Monetary Policy Statement

May 2019

RESERVE BANK
OF NEW ZEALAND
TE PŪTEA MATUA

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May 2019

Projections and data finalised on 2 May 2019.
Policy assessment and summary record of meeting finalised on 8 May 2019.

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The remit for the Monetary Policy Committee
Reserve Bank of New Zealand

The Government's Economic Objective

The Government's economic objective is to improve the wellbeing and living standards of New Zealanders through a sustainable, productive and inclusive economy. Our priority is to move towards a low carbon economy, with a strong diversified export base, that delivers decent jobs with higher wages and reduces inequality and poverty.

Context

Monetary policy plays an important role in supporting the Government's economic objective. The Reserve Bank of New Zealand Act 1989 (the Act) requires that monetary policy promote the prosperity and wellbeing of New Zealanders, and contribute to a sustainable and productive economy. Monetary policy contributes to public welfare by reducing cyclical variations in employment and economic activity whilst maintaining price stability over the medium term.

This remit is issued by the Minister of Finance to the Monetary Policy Committee (MPC) under Clause 3, Schedule 1 of the Act.

1) Monetary Policy Objectives

a) Under Section 8 of the Act the Reserve Bank, acting through the MPC, is required to formulate monetary policy with the goals of maintaining a stable general level of prices over the medium term and supporting maximum sustainable employment.

2) Operational Objectives

a) For the purpose of this remit the MPC's operational objectives shall be to:

i. keep future annual inflation between 1 and 3 percent over the medium term, with a focus on keeping future inflation near the 2 percent mid-point. This target will be defined in terms of the All Groups Consumers Price Index, as published by Statistics New Zealand; and

ii. support maximum sustainable employment. The MPC should consider a broad range of labour market indicators to form a view of where employment is relative to its maximum sustainable level, taking into account that the level of maximum sustainable employment is largely determined by non-monetary factors that affect the structure and dynamics of the labour market and is not directly measurable.

b) In pursuing the operational objectives, the MPC shall:

i. have regard to the efficiency and soundness of the financial system;

ii. seek to avoid unnecessary instability in output, interest rates, and the exchange rate; and

iii. discount events that have only transitory effects on inflation, setting policy with a medium-term orientation.

Agreed by

Hon Grant Robertson
Minister of Finance

Adrian Orr
Governor of the Reserve Bank of New Zealand

Chapter 1
Policy assessment

Tēnā koutou katoa, welcome all.

The Official Cash Rate (OCR) has been reduced to 1.5 percent.

The Monetary Policy Committee decided a lower OCR is necessary to support the outlook for employment and inflation consistent with its policy remit.

Global economic growth has slowed since mid-2018, easing demand for New Zealand's goods and services. This lower global growth has prompted foreign central banks to ease their monetary policy stances, supporting growth prospects.

However, there is uncertainty about the global economic outlook. Trade concerns remain, while some other indicators suggest trading-partner growth is stabilising.

Domestic growth slowed from the second half of 2018. Reduced population growth through lower net immigration, and continuing house price softness in some areas, has tempered the growth in household spending. Ongoing low business sentiment, tighter profit margins, and competition for resources has restrained investment.

Employment is near its maximum sustainable level. However, the outlook for employment growth is more subdued and capacity pressure is expected to ease slightly in 2019. Consequently, inflationary pressure is projected to rise only slowly.

Given this employment and inflation outlook, a lower OCR now is most consistent with achieving our objectives and provides a more balanced outlook for interest rates.

Meitaki, thanks.

Adrian Orr

Governor

Summary record of meeting

The Monetary Policy Committee agreed on the economic projections outlined in the May 2019 *Statement* in order to provide a sound basis on which to form its OCR decision.

The Committee noted that inflation is currently slightly below the mid-point of the inflation target, and that employment is broadly at the targeted maximum sustainable level. However, the members agreed that given the recent weaker domestic spending, and projected ongoing growth and employment headwinds, there was a need for further monetary stimulus to meet its objectives.

The Committee agreed that the risks to achieving its consumer price inflation and maximum sustainable employment objectives were broadly balanced around the projection. Possible alternative outcomes were noted on the upside and downside.

A key downside risk relating to the growth projections was a larger than anticipated slowdown in global economic growth, particularly in China and Australia, New Zealand's largest trading partners. The Committee agreed that the projections adequately captured the observed global slowdown and its impact on domestic employment and inflation.

The Committee noted that additional stimulus from central banks had underpinned growth and reduced the likelihood of a more-pronounced slowdown. With some indicators of global growth improving in recent months, a faster recovery in global growth was possible. However, on balance, the Committee was more concerned about a continued slowdown rather than a faster recovery.

The Committee discussed other potential risks to domestic spending. The members acknowledged the importance of additional spending from households, businesses, and the government, to meet their inflation and employment targets. However, they noted several important uncertainties.

The Committee noted upside and downside risks to the investment outlook. Capacity pressure could see investment increase faster than assumed. On the downside, if sentiment remained low as profitability remains squeezed, investment might not increase as anticipated over the medium term. It was also noted that firms' ability to invest is constrained by the current competition for resources.

A potential source of additional demand discussed by the Committee included government spending being higher than currently projected, in view of the current strength of the Crown balance sheet. This view was balanced by the impact of any increase in government investment being delayed, for example due to timing of the implementation of new initiatives and current capacity constraints in the construction sector. The implications for monetary policy remain to be seen.

Some members noted that with lower mortgage rates and easing of loan-to-value requirements, any possible pick-up in the housing market could support household spending growth more than anticipated.

The Committee noted that employment is currently near its maximum sustainable level. However, it was agreed that the outlook for employment growth is more subdued and capacity pressure is expected to ease slightly in 2019.

