

Monetary Policy Statement

September 2013¹

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

Contents

1.	Policy assessment	2
2.	Overview and key policy judgements	3
3.	Financial market developments	9
4.	Current economic conditions	14
5.	The macroeconomic outlook	21

Appendices

A.	Summary tables	25
B.	Companies and organisations contacted by RBNZ staff during the projection round	31
C.	The Official Cash Rate chronology	32
D.	Upcoming Reserve Bank <i>Monetary Policy Statements</i> and Official Cash Rate release dates	33
E.	Policy Targets Agreement	34

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¹ Projections finalised on 30 August 2013. Policy assessment finalised on 11 September 2013.

1 Policy assessment

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

The global outlook remains mixed. GDP growth in Australia and China has slowed and some emerging market currencies have come under considerable downward pressure. At the same time, the major developed economies continue to recover and New Zealand's export commodity prices remain very high.

Although long-term interest rates have risen globally in recent months, largely due to uncertainty around the timing of the Federal Reserve's exit from quantitative easing, global financial conditions overall continue to be very accommodating.

In New Zealand, GDP is estimated to have increased by 3 percent in the year to the September quarter. Consumption is rising and reconstruction in Canterbury will be reinforced by a broader national recovery in construction activity, particularly in Auckland. This will support aggregate activity and start to ease the housing shortage.

In the meantime rapid house price inflation persists in Auckland and Canterbury. As has been noted for some time, the Reserve Bank does not want to see financial or price stability compromised by continued high house price inflation. Restrictions on high loan-to-value residential mortgage lending, which will come into effect next month, are expected to help slow the national housing market.

Despite having fallen on a trade-weighted basis since May 2013, the exchange rate remains high. A lower rate would reduce headwinds for the tradables sector and support export industries. Fiscal consolidation will weigh on aggregate demand over the projection horizon.

CPI inflation has been very low over the past year, partly reflecting the high New Zealand dollar and strong international and domestic competition. However, inflation is expected to rise towards the mid-point of the 1 to 3 percent target band as growth strengthens over the coming year.

OCR increases will likely be required next year. The extent and timing of the rise in policy rates will depend largely on the degree to which the momentum in the housing market and construction sector spills over into broader demand and inflation pressures. We expect to keep the OCR unchanged in 2013.

Graeme Wheeler



Governor

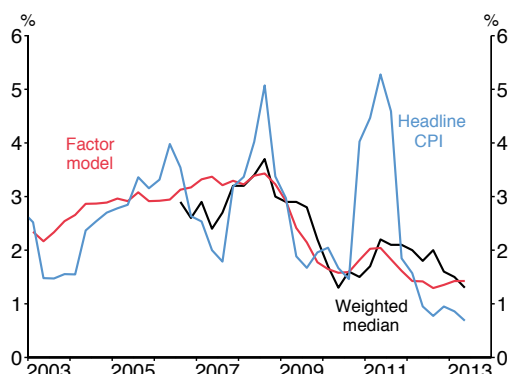
2 Overview and key policy judgements

Inflation remains subdued, with the Consumers Price Index (CPI) increasing by 0.7 percent in the year to the June quarter. Monetary policy needs to balance current low inflation against the likelihood that inflation will pick up over the medium term. In this regard, the economy continues to expand at a solid pace, with GDP estimated to have increased by 3 percent in the year to the September quarter. Demand will be boosted by further reconstruction in Canterbury, high export commodity prices, momentum in the housing market and low interest rates. While this pick-up in demand will be partly offset by fiscal consolidation and continued strength in the New Zealand dollar, inflation is expected to increase towards the midpoint of the 1 to 3 percent target band over the projection horizon.

Output and inflation developments

Annual CPI inflation has been below 1 percent since the September quarter of 2012. Recent low inflation relates, in part, to declines in specific components of the CPI. Even so, measures of core inflation are near the bottom of the target band (figure 2.1).

Figure 2.1
Headline and selected core inflation measures (annual)



Source: Statistics New Zealand, RBNZ estimates.
Note: Headline CPI includes the 2010 GST increase, whereas the other measures do not.

Since the middle of 2011, the level of tradables prices has declined by 2.8 percent, driven by strength in the New Zealand dollar. More recently, fuel and food prices have increased. Given these price increases, it seems likely

that the tradables CPI will increase in the September quarter, causing headline annual CPI inflation to move back above 1 percent.

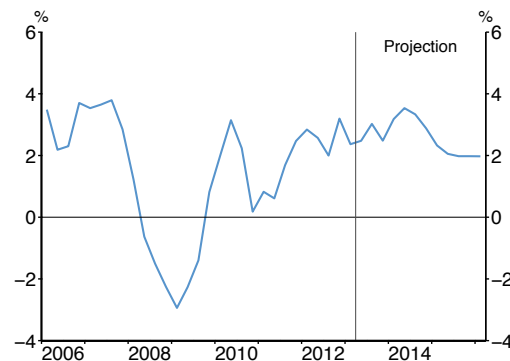
Non-tradables inflation has been below average, driven by excess capacity associated with the 2008/09 recession and some spill-over from low tradables inflation via falling inflation expectations. Wage inflation has also been low with both the Quarterly Employment Survey and Labour Cost Index measures of wage inflation easing over the past year.

The economy continues to strengthen. GDP grew 1.5 percent in the December quarter of 2012 and, despite last summer's drought, expanded a further 0.3 percent in the March quarter of this year. Since then, many economic indicators have improved further. Business and consumer confidence have risen, and building consents continue to increase strongly. Export commodity prices have remained high and the New Zealand dollar has depreciated slightly. While the New Zealand dollar is assumed to remain elevated for some time, continued strengthening in the economy suggests inflation will rise from here.

Economic outlook

Annual GDP growth is expected to increase to about 3.5 percent in the middle of 2014, before moderating (figure 2.2).

Figure 2.2
GDP growth (annual)



Source: Statistics New Zealand, RBNZ estimates.

Although the projection is for relatively stable GDP growth, the New Zealand economy is being influenced by several factors. The most important of these are:

- high house price inflation in Auckland and Christchurch;
- the \$40 billion of post-earthquake rebuilding assumed to occur in Canterbury;
- sustained strength in the New Zealand dollar; and
- fiscal consolidation.

The central projection is based on assumptions about each of these factors. If these assumptions turn out to be incorrect, the economy could evolve differently to that described in the central projection. Furthermore, while trading partner growth is assumed to be quite stable over the next few years, the global economic outlook is quite uncertain.

The key underlying assumptions and risks to the projection are discussed below.

House price inflation

House price inflation has been increasing for the past two years. Nationwide, prices rose 9 percent in the year to the July quarter. Gains continue to be most obvious in Auckland and Christchurch where prices have increased by 16 and 10 percent respectively in the year to the July quarter.

Encouragingly, some signs of stabilisation have emerged over the past few months. While still high, annual nationwide house price inflation has not increased since the June *Statement*. This has occurred despite a substantial increase in net immigration since the start of the year.

There are many reasons to expect house price inflation to ease soon. Coming restrictions on high loan-to-value (LVR) mortgage lending will reduce demand somewhat (see box A), as will recent increases in fixed mortgage rates. Furthermore, house prices remain very high on a number of metrics, including relative to rents and household incomes. Household debt is also very high.

As such, the central projection is for the rate of house price inflation to moderate soon. Quarterly house price inflation is projected to ease next year.

A key risk is that house price inflation becomes

stronger than forecast. From an inflation targeting perspective, upside risks could develop if households reacted to stronger house price inflation by substantially increasing their consumption expenditure. Stronger house price inflation would also be of concern from a financial stability perspective as it would increase the risk of a significant downwards correction.

Reconstruction in Canterbury

Repairs and reconstruction in Canterbury continue to have a major influence on the economic outlook. The Bank's forecast for post-earthquake rebuilding is unchanged from that of the June *Statement*.

But rather than being just a feature of the forecasts, rebuilding is beginning to show up quite significantly in current economic data. Canterbury building consents have risen substantially over the past few quarters and now sit well above the peak seen in the mid-2000s. Quarterly GDP data have also been affected, with the level of nationwide residential investment 35 percent above its mid-2011 trough.

The Bank has for some time predicted that nationwide construction sector activity would peak at a similar share of aggregate activity as in the mid-2000s. The mid-2000s was a time when the economy was very stretched with it becoming extremely difficult to find skilled labour. If construction peaks no higher than the mid-2000s, reconstruction would take much of the coming decade to complete. While this forecast seems reasonable, just how long reconstruction takes is very uncertain.

Furthermore, while it is clear that reconstruction will add to pressure on resources, the magnitude of the boost to inflation is uncertain. The efficiency and flexibility of the construction industry will have an important influence on inflation. The speed at which demand for construction picks up will also have a substantial influence on the inflation impact of reconstruction.

The Bank continues to project that construction demand will increase in an orderly fashion. However, a larger and more widespread boost to inflation than is currently assumed could eventuate.

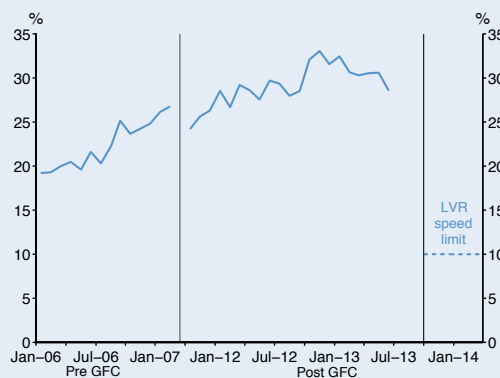
Box A

Restrictions on high loan-to-value mortgage lending

The Reserve Bank recently announced a “speed limit” on high loan-to-value ratio (LVR) residential mortgages, that will take effect from 1 October 2013. Under the speed limit policy, banks will be required to restrict residential mortgage loans with LVRs of greater than 80 percent to no more than 10 percent of their new residential mortgage lending.

An easing in bank lending standards, including an increase in the proportion of lending at high LVRs, has played a part in recent housing and credit developments. High-LVR lending has increased from around 23 percent of total new mortgage flows in late 2011 to around 30 percent more recently (figure A1). After accounting for lending that is exempt from the restriction, it is likely that the flow of net new high-LVR lending will be reduced by about half as a result of the policy.¹

Figure A1
High LVR lending
(share of new mortgage flows)



Source: Based on private reporting by eight registered banks.

The LVR speed limit will require some potential home buyers to save for longer to purchase a house, which will likely reduce turnover in the housing market in the near term. The exact magnitude of this decline will depend on

the proportion of affected borrowers who are able to find alternative sources of funding, and the extent to which sellers accept lower prices. Reduced demand should lead to lower house price inflation than would have otherwise been the case.

Reserve Bank estimates suggest that LVR restrictions are likely to lower annual house price inflation by about 1 to 4 percentage points over the next year, with a more modest effect thereafter.² The speed limit policy is also expected to result in lower growth in household credit, due both to a reduction in housing market activity and to a reduction in gearing levels for new borrowers. Our assessment is that speed limits are likely to lower annual household credit growth by 1 to 3 percentage points over the next year.

The central projection incorporates the midpoint of these estimates. The implied 2.5 percent lower annual house price inflation projection dampens household consumption expenditure over the coming year or so, and reduces the projection for the 90-day interest rate by about 30 basis points.

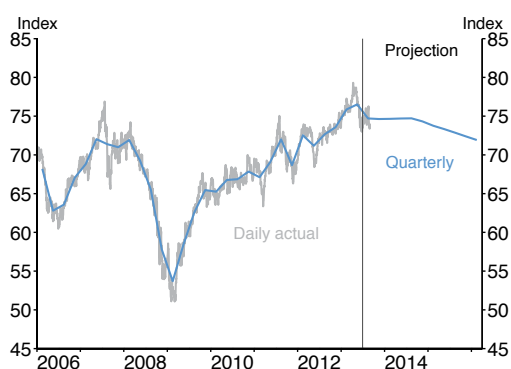
1 The following loans are exempt from the LVR speed limit: high-LVR loans written under Housing New Zealand’s Welcome Home Loan scheme, bridging loans, refinancing of existing loans and high-LVR loans to existing borrowers who are moving home but not increasing their loan amount.

