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
Monetary Policy Statement

February 2017


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Chapter 1
Policy assessment

The Reserve Bank today left the Official Cash Rate (OCR) unchanged at 1.75 percent.

The recovery in commodity prices and more positive business and consumer sentiment in advanced economies have improved the global outlook. However, major challenges remain with on-going surplus capacity in the global economy and rising geo-political uncertainty.

Global headline inflation has increased, partly due to rising commodity prices. Global long-term interest rates have increased. Monetary policy is expected to remain stimulatory, but less so going forward, particularly in the US.

New Zealand’s financial conditions have firmed with long-term interest rates rising and continued upward pressure on the New Zealand dollar exchange rate. The exchange rate remains higher than is sustainable for balanced growth and, together with low global inflation, continues to generate negative inflation in the tradables sector. A decline in the exchange rate is needed.

Economic growth in New Zealand has increased as expected and is steadily drawing on spare resources. The outlook remains positive, supported by ongoing accommodative monetary policy, strong population growth, increased household spending and rising construction activity. Dairy prices have recovered in recent months but uncertainty remains around future outcomes.

Recent moderation in house price inflation is welcome, and in part reflects loan-to-value ratio restrictions and higher mortgage rates. It is uncertain whether this moderation will be sustained given the continued imbalance between supply and demand.

Headline inflation has returned to the target band as past declines in oil prices dropped out of the annual calculation. Inflation is expected to return to the midpoint of the target band gradually, reflecting the strength of the domestic economy and despite persistent negative tradables inflation. Longer-term inflation expectations remain well-anchored at around 2 percent.

Monetary policy will remain accommodative for a considerable period. Numerous uncertainties remain, particularly in respect of the international outlook, and policy may need to adjust accordingly.

Graeme Wheeler
Governor
Chapter 2
Key policy judgements

- Monetary policy is expected to remain accommodative to maintain above-trend GDP growth and an increase in inflation towards the midpoint of the target range.

- While the near-term outlook for global growth has improved, global conditions continue to suppress inflationary pressure in New Zealand. Risks to the global growth outlook remain skewed to the downside.

- Measures of inflation expectations indicate that people expect inflation to gradually increase towards 2 percent over time, consistent with the Bank’s policy stance.

Annual CPI inflation was 1.3 percent in the December 2016 quarter, returning inflation to within the Bank’s target range. This was expected and largely the result of the decline in fuel prices in 2015 dropping out of the annual calculation. The lift in CPI inflation and a gradual return to the midpoint of the target range have been features of the Bank’s projections for some time (figure 2.1). This is consistent with the current accommodative stance of monetary policy.

A recent strengthening in activity indicators in advanced economies suggests the near-term outlook for global growth has improved. Headline inflation increased across many economies through the end of 2016, although this largely reflected the impact of recent increases in oil prices.

There is significant uncertainty about the outlook for trading-partner growth and inflation, and risks remain skewed to the downside. Uncertainty surrounds policy developments in the United States (US), implications of the withdrawal of the United Kingdom from the European Union, and upcoming elections in several euro area countries. Because of this uncertainty, near-term optimism has not yet translated into substantial revisions to medium-term forecasts for global growth and inflation. Overall, despite stimulatory monetary policy, spare capacity remains across advanced economies. This is translating into weak inflationary pressure in New Zealand via a number of channels.
Changes in the perceived balance of risks to global growth and inflation, and some reduction in expectations of further quantitative easing, have contributed to an increase in long-term bond yields across advanced economies. This has pushed up interest rates across the yield curve in New Zealand and contributed to increases in mortgage rates. To the extent that increases in domestic interest rates are being driven by international risk factors, and not by expectations of improved economic conditions, they imply a tightening in financial conditions in New Zealand.

The positive outlook for growth in the New Zealand economy relative to other advanced economies, together with low global interest rates, has supported investor appetite for New Zealand dollar assets. Along with a continued recovery in the prices of New Zealand’s exports, this has contributed to a further appreciation of the New Zealand dollar exchange rate. The high exchange rate compounds the dampening impact of already subdued global inflation on New Zealand’s import prices, limiting tradables inflation. Despite the recent recovery in global commodity prices, the outlook for global inflation and policy rates suggests tradables inflation may remain low for some time.

Weakness in foreign labour markets relative to New Zealand has contributed to high net immigration. Migration flows have increased demand for housing and other goods and services in New Zealand, although possibly to a lesser degree than in past migration cycles. Migration has also contributed significantly to the supply of labour in the economy, which has moderated some of the inflationary pressure associated with the increase in demand. Strong growth in the working-age population is one factor contributing to modest nominal wage growth.

In addition, the unusual persistence of weak tradables inflation, holding down headline inflation, has contributed to the recent low level of short-term inflation expectations. These low inflation expectations have dampened price- and wage-setting behaviour, weighing on future inflation. This effect is expected to dissipate as inflation gradually increases towards the target midpoint.