The Committee agreed that overall risks to the inflation projection were balanced. The Committee noted the outlook for inflation is below the target mid-point for longer than projected in the February *Statement*.

The recent period of rising domestic inflation was discussed. The Committee noted that the near-term outlook was more subdued due to lower capacity pressure. It was also noted that cost pressures remain elevated, and that there is a risk firms may pass these costs on as higher consumer prices by more than assumed. However, it was agreed that inflation expectations remain well anchored at the mid-point of the target range.

The Committee also noted the relatively subdued private sector wage growth, despite businesses suggesting that the inability to find labour is a significant constraint on their growth. The Committee noted the limited pass-through of the nominal wage growth to consumer price inflation.

Some members noted slower global growth reducing imported inflation was a downside risk to the inflation outlook.

The Committee reached a consensus that, relative to the February *Statement*, a lower path for the OCR over the projection period was appropriate. The lower path reflected the economic projections and the balance of risks discussed, and is consistent with both inflation and employment remaining near the Committee's objectives.

After discussing the relative benefits of holding the OCR and committing to a downward bias, versus cutting the OCR now so as to establish a more balanced outlook for interest rates, the Committee reached a consensus to cut the OCR to 1.50 percent.

Attendees

Reserve Bank staff: Adrian Orr, Geoff Bascand, Christian Hawkesby, Yuong Ha

External: Bob Buckle, Peter Harris

Observer: Gabriel Makhlouf

Secretary: Chris McDonald

Apologies: Caroline Saunders

Chapter 2
Key policy judgements

- Over the past year, employment has been near its maximum sustainable level and underlying inflation has approached the 2 percent target mid-point. Employment and inflation have been supported by monetary and fiscal stimulus, and earlier strength in global economic conditions.

- However, GDP growth has slowed, particularly over the second half of 2018. Support from previously above-average global growth has declined. The near-term outlook for domestic GDP growth is soft. We expect this to reduce capacity pressure, and dampen employment growth and inflation.

- Additional monetary stimulus is needed to help keep employment near its maximum sustainable level and to raise underlying inflation to the 2 percent target mid-point.

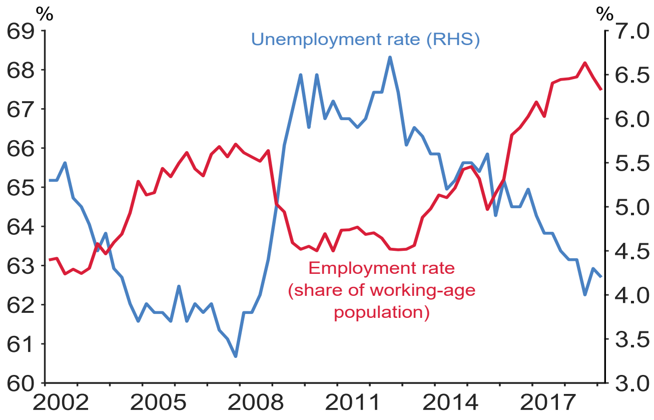
- The economic outlook is conditional on a number of judgements and assumptions, and is subject to considerable uncertainty.

Employment is near its maximum sustainable level and underlying inflation is slightly below 2 percent

After 2009, a prolonged period of subdued domestic and global demand suppressed inflation and employment in New Zealand. However, over the past few years the labour market has tightened (figure 2.1). Monetary and fiscal stimulus, and above-average global growth supported domestic growth over this time. Our assessment is that employment is currently near its maximum sustainable level (see chapter 4).

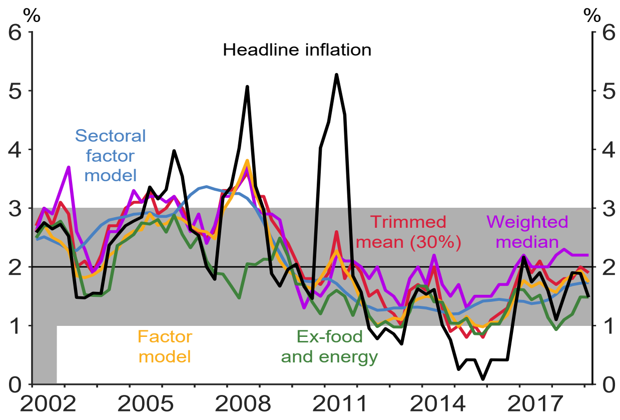
Headline inflation has generally been close to, but below, 2 percent since early 2017 (figure 2.2). Measures of core inflation have gradually increased over this period, with most sitting near or just below 2 percent in the March 2019 quarter. Inflation expectations across different time horizons have been well anchored to the 2 percent target mid-point for the past year (figure 2.3).

Figure 2.1
Employment and unemployment rates
(s.a.)



Source: Stats NZ, RBNZ estimates.

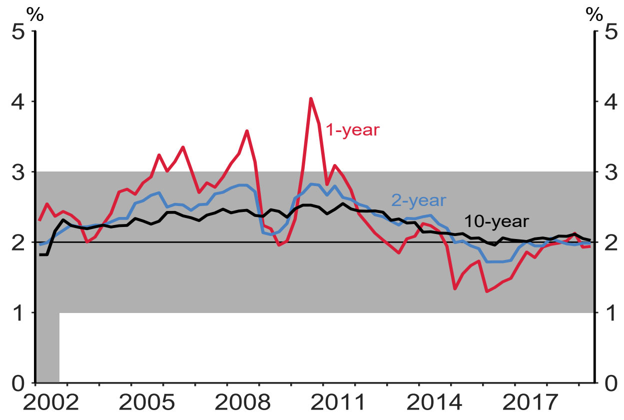
Figure 2.2
Headline inflation and core inflation measures
(annual)



Source: Stats NZ, RBNZ estimates.