2 See “Regulatory impact assessment: Restrictions on high-LVR residential mortgage lending” for further discussion of Reserve Bank modelling and international evidence on the effectiveness of LVR restrictions, available at http://rbnz.govt.nz/financial_stability/macro-prudential_policy/5407434.pdf

The New Zealand dollar

The New Zealand dollar Trade-Weighted Index (TWI) remains elevated (figure 2.3). It continues to be a significant headwind for the tradables sector, restricting export earnings and encouraging imports over domestic tradables production. The central projection assumes that the New Zealand dollar TWI holds near its current level for the coming year before depreciating very gradually thereafter.

Figure 2.3
New Zealand dollar TWI



Source: RBNZ estimates.

Over the past few months, the New Zealand dollar TWI has depreciated somewhat. This depreciation reflects a range of factors including market concerns about the outlook for the Australian and Chinese economies, and speculation that the United States Federal Reserve might soon begin to taper its asset purchases. Nevertheless, the New Zealand dollar remains very high.

There are several factors behind the strength of the exchange rate. Most obviously, New Zealand's terms of trade are at historically high levels and interest rates are higher than the extremely low yields available offshore. New Zealand continues to run a sizable current account deficit, reflecting national saving being less than aggregate investment. The demand for capital from offshore required to finance this saving shortfall underpins the on-going high level of the New Zealand dollar.

Fiscal consolidation

Fiscal consolidation is expected to continue to have a substantial dampening influence on demand growth over the projection horizon.

The May *Budget* reaffirmed the Government's commitment to returning the operating balance to surplus in the 2014/15 fiscal year. The return to surplus helps stabilise net government debt at just below 29 percent of nominal GDP in June 2015 from the current 26.4 percent.

Over the projection horizon, fiscal consolidation occurs through a combination of measures, including limited growth in government spending, fiscal drag and increases in indirect taxes. These measures result in fiscal policy tightening by about 0.5 percent of GDP per annum over the projection. All these measures negatively affect aggregate demand. However, the dampening impact of fiscal consolidation on inflation is partly offset by continued increases in indirect taxes.

Global uncertainty

Since the early stages of the global financial crisis, central banks around the world have conducted monetary policy in the face of substantial uncertainty about the global economic outlook. This uncertainty has mainly related to deleveraging in western economies, the future of the European monetary union and the sustainability of fiscal policies in many countries.

More recently, however, the risk focus has moved more to emerging market economies. Speculation that the United States Federal Reserve might begin to taper its asset purchases has placed substantial downward pressure on emerging market currencies over the past few months. Many have introduced measures to offset these pressures.

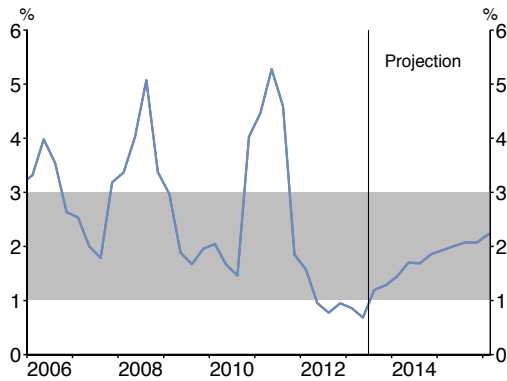
In addition, recent unrest in Syria has seen oil prices move higher. How events unfold over the coming weeks could significantly change the global environment.

For now, New Zealand's key trading partners seem relatively unaffected by these developments. It is of some concern, however, that exchange rate depreciation or higher oil prices could cause deterioration in the economies of New Zealand's Asian trading partners. New Zealand's experience during the 1997/98 Asian Crisis highlights our exposure to Asia.

Inflation and monetary policy outlook

Annual GDP growth is projected to be around 3 percent over the coming 18 months. This is expected to cause non-tradables inflation to pick up. Tradables inflation, while likely to rise, is forecast to remain relatively subdued. In aggregate, annual CPI inflation is expected to increase towards the 2 percent target midpoint over the next two years (figure 2.4).

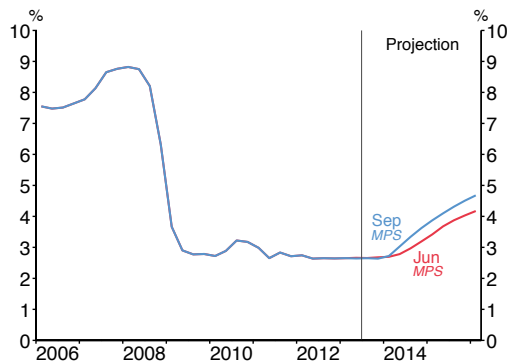
Figure 2.4
CPI inflation
(annual)



Source: Statistics New Zealand, RBNZ estimates.

Given this inflation outlook, monetary policy is expected to become less accommodative over the projection, with the 90-day interest rate moving steadily higher (figure 2.5). Higher interest rates are expected to have a braking influence on GDP growth and help stabilise inflation near the midpoint of the target band.

Figure 2.5
90-day interest rate



Source: RBNZ estimates.

Relative to the June *Statement*, the 90-day interest rate projection is about 50 basis points higher. This reflects several developments, each of which has had a small positive influence on the interest rate projection. These include: stronger-than-expected net immigration; stronger-than-expected export commodity prices; and, the recent depreciation of the New Zealand dollar. The introduction of restrictions on high-LVR mortgage lending has had a partially offsetting downward influence on the outlook for interest rates.

Monetary policy needs to balance current low inflation against our expectation that inflation will increase over the medium term. Because of policy lags, any efforts to offset the current weakness in inflation could exacerbate medium-term inflationary pressures and risk further increases in house price inflation.

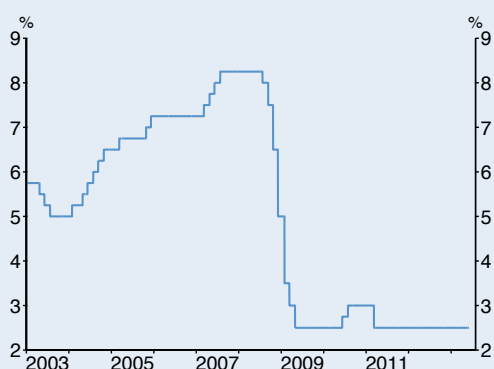
In looking towards the likely need to raise the OCR next year, the Bank will be looking carefully at whether the economy is evolving as predicted. In particular, we will be looking for signs that underlying price and wage inflation has turned a corner and begun to move back towards levels more consistent with the midpoint of the inflation target. In that context, pressures in the housing and construction sectors are likely to be particularly important to watch.

Box B

Recent monetary policy decisions

The OCR has been held at 2.5 percent since March 2011 (figure B1). Subdued GDP growth, both domestically and offshore, and persistent strength in the New Zealand dollar have resulted in low CPI inflation. Consequently, it has been appropriate for the OCR to remain at a historically low level.

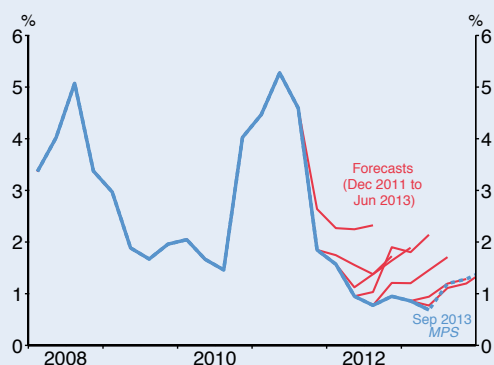
Figure B1
Official Cash Rate



Source: RBNZ.

Inflation over the past two years has been lower than the Bank (figure B2) and private sector forecasters expected. These forecast errors have been discussed extensively in both the March and June 2013 *Monetary Policy Statements*.

Figure B2
CPI inflation forecasts
(annual)



Source: Statistics New Zealand, RBNZ estimates.

Inflation has been lower than was forecast, in large part, because:

- The stronger-than-expected New Zealand dollar has dampened prices for a range of tradables goods, particularly imported durable items such as appliances and furnishings.
- Tradables inflation has also been dampened by some pronounced decreases in the prices of imported items such as food and fuel – the prices of which can be very volatile over short periods.
- Non-tradables inflation has also been softer than anticipated. In part, this is a result of increased competition among providers of mobile and broadband services, which has resulted in significant declines in the communications component of the CPI.

The Policy Targets Agreement recognises that there will be surprises to the Bank's forecasts. Sometimes these surprises will push inflation above target, as occurred during the mid-2000s, and sometimes these surprises will drag inflation below target.

Nonetheless, if the Bank had anticipated the extent to which inflation has stayed so low, it probably would have been appropriate for the OCR to be lower than has been the case. Had the OCR been reduced, given the inflation outlook now faced, it is likely that the Bank would already be tightening monetary policy. A lower OCR could have also increased pressures in the housing market.

3 Financial market developments

Since the June *Statement*, financial market participants have been focused on when the United States Federal Reserve might begin to taper asset purchases. In late May, the Federal Reserve Chairman indicated that the pace of asset purchases could be slowed “within the next few meetings”, and global bond yields have risen significantly in response to this comment.

Economies that were supported by easy global liquidity conditions, such as emerging market economies, have been out of favour, with investors rebalancing their portfolios towards developed economies. Large depreciations in emerging market currencies have led some central banks to raise interest rates or introduce other measures to stem portfolio outflows.

The Australian dollar has depreciated sharply, given its close links to emerging markets. This, in turn, has dragged down the New Zealand dollar against most of the major currencies. However, the impact on the New Zealand dollar TWI has been muted by a strong gain in the NZD-AUD cross rate.

Higher global bond yields have boosted domestic interest rates, with the positive trend in local data supporting higher domestic rates. The overnight-indexed swap (OIS) curve suggests that the market anticipates a series of OCR increases by the Reserve Bank through next year. Higher New Zealand swap rates have led to a notable increase in advertised fixed rate mortgage yields for maturities of greater than one year.

International market developments

Financial market participants have been focused on when the United States Federal Reserve might begin to taper its asset purchases. On 22 May, Federal Reserve Chairman Bernanke said that the pace of asset purchases by the central bank could slow within the next few meetings. He stressed that such a policy move would be data-dependent, which has caused investors to scrutinise economic releases and commentary from Federal Reserve officials more than usual.

United States economic data have remained consistent with a moderate economic recovery, so many

market participants anticipate that the Federal Reserve could announce a small reduction in its asset purchase programme as soon as the September meeting of the Federal Open Market Committee (FOMC). Along with rising expectations that the end of the asset purchase programme is approaching, the market has also brought forward expectations of an increase in the key Federal Funds rate. This trend has emerged despite the FOMC continuing to suggest that a highly accommodative stance of monetary policy will remain appropriate even after the end of quantitative easing. Specifically, since December 2012, the FOMC has stated that the current exceptionally low range for the Federal Funds rate will be appropriate at least as long as the unemployment rate remains above 6.5 percent, provided certain inflation and inflation expectations conditions are met.

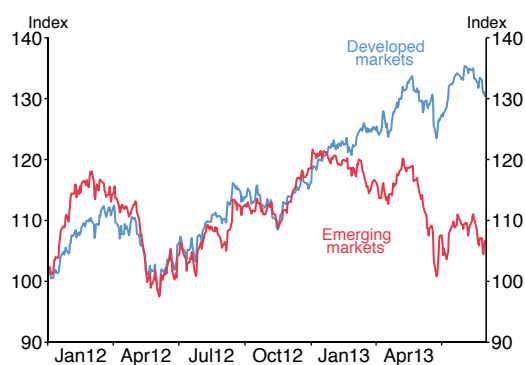
Rising rate expectations have fed through into higher United States bond yields across all maturities. Since the June *Statement*, the United States 10-year Treasury yield has increased 65 basis points to 2.8 percent. As noted in the next section on financing and credit, bond yields have increased across a wide range of markets.