In this environment, continued accommodative monetary policy is appropriate and the Official Cash Rate (OCR) is projected to remain low for a prolonged period (figure 2.2). Low interest rates are stimulating activity, contributing to the observed strengthening in GDP growth. Annual GDP growth was 3.5 percent in the September 2016 quarter, and is forecast to average around this level over the next two years. Sustained strength in GDP growth is expected, in excess of growth in potential output. This will generate increasing capacity pressure and contribute to higher non-tradables inflation.

The Policy Targets Agreement (PTA) mandates the Bank to keep CPI inflation between 1 and 3 percent, with a focus on keeping average
future inflation near the 2 percent target midpoint. Annual CPI inflation has averaged 2.1 percent since the current target range was introduced in 2002. The Bank is flexible in its approach to inflation targeting. Current accommodative policy settings support strong and sustained GDP growth, such that CPI inflation is expected to gradually increase towards the target midpoint. Further policy easing, in an attempt to return inflation more quickly towards the midpoint, risks generating unnecessary volatility in output, interest rates and the exchange rate. Premature tightening of policy could undermine growth and forestall the anticipated gradual increase in inflation, raising the risk of declines in longer-term inflation expectations.

The flexibility and credibility of the current monetary policy stance are evident in summary measures of inflation expectations (see figure A.2 in box A). Despite low observed inflation, and movements in short-term expectations measures, longer-term inflation expectations have remained anchored around the target midpoint. The deviation of short-term inflation expectations from target is not inconsistent with the Bank’s flexible approach to inflation targeting. While near-term measures of inflation expectations may be low, the inflation expectations curve illustrates that people expect inflation to gradually increase towards the target midpoint over time.

The economic projections presented in this Statement outline the Bank’s plan for interest rates to meet the requirements of the PTA. Our assessment of the outlook and the appropriate policy response depend on a range of judgements. In the current projections, the key judgements relate to how evolving global conditions and domestic policy stimulus affect the domestic economy. If the assumptions underpinning these projections prove to be inconsistent with the incoming data, or if risks to the projections materialise, the outlook for policy will be revised.

Global economic conditions

Global economic conditions are assumed to improve, with spare capacity being absorbed, and monetary policy gradually becoming less accommodative. Chapter 3 sets out the main risks to the global outlook.

Global commodity prices increased through 2016 and are assumed to continue rising at a gradual pace as global demand for commodities increases. The Dubai oil price is assumed to increase to around USD 60 per barrel. This contributes to an expected increase in the world prices of New Zealand’s imports. While dairy prices have increased sharply since April 2016, we assume some of these recent price gains will not be sustained, and prices for whole milk powder tend towards USD 3,000 per tonne. Chapter 5 presents a scenario in which New Zealand’s export prices increase further than assumed in the central projection.
We assume the New Zealand dollar Trade-Weighted Index (TWI) will depreciate to around 75, but remain significantly higher than assumed in the November Statement. The high level of the TWI suppresses tradables inflation and net exports over the projection. If world interest rates remain low for longer than currently anticipated, or if heightened global uncertainty results in a stronger preference for New Zealand dollar assets, the TWI could remain higher than projected. A higher exchange rate reflecting weak conditions abroad could necessitate more stimulatory monetary policy to offset the impact on inflation. However, a higher exchange rate driven by strong economic conditions could be accompanied by increasing domestic capacity pressures, so a monetary policy response may not be necessary.

As global activity increases and conditions in labour markets improve in advanced economies, net immigration is assumed to decline from its current historically high level. Net immigration is difficult to forecast, and if conditions overseas, particularly in Australia, do not improve as anticipated, net inflows could continue at around current rates. However, the important factor for monetary policy is the impact on aggregate demand relative to the productive capacity of the economy and the resulting inflationary pressure. This net demand impact has appeared muted in the current migration cycle and is largely assumed to remain so. Should the balance change between demand pressures and the addition to supply capacity from migration, policy may need to respond to changes in inflationary pressure.

**Domestic demand**

Low interest rates, high house prices, and increasing incomes are supporting consumption growth. In recent years, consumption growth has been lower than would be suggested by historical relationships with house prices and income. In recent quarters, however, consumption growth has strengthened considerably. There are both upside and downside risks to the consumption projection. The outlook could be stronger if house prices and low interest rates, coupled with stronger confidence and incomes related to the recent increase in export prices, boost consumption by more than currently assumed. On the other hand, heightened global uncertainty, unexpected weakness in commodity prices, or concerns about debt sustainability could cause household spending to be weaker than assumed. This risk is presented in a scenario in chapter 5.

Residential investment is projected to rise further over the next year, reflecting strong population growth and a shortage of housing, and supported by low interest rates. Rebuild activity associated with the earthquakes in North Canterbury will contribute to increases in residential and non-residential investment, although the timing and extent of such activity remain highly uncertain. Across New Zealand, the draw on resources from the construction sector contributes strongly to the projected increase in domestic capacity pressure. Activity in the construction sector could become more constrained by the availability of labour, capital and land; the extent to which such constraints bind will influence the outlook for construction activity and inflation.

