RESERVE BANK
OF NEW ZEALAND
TE PŪTEA MATUA

Monetary Policy *Statement*

December 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 26 November 2014. Policy assessment finalised on 10 December 2014.

1 Policy assessment

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

The global economy continues to grow at a moderate pace, though recent data suggest a softening in major economies other than the United States. Inflation remains below target in most of the advanced economies due to spare capacity and declining commodity prices. Monetary policy is expected to remain very supportive for some time.

New Zealand's economic growth is running at an annual rate of around 3½ percent. While dairy prices have declined sharply, domestic demand has retained momentum, supported by the ongoing growth in consumption and construction activity. Interest rates are low by historical standards and continue to support domestic demand. The exchange rate does not reflect the decline in export prices this year and remains unjustifiably and unsustainably high. We expect to see a further significant depreciation.

CPI inflation remains modest, at 1 percent in the year to September. Weak global inflation, falls in international oil prices and the high exchange rate are the main influences. Inflation in the non-tradeables sector remains subdued with capacity pressures having less impact than usual.

Growth is expected to remain at or above trend through 2016, with unemployment continuing to decline. Modest inflation pressures suggest the expansion can be sustained for longer than previously expected with a more gradual increase in interest rates. Underpinning this, the economy's productive capacity is being boosted by high labour force participation, strong net immigration and continued investment growth.

Risks to the growth outlook include dairy prices, which are expected to recover in 2015, the overvalued exchange rate, and the strength of construction activity. Inflation risks include the impact of rising capacity pressures on domestic inflation, the response of house prices to the strong migration inflows, and the impact of lower oil prices.

With output projected to grow at or above capacity, CPI inflation is expected to approach the 2 percent midpoint of the Reserve Bank's target range in the latter part of the forecast period. Some further increase in the OCR is expected to be required at a later stage. Further policy adjustments will depend on data emerging over the assessment period.

Graeme Wheeler

Governor

2 Key policy judgements

The New Zealand economy is estimated to have expanded by 3.4 percent in the year to December, supported by low interest rates, strong growth in construction activity, high net immigration, and the flow-on from last season's high dairy prices. The momentum in output is reflected in employment and incomes. Employment grew by 3.2 percent and labour incomes by 5.3 percent in the year to September.

Strong output growth over the past two years has steadily reduced surplus capacity in the economy. In aggregate, mild resource shortages have developed, and fewer firms are reporting that a lack of demand is the main factor hindering expansion. This capacity pressure has developed despite increases in potential GDP growth driven by high labour force participation, strong net immigration and continued growth in business investment.

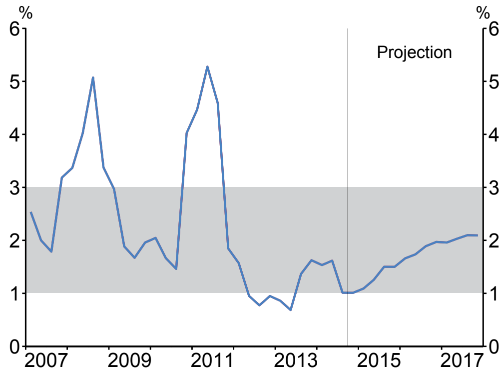
With GDP growth strong, capacity pressure rising and inflation expected to rise over the medium term, the Bank increased the Official Cash Rate (OCR) by 100 basis points from March to July this year to reach 3.5 percent. Behind this increase is a view that the economic expansion in New Zealand has considerable momentum, and that demand no longer needs the degree of support that comes from a 2.5 percent OCR.

In September and October the OCR was held at 3.5 percent. Signs that the economy has been adjusting to the monetary policy tightening have made it appropriate for the Bank to pause to assess how inflationary pressures are developing. Continued low inflation provides room for that assessment.

In the September quarter, annual inflation fell to 1 percent, the bottom of the Bank's 1 to 3 percent target band. Headline inflation is low due to the high exchange rate, low import price inflation and a recent sharp drop in food prices. Non-tradables inflation, while higher at 2.5 percent in the year to September, is below its average rate.

While inflation is currently low, continued strong GDP growth and the depreciation in the exchange rate since July make it likely that inflation will move higher in 2015 (figure 2.1).

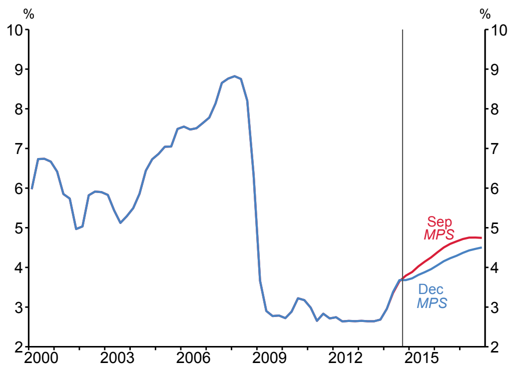
Figure 2.1
CPI inflation
(annual)



Source: Statistics New Zealand, RBNZ estimates.

To ensure that inflation and inflation expectations are contained near the 2 percent target midpoint, some further modest tightening is likely to be required. The 90-day interest rate is projected to increase by 80 basis points over the coming three years (figure 2.2). This is less than was projected in the September *Statement*, reflecting recent inflation weakness and the impact of falls in international dairy prices.

Figure 2.2
90-day interest rate



Source: RBNZ estimates.

How quickly and how far interest rates ultimately need to rise will depend on economic developments, including how the economy responds to interest rate increases to date. Three important considerations are:

- how actual pricing decisions interact with measures of capacity pressure and inflation expectations;
- how house price inflation develops in the face of still-low interest rates, strong net immigration, restrictions on high loan-to-value ratio (LVR) mortgage lending, and supply shortages; and
- how reduced dairy farm incomes affect spending.

Inflation developments

Tradables inflation, which is currently negative and weighing on headline inflation, is expected to increase to about 1 percent in 2017 as the exchange rate eases and global inflation slowly picks up. There are two key downside risks to the outlook for tradables inflation. One is that the exchange rate, which is assumed to decline over the projection, might fall more slowly in the face of continued monetary easing abroad. The other is that recent falls in oil prices could persist. Oil prices have fallen sharply in recent months, from a peak of USD 111 per barrel (Dubai, the measure we use in our projection) in June to about USD 80 at the time the forecast was finalised. In the projection, they are assumed to sit in a range of USD 80-85, but at the time of writing had dropped to about USD 70 posing downside risk to tradables inflation in the near term.

Movements in oil prices and the exchange rate affect CPI inflation quickly and directly through domestic petrol prices and New Zealand dollar import prices. Monetary policy acts on inflation with a lag: it cannot offset the immediate short-term effects on inflation of oil price and exchange rate movements, but can respond to pass-through into generalised inflation and inflation expectations. Consistent with this, Clause 3 of the Policy Targets Agreement says monetary policy's focus in such circumstances should be on the medium-term trend in inflation.

At 2.5 percent, annual non-tradables inflation is higher in absolute terms than tradables inflation. However, non-tradables inflation is lower than its drivers, capacity pressure and inflation expectations, would normally suggest. The weakness has been persistent (see Box B, Chapter 4 for further details), and in this projection is assumed to linger for longer than in the September *Statement*. Further investigation and inflation data over coming quarters will provide more clarity.

The housing market

Annual house price inflation has fallen from 10 percent in September 2013 to just over 4 percent currently. The slowing partly reflects the introduction of speed limits on high LVR mortgage lending in October 2013 and interest rate increases. However, conditions in the housing market are weaker than would normally be suggested by still-low interest rates, high net immigration and supply shortages, even after taking account of the estimated effect of LVR restrictions. The projection takes a view that house price inflation will remain modest as interest rates gradually rise, housing supply increases and net immigration slows.

That is an important judgement, given the important role house price inflation has played in past demand cycles. A risk is that continued low interest rates and strong net immigration lead house price inflation to increase. Adding to this risk are reductions in fixed-term mortgage rates over recent months as banks' wholesale and retail funding costs have fallen.

Dairy prices and domestic spending

Aggregate prices on the GlobalDairyTrade platform have fallen about 50 percent since February 2014, albeit from record levels. While prices are expected to begin increasing next year, the projection allows for some further falls in the short term.

There are signs that many dairy farmers used the strong incomes of the past year to pay down debt and increase cash buffers. Based on this and past experience, the projection takes a view that dairy farmers will smooth their spending to a degree through the subsequent reduction in income. However, there is a risk that the fall in dairy export incomes puts greater pressure on farmers' cash flow and leads to a sharper-than-normal slowing in economic activity.

Inflation and monetary policy

At 3.5 percent, the OCR is still providing support to demand. Inflation is currently low, but is expected to rise slowly over the medium term, with continued strong demand growth and increasing pressure on capacity. We expect a gradual increase in interest rates, to around their neutral rate, will be needed for CPI inflation to settle at 2 percent over the medium term. With the OCR having increased by 100 basis points this year and signs that the increases are having an effect, it is appropriate to spend time assessing how demand growth, supply capacity and inflation are developing before further interest rate adjustment is considered.

3 Financial market developments

Volatility picked up considerably across a number of asset classes during October, but the rise proved to be temporary. The general trend remains one of equity indices rising, to new highs in many cases, and bond yields trending lower. Easy global monetary policy – and expectations that this will continue over 2015 – has been a major driver of these trends.

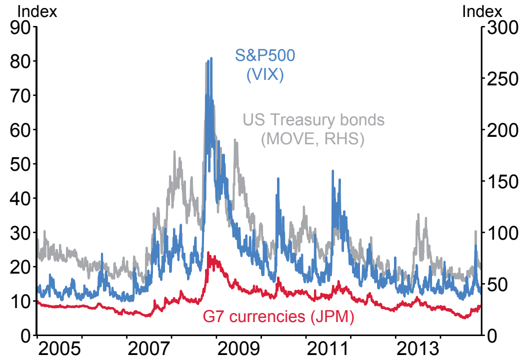
The New Zealand dollar Trade Weighted Index (TWI) is broadly unchanged since the September *Statement*, although cross rates within the TWI have diverged. The New Zealand dollar has weakened against the United States dollar but strengthened against the Australian dollar and Japanese yen. Pricing in the overnight indexed swaps (OIS) market suggests that expectations of the pace of OCR hikes have dampened. The next full 25 basis point OCR increase is now not priced in until January 2016. New Zealand interest rates have fallen, particularly at the longer end of the yield curve in line with global trends.

Marginal funding costs for local trading banks have stabilised in recent months and remain near post-global financial crisis lows. Lower swap rates have enabled banks to reduce fixed mortgage rates, while the average floating mortgage rate is unchanged. Borrowers continue to migrate from floating- to fixed-rate mortgages.