Equity prices in developed countries fell notably in response to Federal Reserve Chairman Bernanke’s comments, but recovered and in many cases recently reached new highs for the cycle. European equity markets have performed particularly well in response to signs that the euro area economy emerged out of recession in the June quarter, and that growth was improving further. Equity markets in the United States and Japan have also been supported by improved domestic data.

One of the more notable developments has been the adverse impact on emerging market economies. Overall, emerging market assets have performed poorly this year and the change in sentiment towards United States monetary policy has prompted further declines in share prices (figure 3.1, overleaf). In the eight months to the end of August, the MSCI emerging markets equity index fell by 10 percent compared to a strong 12 percent gain in the MSCI developed markets index (both in US dollar terms). Over that time, an equally-weighted index of 17 key emerging markets’ currencies is 8 percent weaker

against the United States dollar, and bond spreads in emerging markets have widened.

Figure 3.1
MSCI world equity indices
(United States dollar terms)



Source: Datastream.

Following the global financial crisis, very easy global liquidity conditions pushed capital, particularly portfolio flows, into emerging markets. As these liquidity conditions normalise, this capital is flowing back into developed markets. Countries with larger current account deficits have been more susceptible to such capital outflows. Brazil, Turkey and Indonesia have recently increased policy rates, while India imposed some capital controls in an attempt to stem significant currency depreciation, although at the risk of inhibiting growth in their domestic economies.

In the euro area, there has been upward pressure on short term interest rates, in part due to the passive tightening of liquidity as banks choose to continue to repay funds borrowed in the European Central Bank's (ECB) long-term refinancing operations. ECB lending to banks for monetary policy purposes has fallen by 30 percent to €790 billion this year. Higher interest rates have also been supported by rising confidence in the region. GDP growth was positive in the June quarter, following 18 months of economic contraction, and more timely indicators suggest further economic expansion in the current quarter. Nonetheless, rising short-term interest rates in the region prompted the ECB to introduce a form of forward guidance in July. ECB President Draghi noted that the Governing Council expected the key policy lending and deposit rates to remain at present or lower levels for an extended period of time.

In early August, the Bank of England also introduced forward guidance. Governor Carney noted that the Monetary Policy Committee (MPC) intended to maintain the "exceptionally accommodative" stance of monetary policy until economic slack had been substantially reduced, provided that this does not put at risk either price stability or financial stability. Governor Carney noted that this meant that the MPC did not intend to raise the policy rate until the unemployment rate had fallen to 7 percent (given the aforementioned caveats).

In Asia, the Bank of Japan continues its quantitative easing programme, rapidly expanding the monetary base and purchasing government bonds.

China's interbank market experienced extremely tight cash conditions in June, resulting in some key short rates temporarily spiking above 20 percent. Analysts suggested that policy makers allowed the tightening to occur to send a warning to financial institutions about their liquidity management practices and their involvement in the burgeoning and increasingly risky shadow banking sector. The People's Bank of China did eventually inject liquidity to bring interbank rates down.

The Reserve Bank of Australia reduced its policy rate by 25 basis points to a record low of 2.5 percent in August, taking the cumulative reduction since November 2011 to 225 basis points. Governor Stevens said the economy was expected to continue to grow below trend as it adjusted to lower levels of mining investment. The market continues to price in the chance of a further modest reduction in the policy rate and the minutes of the August Board meeting suggested that members were not yet willing to close off the possibility of further cuts.

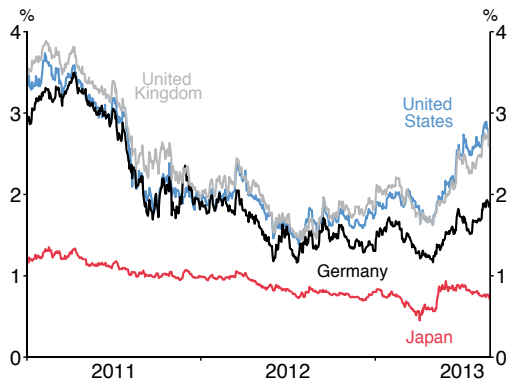
Financing and credit

Global bond yields have increased significantly since the June *Statement*, driven by rising United States interest rates. The yield on United States 10-year Treasuries rose to 2.9 percent in late August compared with the low of 1.6 percent in early May. The rise in nominal bond yields largely reflects a rise in real interest rates, with market-implied break-even inflation rates remaining low. While rates have risen across the curve, there has been a

significant steepening, with short-rates anchored by the Federal Reserve's forward guidance on the Fed Funds rate. Much of the increase in yields can be explained by the market anticipating less demand for Treasuries from the Federal Reserve as it winds down its asset purchase programme. Yields on United States mortgage backed securities and retail mortgage rates have followed a similar profile to Treasuries.

Bond yields have increased in other markets (figure 3.2). The United Kingdom 10-year bond yield reached a two-year high of around 2.8 percent in late August, while yields in Germany and France reached levels not seen in more than a year. Countries that experienced funding difficulties a year ago, such as Italy, Spain, Portugal and Ireland, have seen relatively strong demand for their bonds, with spreads to Germany narrowing to a two-year low. Fiscal austerity in these countries and emerging signs of economic recovery in the euro area as a whole have helped improve market sentiment towards these nations.

Figure 3.2
10-year government bond yields

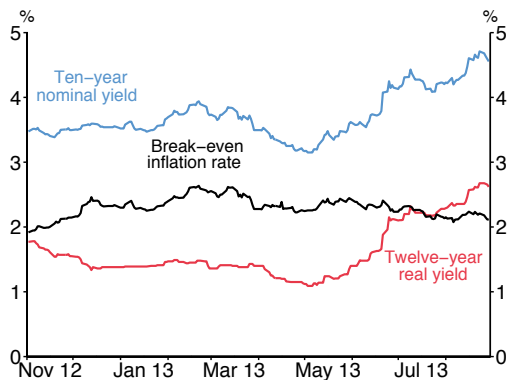


Source: Reuters.

Yields on Japanese bonds have also drifted lower. Following the Bank of Japan's April announcement that it would double the monetary base, yields spiked higher. However, since then the Bank of Japan has been able to successfully control yields, with market sentiment improving following greater transparency on the bond purchase programme. Since the June *Statement*, the 10-year yield has been in a fairly tight range, falling by only 10 basis points.

Bond yields in Australia and New Zealand are much higher, following higher United States yields. The New Zealand bond market has underperformed over this period, with the 10-year spread to both the United States and Australia rising by over 20 basis points. New Zealand bond market liquidity has been particularly low this year, due to a reduced bond issuance programme compared to recent history and a move towards issuing more inflation-linked securities. New Zealand's 10-year bond yield has risen 140 basis points since early May (figure 3.3). All of this gain has reflected an increase in real yields, as evidenced by the upward move in the inflation-indexed 12-year bond yield. At the end of August, the market-implied break-even inflation rate was around 2 percent, a similar level to that seen in early May.

Figure 3.3
New Zealand bond yields and implied inflation rate



Source: RBNZ.

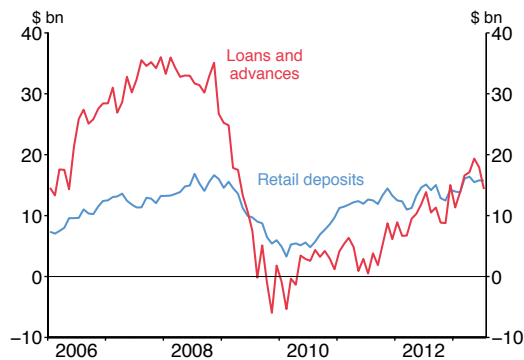
Steady issuance of Kauri bonds – New Zealand dollar denominated bonds issued in New Zealand by foreign issuers – has continued over recent months. There has been about \$5 billion of new issues in the eight months to August, a step up in the rate of issuance relative to the total \$5.5 billion of issuance in the previous three years combined. The limited supply of New Zealand government bonds and the rising spread between New Zealand and Australian rates have been factors in the strong level of issuance this year.

Funding conditions remain comfortable for the major local banks. Retail deposit growth has been tracking at an annual growth rate of around 9 percent this year. Despite rising credit growth, the strength of deposit flows

over the past year has covered much of the major banks' lending requirements (figure 3.4). Thus, there has been little pressure for banks to compete aggressively for term deposits. As a result, the six-month term deposit rate has declined this year to a four-year low of 3.8 percent. Short-term wholesale funding conditions remain easy, with the bank bill-OIS spread falling to just 13 basis points, a lower spread than experienced prior to the global financial crisis.

With little pressure on funding, the four main banks have not been particularly active in long-term wholesale funding markets. In the past few months there have been only a few public issues of senior unsecured debt, and all have occurred in the domestic market.

Figure 3.4
Retail deposit and credit growth
(annual change)



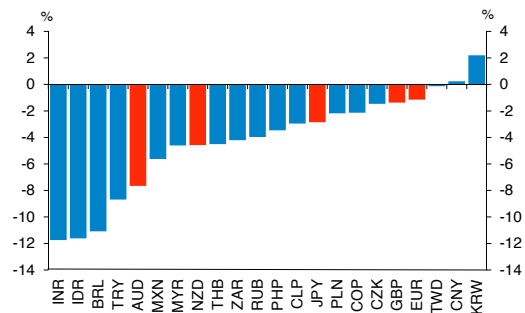
Source: RBNZ.

Foreign exchange market

The New Zealand dollar fell steadily through May on a trade-weighted basis and has since largely tracked sideways, although there have been a number of different forces on the cross rates. The Australian dollar has continued to depreciate, reflecting the sluggish Australian economy and easier policy stance of the Reserve Bank of Australia. The depreciation has also been linked to the sell-down in emerging market currencies (figure 3.5). The New Zealand dollar has been dragged down by this dynamic, weakening against the other major currencies, albeit to a much lesser extent. The NZD-AUD cross-rate has generally trended higher, and at the end of July reached a five-year high of AUD 0.88. By contrast, the New Zealand dollar fell to a two-year low against the euro

and reached new lows for the year against the United States dollar and pound sterling.

Figure 3.5
Change in currency against United States dollar 13 June to 30 August
(developed economies in red)



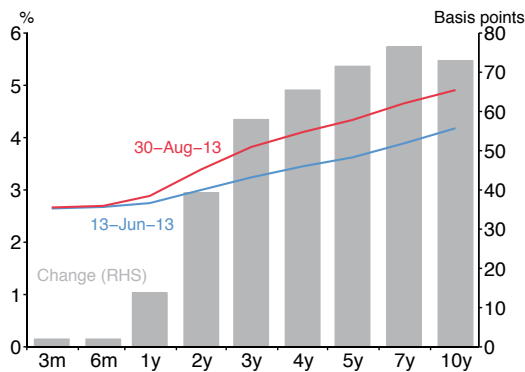
Source: Bloomberg.

Other domestic financial market developments

After peaking in early May, the NZX-50 index has largely tracked sideways, more or less in line with equity markets in developed economies. According to IBES estimates, New Zealand equities trade on 16.4 times year-ahead earnings (price to earnings ratio), a rich multiple compared to its average over the past 15 years of 14.4. Investor perception that the New Zealand market is “fully-valued” is one possible reason why local equities have under-performed equities in major developed economies this year.

Market-implied OCR expectations have risen significantly since the June *Statement*. The OIS market is pricing in about 25 basis points of tightening by March 2014 and 100 basis points through to the end of next year. While there was little market reaction to the June *Statement*, the market interpreted the July OCR review as introducing a bias towards tighter policy. This triggered higher interest rates across the curve. A run of positive economic data releases further encouraged this movement. Wholesale swap rates are up across the yield curve (see figure 3.6, opposite), with larger increases for longer-term maturities.

Figure 3.6
Wholesale bank bill and swap rates

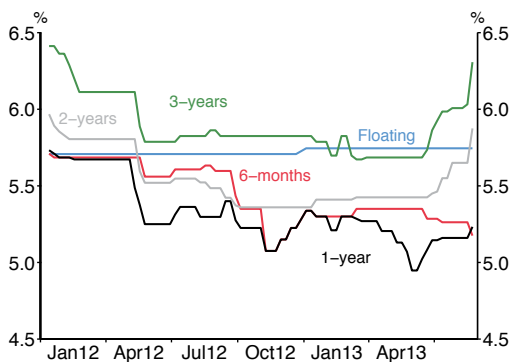


Source: Bloomberg.