Long-term inflation expectations remain anchored at 2 percent. As inflation increases, short-term inflation expectations should continue to move upward towards the target midpoint. Further declines in inflation expectations would pose a downside risk to these projections. Alternatively, should businesses begin to set prices more in line with longer-term inflation expectations, the dampening impact of inflation expectations on future inflation could be less than assumed.
Box A

Recent monetary policy decisions

The Bank initiated an easing cycle in June 2014, by lowering the outlook for the policy rate from future tightening to a flat track, and then cutting the OCR from June 2015 (figure A.1). The Bank has reduced the OCR by 175 basis points through this cycle.

Reductions in the OCR in mid-2015 were in response to a sharp deterioration in global economic conditions. Prices of New Zealand’s key export commodities declined more sharply than import prices, resulting in a fall in the terms of trade. This reduced incomes and dampened confidence, contributing to weakness in consumption and investment activity. As the global growth outlook subsequently stabilised, the Bank moved to a more neutral policy stance at the end of 2015 with the OCR at 2.5 percent.

A period of heightened volatility in financial markets and renewed concerns about the outlook for global growth, along with a shift down in inflation expectations across time horizons, contributed to the Bank’s decision to cut the OCR at the March 2016 Statement, and renew its easing bias (figure A.2). The Bank held rates steady at 2.25 percent through mid-2016, while retaining this easing bias. Through this period, the Bank observed largely offsetting inflationary pressure from the strengthening domestic economy and an appreciation of the New Zealand dollar TWI.

At the August Statement, the Bank judged that, given the outlook for global inflation and policy rates, low tradables inflation was likely to continue for some time. The Bank also observed that the unusual
persistence in weak tradables inflation, through its effect on headline inflation, was contributing to low inflation expectations. This increased the risk of declines in longer-term inflation expectations. The Bank cut the OCR and communicated further easing might be necessary to reduce the risk of falling inflation expectations becoming self-fulfilling.

Subsequent data revealed that GDP growth strengthened through the middle of 2016 and suggested capacity pressure was continuing to increase. In part, this reflected the support provided by existing monetary policy stimulus. These developments were consistent with the Bank’s projections and policy strategy, and continued adherence to the strategy was judged necessary to sustain this rate of growth. As such, at the November Statement, the Bank cut the OCR to 1.75 percent and communicated that monetary policy would remain accommodative for an extended period.
### Table 2.1
Key forecast variables

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<th>Year</th>
<th>Month</th>
<th>GDP growth Quarterly</th>
<th>CPI inflation Quarterly</th>
<th>CPI inflation Annual</th>
<th>TWI</th>
<th>OCR</th>
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Chapter 3
International developments

- Economic activity in New Zealand’s trading partners remains subdued, but spare capacity is being gradually absorbed.

- Inflation in New Zealand’s trading partners is low. Headline inflation increased sharply in late 2016 due to higher oil prices, but core inflation remains subdued.

- Monetary policy is expected to remain stimulatory for some time, as inflation remains below central banks’ targets in most economies. Nonetheless, the period of peak stimulus appears to have passed.

- The risks around the economic outlook for New Zealand’s trading partners have become more balanced over recent months but remain skewed to the downside. However, uncertainty has increased, particularly around the global political environment.

Economic activity in New Zealand’s trading partners remains subdued. Spare capacity is being absorbed gradually (figure 3.1), supported by substantial monetary policy stimulus.
The risks around the economic outlook for New Zealand’s trading partners have become more balanced over recent months, but remain skewed to the downside. Risks include the possibility of a shift towards inward-looking policies and protectionism, increased geopolitical tensions, and a more-severe slowdown in China. There is an upside risk that activity could accelerate more strongly if policy stimulus is larger than anticipated in the US or China.

While risks have become more balanced, uncertainty has increased. Political uncertainty will be pronounced in 2017 as the new US administration announces its policy programme, elections take place in several euro area economies, and the path of the United Kingdom’s withdrawal from the European Union becomes clearer.

Headline inflation rose more than expected in the December 2016 quarter (figure 3.3), due to the sustained pick-up in commodity prices, particularly oil (figure 3.4). Inflation is forecast to increase during 2017, with commodity prices assumed to lift gradually. Nonetheless, inflation remains below central banks’ targets in many of New Zealand’s trading partners, reflecting persistent spare capacity. Core inflation remains subdued.

Global growth is being supported by extraordinarily accommodative monetary policy (figure 3.5). Markets expect monetary policy to remain stimulatory in coming years. Nonetheless, the period of peak stimulus appears to have passed. In the US, the Federal Reserve is expected to continue to raise its policy rate in 2017, while other major central banks are expected to remain on hold.
Output remains below potential in several major advanced economies. Growth rates remain low but increased over the second half of 2016, driven by a pick-up in domestic demand. The increase in activity, as well as expectations of fiscal stimulus in the US, have resulted in greater confidence about the economic recovery across major advanced economies. As such, growth is expected to be modestly stronger than was forecast in the November Statement.

Financial markets are a significant channel through which major advanced economies affect the New Zealand economy. Financial markets have moved substantially since the November Statement, as improved confidence has resulted in expectations that some central banks will begin to gradually unwind quantitative easing. Bond yields, which remain low by historical standards, have increased, in part reflecting reduced downside risks to the outlook for growth and inflation (see box B). Equity prices have increased on the prospect of more expansionary fiscal policy and an improved outlook for corporate earnings in the US.