International market developments

Financial market volatility picked up across a range of asset classes in mid-October, after a prolonged period of stability (figure 3.1). Although there is no firm consensus on what caused volatility to rise, contributing factors included increased investor concern about the rate of global growth and further divergence among the monetary policy outlooks for major economies. Data outturns in the euro area, Japan, and China indicated less momentum in these economies than previously expected. The VIX index, a measure of equity market volatility, rose above 30 for the first time since 2012. Bond market volatility also increased substantially, highlighted on 15 October when the 10-year United States Treasury yield traded in an intraday range of 36 basis points. Volatility has since returned to around average levels for the year, although is above the very low levels experienced in July.

Figure 3.1
Volatility indices



Source: Bloomberg.

The increased volatility was associated with weakness in global equity markets, with benchmark indices falling around 10 percent. Equity markets have subsequently recovered, albeit unevenly among regions. United States and Japanese equity indices have returned to their highest levels for the year, while European and emerging market equities remain below September's highs.

Along with the fall in volatility, various region-specific factors contributed to the recovery in stock prices. In Japan, further monetary easing by the Bank of Japan (BoJ) and an announcement by the Government Pension Investment Fund (GPIF) reallocating towards more risky assets have spurred price gains. In the United States positive labour market and growth data have supported equity prices.

Commodity prices have generally continued to soften over the past few months, with particular weakness in oil and iron ore prices. The Bloomberg commodity price index has fallen 4.2 percent since the September *Statement*. Oil prices have fallen significantly, with the benchmark Brent crude oil price at around USD70 per barrel – down 39 percent from its 2014 peak in June. Weaker oil prices are due to both increased supply and softer demand. United States shale oil production has expanded significantly and the United States is now producing around nine million barrels of oil per day. In addition, as supply disruptions in Libya and Iraq have abated, production in these regions has increased. Softer-than-expected growth in the euro area and slowing Chinese growth have slowed oil demand.

In the United States, the Federal Reserve concluded its asset purchase programme in October to little market reaction. The Federal Open Market Committee reiterated that the current target range for the federal funds rate is likely to remain appropriate for a considerable time, although it noted that the labour market and other aspects of the United States economy have strengthened. Current market pricing predicts the Federal Reserve will begin to raise interest rates in the third quarter of 2015.

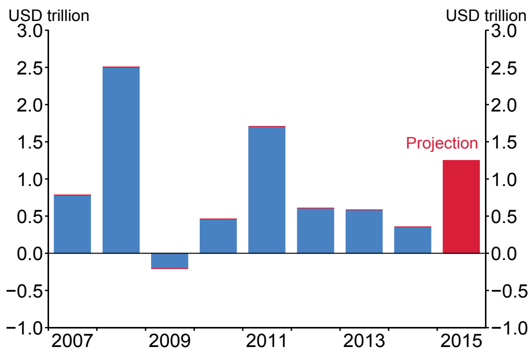
The BoJ increased the pace at which it was expanding the monetary base at its October meeting – to an annual rate of 80 trillion yen – citing downside risks to its inflation target and domestic demand. The policy will largely be achieved through purchases of Japanese government bonds (JGBs). In addition, the duration of bonds purchased has been extended, while the BoJ promised to continue the programme as long as is necessary to achieve its inflation target. Japan's GPIF announced a change in its asset allocation, increasing the weighting of equities and foreign investment. The target share of domestic bonds will be reduced from 60 percent to 35 percent, while the allocation to equities will be increased from 24 percent to 50 percent. The acceleration of JGB purchases by the Bank of Japan is larger than the proposed reduction of JGB exposure by the GPIF. These developments may lead to capital outflows from Japan and downward pressure on the yen.

In the euro area, the European Central Bank (ECB) announced it would aim to expand its balance sheet to early-2012 levels – around a one trillion euro increase to three trillion euros – as forecast growth and inflation remain weak. There is a growing expectation the ECB will have to introduce a government bond purchase programme to meet this target. The initial take-up of targeted long-term refinancing operations was weak, and many analysts expect that the asset-backed security and covered-bond purchase programme will be too small to reach the target balance sheet level.

The People's Bank of China cut benchmark lending and deposit rates in November. The direct impact of the cuts may be limited, but it signals that authorities are willing to increase stimulus to support slowing growth. Earlier in the year, authorities tightened credit conditions in light of perceived risks after a period of very strong credit growth, particularly in the shadow banking sector.

Although the Federal Reserve ended asset purchases in October, in aggregate the balance sheet expansion of major central banks is expected to accelerate over the next year, driven by asset purchases by the BoJ and ECB. We estimate this increase will be significantly larger in 2015 than in any of the past three years in United States dollar terms (figure 3.2). Markets expect policy rates to remain close to the zero lower bound in the euro area, Japan and the United Kingdom over 2015. Markets are also pricing a chance of further policy easing in Australia and expect further easing in China. In this sense, the United States appears to be an outlier on the global scene as the Federal Reserve moves closer to increasing interest rates next year.

Figure 3.2
Estimated change in major central bank balance sheets



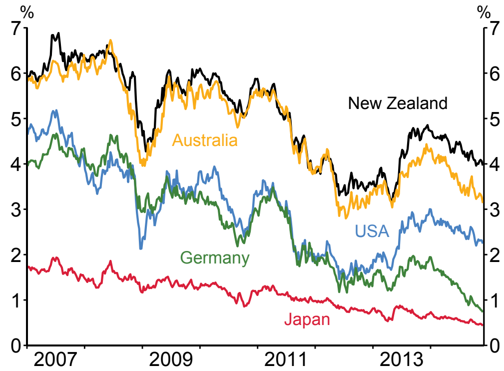
Source: Bloomberg, RBNZ estimates.
Note: Estimated increase in balance sheets of the Bank of England, Bank of Japan, ECB and Federal Reserve.

Financing and credit

Government bond yields have continued to trend lower since the September *Statement* (figure 3.3), continuing the downward movement seen since the start of 2014. In the euro area and Japan, primary drivers of declining yields have been downwardly-revised expectations for growth and inflation, and consequently for more monetary policy easing. The yield on German 10-year Bunds fell to a record low 0.71 percent in October and is currently just above this level. Spanish and Belgian 10-year bond yields have also hit record lows below two percent and one percent respectively. Japanese 10-year government bond yields are around 10 basis points lower since the September *Statement* at 0.45 percent. Despite an improving economy, the yield on United States 10-year Treasury bonds has also fallen to around 2.30 percent as lower yields in the euro area and Japan have increased demand for United States Treasury bonds. However, long-dated bond yields are expected to increase at a faster pace in the United States than in the euro area and Japan, consistent with the stronger growth outlook.

Bond yields in New Zealand and Australia have also moved lower as these global moves have flowed through to local markets. From the September *Statement* to the end of November, the yield on 10-year New Zealand government bonds fell by 28 basis points to 3.94 percent, while the Australian 10-year government bond yield fell 52 basis points to 3.09 percent. In New Zealand, lower yields also reflect the slower expected path of OCR increases and lower inflation.

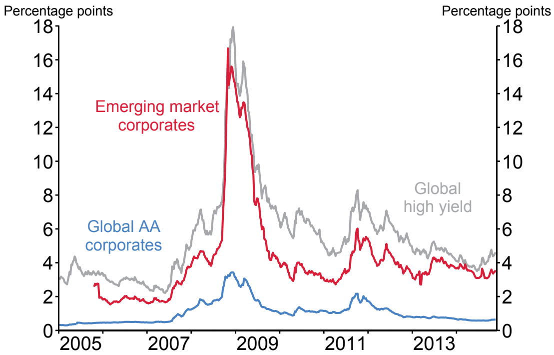
Figure 3.3
10-year government bond yields



Source: Reuters.

Credit spreads have widened since the middle of the year across a range of bond classes (figure 3.4). In July, comments by Federal Reserve Chair Janet Yellen that spreads on high-yield ('junk') bonds seemed excessively low prompted some investors to re-assess credit risk. More recent factors contributing to wider credit spreads include global growth concerns and increased volatility during October. The spread on Barclays' global high-yield index has widened by 117 basis points since its low in mid-June to 4.67 percent, the widest since October 2013.

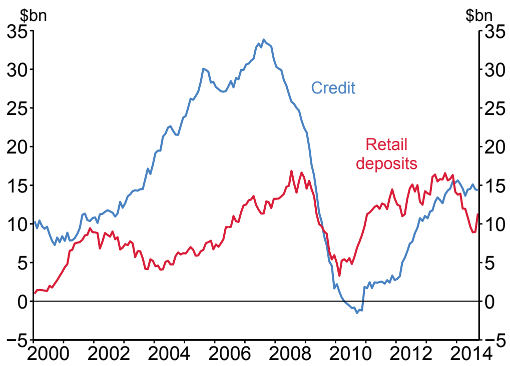
Figure 3.4
Corporate bond option-adjusted spreads



Source: Barclays.
Erratum: Figure 3.4 has been corrected so the vertical axis label reads 'Percentage points' instead of 'Basis points'.

Marginal funding costs for New Zealand banks have stabilised in recent months and remain near post-global financial crisis lows. Solid deposit growth relative to overall credit growth has reduced the need for banks to aggressively compete for deposits and some banks have cut term deposit rates (figure 3.5). Short-term market funding spreads remain unchanged. Debt issuance by New Zealand banks has been low in recent months, with banks well-funded and credit growth subdued. However, banks are still able to issue debt at favourable spreads.

Figure 3.5
Retail deposit and credit growth
(annual)



Source: RBNZ estimates.

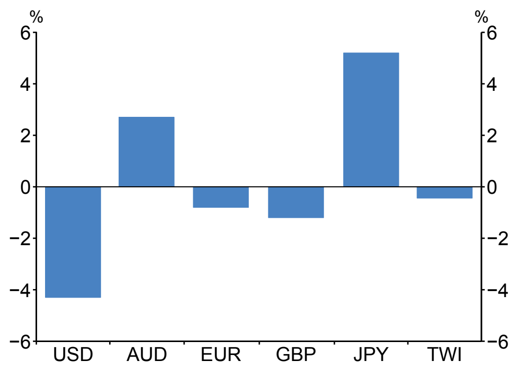
Foreign exchange market

The New Zealand dollar TWI is broadly unchanged since the September *Statement* and remains 5 percent below its post-float high set in July. Since September the TWI has traded in a range between 76 and 79, and currently sits at the upper end of this range. However, the fairly small change in the TWI masks wide divergences between the component cross rates (figure 3.6). The NZD-USD exchange rate has depreciated around 4 percent while the NZD-JPY exchange rate is 6 percent stronger.