Note: Core inflation measures exclude the effect of GST.

Figure 2.3
Inflation expectations
(annual)



Source: RBNZ estimates.

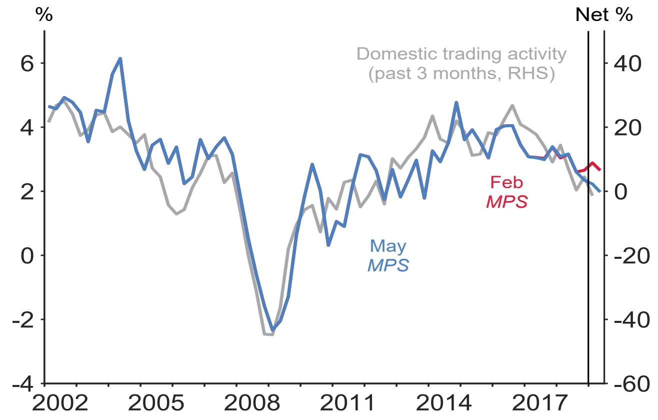
Note: Inflation expectation measures are estimates drawn from the RBNZ inflation expectations curve, based on surveys of businesses and professional forecasters.

Economic growth is slowing due to global and domestic factors

The increase in labour market tightness and inflation since 2017 has occurred despite slowing GDP growth. This is partly because declining population growth has meant that the economy's potential growth rate has also slowed. In contrast, the further sharp decline in GDP growth in the second half of 2018 is expected to dampen employment and inflation. Timely indicators suggest that GDP growth will remain low in the first half of 2019 (figure 2.4).

Net immigration has slowed since 2016, reducing both the economy's potential growth rate and domestic demand (see chapter 4). The effect of slower population growth has been particularly pronounced on the

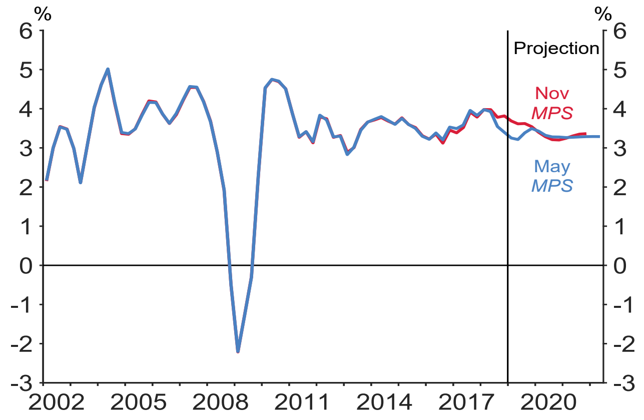
Figure 2.4
Annual GDP growth and domestic trading activity
(s.a.)



Source: Stats NZ, NZIER, RBNZ estimates.

Note: Domestic trading activity measures the net percentage of firms that reported an increase in their own activity over the past three months.

Figure 2.5
Trading-partner GDP growth
(annual)



Source: Haver Analytics, Stats NZ, RBNZ estimates.

housing market and household spending. House price inflation has slowed since 2016, especially in Auckland. Annual consumption growth has declined from a peak of around 6 percent in 2016 to 3.5 percent in the December 2018 quarter. Although residential construction has continued to increase, the pace of growth has slowed as capacity constraints in the construction sector have become increasingly binding.

International factors have also contributed to the recent decline in GDP growth in New Zealand. Economic growth in New Zealand's trading partners was above average over late 2017 and early 2018. Stronger global growth provided significant support to demand in New Zealand. However, trading-partner growth slowed over the second half of 2018, and forecasts for future growth have also been revised down (figure 2.5). Indicators of global growth have stabilised recently, but some downside risk remains. New Zealand's terms of trade also declined over 2018, driven by a fall in dairy export prices and a rise in oil import prices. This decline reduced domestic incomes and spending.

Overseas central banks have responded to the weakening economic outlook by pausing interest rate hikes or signalling that they will provide more stimulus than they had earlier expected. While more supportive monetary policy has helped to stabilise global growth expectations, lower global interest rates have put upward pressure on the New Zealand dollar exchange rate. Slower global growth and the appreciation of the New Zealand dollar are dampening domestic activity and imported inflation.

Deteriorating business sentiment also appears to have dampened economic activity and may have contributed to the decline in business investment over 2018. Survey measures of business confidence have continued to decline over the past year. It is hard to ascertain the drivers of declining confidence. There are likely to be a number of factors at play, including concerns about the global economy, domestic policy uncertainty, slowing domestic growth, and declining profit margins.

An easier stance of monetary policy is needed

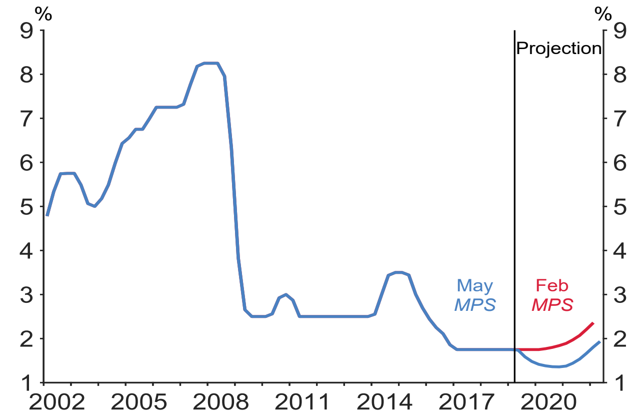
Domestic growth momentum has continued to slow. At the same time, the support to demand in New Zealand from the global economy has faded. The near-term outlook for GDP growth and capacity pressure is softer than we projected in the February *Statement*. As a result, an easier stance of monetary policy is now needed to support demand (figure 2.6).