Most mortgage rates have risen. With no change in the OCR, the floating mortgage rate and the 6-month fixed rate have remained relatively stable, but rising swap rates have fed through into higher fixed rate mortgage yields for maturities of greater than one year. Average one- to five-year carded mortgage rates for the four main trading banks are up by 30 to 40 basis points. Furthermore, anecdotal evidence suggests that discounting of advertised mortgage rates has become less pervasive over recent weeks. In addition, there are signs of banks pricing low equity mortgages more expensively.

There is an ongoing switch-out of floating rates into fixed rates (figure 3.7). At the end of July, the share of floating rate mortgages was 46 percent compared to 59 percent a year ago. Most of the mortgage rate fixing has been for short terms, with the share of mortgages fixed for up to two years rising by 11 percentage points to 47 percent and the share of longer dated mortgages (more

Figure 3.7
Carded mortgage rates – average of four major banks

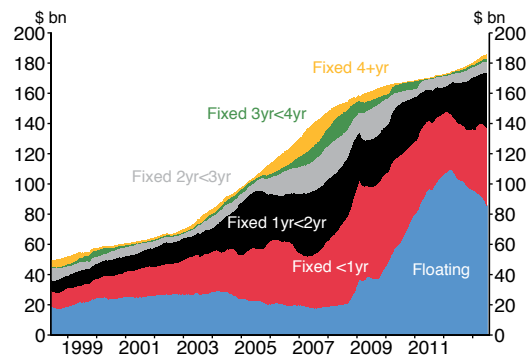


Source: RBNZ.

than 2-years duration) rising by 2 percentage points to 7 percent.

In July the average time to re-price a mortgage was 7.7 months, compared with 5.7 months a year ago. At the beginning of the last major tightening cycle in 2004, the average time to re-price a mortgage was 11 months and this had risen to 20 months by mid-2007.

Figure 3.8
Stock of mortgage debt by interest rate type



Source: RBNZ.

4 Current economic conditions

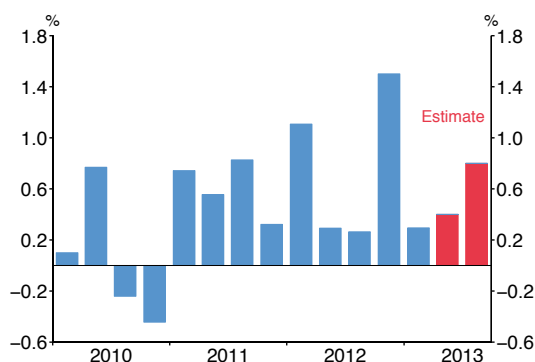
The strengthening in the New Zealand economy that occurred in late 2012 has been sustained through the first half of 2013. The New Zealand economy is estimated to have grown 3 percent in the year to the September quarter. Construction activity is a key source of growth, although improvements in domestic activity appear to have been reasonably broad based across industries through the middle of the year. Strengthening in the housing market is also boosting domestic demand. Fiscal consolidation and the elevated New Zealand dollar continue to weigh on growth.

While the pace of growth has remained firm over the year to date, inflation is low. The CPI increased 0.7 percent over the year to the June quarter. The gradual nature of the economic recovery in the past few years has dampened inflation, with spare capacity having been absorbed slowly. Inflation has also been dampened by the elevated New Zealand dollar and competitive pricing pressures both domestically and abroad. Nonetheless, some inflationary pressures are beginning to emerge.

Domestic demand

New Zealand's economic recovery has been sustained during the first half of 2013, despite the negative impact of drought. Indicators of domestic production point to continued robust GDP growth through the middle of 2013 (figure 4.1). Surveys of businesses suggest that growth has been relatively broad based across industries through the middle of this year.

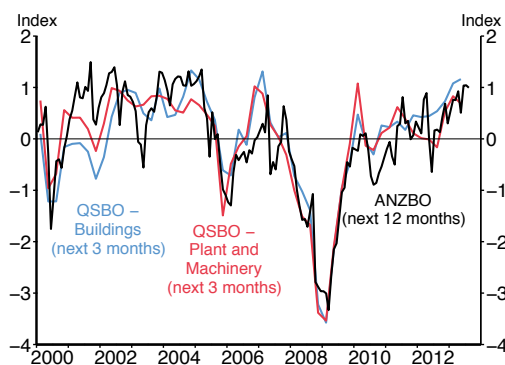
Figure 4.1
GDP growth
(quarterly, seasonally adjusted)



Source: Statistics New Zealand, RBNZ estimates.

As the New Zealand economy has strengthened, employment and business investment has increased gradually. Business conditions continue to improve and this points to further improvement in business investment. Over the first half of 2013, business confidence and investment intentions have both increased (figure 4.2). However, business credit growth remains subdued.

Figure 4.2
Surveyed investment intentions
(standardised, next 12 months)



Source: NZIER, ANZ Banking Group.

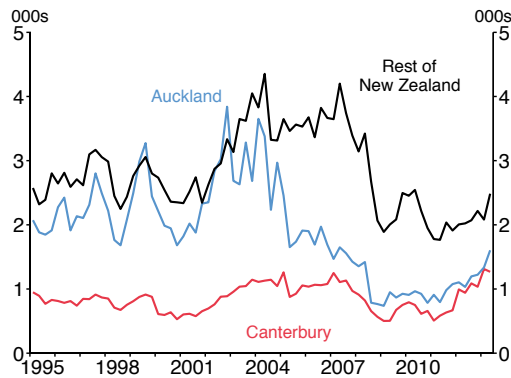
Rising construction activity has been a key driver of the increases in GDP seen over the past year. Post-earthquake reconstruction in Canterbury has contributed to strong increases in building activity. Residential building activity has also increased outside of Canterbury, but remains low relative to history (figure 4.3, opposite). Excess demand for existing houses appears to be encouraging increased building of new dwellings, particularly in Auckland. Residential investment is expected to have strengthened further through the middle of 2013, with ex-apartment dwelling consents rising 29 percent over the year to July.

The housing market remains buoyant with strong growth in house prices and the volume of house sales (figure 4.4, opposite). Over the past year, nationwide house sales have increased 7 percent and house prices have risen 9 percent (in the quarter to July). House price inflation remains particularly strong in Auckland and Christchurch, with annual house price inflation running at 16 and 10 percent in these regions respectively (figure 4.5, opposite). Throughout the rest of New Zealand, annual house price inflation continues to run at a more modest pace of around 4 percent.

Tight supply relative to demand appears to be contributing to house price pressures in Auckland and Christchurch. In Christchurch, housing supply has been

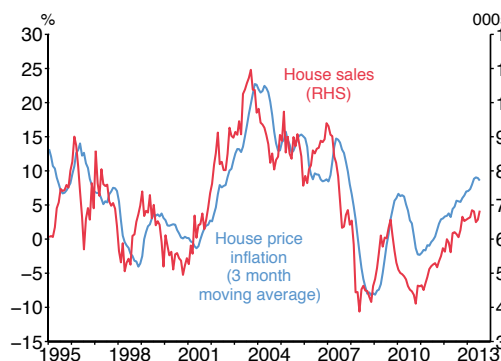
reduced as a result of the Canterbury earthquakes and price pressures are expected to be alleviated as the rebuild gathers pace.

Figure 4.3
New dwelling consent issuance
(quarterly, seasonally adjusted)



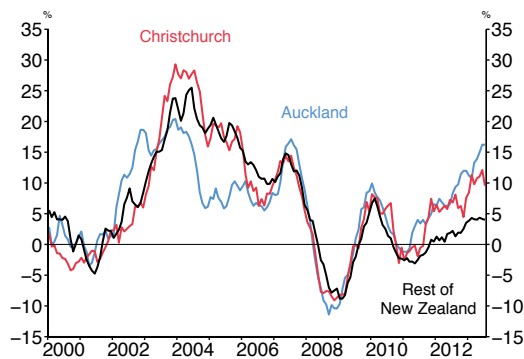
Source: Statistics New Zealand.

Figure 4.4
Annual house price inflation and seasonally adjusted monthly house sales



Source: REINZ.

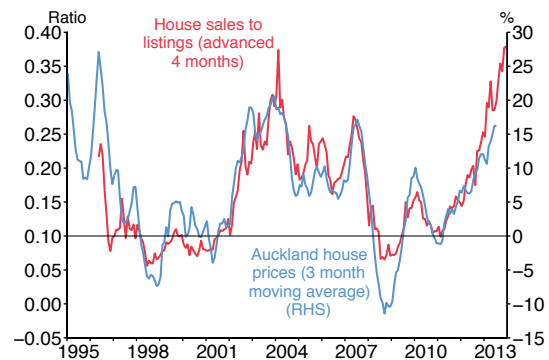
Figure 4.5
House price inflation
(annual, three-month moving average)



Source: REINZ.

In Auckland, low rates of building since 2005 have led to excess demand for housing. Supply of new housing is also constrained, particularly by land availability. Over the year to July, there were 5,400 new dwelling consents issued in Auckland. While new building in Auckland has increased recently, the rate of new building remains below that required to meet population pressures. Inventory of houses on the market also remains low, with sales continuing to outpace new listings (figure 4.6). Recent tightness in the market is expected to contribute to further price pressures in Auckland in the near term.

Figure 4.6
Sales-to-listings and annual house price inflation in Auckland

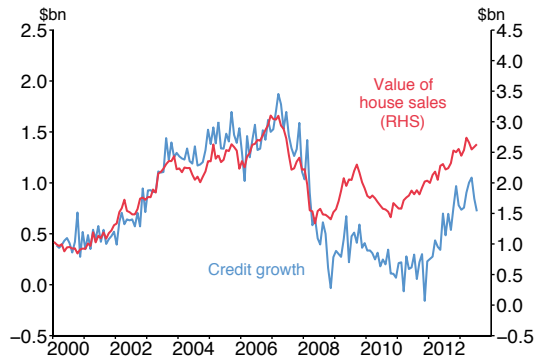


Source: Barfoot & Thompson, REINZ.

Credit factors have also contributed to recent strength in the housing market. Mortgage interest rates have been low and credit conditions have eased over the past year, supporting demand in the housing market generally. Housing credit has grown more than 5 percent over the past year (while the stock of household debt remains high), and household caution towards debt has continued to wane – with more debt now associated with housing market turnover (figure 4.7, overleaf).

Immigration to New Zealand has recently increased strongly and is expected to boost housing demand in the near term. Net permanent and long-term (PLT) immigration has increased from an annual outflow of around 4,000 in mid-2012 to a net inflow of around 11,000 people in the year to July 2013. A large part of the increase in net

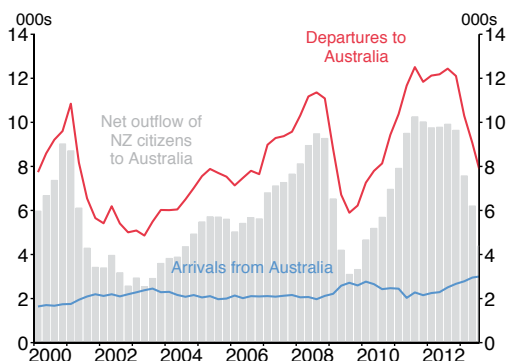
Figure 4.7
Value of house sales and household credit growth
(monthly)



Source: REINZ, RBNZ.

migration flows is due to a reduction in net departures of New Zealand citizens to Australia. Arrivals of New Zealand citizens from Australia have increased, while departures of New Zealand citizens to Australia have fallen markedly (figure 4.8). The reduction in net outflows to Australia is consistent with recent softening in the Australian labour market. Arrivals from Europe and Asia to New Zealand have also increased. It is expected that strength in net immigration to New Zealand will be sustained in the near term, consistent with continued softness in the Australian labour market.