While major advanced economies affect New Zealand largely through financial market channels, Australia and China are two economies where trade channels are particularly important. Here, the outlook has been mixed and is presenting some risks to New Zealand’s net exports. In China, growth was stronger than expected in the December quarter, and forecasts for growth have increased due to continued policy stimulus. Nonetheless, growth is expected to ease gradually over the projection. In Australia, the growth outlook is more subdued than expected in the November Statement. Annual growth declined to 1.8 percent in the September 2016 quarter. As the decline appears to be driven largely by temporary factors, annual growth is expected to increase, but remain below potential over the coming year.
Box B

Global bond yields

Long-term bond yields have increased markedly since the November Statement, although they remain low by historical standards (figure B.1). Movements in long-term interest rates can reflect changes in expectations about the future path of short-term policy rates, and changes in the term premium on interest rates.1

For the US, the average expected policy rate over the next 10 years has increased only slightly (figure B.2). The recent rise in bond yields can largely be attributed to a rise in the term premium component. The term premium has been depressed in recent years due to quantitative easing in major economies, safe-haven demand, and deflation concerns.

The term premium component requires a careful interpretation as it captures all factors that affect interest rates other than policy rate expectations. The recent increase likely reflects a scaling back of expectations for further quantitative easing, reduced downside risks to the global inflation outlook, and some reduction in safe-haven demand as the global growth outlook seems to have stabilised. Nevertheless, the estimate of the term premium is negative, which is unusual by historical standards.

The increase in US bond yields accelerated in November, after the US election. This rise in yields likely reflects anticipation that potential fiscal policies from the new administration may boost the nominal growth outlook, increase the supply of government bonds, and reduce the risk of further monetary stimulus.

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Term premiums are highly correlated across global financial markets, and the recent rise in the United States term premium has led to higher global bond yields, including in New Zealand. The increase in the term premium influences a range of interest rates, including government bond rates and swap rates. These higher rates have contributed to an increase in longer-term mortgage rates in New Zealand.

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2 Term premiums can influence market pricing for short-term interest rates, see Leo Krippner and Michael Callaghan (2016), ‘Short-term risk premiums and policy rate expectations in the United States’, Reserve Bank of New Zealand Analytical Notes, AN 2016/07.
Chapter 4
Current domestic conditions

• As expected, headline CPI inflation returned to the 1 to 3 percent target range in the December 2016 quarter, boosted by an increase in petrol prices.

• Global economic conditions continue to dampen inflationary pressure in New Zealand, particularly through imported inflation, and more recently, some tightening in financial conditions.

• Stimulatory monetary policy is supporting a strong domestic economy and increasing capacity pressure. This has led to a gradual increase in non-tradables inflation over the past year, as expected.

• GDP is growing strongly, and near-term indicators suggest this is likely to continue.

Imported inflation

Global economic activity is subdued and economic slack remains across many economies. While the global growth outlook has improved modestly, the risks remain skewed to the downside. Global inflation increased at the end of 2016, as the oil price decline in 2015 dropped out of the annual calculation. A reduction in excess supply capacity in commodity markets contributed to commodity prices rising during 2016. Oil price increases have been sustained with the Dubai crude oil price currently around USD 55. Dairy prices have also risen – the ANZ dairy price index has increased by around 50 percent since April 2016 (figure 4.1). Whole milk powder prices on the Global Dairy Trade platform are currently around USD 3,300 per tonne.

In New Zealand, annual petrol price inflation increased from -11.1 percent to -0.5 percent in the December 2016 quarter, reflecting global oil price movements. The boost provided by petrol prices in the December quarter contributed to annual tradables inflation increasing from -2.1 percent to -0.1 percent. Recent petrol price increases will support tradables inflation in the near term.
Nonetheless, tradables inflation remains well below its historical average and continues to be dampened by a high New Zealand dollar exchange rate. The TWI has remained elevated since the November Statement, averaging 78 in the December quarter and having increased by 7 percent over 2016 (figure 4.2). Higher commodity prices and New Zealand’s positive growth outlook have contributed to upward pressure on the New Zealand dollar since November.

The reduced drag from tradables inflation in the December 2016 quarter brought CPI inflation back within the 1 to 3 percent target range, as had been expected for some time. Annual headline CPI inflation was 1.3 percent in the December quarter and has averaged 2.1 percent since the current target range was introduced in September 2002 (figure 4.3).
Domestic financial conditions

Recent increases in long-term global bond yields are putting upward pressure on wholesale interest rates in New Zealand (see box B). Longer-term wholesale rates, which are more sensitive to global developments, have increased the most, causing the New Zealand wholesale yield curve to steepen (figure 4.4).

Increases in wholesale rates have pushed up the cost of funding for banks. Furthermore, high credit growth relative to deposit growth has continued to put pressure on banks to access offshore term funding at a higher cost than retail funding. However, there are no signs that banks are having difficulty obtaining funding via term wholesale markets. This has been helped by improved confidence in banks globally, with credit spreads narrowing over recent months.