Lower interest rates are needed to support a pick-up in GDP growth to above potential (figure 2.7). This pick-up underpins inflation returning to the target mid-point and employment remaining near its maximum sustainable level. Improving terms of trade and ongoing fiscal stimulus are also expected to support a lift in growth.

A higher terms of trade over 2019 is expected to boost domestic incomes, supporting consumption and investment. Dairy export prices have risen considerably this year despite slowing global growth, partly due to subdued global dairy production. International oil prices remain below their peak in October last year, which is expected to flow through to lower import prices.

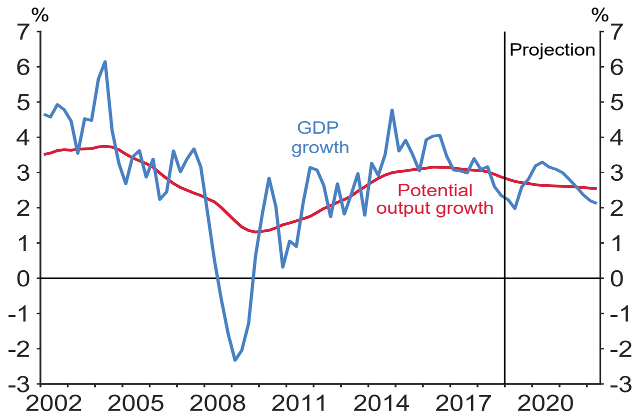
Fiscal policy continues to support growth. Increased transfers to households since 2018 (such as the Families Package) are supporting private consumption. Growth in government spending is assumed to remain robust over 2019. KiwiBuild is expected to add to residential dwelling construction from mid-2019.

Figure 2.6
Official Cash Rate
(quarterly average)



Source: RBNZ estimates.

Figure 2.7
GDP growth
(annual)

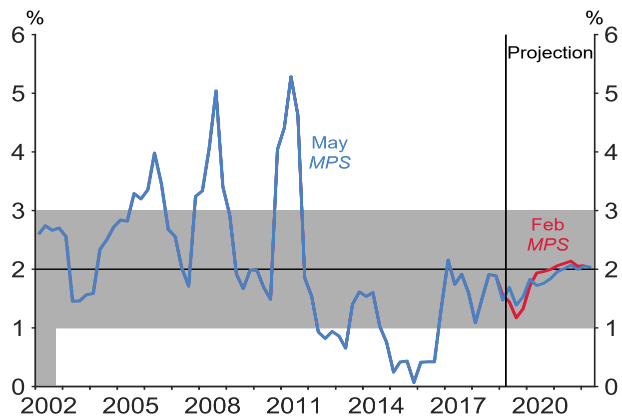


Source: Stats NZ, RBNZ estimates.

The slower pace of GDP growth over recent quarters is expected to flow through to a slightly softer labour market over 2019. As increased monetary stimulus supports a lift in GDP growth above potential, the labour market is expected to tighten. We expect employment to remain close to its maximum sustainable level over the projection period.

Weaker capacity pressure is expected to flow through into lower non-tradables inflation in late 2019. However, as GDP growth increases and capacity pressure begins to build, non-tradables inflation gradually rises. CPI inflation is projected to return to 2 percent in mid-2021, slightly later than projected in the February *Statement* (figure 2.8).

Figure 2.8
CPI inflation
(annual)



Source: Stats NZ, RBNZ estimates.

Subdued price-setting behaviour by firms is expected to continue to weigh on non-tradables inflation. We assume firms will set their prices in a way that is consistent with capacity pressure and average past inflation. As a result, we expect that inflation will rise only gradually. Recent and future minimum wage increases are expected to raise wage inflation, but are assumed to have relatively small effects on consumer price inflation.

Key assumptions and uncertainties

The outlook for monetary policy is contingent on the key forecast assumptions outlined in table 2.1. There is considerable uncertainty around these assumptions, and they will be updated as new information becomes available. Recent developments highlight a number of factors influencing economic activity, employment, and inflation that could shift the outlook for monetary policy.

GDP growth

Uncertainty about the outlook for GDP growth is broadly balanced, with plausible scenarios on the upside and downside.

In the central projections, we assume that supportive monetary policy by major central banks will see global growth stabilise at around its historical average. However, global growth could deteriorate further, and central banks may not be able to respond sufficiently. Weaker global demand could affect New Zealand through trade, financial market, and confidence channels (see box B). For example, although prices for some of New Zealand's key export commodities have strengthened recently, there is a chance that these prices could decline in line with slower global growth. On the other hand, the easing in global financial conditions since the beginning of the year, or a quick resolution to current trade negotiations between major economies, could lead to a pick-up in global growth over 2019.

There is also uncertainty about the strength of the domestic drivers of the GDP growth outlook. Downward momentum in growth could be more persistent than we anticipate. For example, if business sentiment remains low, this could dampen investment. Conversely, domestic spending could be stronger than we assume. This could happen if the housing market is stronger, if business investment strengthens more quickly as policy uncertainty reduces, or if there is a larger degree of fiscal stimulus over coming years.

Inflation

Overall, uncertainty about the inflation outlook is also broadly balanced.

If GDP growth is weaker than we anticipate, this would flow through into weaker capacity pressure and non-tradables inflation. Imported inflation could be lower than we expect, especially if global growth slows further or if commodity prices decline in line with slower growth. A period of lower inflation may then have a persistent effect on pricing behaviour, dampening inflationary pressure for a prolonged period.