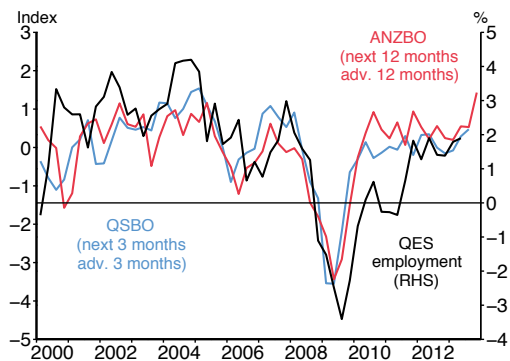
Figure 4.8
PLT migration of New Zealand citizens with Australia
(quarterly)



Source: Statistics New Zealand.

In New Zealand, employment has continued to improve gradually. According to the QES, filled jobs have continued to grow at an annual rate of around 2 percent, consistent with annual GDP growth of between 2.5 and 3 percent. Despite the unemployment rate remaining elevated, the Quarterly Survey of Business Opinion (QSBO) measures of labour market tightness suggest that spare capacity has been gradually absorbed. Consistent with recent improvement in business conditions, employment intentions have also increased (figure 4.9).

Figure 4.9
Annual growth in filled jobs and scaled employment intentions



Source: Statistic New Zealand, NZIER, ANZ Banking Group.

Household consumption growth has increased as conditions faced by households have improved. Rising house prices have boosted householders' perceived wealth, the labour market has improved, and households are now firmly optimistic about their economic prospects. Consumption is also being supported by continued low interest rates, while the elevated New Zealand dollar and discounting by firms (both domestically and abroad) have allowed households to consume more in real terms for a given amount of nominal spending. Spending data point to annual consumption growth of almost 4 percent through the middle of this year.

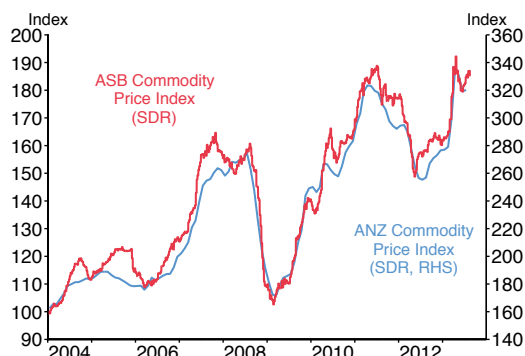
External sector

Drought conditions last summer have had a significant impact on agricultural production and related food manufacturing, subtracting an estimated 0.6 percentage points from quarterly GDP growth during the first half of this year. Dairy and meat exports declined 18 and 12 percent respectively in the June quarter, and more volatility in export volumes is expected in the near term.

Nonetheless, the drought is expected to have little impact on the coming season's dairy production. Many farmers dried off their herds early to preserve stock condition, and climatic conditions during winter have been very favourable for pastoral farming. Milk solids production is expected to recover to be about 4 percent higher in the 2013/14 season. However, the impact of drought on the meat industry is expected to persist for some time as a result of reductions in breeding stock.

International dairy prices have also remained high, boosting farm revenues. Falls in dairy production in New Zealand, tight global supply, and continued strong demand from Asia have led to GlobalDairyTrade auction prices being 44 percent higher than at the start of the year. The recent botulism scare appears to have had very little impact on dairy prices and demand for New Zealand's dairy produce. Recent increases in dairy prices have contributed to New Zealand's export commodity prices remaining elevated (figure 4.10).

Figure 4.10
Export commodity prices

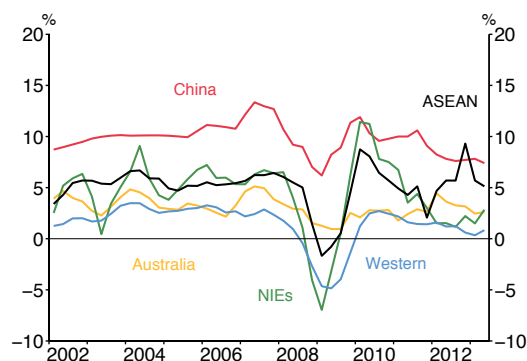


Source: ANZ Banking Group, ASB Bank.

In aggregate, New Zealand's trading partners continue to grow at a moderate pace (figure 4.11), supporting demand for New Zealand's exports. GDP growth in Asia

and Australia, which account for most of New Zealand's international trade, has moderated somewhat. However, the contribution of the United States and Europe to global growth has recently improved.

Figure 4.11
GDP growth in selected trading partner economies (annual)

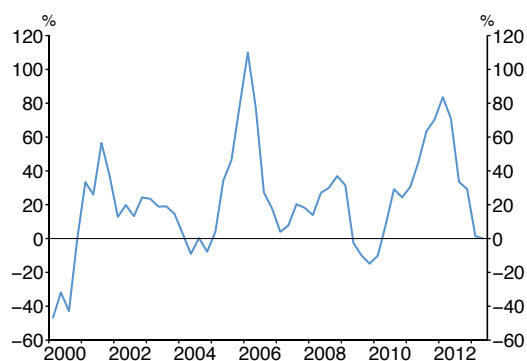


Source: Haver analytics.

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

Growth in Australia has softened in recent months. The Australian economy is undergoing an adjustment, shifting from a reliance on investment in the resource sector towards a more diversified pattern of growth. Resource investment grew exceptionally strongly in 2011 and 2012, but, in level terms, appears to have peaked at the end of last year (figure 4.12).

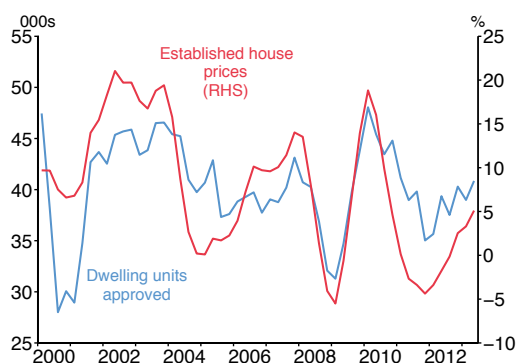
Figure 4.12
Growth in Australian mining capital expenditure (annual)



Source: Haver analytics.

Consumption and non-resource investment remain weak and indicators of domestic demand generally point to soft growth. However, exports are expected to be boosted as resource extraction comes on stream. Following the Reserve Bank of Australia's steady easing in monetary policy, house prices have begun to climb and dwelling consents have increased (figure 4.13). New Zealand's exposure to further slowing in the Australian resource sector appears to be low, as exports to Australia are generally purchased by the household and construction sectors. Nonetheless, slowing in the Australian economy may have some dampening impact on New Zealand's export volumes. Offsetting this, weakness in the Australian labour market is contributing to strong net immigration flows to New Zealand and boosting domestic demand.

Figure 4.13
Australian annual house price inflation and quarterly dwelling consents



Source: Haver analytics.

GDP growth in China has slowed somewhat. Since the June *Statement*, indicators of domestic and external demand have stabilised, suggesting that GDP growth will remain steady over 2013. While the Chinese economy is expanding at a slower pace than in recent years, such growth is likely to continue to support demand growth throughout Asia and demand for Australian resource exports.

Growth in Asia's newly industrialised economies increased in the second quarter, after a period of weakness that was largely due to the slowdown in western economies. Growth in ASEAN economies has been mixed and there are some signs of vulnerability. Many emerging market economies have recently experienced downward

pressure on their currencies. To the extent that this affects growth of our trading partners, it would impact the New Zealand economy.

Economic prospects in the euro area, Japan and the United States have improved in recent months. In the euro area, fears around financial contagion have eased, and there was a small increase in output in the second quarter of 2013 after six quarters of contraction. Japanese growth has accelerated, led by an improvement in private consumption. Economic growth in the United States remained subdued over the first half of 2013 as the federal government sharply reduced spending, but the unemployment rate has continued to gradually decline.

The gradual pace of growth in developed economies and related softness in global trade has dampened global inflation. Weak global inflation has dampened New Zealand import price inflation. The relatively favourable economic outlook in New Zealand, elevated export commodity prices, and extraordinary monetary support by central banks in advanced economies, continue to support the New Zealand dollar TWI at an elevated level.

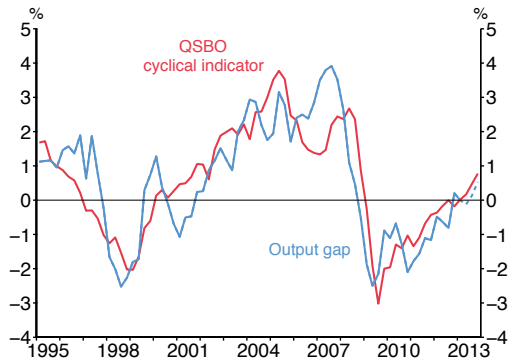
Since the time of the June *Statement*, the New Zealand dollar TWI has depreciated slightly. This depreciation, along with higher petrol prices, is expected to provide a boost to CPI inflation in the near term. Nonetheless, the elevated level of the New Zealand dollar continues to dampen tradables inflation, allowing households and firms to purchase more in real terms. Low tradables prices have encouraged substitution towards imports and will have reduced input costs for some firms. Strength in the New Zealand dollar continues to reduce competitiveness in the tradables sector by dampening sales volumes and revenue for import-competing firms and exporters. The high terms of trade is offsetting the impact of the high exchange rate on export revenue to some degree.

Cyclical and inflationary pressures

Following the 2008/09 recession, the New Zealand economy had underutilised resources. Since then, spare capacity has been slowly absorbed as GDP growth has picked up. Business surveys suggest that capacity in

the economy has tightened gradually and is now around average levels (figure 4.14).

Figure 4.14
Output gap and QSBO cyclical indicator
(seasonally adjusted, share of potential GDP)

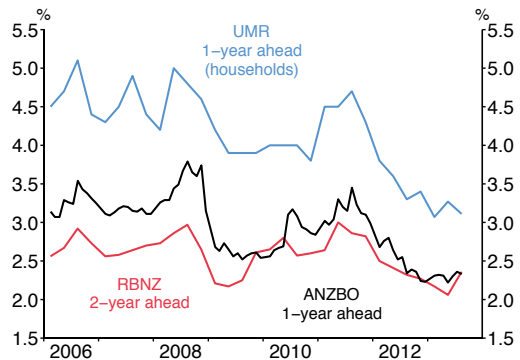


Source: NZIER, RBNZ estimates.
Note: The QSBO cyclical indicator is a combination model of capacity indicators from the QSBO, fitted to cyclical movements in GDP up to 2007.

While spare capacity in the economy has been gradually absorbed, inflation remains low. CPI inflation is expected to increase in the near term largely as a result of recent increases in petrol and food prices. Nonetheless, underlying inflationary pressures are expected to remain low in the near term. Declines in inflation expectations (figure 4.15) and competitive pressures have resulted in subdued inflationary pressures and low non-tradables inflation. Weak global inflation, competitive pressures abroad, and the elevated level of the New Zealand dollar TWI have dampened tradables inflation.

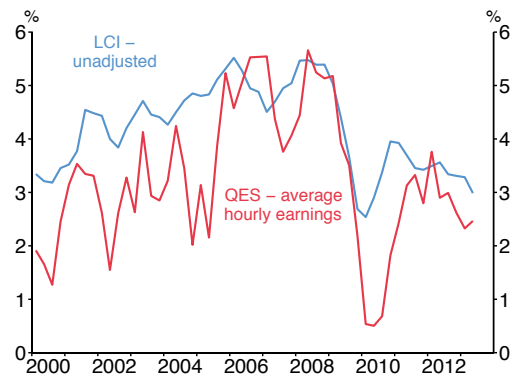
Wage inflation has been soft. A significant portion of non-tradables prices relate to the provision of services, where wages are a significant cost of production. Nominal wage inflation has been low due to the lagged effect of weakness in the labour market in previous quarters (figure 4.16). Declines in inflation expectations also appear to have contributed to softness in wage inflation. Nominal unadjusted LCI wages rose only 3 percent over the year to June. However, once inflation expectations have been taken into account, real wages appear to have continued to rise at rates consistent with a slow recovery in the labour market and spare capacity gradually being absorbed (figure 4.17).