Nevertheless, the steepening in wholesale rates has flowed through to rising fixed-term mortgage rates, with the 2-year mortgage rate rising by 45 basis points since the November Statement (figure 4.5). The level of mortgage rates remains low relative to history.

Housing market and migration

Increasing mortgage interest rates, combined with a tightening of loan-to-value ratio (LVR) restrictions in late 2016, have contributed to a slowing in the housing market. The number of house sales nationwide has fallen by about 20 percent since its peak in April 2016, largely reflecting slowdowns in Auckland and surrounding regions (figure 4.6).

House price inflation has also slowed recently. Nationwide monthly house price inflation has averaged 0.1 percent over the past five months, compared to 2.1 percent in the five months prior. This slowdown has
been broad-based across regions. Nevertheless, annual house price inflation remains high by historical standards. House prices rose 13.7 percent over 2016, boosted by low mortgage interest rates, a shortage of housing, and continued high net immigration.

New Zealand’s working-age population grew by 2.7 percent over 2016. Two-thirds of this growth came from net immigration, with a net 60,300 working-age people migrating to New Zealand — a record high. Arrivals have continued to increase, while departures remain low, reflecting relatively favourable labour market conditions in New Zealand (figure 4.7). Arrivals by migrants on work visas have been particularly strong in recent months, and student arrivals appear to have stabilised after falling through most of 2016 (figure 4.8). The composition and drivers of migration suggest migrants could be placing somewhat less pressure on inflation than in previous migration cycles (see box C).
Box C

Migration composition and drivers

The scale of the increase in net immigration to New Zealand since 2012 is unprecedented. Migration flows contribute to both demand and supply in the economy. Beyond the size of the actual migration flow, it is the balance between the demand and supply effects that matters for inflationary pressure and monetary policy. Despite record high net immigration, the New Zealand economy has experienced more muted inflationary pressure in the current cycle than in previous migration cycles. Recent Bank research suggests this can be explained by differences in the composition and drivers of migration flows.

Migration has added 163,000 working-age people over the last three years, which equates to a 4.6 percent increase in the working-age population. This represents a substantial increase in labour supply and potential output in the New Zealand economy.

Young migrants and those on student visas currently represent a much higher share of migration than in previous cycles (figure C.1). The addition to consumption and overall demand is weaker from younger migrants (15-29 year olds) than for prime-age migrants (those aged between 30-49 years). The higher share of young migrants in the current cycle may have contributed to subdued consumption growth.

The factors driving migration flows are also important for understanding the inflationary impacts of migration. Weakness in the Australian labour market has contributed to high net immigration to New Zealand over

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the past three years, particularly through fewer New Zealand resident outflows to Australia (figure C.2). Net outflows to Australia are currently around zero, compared to historically averaging around 15,000 per year. Bank research suggests that migration associated with weakness in the Australian labour market results in higher unemployment and less inflationary pressure than if migrants are being drawn by the strength of the New Zealand economy, or for other reasons.2


Domestic growth

Stimulatory monetary policy and strong population growth contributed to a pick-up in GDP growth over 2016. Production GDP grew by 1.1 percent in the September 2016 quarter and by 3.5 percent in the year to September (figure 4.9). While historical estimates of GDP have been revised (see box D), the current rate and drivers of growth are broadly in line with the Bank’s expectations. Near-term indicators of activity suggest this is likely to persist in coming quarters. A wide range of services industries, as well as construction, continue to drive this strength. The primary sector is providing some offset, reflecting the impact of unfavourable weather conditions, and previously low dairy prices.

On 14 November 2016, a 7.8 magnitude earthquake struck North Canterbury, causing disruption and damage across the upper South Island and lower North Island. The earthquake and its aftershocks are expected to have had an impact on activity, although the impacts may not be obvious in aggregate data. There have been immediate impacts on the cost and availability of freight services, following the closure of State Highway 1, as well as on the demand for local clean-up services. The earthquakes appear to have had a small, temporary, impact on the housing market; house sales in Wellington fell in November, likely due to issues with insurance availability, but recovered in December.

Consumption strengthened in the September 2016 quarter, growing by 5.4 percent in annual terms – the highest rate of growth since 2005 (figure 4.10). Growth was broad-based across components, and timely indicators, such as electronic card transactions, suggest consumption has remained robust. Strong consumption growth is consistent with current low interest rates, high migration, and recent increases in export prices and consumer confidence.
Construction continues to be a key factor underpinning GDP growth and capacity pressure, with total construction activity increasing by 12.3 percent in the year to the September 2016 quarter. A high level of activity is expected to be sustained for some time, but capacity constraints may prevent activity accelerating much further. Surveys suggest construction firms are being restricted by difficulties accessing labour and finance.

Nationwide dwelling consent issuance has softened slightly in recent months, but remains high and is consistent with further increases in residential investment (figure 4.11). In Auckland, annual dwelling consent issuance currently sits at about 10,000 and is expected to increase as appeals to the Auckland Unitary Plan are worked through.