Inflation could be higher if capacity pressure is currently greater than we assume or if cost pressures flow through to consumer prices by more than we expect. Firms' costs have been rising over the past year, but the pass-through to consumer prices has been limited. If margins continue to be squeezed by rising costs, firms may respond by raising prices more significantly.

Table 2.1

Key forecast assumptions

Overarching narrative	Key forecast assumptions
Global growth eases to around its historical average	GDP growth in our major trading partners averages 3.3% over the projection period. Trade restrictions have a modest impact on the global growth outlook, but the outlook is uncertain. Most central banks pause their withdrawal of monetary stimulus and some reduce policy rates. The New Zealand dollar Trade-Weighted Index (TWI) remains around 73 over the projection period.
Global inflationary pressure edges up only gradually	Inflationary pressure in our major trading partners edges up gradually over the projection period. Import price inflation in foreign currency terms is slightly below its post-2000 average over the projection period. Dubai oil prices gradually decline to around USD 65 per barrel. Whole milk powder prices gradually decline to around USD 3,000 per metric tonne.
New Zealand GDP growth is subdued in the near term, but rises above trend as fiscal and monetary stimulus support demand	GDP growth remains soft over the first half of 2019, but exceeds potential growth as policy stimulus increases. Household consumption growth slows as both house price inflation and net immigration decline. Annual net immigration of working-age people falls from 40,000 in 2018 to 29,000 in 2021, slightly reducing aggregate demand. Export volumes continue to grow in line with potential output. Growth in import volumes remains subdued due to the depreciation of the exchange rate since mid-2017. Government spending supports GDP growth over 2019, but spending growth is assumed to decline from 2020. KiwiBuild adds to residential investment gradually from mid-2019.
Capacity pressure builds in the medium term as demand growth outstrips supply growth	Employment is near its maximum sustainable level and the output gap is close to zero. Labour force participation remains around its current level. The labour market softens slightly over 2019. Over the medium term, the unemployment rate declines to around 4% and the output gap rises slightly above zero.
Inflation trends up to the 2 percent target mid-point	Annual non-tradables inflation dips over 2019 but then increases gradually, as capacity pressure increases and the dampening effect of past low inflation slowly fades. Annual tradables inflation is zero over 2019, but recovers thereafter to just below-average levels. Pass-through of changes in fuel prices to other consumer prices is modest. Minimum wage increases are mostly absorbed in firms' margins and have a small impact on CPI inflation.

Box A

New Zealand's new monetary policy framework

On 1 April 2019, changes to New Zealand's monetary policy framework came into effect. The amendment to the *Reserve Bank of New Zealand Act 1989* (the Act) created a formal Monetary Policy Committee (MPC) with members internal and external to the Bank. It also added an employment objective to the Bank's long-standing price stability objective. The amendments also articulated the Act's overarching purpose, which is to promote the prosperity and well-being of New Zealanders, and contribute to a sustainable and productive economy.

The May 2019 *Monetary Policy Statement* is the first to be released under the new framework. This box briefly outlines the major changes to New Zealand's monetary policy framework, and introduces the three 'secondary instruments' that underpin it. More information can be found in the *Monetary Policy Handbook.*[1]

Introduction of a monetary policy committee

One of the most significant changes to New Zealand's monetary policy framework is the creation of a formal MPC. Previously, the Governor had sole legal responsibility for monetary policy decisions – although in practice, successive Governors utilised an internal committee to support decision making. The current MPC consists of four internal members and three external members.[2] Members are nominated by the Reserve Bank Board of Directors and appointed by the Minister of Finance. A member can serve only two terms in each role, with each term being up to five years for internal appointments and four years for external appointments.

The MPC is bound by the Act and three secondary instruments that are established within the Act – the *Remit*, *Charter* and *Code of Conduct*.[3] Each serves a distinct purpose as described in table A.1.

The *Charter* is an agreement with the Minister of Finance. It provides the MPC with guidance on decision-making procedures and expands on the transparency and accountability requirements contained in the Act. The *Charter* directs the MPC to aim to reach decisions on monetary policy by consensus. In the event consensus cannot be reached, the *Charter* reiterates the provision in the Act that each member has an equal vote.[4] A summary record of each meeting is to be published with each monetary policy decision, and the *Charter* requires this record to include:

- an overview of the economic outlook;
- the risks and policy options discussed;
- any material differences of view or judgement within the Committee; and
- an unattributed record of any vote taken.

1 Available at https://www.rbnz.govt.nz/monetary-policy/about-monetary-policy/monetary-policy-handbook.

2 The Act states that the MPC must have between five and seven members, with the majority being internal. The names of current MPC members can be found at https://www.rbnz.govt.nz/about-us/monetary-policy-committee.

3 The *Remit* is included at the start of this *Monetary Policy Statement*, and the *Charter* and *Code of Conduct* are available at https://www.rbnz.govt.nz/monetary-policy/about-monetary-policy/monetary-policy-framework.

4 The Governor, as chair of the MPC, has a casting vote if required.

Table A.1

The secondary instruments

	Purpose	Initiated as	Future revisions
Remit	Specifies operational objectives (inflation target and guidance on supporting maximum sustainable employment)	Agreement between Minister of Finance (the Minister) and Governor	Five-yearly review, the Minister to issue the *Remit* following non-binding public advice from the Reserve Bank
Charter	Specifies additional transparency and accountability requirements, and guidance on decision-making procedures	Agreement between the Minister and Governor	Agreement between the Minister and the MPC. Can be reviewed at any time but must be reviewed whenever a *Remit* is issued
Code of Conduct	Specifies minimum standards of conduct for MPC members (e.g. managing or avoiding conflicts of interest)	Prepared by the Reserve Bank, approved by the Reserve Bank Board of Directors	Can be reviewed at any time, approved by the Reserve Bank Board of Directors

Addition of an employment objective

The amendment to New Zealand's monetary policy framework included the addition of an employment objective to the Bank's long-standing price stability objective. The Act now states that the MPC is to formulate monetary policy towards the economic objectives of:

- achieving and maintaining stability in the general level of prices over the medium term; and
- supporting maximum sustainable employment.