Figure 4.15
Inflation expectations
(annual)



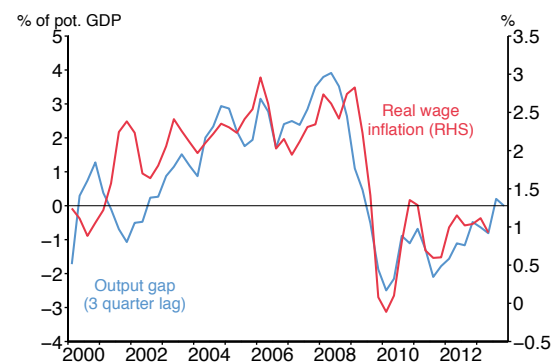
Source: RBNZ, ANZ Banking Group, UMR.

Figure 4.16
Nominal wage inflation
(annual)



Source: Statistics New Zealand.

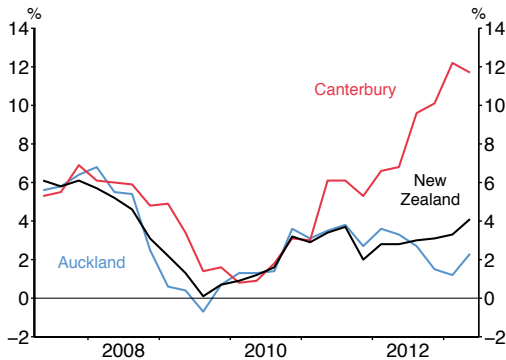
Figure 4.17
Output gap and annual real wage inflation



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

While inflation remains subdued, pressures are emerging for housing- and construction-related costs. Annual construction cost inflation is running at 4 percent (figure 4.18). Earthquake reconstruction appears to be putting pressure on resources within Canterbury, with wage, rental and construction cost inflation all strong compared with the rest of the country. However, construction cost inflation remains low throughout the rest of New Zealand, with little sign that resource pressures in Canterbury have spilled over to other regions.

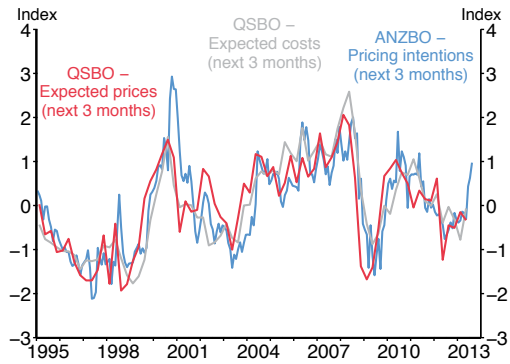
Figure 4.18
Regional construction costs
(annual)



Source: Statistics New Zealand.

As capacity pressures continue to build, pricing pressures are expected to lift. Business surveys suggest that the number of firms expecting price and costs increases has risen over the past few months, pointing to increasing pricing pressures (figure 4.19). Recently, two-year ahead annual inflation expectations have also spiked higher to 2.4 percent, though this appears high relative to other indicators of cost and pricing expectations.

Figure 4.19
Firms' pricing and cost expectations
(seasonally adjusted)



Source: NZIER, ANZ Banking Group.

5 The macroeconomic outlook

Annual GDP growth is expected to increase to around 3.5 percent in mid-2014, before moderating thereafter. A gradual recovery in global activity supports the terms of trade and demand for New Zealand's exports. Continued reconstruction in Canterbury and robust house price inflation will also underpin strengthening in domestic demand. However, these drivers are partly offset by fiscal consolidation and an elevated New Zealand dollar, which act to dampen economic activity.

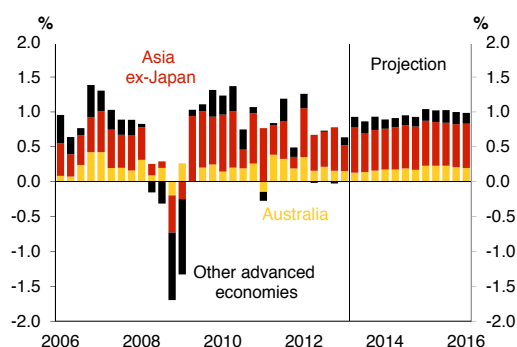
Strengthening GDP will see resource and non-tradables inflationary pressures develop. An assumed gradual depreciation in the New Zealand dollar TWI results in some increase in tradables inflation from currently subdued levels. The 90-day interest rate is assumed to increase over the forecast horizon to offset these inflationary pressures and ensure that annual headline CPI inflation settles near 2 percent in the latter part of the projection (figure 2.4, p. 7).

External outlook

Economic growth in New Zealand's major trading partners is forecast to increase gradually over the projection (figure 5.1).

Figure 5.1

Trading partner GDP growth
(quarterly, 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.

The outlook for developed economies is one of slowly improving growth. The euro area is expected to expand at a subdued pace from 2014, with intra-regional disparities in competitiveness limiting the rate of recovery. The

United States economy is forecast to grow at an annual pace of close to 3 percent, following an easing in fiscal consolidation. Japan is expected to continue growing steadily, at an above average rate.

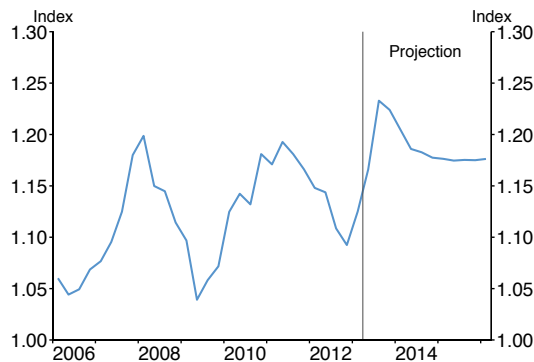
China is forecast to expand at a slower pace compared to recent history. Nonetheless, Chinese growth will continue to be a major driver of growth for the rest of Asia and Australia. Other East Asian economies are also expected to continue growing at a moderate pace, supported by domestic demand and improving external demand from western economies. However, as discussed in chapter 2, recent developments (reflected in reduced demand for emerging market currencies) pose some downside risk to the outlook for growth in several Asian economies.

Australian growth is forecast to increase from 2014 as easier monetary policy, and the recent depreciation in the Australian dollar, support both domestic demand and export receipts.

Inflation across New Zealand's trading partners is forecast to remain low over the projection. Persistent spare capacity and moderate economic growth in advanced economies imply a competitive trade environment. While easy monetary conditions across western economies pose some upside risk to the medium-term outlook, this risk is balanced by stable inflation expectations.

A gradual increase in trading partner growth over the projection will support demand for New Zealand's exports. From a high starting point, world prices for New Zealand's exports are expected to ease somewhat over the remainder of 2013 but remain robust over the forecast horizon. In conjunction with subdued imported inflation, this sees the terms of trade settle at a historically elevated level (figure 5.2, overleaf).

Figure 5.2
SNA terms of trade
(seasonally adjusted)

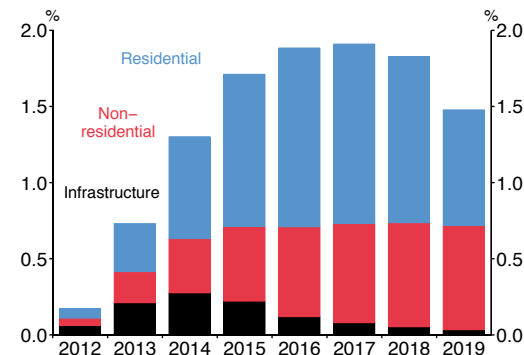


Source: Statistics New Zealand, RBNZ estimates.

Domestic outlook

Annual GDP growth is expected to increase to around 3.5 percent in mid-2014. A key contributor to this growth over the next year, and indeed to GDP over the projection, is the continuation of rebuild activity in Canterbury. The total cost of reconstruction is assumed to be \$40 billion (in 2013 dollars) – unchanged from the June *Statement*. Reconstruction is assumed to occur over an extended period, peaking as a share of GDP between 2016 and 2018 (figure 5.3).

Figure 5.3
Earthquake-related investment and reconstruction
(annual, calendar years, share of potential GDP)



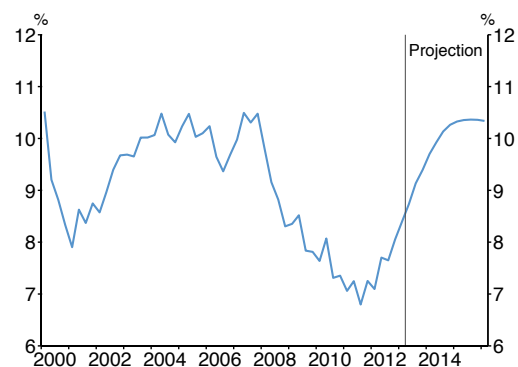
Source: RBNZ estimates.

There remains considerable uncertainty around the total cost and timing of reconstruction. Labour and accommodation availability may act as significant

constraints on the rebuild process, resulting in a more drawn out activity outlook. Such constraints would also increase inflationary pressures. Conversely, it may be that delays associated with insurance or land assessment spread construction demand over time, and result in inflationary pressures being relatively well contained. The Bank continues to assume that construction demand related to the rebuild will evolve in an orderly fashion. Nonetheless, a larger and more widespread boost to inflation could eventuate if demand for resources for reconstruction was to accelerate faster than projected.

Demand for nationwide construction resources has already grown rapidly over the past 12-18 months. Total construction activity is expected to grow at a similarly strong rate for at least the next 18 months. This growth will be supported by accommodative monetary policy, robust house price inflation, and moderate population growth. Combined with reconstruction activity in Canterbury, total construction expenditure is expected to increase substantially over the projection (figure 5.4).

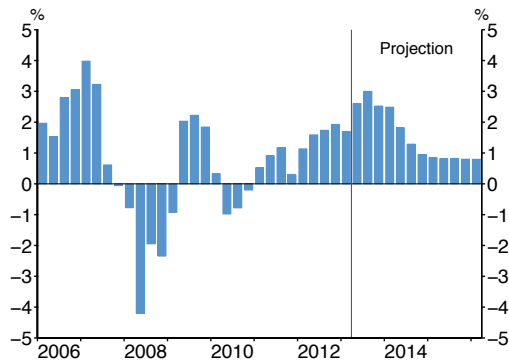
Figure 5.4
Construction expenditure
(quarterly, seasonally adjusted, share of potential GDP)



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

Quarterly house price inflation is projected to remain near 2.5 percent over the coming six months, higher than seen over the previous year, before tracking lower thereafter (figure 5.5, opposite). In part, this easing reflects the introduction of “speed limits” on high-LVR mortgages, which the Bank assumes will subtract between 1 and 4 percentage points from annual house price inflation over

Figure 5.5
House price inflation
(quarterly, seasonally adjusted)

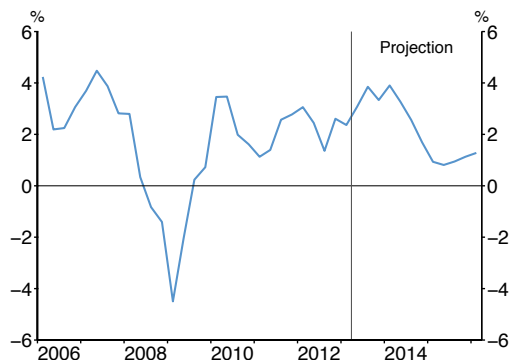


Source: Property IQ, RBNZ estimates.

the next few years (see box A, page 5). The gradual removal of monetary policy stimulus, slowing net migration, an increase in the housing stock, and worsening housing affordability will also dampen house price inflation over the latter part of the projection.