A large volume of non-residential work was also consented over the past year. This suggests non-residential investment, which grew by 13.5 percent in the year to September, will remain strong in the near term. Investment in infrastructure has been somewhat muted in recent years. It is expected to pick up over 2017 in light of rebuild work following the North Canterbury earthquakes, as well as a large infrastructure programme in Auckland.

Visitor arrivals have continued to increase (figure 4.12). Over 2016, 3.5 million visitors arrived in New Zealand – 11 percent more than in 2015. Growth in arrivals from Asia and the US has been particularly strong. However, exports of travel services have declined from their recent peak, reflecting decreased spending by visitors.

Business investment growth remains below average despite strong GDP growth and positive business sentiment. Declines in commodity prices over 2014 and 2015 dampened business confidence and investment intentions. As commodity prices have increased more
recently, these measures of business sentiment have also improved (figure 4.13). Although this improvement is yet to flow through to investment, it is expected to do so as capacity pressure in the economy continues to increase.

**Capacity pressure**

The labour force has grown significantly over recent years, reflecting both increased participation and high net immigration. Employment growth was strong over 2016, absorbing increased labour supply, and conditions in the labour market tightened (figure 4.14). A further increase in labour force participation offset growth in employment in the December quarter and the unemployment rate increased from 4.9 percent to 5.2 percent. Despite the lift in capacity pressure, nominal wage growth has been weak, alongside low inflation.

A suite of indicators suggests the output gap has increased since mid-2015 (figure 4.15). The December *Quarterly Survey of Business Opinion* suggests capacity remains particularly tight in the construction industry. Economy-wide, firms report that they are being increasingly constrained by a lack of physical capital, and labour is difficult to find.

**Domestic inflation**

As capacity pressure in the economy has increased since mid-2015, non-tradables inflation has slowly increased. Annual non-tradables inflation was 2.4 percent in the December 2016 quarter, compared to 1.8 percent a year earlier. However, non-tradables inflation remains below its post-2002 average.

Increases in non-tradables inflation in recent quarters largely reflect two factors: a continued boost from housing-related items and reduced...
drag from declines in ACC motor vehicle levies. Strength in residential investment, high house price inflation, and capacity constraints in the construction sector have led to significant increases in construction cost inflation since 2012 (figure 4.16). Construction costs (excluding land) rose by 6.5 percent in the year to December 2016, led by Auckland where costs increased by 8.2 percent. Reductions in ACC levies have been subtracting from non-tradables inflation since July 2015. However, the size of the reductions has decreased over time and so the drag on inflation is smaller.

To abstract from specific price movements and observe the underlying trend in inflation, the Bank monitors measures of core inflation. These measures look through temporary volatility, permitting a clearer assessment of inflationary pressure in the economy. Core inflation has remained stable and generally within the target range since 2000 (figure 4.17). All measures of core inflation now sit between 1.5 and 2.0 percent.

Inflation expectations declined over the 2011-2015 period (figure 4.18), in response to falls in headline inflation. Recently, however, short-term expectations have begun to gradually shift upwards, consistent with the recent increase in headline inflation. More significantly, long-term expectations are well anchored at 2 percent.
Figure 4.15
Output gap indicator suite

Source: RBNZ estimates.
Note: Shaded area indicates range between maximum and minimum values from a suite of indicators of the output gap.

Figure 4.16
Non-tradables and construction cost inflation (annual)

Source: Statistics New Zealand.

Figure 4.17
Core inflation measures (excl. GST)

Source: Statistics New Zealand, RBNZ estimates.

Figure 4.18
Inflation expectations

Source: RBNZ estimates.
Note: Inflation expectations measures are estimates drawn at each time horizon from the RBNZ inflation expectations curve.
Box D

Recent revisions to GDP growth

Since the November Statement, historical GDP data were revised as part of the annual System of National Accounts benchmarking process. The revisions suggest that the level of GDP since mid-2013 has been somewhat lower than previously thought (figure D.1). This is due to lower growth rates in late 2013 and 2014. In the year to June 2016, annual growth was broadly unchanged, as growth was revised higher through the end of 2015, and lower in the beginning of 2016. The revisions have not substantially altered our view of recent trends in capacity pressure.

Figure D.1
Real production GDP
(s.a.)

Source: Statistics New Zealand.
Table 4.1  
Measures of inflation, inflation expectations, and asset prices

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<td>ANZ Business Outlook - inflation one year ahead (quarterly average to date)</td>
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<td><strong>Asset prices (annual percent changes)</strong></td>
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<td>NZX 50 (quarterly average to date)</td>
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<td>9.1</td>
<td>18.4</td>
<td>26.5</td>
<td>15.8</td>
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1 Long-run expectations are extracted from a range of surveys using a Nelson-Siegel model. Source: ANZ Bank, Aon Consulting, Consensus Economics, RBNZ estimates.
Chapter 5
The macroeconomic outlook

- Tradables inflation is forecast to be suppressed by low trading-partner inflation and sustained strength in the New Zealand dollar exchange rate.

- Monetary policy is expected to remain highly accommodative throughout the projection, supporting investment and consumption.

- An increase in capacity pressure, alongside rising inflation expectations, is expected to generate a gradual increase in non-tradables inflation.