The United States dollar has strengthened as the United States economy has gained momentum and the Federal Reserve is moving closer to the start of an interest rate tightening cycle. The Federal Reserve's broad United States dollar index, which measures the value of the United States dollar against a range of currencies, is at its strongest since mid-2009.

The Japanese yen has depreciated substantially over recent months. The Bank of Japan's unexpected additional policy easing has been a major driver. The GPIF's announcement of a significant reallocation towards offshore assets has also contributed. The NZD-JPY exchange rate has appreciated from 87.5 to 93 since the September *Statement*, the highest since mid-2007. The euro has continued to depreciate as the ECB reiterated that it stands ready to undertake further monetary policy easing if economic conditions warrant. The Australian dollar has recently fallen to four year lows against the United States dollar, while it is the weakest since July against the New Zealand dollar. Falling iron ore prices, softer domestic economic indicators, and increasing market expectations for further monetary easing have contributed to this fall.

Figure 3.6
New Zealand dollar cross rate changes from 10 September to 26 November



Source: Bloomberg.

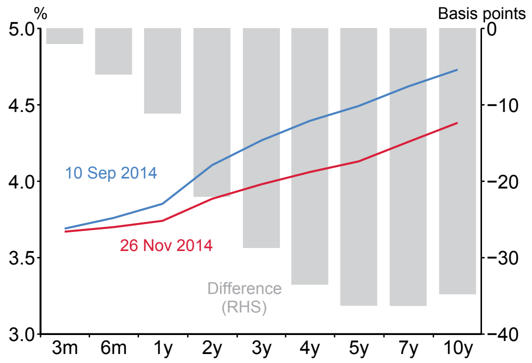
Other domestic financial market developments

The OIS market suggests that a slower pace of OCR increases and a lower peak in the OCR are expected than at the time of the September *Statement*. Contributing to this view have been softer domestic data outturns – notably weaker-than-expected inflation of 1.0 percent in the year to the September quarter – and further falls in dairy prices. In addition, markets interpreted the October OCR Review *Statement* as increasing the threshold for future OCR hikes. Offshore developments, particularly softer inflation outturns in major developed countries, have also contributed to a slower expected path for OCR increases.

The OIS market is now not pricing in the next full 25 basis point OCR increase until January 2016. By comparison, just prior to the September *Statement* markets were pricing the next increase for June 2015. Market analysts have also pushed out their expected timing of the next OCR increase, with the median call now for an OCR increase in September 2015.

New Zealand interest rates have moved lower across the yield curve since the September *Statement* (figure 3.7). At shorter maturities, the slower expected pace of OCR hikes has been reflected in swap rates with the two-year rate having fallen 22 basis points to 3.89 percent at the time forecasts were finalised. Falling global bond rates have put added downward pressure on interest rates at longer maturities. The 10-year swap rate has moved 22 basis points lower, resulting in a flatter yield curve.

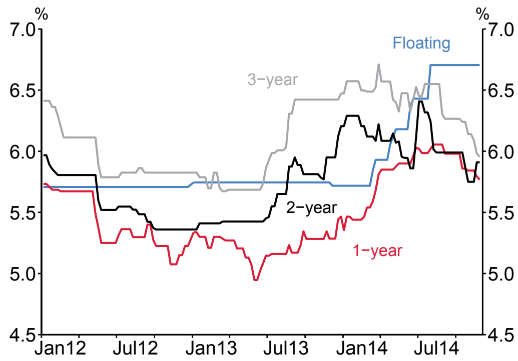
Figure 3.7
Wholesale bank bill and swap rates



Source: Reuters.

Floating mortgage rates are unchanged since the September *Statement* reflecting steady money market rates since the last OCR increase in July. The big four banks currently offer floating mortgage rates between 6.59 and 6.75 percent. Fixed mortgage rates have generally declined as lower wholesale interest rates have been passed through to customers (figure 3.8). Banks are competing aggressively for market share, particularly at the two- and three-year terms, with a range of special rates offered. The average two-year fixed mortgage rate from the big four banks is currently 5.75 percent, 24 basis points lower than at the time of the September *Statement*. Average five-year fixed mortgage rates have declined from over 7 percent in September to 6.64 percent currently, but borrowing at longer terms remains low.

Figure 3.8
Average mortgage rates by term



Source: interest.co.nz, RBNZ estimates.

Mortgage holders continue to move away from the relatively more expensive floating-rate mortgages. The trend towards fixing for two-to-three years has continued with the share of mortgages between one and three years to maturity rising to 36.8 percent from 23.3 percent in January. Although the proportion of mortgages on floating rates has fallen to 27.8 percent in October, 60 percent of mortgage holders remain on floating rates or fixed rates with less than one year to maturity.

4 Current economic conditions

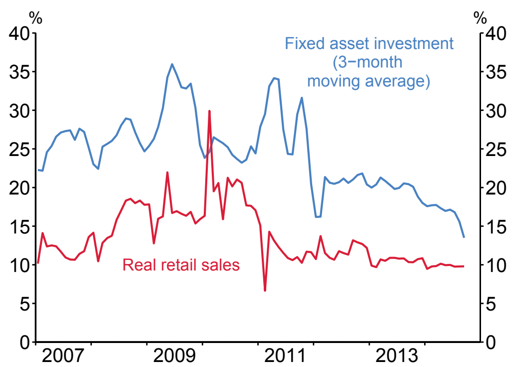
New Zealand's economic growth is estimated to be 1.6 percent over the second half of 2014. Growth is broad-based, and robust across industries. As output continues to increase more quickly than the economy's potential, capacity pressures have increased. Despite this, CPI inflation is low at 1 percent in the year to the September quarter, reflecting the high exchange rate and low import price inflation.

External demand

Economic growth in New Zealand's trading partner economies has continued at a moderate pace through the middle of 2014. Despite considerable monetary stimulus, spare capacity remains in most advanced economies, contributing to subdued global inflation.

In China, GDP expanded 7.3 percent in the year to September. There are signs that the composition of economic activity is shifting towards consumption. Growth in real retail sales has remained steady, while growth in investment has slowed (figure 4.1). The property market remains soft, with house prices falling in most cities. Property sales have stabilised in recent months, but remain below 2013 levels. Credit growth has fallen substantially over the past year.

Figure 4.1
Chinese fixed asset investment and real retail sales growth
(annual)



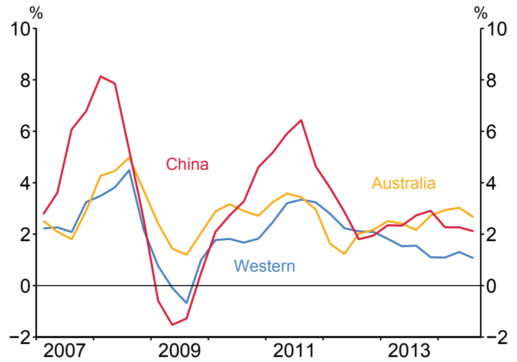
Source: Haver Analytics, RBNZ estimates.

While investment is slowing in Australia's mineral resource sector, annual GDP growth is slightly below trend at 2.7 percent. Net exports have been a significant contributor to GDP growth in recent quarters. While business investment outside the resource sector is only increasing gradually, consumption growth has been moderate and residential investment has been increasing. However, employment growth has not been sufficient to meet growth in labour supply and the unemployment rate has increased to above 6 percent.

The recovery in major advanced economies continues, with significant divergences among regions. Economic growth in the United States has been strong through the middle of the year, and measures of spare capacity in the labour market have reduced. Growth in the United Kingdom continued at a robust pace during the middle of 2014. Growth in the euro area has fallen and the labour market remains weak. Output in Japan fell sharply following an increase in the consumption tax in April, and weakened further in the September quarter. Growth in New Zealand's other Asian trading partners has been mixed over the past year, and weakness in Europe has reduced external demand for Asian economies' output.

Excess capacity and falls in global commodity prices, particularly for oil, have reduced inflation in most of New Zealand's trading partners over the past year (figure 4.2). Inflation has eased in China over recent months, as lower oil and food prices and spare capacity in some sectors have resulted in little pricing pressure. In Australia, inflation has also eased as a result of domestic spare capacity. Spare capacity in the euro area has contributed to very low inflation. Inflation in the United Kingdom has declined sharply as cost pressures have abated, driven by declines in import prices.

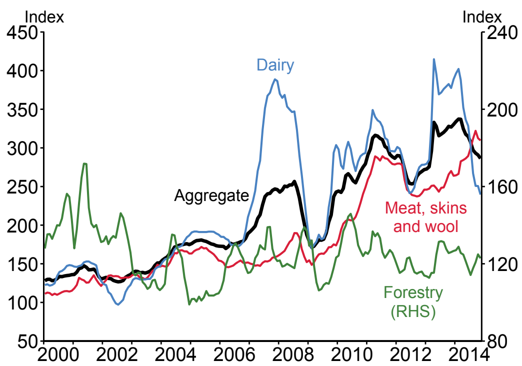
Figure 4.2
Trading partner inflation
(annual)



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

Prices for New Zealand's commodity exports have fallen by 15 percent in world terms since February on the ANZ commodity price index, albeit from a very high level (figure 4.3). The decline has been led by falls in dairy and forestry prices, with increasing meat prices providing some offset.

Figure 4.3
Export commodity price indices
(world terms)



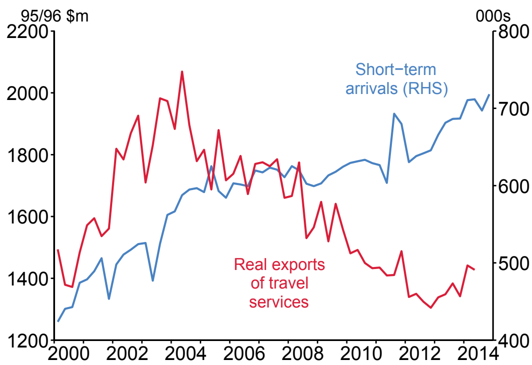
Source: ANZ Bank.

Dairy prices have fallen by 50 percent on the GlobalDairyTrade platform since February. Increased global supply, an earlier accumulation of milk powder inventories in China, and sanctions in Russia have dampened prices. Underlying demand for dairy in China appears to remain robust. This is expected to contribute to milk powder inventories in China clearing in coming months.