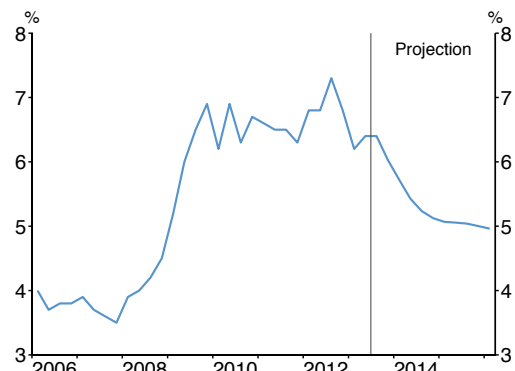
Strong house price inflation over the next year is expected to be associated with strengthening household consumption (figure 5.6). Over the next 12 months, growth in household spending will be supported by improving incomes – the result of the lingering boost provided by the currently elevated terms of trade and an improving labour market. The increase in GDP will continue to support a recovery in the labour market, with the unemployment rate projected to decline to around 5 percent over the

Figure 5.6
Private consumption growth
(annual)



Source: Statistics New Zealand, RBNZ estimates.

Figure 5.7
Unemployment rate
(seasonally adjusted)



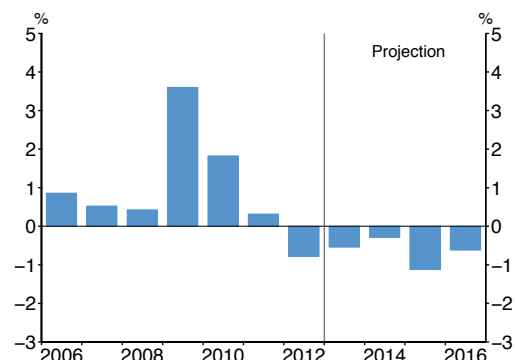
Source: Statistics New Zealand, RBNZ estimates.

next few years (figure 5.7). In addition, the elevated New Zealand dollar TWI is assumed to continue to dampen the relative price of imported goods and services, enabling households to consume more in real terms for a given level of nominal spending.

Consumption growth is expected to ease over the latter part of the projection as monetary policy stimulus is removed, the terms of trade normalise, house price inflation moderates, and high debt levels slowly act as a constraint.

Continued fiscal consolidation will dampen GDP over the projection (figure 5.8). The Government plans to return the fiscal balance to zero by 2014/15, and to reduce government debt thereafter. As reaffirmed in the May

Figure 5.8
Fiscal impulse
(June years, share of nominal GDP)



Source: The Treasury.
Note: Fiscal impulse is total Crown excluding EQC and Southern Response reinsurance payments to the Crown.

Budget, this is to be achieved through limited growth in new government expenditure and previously announced changes in transfers to households. Government revenue will increase as the economy expands and through increases in indirect taxes on tobacco and petrol. These indirect taxes add 0.3 percentage points to annual CPI inflation per annum until 2015, partially offsetting the dampening effects of other fiscal consolidation measures on inflationary pressure.

Although assumed to depreciate gradually over the projection, the New Zealand dollar TWI is expected to remain elevated (figure 2.3, p. 6) and act as a significant headwind to economic growth over the medium term. The high exchange rate will dampen export receipts and soften demand for New Zealand's service exports, which are expected to remain low as a share of GDP (figure 5.9). By lowering the relative price of imports the high exchange rate will continue to encourage substitution away from domestically produced goods and services.

Figure 5.9
Exports of services
(seasonally adjusted, share of potential GDP)



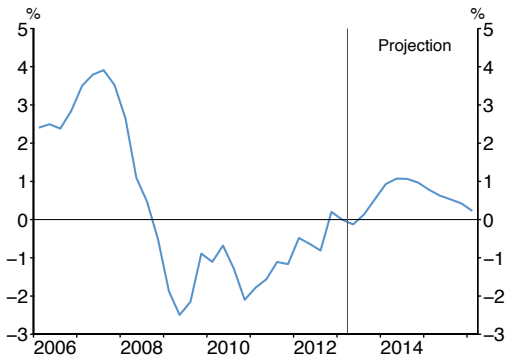
Source: Statistics New Zealand, RBNZ estimates.

Inflationary pressures

The increase in domestic demand resulting from increased construction sector activity, robust house price inflation and increased household consumption is only partially offset by fiscal consolidation and a high New Zealand dollar exchange rate over the projection. As a result, capacity pressures are expected to build over the medium term, with the output gap increasing to 1 percent

of potential GDP in 2014 (figure 5.10). Strengthening capacity pressures see non-tradables inflationary pressures develop from currently low levels. The gradual depreciation of the New Zealand dollar TWI over the forecast horizon supports a modest increase in tradables inflationary pressures. Headline inflation is also supported by increases in indirect taxes over the next three years.

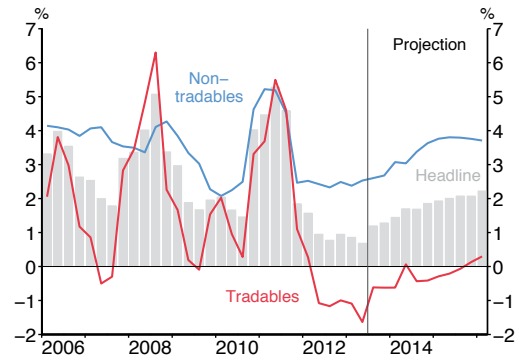
Figure 5.10
Output gap
(seasonally adjusted, share of potential GDP)



Source: RBNZ estimates.

The 90-day interest rate is assumed to increase over the forecast horizon to offset these inflationary pressures and ensure that annual headline CPI inflation settles near 2 percent in the latter part of the projection (figure 5.11).

Figure 5.11
Annual CPI inflation and components



Source: Statistics New Zealand, RBNZ estimates.

Appendix A¹

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
2005	Mar	1.0	0.4	2.8	69.6	6.9
	Jun	2.0	0.9	2.8	70.8	7.0
	Sep	0.4	1.1	3.4	69.7	7.0
	Dec	-0.3	0.7	3.2	71.5	7.5
2006	Mar	1.4	0.6	3.3	68.2	7.5
	Jun	0.7	1.5	4.0	62.8	7.5
	Sep	0.5	0.7	3.5	63.6	7.5
	Dec	1.1	-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	0.6	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	-1.0	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	-0.3	0.6	1.9	58.4	2.9
	Sep	0.6	1.3	1.7	62.6	2.8
	Dec	1.6	-0.2	2.0	65.5	2.8
2010	Mar	0.1	0.4	2.0	65.3	2.7
	Jun	0.8	0.2	1.7	66.8	2.9
	Sep	-0.2	1.1	1.5	66.9	3.2
	Dec	-0.4	2.3	4.0	67.8	3.2
2011	Mar	0.7	0.8	4.5	67.1	3.0
	Jun	0.6	1.0	5.3	69.1	2.7
	Sep	0.8	0.4	4.6	72.0	2.8
	Dec	0.3	-0.3	1.8	68.7	2.7
2012	Mar	1.1	0.5	1.6	72.5	2.7
	Jun	0.3	0.3	1.0	71.2	2.6
	Sep	0.3	0.3	0.8	72.6	2.7
	Dec	1.5	-0.2	0.9	73.6	2.6
2013	Mar	0.3	0.4	0.9	75.9	2.7
	Jun	0.4	0.2	0.7	76.5	2.6
	Sep	0.8	0.8	1.2	74.7	2.6
	Dec	1.0	-0.1	1.3	74.7	2.6
2014	Mar	1.0	0.6	1.4	74.7	2.7
	Jun	0.7	0.4	1.7	74.7	3.0
	Sep	0.6	0.8	1.7	74.7	3.3
	Dec	0.5	0.1	1.9	74.3	3.6
2015	Mar	0.4	0.7	1.9	73.8	3.9
	Jun	0.5	0.5	2.0	73.3	4.1
	Sep	0.5	0.8	2.1	72.9	4.3
	Dec	0.5	0.1	2.1	72.4	4.5
2016	Mar	0.4	0.8	2.2	71.9	4.7

¹ Notes for these tables follow on pages 29 and 30.

Table B
Measures of inflation, inflationary pressures and asset prices

	2011			2012			2013			
	Dec	Mar	Jun	Dec	Mar	Jun	Dec	Mar	Jun	Sep
Inflation (annual rates)										
CPI	1.8	1.6	1.0	0.8	0.9	0.7				
CPI non-tradable	2.5	2.5	2.4	2.3	2.5	2.5				
CPI tradable	1.1	0.3	-1.1	-1.2	-1.0	-1.6				
Sectoral factor model estimate of core inflation										
CPI trimmed mean (of annual price change)	2.1	1.7	1.2	1.1	1.0	0.8				
CPI weighted median (of annual price change)	2.1	2.0	1.8	2.0	1.6	1.3				
GDP deflator (derived from expenditure data)	0.4	-0.2	1.7	-1.5	-2.7	1.0				
PPI - Input prices	4.2	2.3	1.9	0.3	-0.5	0.0				
PPI - Output prices	3.4	1.6	0.5	-0.6	-0.8	0.1				
Inflation expectations										
RBNZ Survey of Expectations - inflation one-year-ahead	2.7	2.2	2.0	2.0	1.8	1.5				1.9
RBNZ Survey of Expectations - inflation two-years-ahead	2.8	2.5	2.4	2.3	2.3	2.1				2.4
ANZ Bank Business Outlook - inflation one-year-ahead (quarterly average to date)	3.1	2.7	2.7	2.4	2.3	2.3				2.3
AON Hewitt Economist Survey - inflation one-year-ahead	2.5	2.3	2.2	2.0	2.0	1.8				2.0
AON Hewitt Economist Survey - inflation four-years-ahead	2.5	2.5	2.5	2.5	2.4	2.3				2.3
Pricing and costs (net balances)										
ANZ Bank Business Outlook - pricing intentions, next 3 months (quarterly average to date)	18.1	20.4	17.9	16.9	15.5	22.2				29.1
QSBO average selling prices, next three months (economy wide)	33.2	30.7	24.1	26.1	22.2	27.2				
QSBO average costs, past three months (economy wide)	17.0	23.0	10.0	14.0	9.0	22.0				
Asset prices (annual percentage changes)										
Quarterly house price index (Quotable Value Limited)	2.9	3.5	4.2	4.8	6.5	7.1				
REINZ Farm Price Index (quarterly average to date)	5.9	19.9	0.7	-4.4	6.0	-3.2				4.6
NZX 50 (quarterly average to date)	0.1	-0.7	-0.3	8.6	20.9	26.9				25.4

Table C

Composition of real GDP growth

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

March year	Actuals									Projections			
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016		
Final consumption expenditure													
Private	4.7	2.8	3.5	-1.6	0.6	2.0	2.4	2.2	3.5	2.1	1.0		
Public authority	4.7	3.4	4.9	4.5	0.2	1.4	1.9	0.6	-0.5	-0.3	0.6		
Total	4.7	2.9	3.8	-0.3	0.5	1.9	2.3	1.8	2.6	1.6	0.9		
Gross fixed capital formation													
Market sector:													
Residential	-5.0	-2.1	1.8	-21.3	-9.1	1.8	-10.6	19.3	26.9	15.9	5.4		
Business	10.3	-3.4	10.4	-7.6	-13.1	4.0	7.3	6.5	4.7	11.3	4.3		
Non-market government sector	6.5	2.3	-10.8	27.7	-3.3	-2.0	-14.6	-15.3	9.3	6.3	5.6		
Total	6.5	-2.8	7.1	-8.1	-11.6	3.0	2.3	6.7	8.6	11.9	4.6		
Final domestic expenditure	5.1	1.5	4.6	-2.2	-2.3	2.1	2.3	2.9	3.9	3.9	1.8		
Stockbuilding ¹	-0.5	-1.1	1.1	-0.5	-1.2	1.2	0.5	-0.4	0.6	-0.3	-0.0		
Gross national expenditure	4.8	0.2	5.9	-2.3	-3.1	2.9	3.4	2.1	4.5	3.7	1.8		
Exports of goods and services	-0.1	3.3	3.5	-2.7	5.0	2.7	2.5	3.4	0.0	1.6	2.5		
Imports of goods and services	4.4	-1.3	10.6	-4.0	-8.9	11.3	6.2	0.5	5.9	4.2	2.1		
Expenditure on GDP	3.4	1.6	3.5	-1.8	1.5	0.2	2.2	3.1	2.5	2.8	1.9		
GDP (production)	3.5	2.9	2.9	-1.8	-0.2	1.6	1.9	2.5	2.8	3.0	2.0		
GDP (production, March qtr to March qtr)	3.5	3.5	1.2	-2.9	2.0	0.8	2.8	2.4	3.2	2.3	2.0		

¹ Percentage point contribution to the growth rate of GDP.