The *Remit* provides the MPC with more detail about how these high-level objectives are to be defined or addressed (referred to as operational objectives). In this sense, the purpose of the *Remit* is similar to that of the *Policy Targets Agreement* (PTA) under the previous monetary policy framework.

The content of the current *Remit* is also similar to the March 2018 PTA. There has been no change to the inflation target of keeping future annual CPI inflation between 1 to 3 percent over the medium term, with a focus on the 2 percent mid-point. The last PTA also already included an employment objective, foreshadowing the expected changes to the Act. The factors the MPC is to have regard to in pursuing these objectives – the soundness and efficiency of the financial system, avoiding unnecessary instability in some macroeconomic variables, and looking through events that have only temporary effects on inflation – are the same considerations contained in the preceding PTA.

The addition of an employment objective is a recognition of the impact that monetary policy has on the real economy over the short to medium term. The Bank has long considered developments in the labour market when formulating monetary policy, encouraged by an increasingly flexible approach to inflation targeting. However, the new framework requires the MPC to be explicit in its consideration of likely employment outcomes, and to provide a more detailed assessment of the state of and outlook for the labour market. The *Remit* recognises that the level of maximum sustainable employment is unobservable and largely determined by factors other than monetary policy – such as demographics, the match between workers' skills and firms' needs, and labour market policy. Consequently, the *Remit* directs the MPC to consider a broad range of labour market indicators when assessing employment relative to its maximum sustainable level. Chapter 4 contains such an assessment.

Chapter 3

International and financial markets developments

- Global economic growth has slowed since mid-2018. Uncertainty about both the global economic outlook and ongoing trade negotiations remains elevated.
- Some indicators suggest that trading-partner growth is stabilising around its long-term average.
- Financial conditions have eased both globally and in New Zealand. Domestic mortgage rates are at record lows.

Global economic growth has slowed

Growth in New Zealand's key trading partner economies has slowed since mid-2018. Australian consumption growth eased over 2018, held down by subdued income growth and falling house prices. Economic growth in China slowed from 6.8 percent to 6.4 percent over 2018, partly reflecting government policies aimed at addressing financial sector vulnerabilities. Economic growth in Europe has slowed significantly, partly reflecting slower growth in export volumes.

Annual trading-partner GDP growth is expected to decline from 3.7 percent in 2018 to 3.3 percent in 2019, which is around its historical average. However, downside risks to global growth remain and may negatively affect New Zealand's economic outlook (see box B).

Global trade is decreasing due to slowing global demand, ongoing trade tensions between the United States and China, and heightened global uncertainty. The uncertainty stemming from trade tensions appears to have had a larger impact on world trade than the tariffs that have been implemented so far.

Recent developments have been more positive

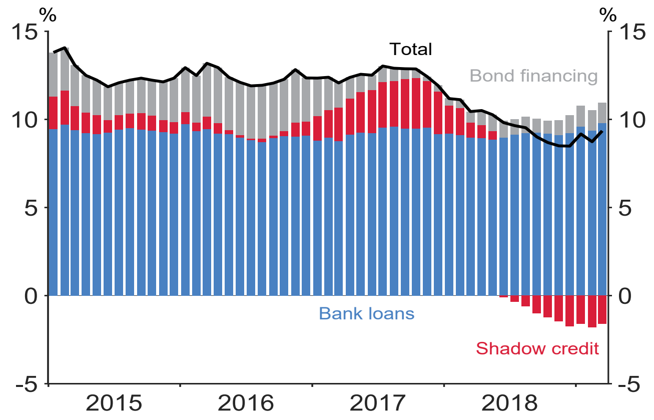
Although global economic growth has slowed, some indicators suggest that growth is only moderating towards its long-term average and may be stabilising.

China's economy appears to be strengthening in response to stimulatory government policies. Banks' reserve requirements have been cut five times over the past year, contributing to a pick-up in credit growth in recent months (figure 3.1). Other government stimulus measures include tax cuts and increased spending on infrastructure. Collectively, these measures should help to stabilise China's economic growth over 2019, which should support economic growth across Asia.

Global policy uncertainty has recently moderated. Progress appears to have been made in recent negotiations between China and the United States, although a possible re-escalation in trade tensions remains a risk to global growth. In Europe, the possibility of the United Kingdom leaving the European Union without an agreement on economic and trade relations has also created significant uncertainty. However, concerns about a near-term departure from the European Union without an agreement have lessened since the extension of the proposed exit date until the end of October.

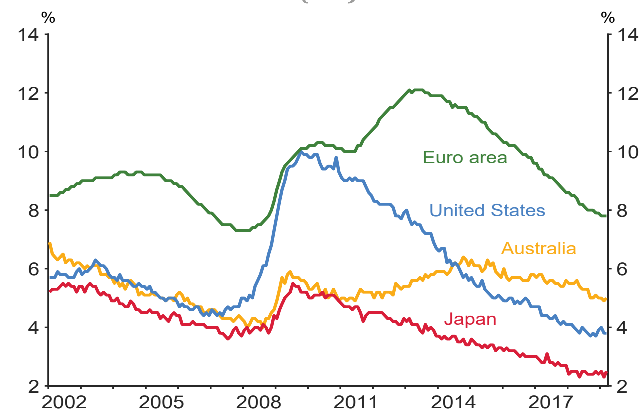
Despite slowing global growth, labour markets in a number of countries have remained strong, with unemployment rates continuing to trend down (figure 3.2). Globally, wage growth has generally been increasing.