Over 2014, weakness in the Chinese property sector has reduced log demand. This resulted in a large increase in log inventories in China, and declines in log prices. Log prices have stabilised over recent months, although Chinese log demand is not expected to recover over the coming year. In contrast, meat prices have steadily increased over 2014. Meat prices are currently around historical highs, largely due to strong demand for imported beef from the United States. Lamb prices have remained steady.

Tourism exports continued to increase over 2014. Visitor arrivals increased by 7.2 percent in the year to October (figure 4.4). A greater proportion of visitors has been coming from Asia – and from China in particular – while the number of visitors from Europe and the United States has been recovering over the past 12 months. With a greater number of visitors coming from these higher-spend regions, total visitor spending is steadily increasing (see Box A).

Figure 4.4
Short-term arrivals, and real exports of travel services
(quarterly, seasonally adjusted)



Source: Statistics New Zealand, RBNZ estimates.

The TWI remains high relative to history, reflecting New Zealand's relatively strong economic outlook and the very stimulatory monetary policy in many advanced economies. The TWI is around a similar level to what it was at the time of the September *Statement* (figure 4.5)

Box A
Recent discussions with service exporters

The Bank regularly meets with businesses and organisations across the country to improve industry knowledge and obtain timely information on current and expected economic conditions. During the business visits leading up to the December *Statement*, Bank representatives met with more than 20 organisations in the tourism and education sectors, along with another 30 firms from a broader range of industries. Services account for approximately 25 percent of New Zealand's total exports, with tourism and education significant components. Real service exports have been declining since the early 2000s (figure 4.4).

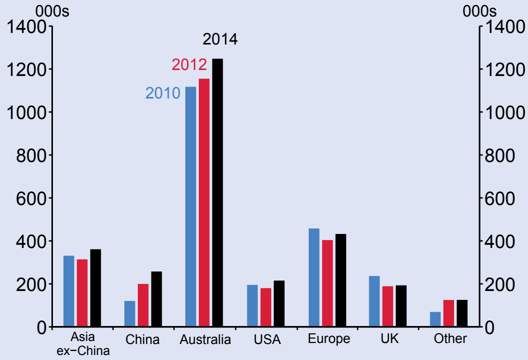
Over the past 18 months, real service exports appear to have stabilised, and there are early signs of recovery. In part, this recovery appears to reflect strengthening tourism and education demand from Asia. The Bank spoke with organisations to better understand the nature of recovery, as well as the outlook for these service export sectors.

Contacts in or related to the tourism industry were generally upbeat. Most had seen demand increase over the past year, and bookings for the coming season were strong. The number of visitors arriving from China each year has more than doubled since 2010, and accounts for about half of the increase in total visitor numbers (figure A1). However, most contacts attributed the recent improvement in demand to an increased spend by more traditional markets such as Australia, the United States and the United Kingdom.

While demand was strengthening in the tourism sector, there did not appear to be much upward movement in prices. Contacts generally seemed to have sufficient capacity, and competition within the industry was also dampening prices. With the exception of rents, there did not appear to be much pressure on costs either.

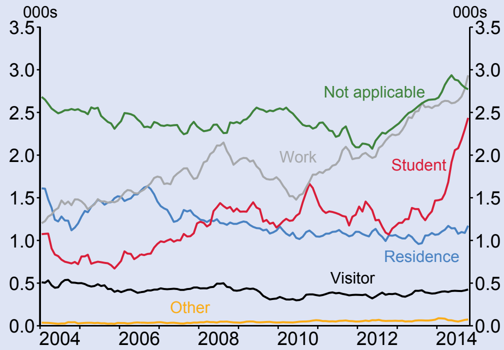
Education exporters had also seen an increase in demand over recent years. The number of international (fee-paying) student enrolments increased 8 percent in the year to April, to just over 60,000 students. Between April and October, the number of permanent and long-term migrants arriving on student visas continued to climb, and accounted for much of the recent step-up in total arrivals (figure A2). A large proportion of students is coming from China, and the annual number of student arrivals from India has doubled in the year to October 2014.

Figure A1
Annual short-term visitor arrivals by country
(year to October)



Source: Statistics New Zealand, Reserve Bank estimates.

Figure A2
Permanent and long-term arrivals by visa type
(monthly, 3-month moving average, seasonally adjusted)



Source: Statistics New Zealand, Reserve Bank estimates.
Note: Not applicable includes returning New Zealand citizens.

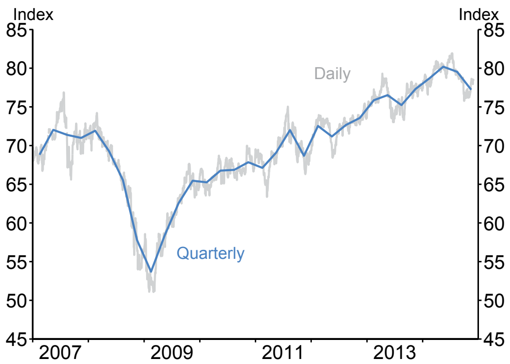
Nearly two-thirds of students were studying in the Auckland region. Contacts noted increased demand for home-stay accommodation. The next most popular region for study was Canterbury, at 8 percent, although this had fallen since the 2011 earthquakes. Of the recent increase in international enrolments, many were at Institutes of Technology and Polytechnics or private training establishments.

Contacts identified three main reasons that people wanted to study in New Zealand:

- New Zealand's relative safety in the face of international geopolitical tensions and terrorism scares;
- a relatively low cost of tuition, and the fact that all New Zealand's universities are ranked in the top 500 in the world; and
- the relative ease of being able to find a job in the country after graduation, because international graduates are given 12 months to find employment. Contacts commented that this policy was much more attractive than the United States and United Kingdom (with migration rules in Australia being deemed "complicated").

Although contacts noted that students were typically very sensitive to the level of the exchange rate, the high New Zealand dollar had not dampened student numbers in the past 18 months or so. Overall, education providers were optimistic about the outlook.

Figure 4.5
New Zealand dollar TWI

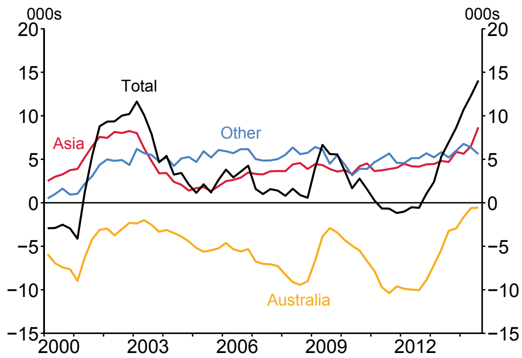


Source: RBNZ.

although there have been significant divergences between cross-rates (see Chapter 3).

New Zealand's relatively strong economic outlook is contributing to very high net immigration. Net permanent and long term immigration was 47,700 for the year to October 2014. Arrivals have been increasing, and over recent months have been driven by a strong acceleration in migrants from Asia, many of whom are students (figure 4.6). Declining departures have also contributed to higher immigration over the past year, with departures to Australia particularly low, reflecting softness in the Australian labour market.

Figure 4.6
Permanent and long-term net immigration flows
(quarterly, seasonally adjusted)

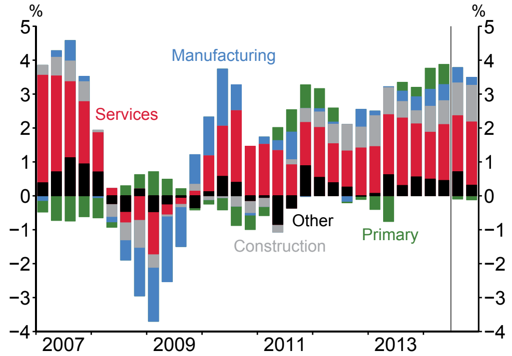


Source: Statistics New Zealand, RBNZ estimates.

Domestic demand

The New Zealand economy is estimated to have expanded by 3.4 percent in the year to December, with this growth broad-based across industries (figure 4.7).

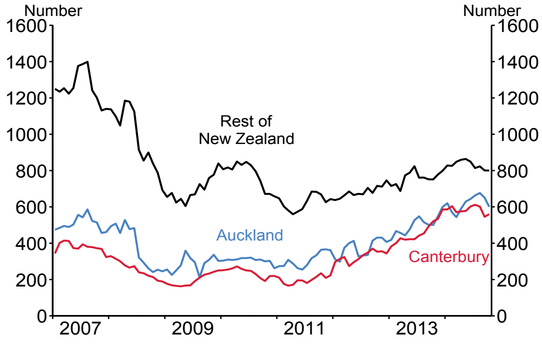
Figure 4.7
Contributions to annual production GDP growth, including forecasts



Source: Statistics New Zealand, RBNZ estimates.

Total construction activity increased 10 percent in the year to June 2014 and is expected to grow further over the second half of the year. Non-residential consent issuance has increased at a robust pace over 2014, with strong growth in Canterbury and Auckland. In contrast, dwelling consent issuance has flattened across regions over the past six months (figure 4.8), although the level of residential construction is expected to remain high over the second half of 2014.

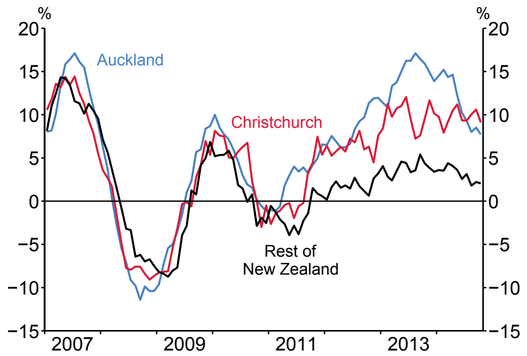
Figure 4.8
New dwelling consents
(seasonally adjusted, 3-month moving average)



Source: Statistics New Zealand, RBNZ estimates.

Annual house price inflation moderated further in October, easing to 4.3 percent on a three-month moving-average basis. Easing nationwide house price inflation over 2014 has been largely accounted for by declining house price inflation in Auckland (figure 4.9).

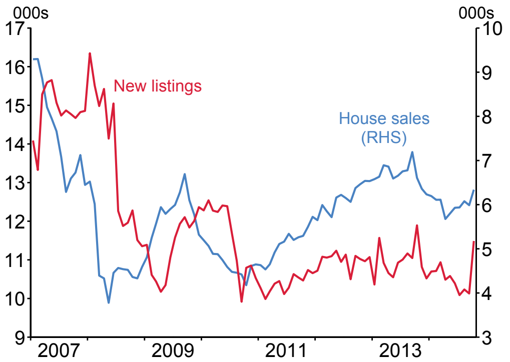
Figure 4.9
House price inflation
(annual, 3-month moving average)



Source: REINZ, RBNZ estimates.