- Annual CPI inflation is projected to increase over the medium term and settle near 2 percent in 2019.

Inflationary pressure in New Zealand is being dampened by global conditions. As discussed in chapter 3, spare capacity in the global economy is expected to be absorbed only gradually. Underlying inflationary pressure is expected to remain subdued.

The New Zealand dollar TWI is currently elevated (figure 5.1), driven by low global interest rates relative to those in New Zealand. The TWI is currently around 4 percent higher than forecast in the November Statement. Although global monetary policy is forecast to remain accommodative over the medium term, a gradual withdrawal of stimulus in some economies is expected as economic conditions improve. The corresponding narrowing of interest rate differentials is assumed to lead to a gradual depreciation of the New Zealand dollar TWI.

Import price inflation has been dampened by subdued global conditions in recent years. Over the past two quarters, higher commodity prices have led to an increase in New Zealand’s import prices (figure 5.2). Global commodity prices and therefore New Zealand’s import prices are expected to increase only gradually. The Dubai oil price is assumed to rise modestly to USD 60 per barrel by the end of the projection period.

Although tradables inflation increased in late 2016, due to fuel prices, the outlook remains subdued (figure 5.3). Annual tradables inflation
Figure 5.1
New Zealand dollar TWI

Source: RBNZ estimates.

Figure 5.2
Import prices
(world terms, s.a.)

Source: Statistics New Zealand, RBNZ estimates.

Figure 5.3
Tradables inflation
(annual)

Source: Statistics New Zealand, RBNZ estimates.

Figure 5.4
Net immigration
(quarterly, s.a.)

Source: Statistics New Zealand, RBNZ estimates.

Note: The data shown are for permanent and long-term working-age migration.
is expected to remain well below its historical average of 1 percent throughout the projection, reflecting the high New Zealand dollar exchange rate and a modest increase in import prices.

Weakness in foreign labour markets relative to New Zealand has contributed to record-high levels of net immigration. Over the projection, net immigration is assumed to decline as global labour market conditions improve (figure 5.4). Nevertheless, net immigration is expected to remain elevated by historical standards and relative to the projection in the November Statement, leading to greater demand for housing, and for other goods and services. Migration will also contribute to strong labour force growth, limiting the impact on net demand and wage inflation.

Housing demand is expected to be supported by high net immigration and low mortgage interest rates. House price inflation is forecast to remain elevated through 2017 (figure 5.5), albeit lower than was expected in the November Statement. This is in part due to the recent increase in fixed-term mortgage rates. House price inflation is expected to slow beyond 2017, reflecting an easing in net immigration, greater housing supply, and affordability constraints becoming more binding.

Construction activity remains a key driver of output growth and capacity pressure over the projection. Residential investment is forecast to rise as a share of potential output, to a level comparable to the mid-2000s period (figure 5.6). This is driven by increasing demand for housing and elevated house prices nationwide. The Auckland Unitary Plan and the rebuild and repair of damaged homes following the North Canterbury earthquakes are also assumed to increase residential investment over the medium term. However, the timing and extent of the associated activity remains uncertain.
Non-residential construction is expected to increase over the medium term, supported by low interest rates, strong population growth, and earthquake-related rebuild activity. Broader business investment is projected to grow at an average rate of 7 percent over the next two years, in response to rising capacity pressure and improving business confidence (figure 5.7).

Business investment is also expected to be supported by an increase in export prices. New Zealand’s commodity export prices, particularly dairy prices, lifted through the latter half of 2016 (figure 5.8). We assume some of the increase in dairy prices is temporary, with whole milk powder prices trending back towards USD 3,000 per tonne over the medium term. However, assumed increases in the prices of New Zealand’s other exports see overall export prices trend higher.

Consumption growth has increased sharply in recent quarters due to accommodative monetary policy, sustained house price and population growth, and an improvement in export prices and consumer confidence. Over the projection, these drivers are expected to underpin consumption growth (figure 5.9). However, the future rate of growth of private consumption remains a key uncertainty. Our projection assumes that consumption growth is stronger than observed through 2012-15, but remains slightly weaker than longer-term historical relationships with house prices and incomes might suggest.

Overall, domestic demand is projected to continue to strengthen over the forecast horizon. Annual GDP growth is expected to average 3.6 percent over the next two years, consistent with the projection in the November Statement (figure 5.10).
The associated increase in capacity pressure will be moderated by strong supply-side growth. Population growth is expected to remain elevated, with migration alone adding 3.5 percent to the working-age population over the next three years. Labour supply is further supported by the labour force participation rate remaining around its current record high (figure 5.11). Employment growth is expected to remain strong, with the unemployment rate gradually declining to 4.5 percent. Potential output is therefore forecast to grow at a robust annual rate of around 2.8 percent.

Nevertheless, with GDP growth exceeding this strong growth in potential output, capacity pressure is projected to increase, with the output gap peaking at around 1.5 percent of potential output in 2018 (figure 5.12). This is expected to support a gradual increase in non-tradables inflation (figure 5.13).