Figure 3.1
Contributions to credit growth in China
(annual)



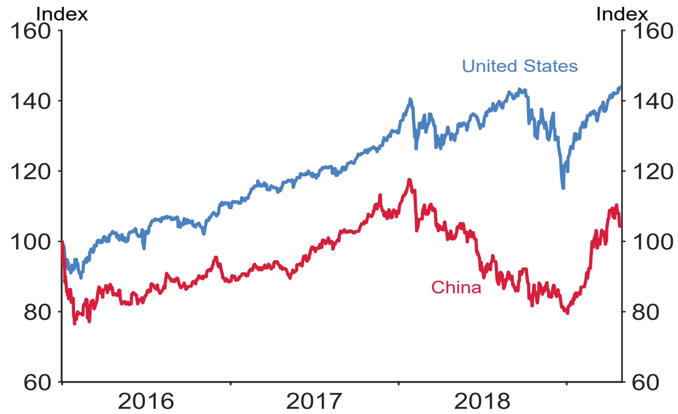
Source: Haver Analytics.

Figure 3.2
Global unemployment rates
(s.a.)



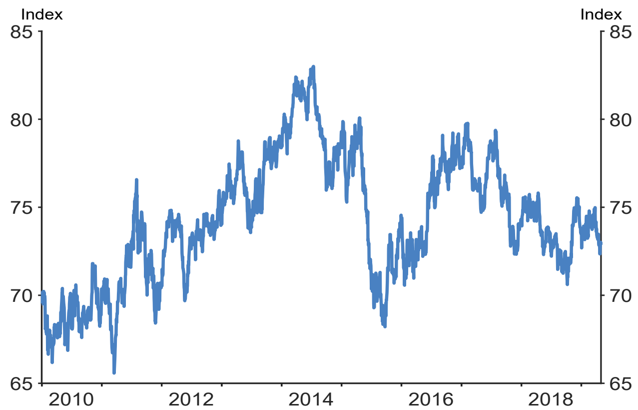
Source: Bloomberg.

Figure 3.3
Equity indices



Source: Bloomberg.

Figure 3.4
New Zealand dollar TWI



Source: RBNZ.

Global financial conditions have eased

In response to slower growth, low inflation, and the weakening economic outlook, a number of overseas central banks have paused policy tightening, or signalled that they will provide more stimulus than they had earlier expected. Financial market participants expect future policy rate cuts for a number of central banks.

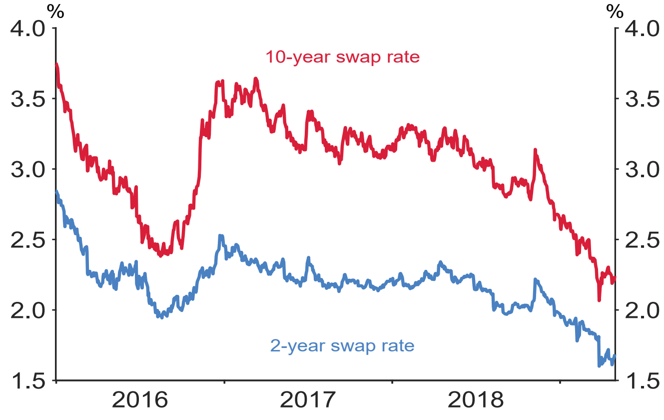
The shift in policy rate expectations has led to an easing in global financial conditions since the start of 2019, reversing the sharp tightening in the last quarter of 2018. Equity prices have risen and credit spreads have narrowed in 2019 so far (figure 3.3). The easing in financial conditions suggests that market participants believe the policy responses of central banks will be sufficient to offset slowing global growth.

Domestic financial conditions have also eased

The New Zealand dollar TWI increased in late 2018 (figure 3.4). This reflected the widening interest rate differential between New Zealand and the rest of the world as global interest rates declined. Rising commodity prices, particularly dairy, have also supported the New Zealand dollar. However, the increase in the New Zealand dollar TWI has largely reversed since the March OCR review, which stated that the more likely direction of the next OCR move was down.

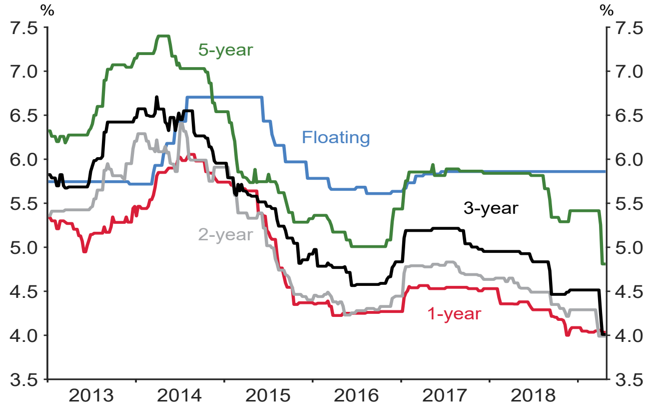
Domestic wholesale interest rates have declined over the past year (figure 3.5). The associated reduction in bank funding costs has contributed to mortgage rates falling (figure 3.6). Mortgage rates have fallen by more than swap rates, due to easier offshore market funding conditions and competition between banks.

Figure 3.5
Domestic swap rates



Source: Bloomberg.

Figure 3.6
Mortgage rates



Source: interest.co.nz, RBNZ estimates.

Note: The rate shown for each term is the average of the latest rate on offer from ANZ, ASB, BNZ, and Westpac.