Demand to purchase houses over the past year has been dampened by the introduction of LVR restrictions and increases in mortgage interest rates. The usual pre-election uncertainty may have also had a dampening effect. Nonetheless, housing market activity has been gradually increasing since April, with monthly house sales increasing by 4.2 percent in the three months to October (figure 4.10). Although new listings increased sharply in October, inventory on the market remains low.

Figure 4.10
House sales and new listings
(seasonally adjusted)



Source: Realestate.co.nz, REINZ, RBNZ estimates.

Household spending has continued to grow at a solid pace over the second half of 2014, with retail trade volumes increasing by 1.5 percent in the September quarter. Consumer spending is being supported by strong growth in income, stimulatory interest rates, low consumer price inflation, and above-average consumer confidence.

Demand for labour has been strong over 2014, with employment increasing by 3.2 percent in the year to September. Jobs growth has been broad-based across industries, with the largest increases in construction and finance. Jobs growth has been increasing across New Zealand, particularly in Auckland and Canterbury. The increases in employment and hours worked have played an important part in boosting labour incomes – gross labour earnings increased by 5.3 percent in the year to September.

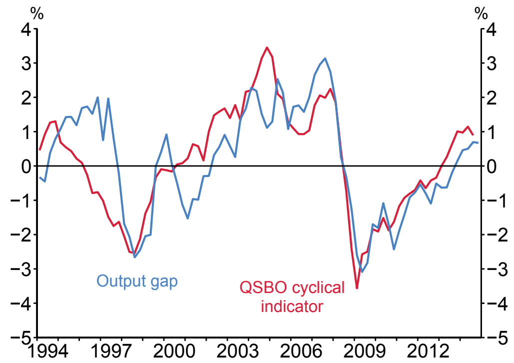
The lagged flow-through to incomes from high commodity prices over 2013 and early 2014 continues to support domestic demand, although to a lessening extent. There are signs that many dairy farmers used strong incomes over the past year to reduce or contain debt and increase cash buffers, which results in smoothed spending.

After increasing nearly 10 percent over 2013, business investment has grown at a more moderate pace over 2014. Construction-related investment has strengthened, while the pace of investment in plant, machinery, and software has eased somewhat over 2014 in line with the softening in surveyed general business sentiment.

Capacity pressure and inflation

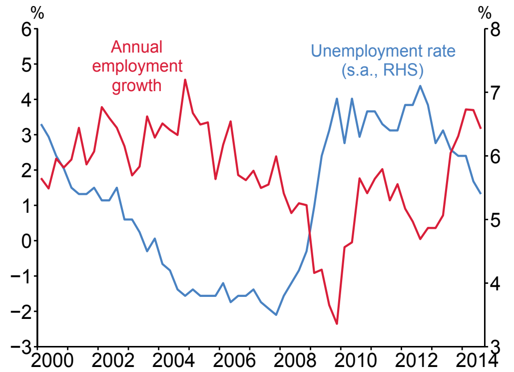
Even as economic growth has eased over the second half of 2014, the economy continues to grow faster than potential output. A range of indicators suggests that capacity pressures have increased and we estimate the output gap to be around half of a percent of potential output (figure 4.11).

Figure 4.11
Output gap and QSBO cyclical indicator
(percent of potential output)



Source: NZIER, Statistics New Zealand, RBNZ estimates.
Note: The QSBO principal component indicator is a summary measure of 50 capacity series that has been fitted to a historical estimate of the output gap.

Figure 4.12
Employment growth and the unemployment rate

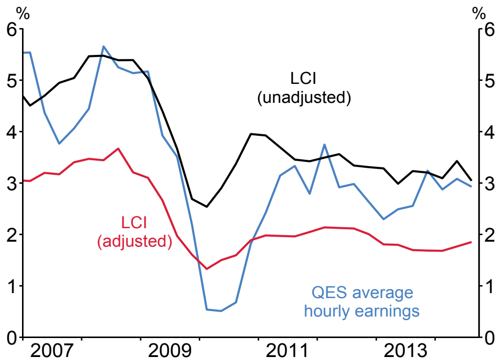


Source: Statistics New Zealand.

Strong employment growth has resulted in the unemployment rate declining from 6 percent in the March quarter 2014 to 5.4 percent in the September quarter (figure 4.12). However, some excess labour supply remains, with elevated net immigration and high labour force participation boosting labour supply.

Nominal wage inflation remains low, with the Labour Cost Index (LCI) measure of private sector wages (that excludes increases in wages for productivity improvements) increasing by 1.9 percent in the year to September, around its post global financial crisis average (figure 4.13). Low wage inflation is consistent with there being some remaining slack in the labour market, usual lags between resource pressure and wage movements, and recent low headline inflation.

Figure 4.13
Nominal wage inflation
(annual)

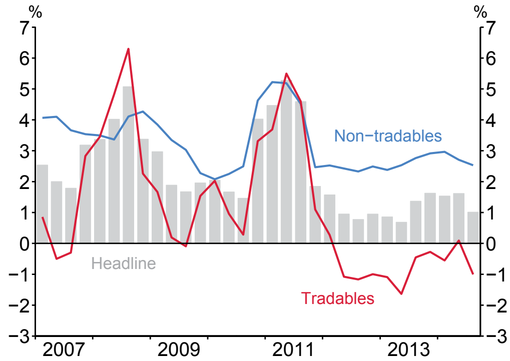


Source: Statistics New Zealand.

CPI inflation has been low since 2012 and fell to 1 percent in the year to September 2014 (figure 4.14). Both tradables and non-tradables inflation have been low compared with historical averages, with tradables inflation much lower in absolute terms.

Annual tradables inflation declined to -1 percent in the September quarter, driven primarily by weak quarterly food price inflation. Tradables inflation has been low over the past two years, consistent with low international prices of New Zealand's imports, due to excess capacity in trading partner economies, and the high New Zealand dollar.

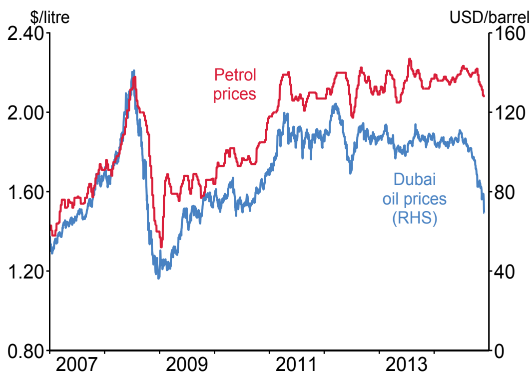
Figure 4.14
CPI inflation and components
(annual)



Source: Statistics New Zealand.

Annual tradables inflation is expected to remain low at -0.9 percent in the December quarter, in part due to lower petrol prices. Dubai oil prices had declined by 18 percent over the December quarter when the forecasts were finalised, and a further 8 percent at the time of writing (figure 4.15). Factoring in exchange rate movements, this drop in oil prices means that petrol prices are projected to be 3.7 percent lower on average over the December quarter. The falls in oil prices since the finalisation of the forecasts, and the potential for further falls over the remainder of 2014, pose downside risk to tradables inflation over the December and March quarters.

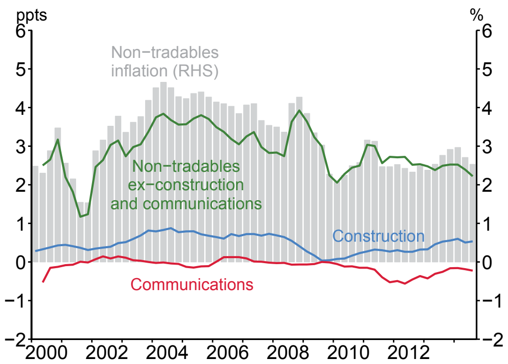
Figure 4.15
Petrol and Dubai oil prices



Source: Haver Analytics, Ministry of Business, Innovation and Employment.

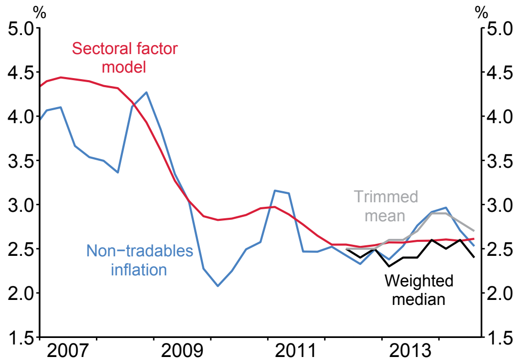
Reflecting strong demand in the construction sector, construction costs in the CPI increased by 4.8 percent in the year to September. Despite this, annual non-tradables inflation eased to 2.5 percent in the September quarter, after having picked up to a faster rate from late-2013 to mid-2014. Aside from the contribution of construction costs, much of the pick-up in late-2013 was driven by quite specific, temporary factors rather than a generalised increase in inflation (figure 4.16). These temporary factors included reduced drag from communications prices, which were falling much less quickly than they did in 2011 and 2012, and increases in domestic airfares. In other parts of the non-tradables sector, the rate of price increase has been steadier. Consistent with the idea that temporary factors played an important role, measures of core non-tradables inflation have been stable over the past two years (figure 4.17).

Figure 4.16
Non-tradables inflation and contributions
(annual)



Source: Statistics New Zealand, RBNZ estimates.

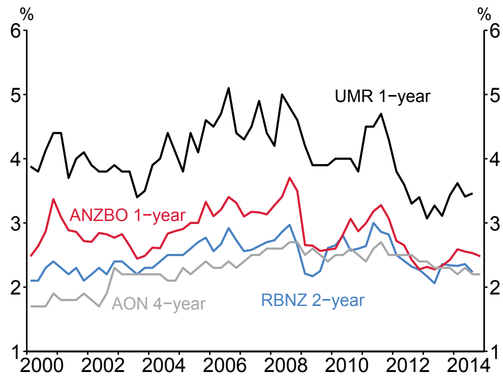
Figure 4.17
Non-tradables inflation (ex-direct effects of GST change) and measures of core non-tradables inflation
(annual)



Source: Statistics New Zealand, RBNZ estimates.

Inflation expectations are well-anchored. Reflecting the low-inflation environment, they are significantly lower than their most-recent peak in 2011, and after picking up over 2013 have in recent quarters been falling again cross a range of measures (figure 4.18). As Box B discusses, however, even after recent falls in inflation expectations, non-tradables inflation is lower than would be predicted based on past relationships.

Figure 4.18
Inflation expectations
(annual)



Source: ANZ Bank, AON Hewitt, RBNZ/UMR Research, RBNZ.

