62.9	67.1	70.6	73.3	76.9	78.8	75.9	74.3
Output											
GDP (production, annual average % change)	2.8	2.9	-1.9	-0.1	1.8	2.4	2.2	3.3	3.6	2.7	2.3
Potential output (annual average % change)	2.6	2.2	1.7	1.3	1.3	1.6	2.2	2.5	2.8	2.9	2.9
Output gap (% of potential GDP, year average)	2.7	3.4	-0.3	-1.8	-1.2	-0.4	-0.3	0.4	1.1	0.9	0.4
Labour market											
Total employment (seasonally adjusted)	2.0	1.3	-0.9	-0.2	1.8	0.9	0.4	3.8	2.3	1.6	1.1
Unemployment rate (March qtr, seasonally adjusted)	3.9	3.8	5.2	6.2	6.7	6.8	6.2	5.9	5.1	5.0	5.1
Trend labour productivity	1.1	1.0	0.9	0.8	0.8	0.9	0.9	0.8	0.9	1.0	1.1
Key balances											
Government operating balance (% of GDP, year to June)	3.4	3.1	-2.1	-3.3	-9.2	-4.5	-2.1	-0.9	-0.2	0.3	0.9
Current account balance (% of GDP)	-6.9	-6.8	-7.1	-1.5	-2.8	-3.1	-3.9	-2.7	-4.4	-6.3	-6.1
Terms of trade (SNA measure, annual average % change)	-1.6	8.8	-2.4	-4.1	7.7	1.5	-4.2	11.6	-4.0	-3.2	2.1
Household saving rate (% of disposable income)	-4.5	-1.7	-1.9	0.2	1.0	0.4	-0.7	1.8	1.2	0.1	0.7
World economy											
Trading partner GDP (annual average % change)	3.8	4.2	0.3	1.1	4.4	3.5	3.2	3.6	3.7	4.1	4.0
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	2.1	1.9

Notes and definitions

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 less 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.

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	(Quarter/Quarter$_{-1}$ - 1)*100
Annual percent change	(Quarter/Quarter$_{-4}$ - 1)*100
Annual average percent change	(Year/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.

Appendix B

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

AB Equipment Ltd
Ag Hub Ltd
Air New Zealand Ltd
Auckland City Council
AWF Group Ltd
BDO Central (NI) Ltd
BM Agriculture Ltd
Building Officials Institute NZ Ltd
Buildtech Holdings Ltd
Bunnings Ltd
Bushnell Construction Ltd
Business Hawke's Bay
Calder Stewart Construction Ltd
Canterbury Earthquake Recovery Authority
Colliers International New Zealand Ltd - Christchurch Real Estate Management Office
Council of Trade Unions
Crowe Horwath Ltd (Hawke's Bay)
Dan Ashby Consultant
Elders Ltd
Electrical Contractors Association of NZ
EQC
Ernst & Young Ltd
Fletcher Building Ltd
FMG Insurance Ltd
Fulton Hogan Ltd
Godfrey Hirst New Zealand Ltd
Hawkins Construction Ltd
Humphries Construction Ltd
IAG Ltd
Landcorp Farming Ltd
Leighs Construction Ltd
Massey University
McIntosh Farm Machinery Ltd
McKee Plastics Ltd
Meat Industry Association
Mech Agriculture Ltd
Mike Greer Homes Ltd
Mitre10 NZ Ltd
New Zealand Oil and Gas Ltd
New Zealand Retailers Association
Ngai Tahu Property Ltd
Northland Chamber of Commerce
NZ Agriworks Ltd
NZ Contractors Federation Ltd
NZ Institute of Architects
NZ Institute of Quantity Surveyors
NZ Labour Hire Ltd
Palmerston North City Council
Precinct Properties New Zealand Ltd
Prefab NZ Ltd
Property Council New Zealand Ltd
Reese Group Ltd
Registered Master Builders Federation
Restaurant Brands NZ Ltd
Russell Group Ltd
Spanbild New Zealand Ltd
Spark New Zealand Ltd
The Warehouse Group Ltd
Viridian Glass Ltd
Whyte Construction Ltd

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

Date	Percentage	Date	Percentage
29 January 2009	3.50	8 December 2011	2.50
12 March 2009	3.00	26 January 2012	2.50
30 April 2009	2.50	8 March 2012	2.50
11 June 2009	2.50	26 April 2012	2.50
30 July 2009	2.50	14 June 2012	2.50
10 September 2009	2.50	26 July 2012	2.50
29 October 2009	2.50	13 September 2012	2.50
10 December 2009	2.50	25 October 2012	2.50
28 January 2010	2.50	6 December 2012	2.50
11 March 2010	2.50	31 January 2013	2.50
29 April 2010	2.50	14 March 2013	2.50
10 June 2010	2.75	24 April 2013	2.50
29 July 2010	3.00	13 June 2013	2.50
16 September 2010	3.00	25 July 2013	2.50
28 October 2010	3.00	12 September 2013	2.50
9 December 2010	3.00	31 October 2013	2.50
27 January 2011	3.00	12 December 2013	2.50
10 March 2011	2.50	30 January 2014	2.50
28 April 2011	2.50	13 March 2014	2.75
9 June 2011	2.50	24 April 2014	3.00
28 July 2011	2.50	12 June 2014	3.25
15 September 2011	2.50	24 July 2014	3.50
27 October 2011	2.50		

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	
30 October 2014	OCR announcement
11 December 2014	*Monetary Policy Statement* and OCR announcement (media conference and webcast)
2015	
29 January 2015	OCR announcement
12 March 2015	*Monetary Policy Statement* and OCR announcement (media conference and webcast)
30 April 2015	OCR announcement
11 June 2015	*Monetary Policy Statement* and OCR announcement (media conference and webcast)

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.

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