As discussed in chapter 2, persistently weak tradables inflation has held down headline inflation, contributing to the recent low level of short-term inflation expectations. However, long-term inflation expectations remain anchored, and shorter-term inflation expectations are projected to move back towards 2 percent as capacity pressure and inflation increase, consistent with the Bank’s flexible inflation-targeting mandate.

As expected in the November Statement, annual CPI inflation returned to the target range in the December quarter, driven by a sharp increase in tradables inflation. CPI inflation is expected to trend upward as the increase in non-tradables inflation more than offsets sustained weakness in tradables inflation (figure 5.14). However, headline inflation is expected to dip temporarily in late 2017, reflecting volatility in fuel prices and the high exchange rate. Annual CPI inflation is projected to settle near 2 percent in 2019.
Figure 5.11
Labour force participation rate
(percent of working-age population)
Source: Statistics New Zealand, RBNZ estimates.

Figure 5.12
Output gap
(share of potential output)
Source: Statistics New Zealand, RBNZ estimates.

Figure 5.13
Non-tradables inflation
(annual)
Source: Statistics New Zealand, RBNZ estimates.

Figure 5.14
CPI inflation
(annual)
Source: Statistics New Zealand, RBNZ estimates.
Over the projection, domestic activity and CPI inflation continue to be supported by highly accommodative monetary policy. The OCR has been lowered by 175 basis points over the past two years and is projected to remain low (figure 5.15).

**Figure 5.15**
*Official Cash Rate*

![Chart showing the Official Cash Rate from 2000 to 2018.](chart)

Source: RBNZ estimates.

**Scenario analysis**

The projections discussed in this chapter reflect the Bank’s baseline view of how global and domestic conditions might evolve, and how these will affect inflationary pressure in New Zealand. Given this view, the projected path for the OCR is consistent with future average inflation settling near the target midpoint.

As discussed in chapter 2, the projections and appropriate policy response are conditional on a range of judgements regarding the future path of key variables. These judgements will be reviewed as events unfold, with the projections and associated monetary policy settings being adjusted accordingly.

The following illustrate two alternative scenarios which would have a substantial impact on the projection if they materialised. The two scenarios considered are that:

- New Zealand’s export prices increase more sharply than expected; and
- consumption spending is weaker than assumed in the central projection.

**Higher export prices**

New Zealand’s export prices recovered strongly over the second half of 2016, with whole milk powder prices increasing beyond the Bank’s medium-term assumption of USD 3,000 per tonne. In the central projection, overall export prices increase only slightly, dampened by the modest outlook for dairy prices. This scenario considers the effect of export prices increasing more sharply as a result of global supply being weaker than expected (figure 5.16). By the end of the projection, export prices are around 4 percent higher in the scenario than in the central projection.

The consequent increase in national incomes from the higher terms of trade would directly boost consumption and business investment. Given the significant and sustained nature of the increase in incomes, these effects would likely be amplified by a further improvement in consumer and business confidence. Stronger domestic demand would place further...
pressure on productive resources, resulting in higher non-tradables inflation.

While the stronger growth outlook is assumed to result in a higher New Zealand dollar exchange rate and weaker tradables inflation, the net effect would be higher inflationary pressure. The OCR would need to be around 50 basis points higher than the central projection to ensure inflation settles around 2 percent in the medium term (figure 5.17).

**Lower consumption growth**

The central projection assumes that consumption grows at a faster rate than observed over the 2012-15 period. This is due to recent strength in consumption growth and improving consumer confidence, and reflects the household sector dis-savings.

This scenario assumes that a heightened preference for saving suppresses consumption growth over the projection. This could be driven by a range of factors, such as the uncertain global environment or households’ desire to reduce debt from currently elevated levels. Consumption growth is assumed to evolve more in line with the 2012-2015 period. Lower consumption and output growth would see a more gradual rise in capacity pressure, resulting in a weaker outlook for non-tradables inflation.

To ensure CPI inflation evolves in line with the Bank’s mandate, more accommodative monetary policy would be required. In this scenario, the OCR would need to be about 50 basis points lower than in the central projection (figure 5.17). This would support domestic demand by encouraging greater spending, and increasing residential and business investment. The TWI is also assumed to depreciate in the scenario, resulting in modestly higher tradables inflation.
Policy implications

In both of these scenarios, the Bank’s policy response would differ from that shown in the central projection. Depending on economic developments, more or less monetary stimulus may be required for inflation to settle near the midpoint of the target range in the medium term.

It is important to note that the scenarios considered in this chapter represent only small deviations from the central projection relative to the historical experience. In reality, there are a range of uncertainties relating to the outlook, and combinations of unforeseen developments can influence the economy simultaneously.¹ Deviations from the central projections may therefore be larger than those shown here, leading to a wider range of associated monetary policy responses.

¹ Chapter 5 in the November Statement details the range of scenarios that the Bank has considered over the past 18 months.
Table 5.1
Composition of real GDP growth
(annual average percent change, seasonally adjusted, unless specified otherwise)

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1 Percentage point contribution to the growth rate of GDP.
Table 5.2
Summary of economic projections
(annual percent change, unless specified otherwise)

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