Box B
Analysis of contributions to inflation in New Zealand

Inflation has been modest in New Zealand during the recovery from the global financial crisis. Since 2010, annual headline and core CPI inflation have averaged 1.6 percent (excluding the impact of the 2010 GST increase).[1] Major contributing factors have been low import price inflation, an elevated exchange rate and the gradual domestic recovery from the global recession.

A number of small, open, advanced economies have experienced a period of weak inflation since the global financial crisis. Among these economies, five factors are highlighted that could help explain periods of unusually weak inflation:

- the pass-through of exchange rate appreciation has varied in strength and timing;
- subdued global demand has had a greater dampening impact on domestic inflation than initially expected;
- an increase in retail sector competition has helped constrain prices;
- inflation expectations have moderated to a greater extent than expected; and
- the starting point for the output gap is lower than initially assumed.

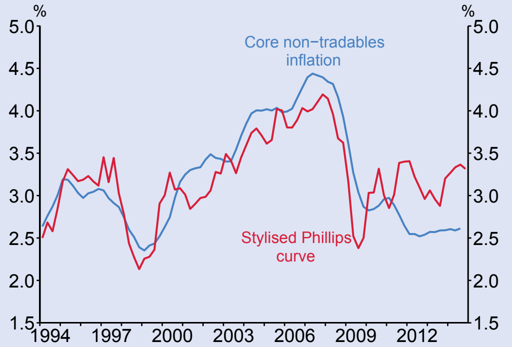
Research at the Reserve Bank suggests that tradables inflation, while weak, seems to be evolving in line with usual drivers. Notably, the elevated exchange rate is passing through to New Zealand inflation in line with historical relationships, as are weak global inflation and falls in global oil and food prices. At the same time, retail sector margins seem to have been relatively stable in recent years, although research into this area continues.

In contrast, our research suggests non-tradables inflation is somewhat lower than we would expect, given current conditions. Figure B1 presents a stylised model (a 'Phillips curve' relationship) of how the Reserve Bank typically characterises non-tradables inflation. This analysis focuses on core non-tradables inflation, to abstract from idiosyncratic factors that drive volatility in inflation from time to time.

In the model, capacity pressures (i.e. the output gap) and inflation expectations are the key drivers of non-tradables inflation. Capacity pressures influence the evolution of firms' input costs and the ease with which firms can put through price increases. Inflation expectations are an important influence on price and wage setting.

Figure B1 highlights that the current rate of non-tradables inflation is weak given the evolution of capacity pressures and inflation expectations. However, inflation expectations and the output gap are unobservable variables that must be estimated through surveys or economic models. As such, there is significant uncertainty around these variables. Any mis-measurement could be a factor accounting for unusual weakness in inflation. That is, current estimates of the output gap and inflation expectations could be too high.

Figure B1
Core non-tradables inflation and a stylised model
(annual inflation)

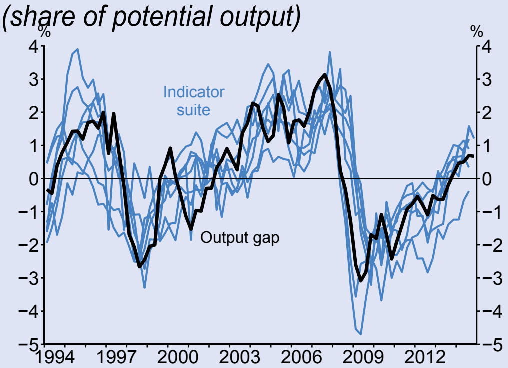


Source: RBNZ estimates.

[1] The core measure here is the sectoral factor model of core inflation excluding GST.

In response to this risk, the Reserve Bank has reviewed the indicators and models used in estimating the output gap. Current projections incorporate the best estimate based on a range of models (figure B2). However, the risk remains that capacity pressures are weaker than currently assumed.

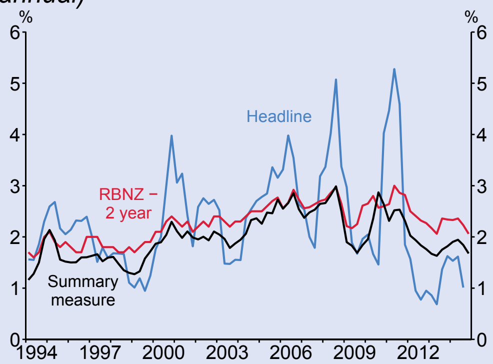
Figure B2
Indicators of capacity pressure
(share of potential output)



Source: RBNZ estimates.

It is also possible that measures of inflation expectations are not fully capturing actual inflation expectations dynamics and pricing behaviour. Given this uncertainty, the Reserve Bank considers a broad range of inflation expectations measures. Figure B3 presents the RBNZ 2-year ahead measure of inflation expectations, and a summary measure of all available indicators of inflation expectations. Survey measures imply a range of plausible options of inflation expectations. Again, the central projection adopts what the Bank sees as the best estimate of inflation expectations, but the risk remains that the evolution of inflation expectations is not being adequately captured.

Figure B3
Headline CPI and measures of inflation expectations
(annual)



Source: RBNZ, RBNZ estimates.
Note: The summary measure is the first principle component of 9 survey measures of inflation expectations.

Even if the lowest of the above range of output gap and inflation expectations measures were adopted, non-tradables inflation would be weaker than usual relationships suggest. Research into what has caused inflation to be unusually low continues.

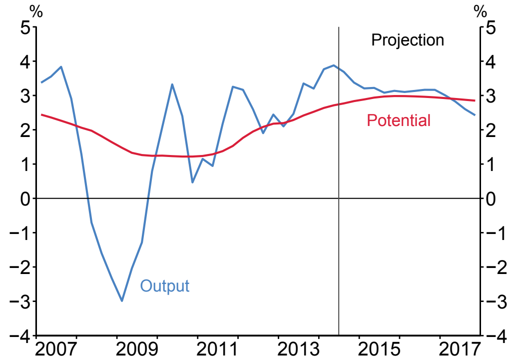
5 The macroeconomic outlook

GDP is expected to grow at a steady annual pace of about 3 percent until the end of 2016, before moderating. Demand and income growth in the economy are broad based and self-sustaining. Given recent low inflation and increases in potential output growth, steady GDP growth and current levels of resource pressure are expected to be sustained for the next two years. A modest rise in the OCR over the projection is sufficient to keep inflationary pressures contained and see CPI inflation settle near 2 percent over the medium term.

Activity outlook

GDP growth is expected to remain near its estimated potential rate of 3 percent from 2015 (figure 5.1). Robust growth in potential output is being driven by steady increases in business investment, strong growth in the labour force, and a recovery in underlying productivity growth in the economy.

Figure 5.1
GDP and potential output growth
(annual)

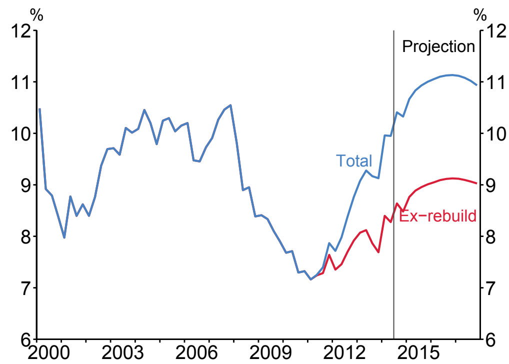


Source: Statistics New Zealand, RBNZ estimates.

The impetus to growth from construction is expected to wane, immigration flows are expected to decline, and recent falls in export prices are expected to dampen household spending over the projection. However, demand and income growth have become broad based and self-sustaining, enabling a prolonged expansion. From 2017, GDP growth is expected to moderate, reflecting the removal of monetary stimulus, in order for inflation to settle at 2 percent.

Post-earthquake reconstruction in Canterbury is expected to continue to boost economic output for some time. Home building in Auckland, to reduce the housing shortage there, is also expected to boost construction. Total construction expenditure is expected to increase another 18 percent before peaking as a share of the economy in 2016 and remaining elevated for an extended period (figure 5.2).

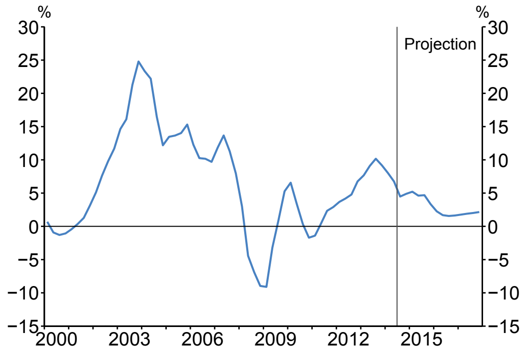
Figure 5.2
SNA total construction expenditure
(seasonally adjusted, percent of potential output)



Source: Statistics New Zealand, RBNZ estimates.

Pressure on house prices continues to be supported in the near term by stimulatory interest rates, strong net immigration, and supply shortages in Auckland and Canterbury. Over the next year, annual house price inflation is expected to stabilise at about 5 percent (figure 5.3).

Figure 5.3
House price inflation
(annual)

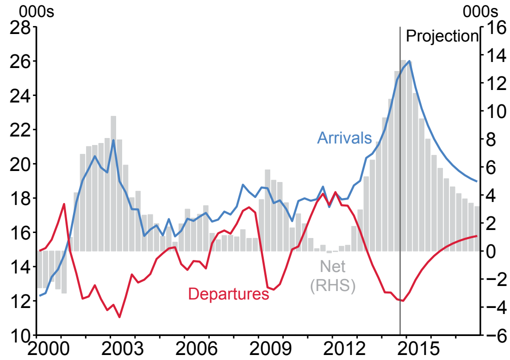


Source: CoreLogic, RBNZ estimates.

House price inflation has been weaker than would be expected based on usual relationships with interest rates and net immigration. This relative weakness is assumed to persist over the projection. Over the latter part of the projection, house price inflation is expected to ease as interest rates rise, immigration flows decline, and new housing supply comes on stream. This sees real house prices stabilise over the medium term.

Quarterly net working-age immigration is expected to plateau at the end of 2014 (figure 5.4). Annual net inflows are forecast to reach 51,000 persons, or 1.4 percent of the working age population, in early 2015 – 54 percent above the mid-2000s peak. Net immigration flows are expected to decline over the projection – due to both a reduction in arrivals and an increase in departures – as conditions in other economies improve.