Table D

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

March year	Actuals									Projections			
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016		
Price measures													
CPI	3.3	2.5	3.4	3.0	2.0	4.5	1.6	0.9	1.4	1.9	2.2		
Labour costs	3.0	3.0	3.5	3.1	1.3	2.0	2.1	1.8	2.0	2.2	2.2		
Export prices (in New Zealand dollars)	3.0	2.3	11.8	7.4	-8.5	8.0	-3.6	-5.9	8.6	-0.5	3.5		
Import prices (in New Zealand dollars)	7.3	0.7	0.4	17.4	-10.8	3.7	-1.7	-4.0	1.4	1.9	3.5		
Monetary conditions													
90-day rate (year average)	7.3	7.6	8.6	6.7	2.8	3.1	2.7	2.6	2.7	3.5	4.4		
TWI (year average)	70.1	65.6	71.6	61.6	62.9	67.1	70.6	73.3	75.1	74.4	72.6		
Output													
GDP (production, annual average % change)	3.5	2.9	2.9	-1.8	-0.2	1.6	1.9	2.5	2.8	3.0	2.0		
Potential output (annual average % change)	3.1	2.6	2.2	1.8	1.2	1.4	1.5	1.7	2.1	2.4	2.5		
Output gap (% of potential GDP, year average)	2.5	2.8	3.5	-0.2	-1.7	-1.5	-1.1	-0.3	0.4	1.0	0.5		
Labour market													
Total employment (seasonally adjusted)	2.8	2.0	-0.3	0.7	-0.2	1.7	0.9	0.3	2.5	1.6	0.8		
Unemployment rate (March qtr, seasonally adjusted)	4.0	3.9	3.9	5.2	6.2	6.6	6.8	6.2	5.7	5.1	5.0		
Trend labour productivity	1.2	1.2	1.0	0.8	0.8	0.8	0.9	1.0	1.0	1.1	1.1		
Key balances													
Government operating balance (% of GDP, year to June)	4.4	3.4	3.1	-2.1	-3.3	-9.2	-4.5	-3.0	-0.9	-0.1	0.0		
Current account balance (% of GDP)	-8.6	-8.0	-7.9	-7.9	-1.8	-3.6	-4.4	-4.8	-3.9	-5.3	-5.5		
Terms of trade (SNA measure, annual average % change)	-1.1	-1.6	8.5	-2.0	-4.7	7.7	1.3	-4.7	8.0	-2.2	-0.5		
Household saving rate (% of disposable income)	-8.2	-7.1	-3.6	-4.1	-0.5	0.2	-0.1	-1.0	-0.2	-0.3	0.0		
World economy													
Trading partner GDP (annual average % change)	3.9	3.8	4.3	0.2	1.1	4.5	3.4	3.2	3.3	3.7	4.1		
Trading partner CPI (TWI weighted, annual % change)	2.4	1.9	3.3	0.9	1.7	2.2	2.2	1.6	1.7	2.1	2.0		

Notes to the tables

CPI	Consumers Price Index.
Weighted median inflation	To calculate weighted median inflation, first the percentage changes in all components of the CPI are ranked. The weighted median is the rate of price change that half of all weighted price movements are below, and half are above.
Trimmed mean inflation	To calculate trimmed mean inflation, first percentage changes in all components of the CPI are ranked, then the price changes for a specified weight of the CPI are removed. The trimmed mean is the average of the remaining price changes.
Sectorial 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.
Business investment	RBNZ definition. Total investment less the sum of non-market investment and residential investment. System of National Accounts.
Non-market investment	RBNZ definition. The System of National Accounts annual nominal government non-market/market investment ratio is interpolated into quarterly data. This ratio is used to split quarterly expenditure GDP government investment into market and non-market components.
Final domestic expenditure	RBNZ definition. The sum of total consumption and total investment. System of National Accounts.
Stockbuilding	Percentage point contribution to the growth of GDP by stocks. System of National Accounts.
Gross Domestic Income	The real purchasing power of domestic income, taking into account changes in the terms of trade. System of National Accounts.
Gross national expenditure	Final domestic expenditure plus stocks. System of National Accounts.
Exports of goods and services	System of National Accounts.
Imports of goods and services	System of National Accounts.
GDP (production)	Gross Domestic Product. System of National Accounts.
Potential output	RBNZ definition and estimate.

Output gap	RBNZ definition and estimate. The percentage difference between real GDP (production, seasonally adjusted) and potential output GDP.
Current account balance	Balance of Payments.
Total employment	Household Labour Force Survey.
Unemployment rate	Household Labour Force Survey.
Household saving rate	Household Income and Outlay Account.
Government operating balance	Operating balance before gains and losses. Source: The Treasury, adjusted by the Reserve Bank.
Labour productivity	The series shown is the annual percentage change in a trend measure of labour productivity. Labour productivity is defined as GDP (production) divided by Household Labour Force Survey hours worked.
Labour cost	Private sector all salary and wage rates. Labour Cost Index.
Quarterly percent change	$(\text{Quarter}/\text{Quarter}_{-1} - 1) * 100$
Annual percent change	$(\text{Quarter}/\text{Quarter}_{-4} - 1) * 100$
Annual average percent change	$(\text{Year}/\text{Year}_{-1} - 1) * 100$

Source: Unless otherwise specified, all data conform to Statistics New Zealand definitions, and are not seasonally adjusted.
Rounding: All projections data are rounded to one decimal place.

Appendix B

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

A.E. Tilley Ltd	Lumley General Insurance (NZ) Ltd
Ashburton District Council	McConnell Dowell Constructors Ltd
Beca Group Ltd	Monarch Real Estate Ltd
Cadbury New Zealand Ltd	NDA Group Ltd
Canterbury Development Corporation	Nelson Tasman Chamber of Commerce
Carter Holt Harvey Ltd	Nelson City Council
Canterbury Earthquake Recovery Authority	Nelson Pine Industries Ltd
Christchurch International Airport Ltd	New Zealand Retailers Association
Countrywide Property Trust Ltd	Ngai Tahu Holdings Corporation
Croys Ltd	Nissan New Zealand Ltd
EA Networks Ltd	NZ Agricultural Machinery Group
Ernst & Young	Opus International Consultants Ltd
Ezibuy Ltd	Perry Group Ltd
Federated Farmers of NZ (Inc)	Ports of Auckland Ltd
Fisher & Paykel Healthcare Ltd	PWC New Zealand Ltd
Fletcher Building Ltd	Ray White Real Estate Ltd
Foster Construction Ltd	Registered Master Builders Federation
Gallagher Group Ltd	Skope Industries Ltd
GE Capital Ltd	Smiths City Group Ltd
Gibbons Holdings Ltd	SYL Research Ltd
Godfrey Hirst New Zealand Ltd	The New Zealand Sock Company Ltd
Gough Group Ltd	TRT (Tidd Ross Todd) Ltd
Hawkins Construction Ltd	Veda Advantage Ltd
Hereford Holdings Ltd	Vero Insurance New Zealand Ltd
J Ballantyne & Co Ltd	Waikato Chamber of Commerce
Jade Software Corporation	Waikato Milking Systems New Zealand Ltd
Kelly Services (New Zealand) Ltd	Waikato Tractors Ltd
Leighs Construction Ltd	Wakatu Incorporated

Appendix C

The Official Cash Rate chronology

Date	OCR (percent)	Date	OCR (percent)	Date	OCR (percent)
17 March 1999	4.50	4 December 2003	5.00	23 October 2008	6.50
21 April 1999	4.50	29 January 2004	5.25	4 December 2008	5.00
19 May 1999	4.50	11 March 2004	5.25	29 January 2009	3.50
30 June 1999	4.50	29 April 2004	5.50	12 March 2009	3.00
18 August 1999	4.50	10 June 2004	5.75	30 April 2009	2.50
29 September 1999	4.50	29 July 2004	6.00	11 June 2009	2.50
17 November 1999	5.00	9 September 2004	6.25	30 July 2009	2.50
19 January 2000	5.25	28 October 2004	6.50	10 September 2009	2.50
15 March 2000	5.75	9 December 2004	6.50	29 October 2009	2.50
19 April 2000	6.00	27 January 2005	6.50	10 December 2009	2.50
17 May 2000	6.50	10 March 2005	6.75	28 January 2010	2.50
5 July 2000	6.50	28 April 2005	6.75	11 March 2010	2.50
16 August 2000	6.50	9 June 2005	6.75	29 April 2010	2.50
4 October 2000	6.50	28 July 2005	6.75	10 June 2010	2.75
6 December 2000	6.50	15 September 2005	6.75	29 July 2010	3.00
24 January 2001	6.50	27 October 2005	7.00	16 September 2010	3.00
14 March 2001	6.25	8 December 2005	7.25	28 October 2010	3.00
19 April 2001	6.00	26 January 2006	7.25	9 December 2010	3.00
16 May 2001	5.75	9 March 2006	7.25	27 January 2011	3.00
4 July 2001	5.75	27 April 2006	7.25	10 March 2011	2.50
15 August 2001	5.75	8 June 2006	7.25	28 April 2011	2.50
19 September 2001	5.25	27 July 2006	7.25	9 June 2011	2.50
3 October 2001	5.25	14 September 2006	7.25	28 July 2011	2.50
14 November 2001	4.75	26 October 2006	7.25	15 September 2011	2.50
23 January 2002	4.75	7 December 2006	7.25	27 October 2011	2.50
20 March 2002	5.00	25 January 2007	7.25	8 December 2011	2.50
17 April 2002	5.25	8 March 2007	7.50	26 January 2012	2.50
15 May 2002	5.50	26 April 2007	7.75	8 March 2012	2.50
3 July 2002	5.75	7 June 2007	8.00	26 April 2012	2.50
14 August 2002	5.75	26 July 2007	8.25	14 June 2012	2.50
2 October 2002	5.75	13 September 2007	8.25	26 July 2012	2.50
20 November 2002	5.75	25 October 2007	8.25	13 September 2012	2.50
23 January 2003	5.75	6 December 2007	8.25	25 October 2012	2.50
6 March 2003	5.75	24 January 2008	8.25	6 December 2012	2.50
24 April 2003	5.50	6 March 2008	8.25	31 January 2013	2.50
5 June 2003	5.25	24 April 2008	8.25	14 March 2013	2.50
24 July 2003	5.00	5 June 2008	8.25	24 April 2013	2.50
4 September 2003	5.00	24 July 2008	8.00	13 June 2013	2.50
23 October 2003	5.00	11 September 2008	7.50	25 July 2013	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.

2013

31 October 2013	OCR announcement
12 December 2013	<i>Monetary Policy Statement</i> and OCR announcement (media conference and webcast)

2014

30 January 2014	OCR announcement
13 March 2014	<i>Monetary Policy Statement</i> and OCR announcement (media conference and webcast)
24 April 2014	OCR announcement
12 June 2014	<i>Monetary Policy Statement</i> and OCR announcement (media conference and webcast)
24 July 2014	OCR announcement
11 September 2014	<i>Monetary Policy Statement</i> and OCR announcement (media conference and webcast)
30 October 2014	OCR announcement
11 December 2014	<i>Monetary Policy Statement</i> and OCR announcement (media conference and webcast)
29 January 2015	OCR announcement
12 March 2015	<i>Monetary Policy Statement</i> and OCR announcement (media conference and webcast)
30 April 2015	OCR announcement
11 June 2015	<i>Monetary Policy Statement</i> and OCR announcement (media conference and webcast)

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