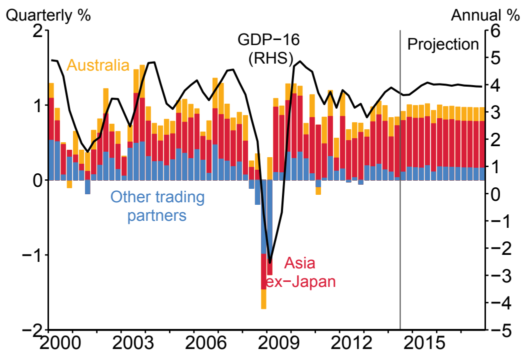
Figure 5.4
Arrivals, departures and net immigration
(permanent and long-term, working-age, seasonally adjusted, quarterly)



Source: Statistics New Zealand, RBNZ estimates.

Economic growth across New Zealand's trading partners is expected to continue at around its historical average pace over the projection (figure 5.5). An increasing share of New Zealand's exports is going to fast-growing Asian economies, which is supporting export demand despite a slow pace of recovery in many advanced economies.

Figure 5.5
Trading partner growth



Source: Haver analytics, RBNZ estimates.
Note: Asia ex-Japan includes China, Hong Kong, Indonesia, Malaysia, Singapore, South Korea, Taiwan, Thailand, and the Philippines. Other trading partners include Canada, the euro area, Japan, the United Kingdom, and the United States. GDP-16 is an aggregate of 16 of New Zealand's major trading partners.

In China, annual growth is expected to slow to about 7 percent over the projection, but remain high relative to other economies. Consumption and services are likely to account for an increasing share of GDP growth, supported by the Government's reform agenda. A disorderly property market correction is a major downside risk to the outlook for the Chinese economy.

In Australia, GDP growth is expected to ease over the next year or so to a slightly below-trend pace, as investment in the mineral resource sector declines sharply from current high levels. Annual GDP growth is expected to return to trend rates of about 3 percent by 2016, as resource extraction boosts exports and low interest rates support domestic demand. As demand improves, conditions in the Australian labour market are expected to stabilise. However, the Australian labour market is expected to remain weak relative to New Zealand's for some time. This is expected to result in net migration from New Zealand to Australia remaining near historic lows over the coming year.

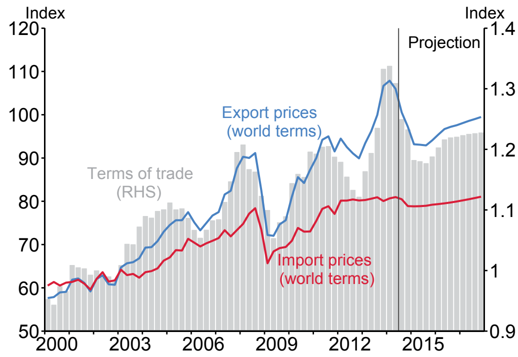
Growth in major developed economies is expected to remain mixed. The outlook for economic growth in the euro area has weakened, and is likely to improve only very gradually over the projection. Growth in Japan is expected to recover after a period of weak demand following the consumption tax hike in April. Monetary authorities have announced additional steps to ease conditions in both the euro area and Japan, and this should provide some support to demand. Growth in the United States and United Kingdom has strengthened, and ongoing momentum is likely to lead to gradual removal of monetary stimulus in these economies.

Inflation remains low in many economies and is expected to increase only modestly as spare capacity is gradually absorbed. In most economies, core inflation is expected to be below monetary authorities' targets for at least another year. Consistent with a modest outlook for global inflation, international prices for New Zealand's imports are expected to remain subdued.

Increasing global demand is expected to continue to support New Zealand export volumes and prices over the medium term. However, following falls over 2014, prices for New Zealand's commodity exports are expected to remain low over 2015, before recovering gradually.

The movement in export commodity prices will be reflected in SNA export prices, which are expected to resume a gradual upward trend from late-2015 – underpinned by continued global recovery and increasing demand for protein, particularly from developing economies. An upward trend in export prices, combined with a subdued outlook for import price inflation, results in a favourable outlook for New Zealand's terms of trade over the latter part of the projection (figure 5.6).

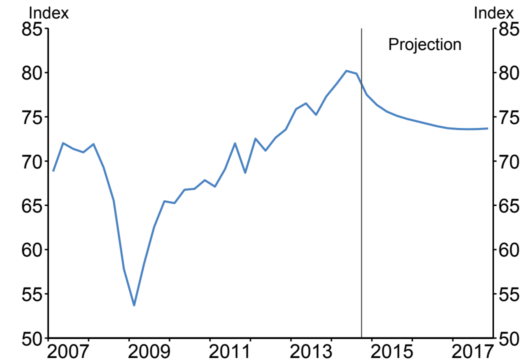
Figure 5.6
SNA terms of trade and components
(seasonally adjusted)



Source: Statistics New Zealand, RBNZ estimates.

The TWI is assumed to slowly depreciate over the projection (figure 5.7) as global economic conditions improve and monetary conditions begin to normalise. However, with policy rates in the rest of the world expected to increase only gradually, the level of the TWI is expected to remain persistently elevated and a drag on growth over the forecast horizon – dampening both net exports and export receipts. The elevated exchange rate, along with low import price inflation, will continue to boost households' and businesses' purchasing power.

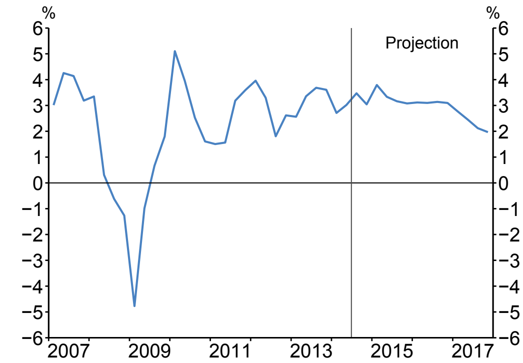
Figure 5.7
New Zealand dollar trade-weighted index



Source: RBNZ, RBNZ estimates.

Over the next two years, consumption is expected to grow at an annual pace of above 3 percent (figure 5.8). Household incomes are being boosted by strong economic growth and this, along with stimulatory interest rates and low consumer prices, is expected to provide significant impetus to domestic demand over the next two years.

Figure 5.8
Private consumption growth
(annual)



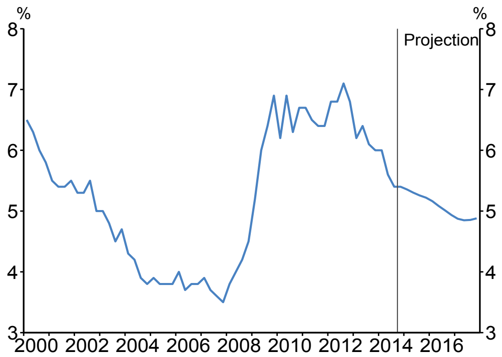
Source: Statistics New Zealand, RBNZ estimates.

Fiscal consolidation is expected to remain a headwind to growth over the projection. Consistent with the *Pre-Election Economic and Fiscal Update 2014*, fiscal restraint is expected to cumulatively detract 1.7 percent from nominal GDP over the projection.

Continued steady GDP growth is expected to support growth in business investment and labour demand. The number of persons employed is expected to grow at about 2 percent per annum on average over the next two years. Labour supply is also expected to continue expanding, boosted by strong immigration and labour force participation.

As labour demand outstrips labour supply, spare capacity in the labour market is expected to be absorbed – the unemployment rate is expected to decline further to below 5 percent (figure 5.9). Nominal wage growth is expected to increase gradually as labour market capacity tightens, and as CPI inflation increases.

Figure 5.9
Unemployment rate
(percent of the labour force, seasonally adjusted)



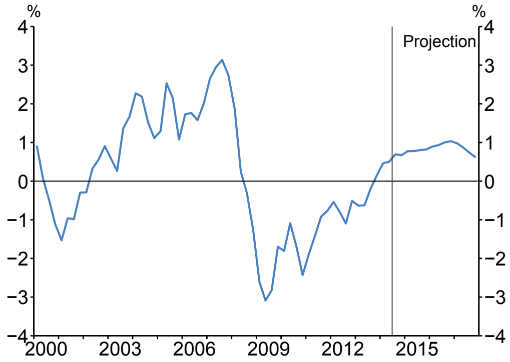
Source: Statistics New Zealand, RBNZ estimates.

Capacity pressures and inflation

With GDP growing in excess of potential output, resource pressures have increased. Given recent low inflation and increases in potential output growth, robust GDP growth is expected to be sustained for the next two years with a gradual increase in inflation. The economy is expected to continue operating with resource pressure near current levels over the projection, before the output gap narrows in 2017 (figure 5.10).

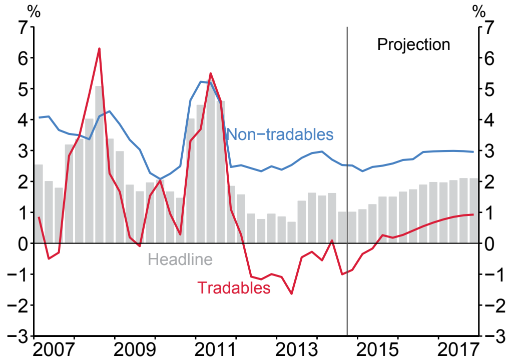
Non-tradables inflation is expected to remain weak and increase only gradually over the projection (figure 5.11). Recent unexplained weakness when compared with capacity pressures and inflation expectations is assumed to dissipate only gradually (see Box B). Moreover, inflationary pressures are expected to be dampened by the gradual rise in interest rates. Domestic pricing pressures are expected to be more prominent in the construction industry than in other parts of the economy.

Figure 5.10
Output gap
(percent of potential output, seasonally adjusted)



Source: Statistics New Zealand, RBNZ estimates.

Figure 5.11
CPI inflation and components
(annual)



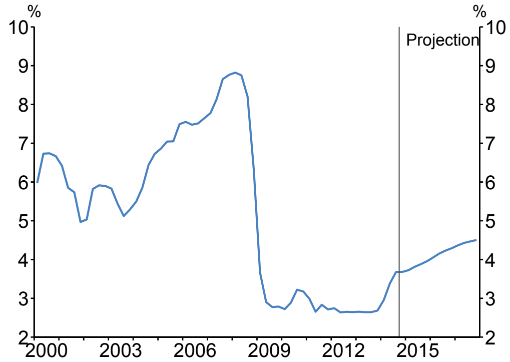
Source: Statistics New Zealand, RBNZ estimates.

Tradables inflation is expected to increase over the projection as the exchange rate gradually depreciates. Annual tradables inflation is expected to increase to about 1 percent by the end of 2017.

Monetary stimulus is expected to be gradually removed in order to keep future inflationary pressures contained. The 90-day rate is projected to increase slowly by about 80 basis points by the end of 2017 (figure 5.12), so that annual CPI inflation increases and settles near the 2 percent target midpoint over the medium term – with inflation expectations remaining well anchored near the target midpoint.

Beyond our three-year projection horizon, post-earthquake reconstruction in Canterbury will continue to affect the outlook. In the absence of any large shocks, growth would be expected to settle at around trend, with inflation around 2 percent and interest rate settings broadly neutral.

Figure 5.12
90-day rate



Source: RBNZ, RBNZ estimates.

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	0.3	0.3	1.0	71.2	2.6
	Sep	0.2	0.3	0.8	72.6	2.7
	Dec	1.1	-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	0.7	0.3	1.6	80.2	3.4
	Sep	0.9	0.3	1.0	79.9	3.7
	Dec	0.7	0.1	1.0	77.5	3.7
2015	Mar	0.8	0.4	1.1	76.3	3.7
	Jun	0.7	0.4	1.3	75.6	3.8
	Sep	0.8	0.6	1.5	75.1	3.9
	Dec	0.8	0.1	1.5	74.8	4.0
2016	Mar	0.8	0.6	1.7	74.5	4.1
	Jun	0.8	0.5	1.7	74.2	4.2
	Sep	0.8	0.7	1.9	73.9	4.2
	Dec	0.8	0.2	2.0	73.7	4.3
2017	Mar	0.7	0.6	2.0	73.6	4.4
	Jun	0.6	0.6	2.0	73.6	4.4
	Sep	0.6	0.8	2.1	73.6	4.5
	Dec	0.6	0.2	2.1	73.7	4.5

[1] Notes for these tables follow on pages 30 and 31.

Table B

Measures of inflation, inflationary pressures and asset prices

	2013				2014			
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec
Inflation (annual rates)								
CPI	0.9	0.7	1.4	1.6	1.5	1.6	1.0	
CPI non-tradables	2.4	2.5	2.8	2.9	3.0	2.7	2.5	
CPI tradables	-1.1	-1.6	-0.5	-0.3	-0.6	0.1	-1.0	
Sectoral factor model estimate of core inflation ex-GST	1.5	1.5	1.5	1.5	1.5	1.5	1.6	
CPI trimmed mean (of annual price change) ex-GST	1.0	0.8	1.4	1.6	1.5	1.7	1.3	
CPI weighted median (of annual price change) ex-GST	1.5	1.3	1.8	2.0	1.7	2.2	1.9	
GDP deflator (derived from expenditure data)	-0.0	-0.2	3.2	7.1	6.0	3.2		
PPI - Input prices	0.0	0.0	3.3	2.8	3.1	1.4	-2.2	
PPI - Output prices	0.1	0.8	4.1	3.8	4.0	2.5	-1.0	
Inflation expectations								
RBNZ survey of expectations - inflation one-year-ahead	1.7	1.5	1.9	1.9	2.0	2.1	2.0	1.6
RBNZ survey of expectations - inflation two-years-ahead	2.2	2.1	2.4	2.3	2.3	2.4	2.2	2.1
ANZ Bank Business Outlook - inflation one-year-ahead (quarterly average to date)	2.3	2.3	2.3	2.4	2.6	2.6	2.5	2.3
AON Hewitt Economist Survey - inflation one-year-ahead	1.9	1.8	2.0	2.0	2.2	2.1	2.1	2.0
AON Hewitt Economist Survey - inflation four-years-ahead	2.4	2.3	2.3	2.3	2.2	2.3	2.2	2.2
Pricing and costs (net balances)								
ANZ Bank Business Outlook - Pricing intentions, next 3 months (quarterly average to date)	20.3	22.2	29.4	26.0	31.6	27.5	22.8	22.2
QSBO Average selling prices, next three months (Economy wide)	10.7	18.1	24.0	23.3	37.2	33.3	29.5	
QSBO Average costs, past three months (Economy wide)	16.8	18.8	20.4	22.0	18.6	19.6	21.4	
Asset prices (annual percentage changes)								
Quarterly house price index (Quotable Value Limited)	7.7	9.1	10.2	9.2	8.0	6.7		
REINZ Farm Price Index (quarterly average to date)	-6.5	-1.8	10.8	5.7	9.0	15.3	3.7	-1.8
NZX 50 (quarterly average to date)	26.9	28.9	26.7	20.6	16.5	14.6	12.7	12.1

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	3.3	3.3	3.2	3.0
Public authority	3.6	4.8	4.5	-0.0	2.0	0.2	-1.0	1.7	1.6	1.0	1.8
Total	2.6	4.0	-0.3	1.2	2.3	2.4	1.8	3.0	3.0	2.7	2.8
Gross fixed capital formation											
Residential	-2.1	1.8	-21.3	-8.6	0.2	-0.5	19.4	17.0	14.1	12.8	6.0
Other	-2.9	8.8	-4.6	-9.7	2.1	5.4	5.1	9.3	5.2	7.5	6.0
Total	-2.7	7.4	-7.8	-9.5	1.8	4.4	7.3	10.6	6.8	8.6	6.0
Final domestic expenditure	1.2	4.8	-2.2	-1.3	2.2	2.9	3.0	4.7	3.9	4.2	3.6
Stockbuilding [1]	-1.1	1.1	-0.5	-1.1	1.1	0.5	-0.5	0.3	0.8	-0.7	-0.1
Gross national expenditure	0.1	6.0	-2.4	-2.2	3.4	3.7	2.0	5.1	4.9	3.5	3.4
Exports of goods and services	3.8	3.7	-2.7	4.0	2.8	2.3	3.0	0.3	2.3	2.9	3.3
Imports of goods and services	-1.6	10.9	-3.9	-8.9	11.3	6.7	1.3	8.0	6.0	3.1	4.2
Expenditure on GDP	1.8	3.5	-1.9	2.2	0.7	2.1	2.7	2.5	3.7	3.4	3.1
GDP (production)	2.8	2.9	-1.9	-0.1	1.8	2.4	2.3	3.2	3.5	3.1	3.1
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	3.1	3.0

[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	1.1	1.7	2.0
Labour costs	3.0	3.5	3.1	1.3	2.0	2.1	1.8	1.7	2.1	2.0	2.2
Export prices (in New Zealand dollars)	2.2	11.5	7.1	-7.6	7.9	-2.9	-5.5	11.3	-11.0	5.0	4.0
Import prices (in New Zealand dollars)	0.6	0.1	17.6	-11.2	3.5	-1.8	-4.2	-3.2	0.8	3.2	2.3
Monetary conditions											
90-day rate (year average)	7.6	8.6	6.7	2.8	3.1	2.7	2.6	2.7	3.6	3.9	4.3
TWI (year average)	65.6	71.6	61.6	62.9	67.1	70.6	73.3	76.9	78.5	75.0	73.9
Output											
GDP (production, annual average % change)	2.8	2.9	-1.9	-0.1	1.8	2.4	2.3	3.2	3.5	3.1	3.1
Potential output (annual average % change)	2.6	2.2	1.7	1.3	1.2	1.5	2.1	2.5	2.8	3.0	2.9
Output gap (% of potential GDP, year average)	2.0	2.7	-1.0	-2.4	-1.8	-0.9	-0.8	-0.1	0.7	0.8	1.0
Labour market											
Total employment (seasonally adjusted)	2.0	1.3	-0.9	-0.2	1.8	0.9	0.4	3.7	2.5	1.9	1.7
Unemployment rate (March qtr, seasonally adjusted)	3.9	3.8	5.2	6.2	6.7	6.8	6.2	6.0	5.4	5.2	4.9
Trend labour productivity	1.2	1.0	0.9	0.8	0.8	0.9	0.8	0.8	0.9	1.1	1.2
Key balances											
Government operating balance (% of GDP, year to June)	3.4	3.1	-2.1	-3.3	-9.2	-4.4	-2.1	-1.3	-0.2	0.2	1.0
Current account balance (% of GDP)	-6.8	-6.7	-7.2	-1.5	-2.9	-3.2	-3.8	-2.6	-4.4	-5.8	-5.4
Terms of trade (SNA measure, annual average % change)	-1.6	8.8	-2.4	-4.1	7.7	1.6	-4.3	11.5	-2.5	-4.5	2.8
Household saving rate (% of disposable income)	-4.5	-1.7	-1.9	0.2	1.0	0.4	-0.7	1.9	1.6	1.0	1.6
World economy											
Trading partner GDP (annual average % change)	3.8	4.2	0.3	1.1	4.4	3.5	3.2	3.5	3.7	4.0	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	1.6	1.9	1.9

Notes and definitions

These forecasts were finalised using National Accounts data as at the quarterly June 2014 GDP release. Historical and forecast data shown in these tables do not incorporate the transition to SNA08 or annual data for the year to March 2014, published on 21 November.

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, quarter average.
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. Historical data sourced from the Treasury, forecast data sourced from the Treasury and 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.

Appendix B

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

Academic Colleges Group (ACG)
Auckland Grammar School
Auckland University of Technology
Beyond Recruitment
BNZ Canterbury (residential and business banking)
Burnside High School
Carter Holt Harvey
CERA
Christchurch International Airport
Destination Great Lake Taupō
Farmers
Flight Timbers
Fonterra
GE Money
Global Culture
Harcourts
Hays
Heritage Queenstown
Hertz
Hume Pine (NZ) Ltd
Juken NZ
Kiwi Discovery
Lincoln University
LJ Hooker
Mainfreight
MBIE (Tourism)
Middleton Grange School
Ngāi Tahu Tourism
NZSki
Pacific Tourways
Pacific Travel
PF Olsen
Queenstown Airport
Quinovic
Ray White
Red Stag Timber Ltd
Rees Apartments Queenstown
Rotorua Chamber of Commerce
Rotorua District Council
Scion
Sky City
Sofitel Queenstown
Steel & Tube
Tenon Manufacturing Limited
The Rent Shop
Tourism Industry Association
Trade Me
Trojan Holdings
United Forestry Group
University of Auckland
Victoria University of Wellington
Vodafone

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

2015

29 January 2015	OCR
12 March 2015	OCR and *MPS* (webcast)
30 April 2015	OCR
11 June 2015	OCR and *MPS* (webcast)
23 Jul 2015	OCR
10 Sep 2015	OCR and *MPS* (webcast)
29 Oct 2015	OCR
10 Dec 2015	OCR and *MPS* (webcast)

2016

28 Jan 2016	OCR
10 Mar 2016	OCR and *MPS* (webast)
28 Apr 2016	OCR
9 Jun 2016	OCR and *MPS* (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