Box B

How does slowing global growth affect New Zealand?

New Zealand is a small open economy that can be significantly affected by economic developments in other countries. Since mid-2018, global growth has slowed, and this has affected the outlook for economic activity, employment, and inflation in New Zealand.

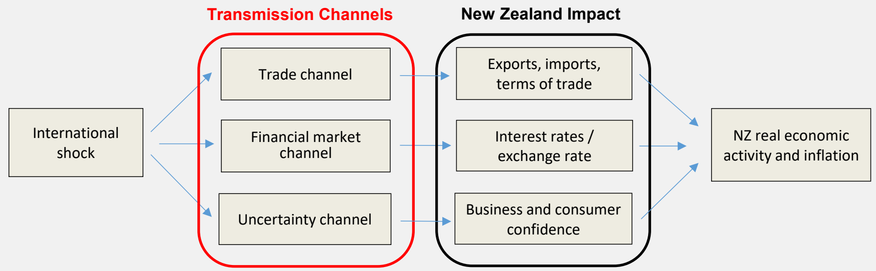
Unexpected changes in the demand for and supply of goods and services in other countries, or ‘shocks’, can affect New Zealand through several channels.[1] These channels are often split into three categories – trade, financial market, and uncertainty (or confidence) channels (figure B.1).

Through the trade channel, an international shock can affect demand for New Zealand exports, affecting both the prices and quantities sold. Depending on the nature of the shock and its relative impact on export and import prices, the impact on the terms of trade could be either positive or negative.

The financial market channel primarily transmits global shocks through interest rates and the exchange rate. Movements in domestic long-term interest rates are mainly driven by movements in global rates, whereas short-term interest rates are more influenced by expected monetary policy rates in each country. Movements in overseas interest rates can also affect New Zealand banks’ funding costs.

1 For a more detailed discussion of the impacts of global shocks on the New Zealand economy, see M. Callaghan, Cassino, E., Vehbi, T., and Wong, B. (2019), ‘Opening the toolbox: how does the Reserve Bank analyse the world?’, Reserve Bank of New Zealand *Bulletin*, Vol.82, No.4, April.

Figure B.1
Transmission channels of international shocks to the New Zealand economy



Finally, international shocks can affect New Zealand through the uncertainty or confidence channel. For example, trade tensions between the United States and China could make local businesses and households more uncertain about their future incomes or employment, causing them to cut spending and increase their precautionary savings.

An international shock can affect the New Zealand economy through any combination of these channels, depending on the nature of the shock. For example, a negative global demand shock could result in lower export prices, a lower exchange rate, and weaker consumer and business confidence.

New Zealand has become more exposed to international shocks over time as our global economic links have strengthened. Structural changes since the 1980s, such as the liberalisation of trade and capital movements, have increased our exposure to international economic conditions.

Chapter 4

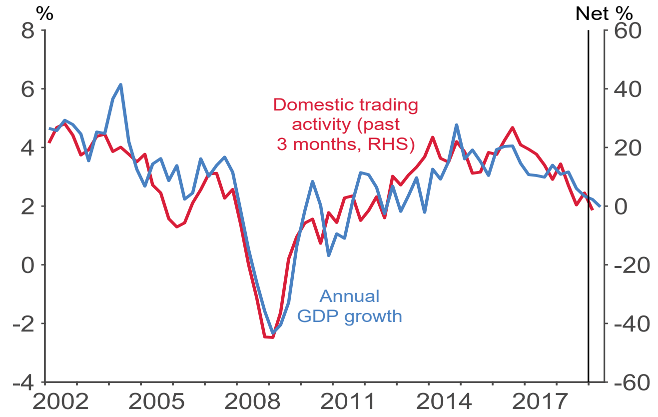
Domestic activity and employment

- GDP growth slowed sharply over the second half of 2018. Slower global growth, a subdued housing market, and low business sentiment are dampening domestic activity. We expect growth to remain low over the first half of 2019.
- The recent slowdown in GDP growth is expected to result in a slight softening in the labour market over 2019.
- Increased monetary stimulus and an improvement in the terms of trade are expected to drive a pick-up in growth and capacity pressure from late 2019. Increased stimulus helps to keep employment near its maximum sustainable level.

GDP growth has slowed

Annual GDP growth slowed sharply over the second half of 2018, from 3.2 percent in the June quarter to 2.3 percent in the December quarter (figure 4.1). This decline reflects moderating global growth and slower growth in domestic demand. We expect domestic growth to remain low in the first half of 2019.

Figure 4.1
GDP growth and domestic trading activity
(s.a.)



Source: Stats NZ, NZIER, RBNZ estimates.

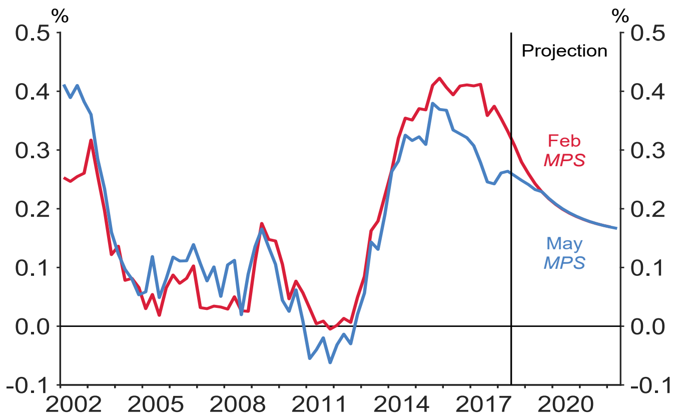
Global economic conditions deteriorated over the second half of 2018. Weaker global growth reduced demand for New Zealand's exports. In addition, overseas central banks paused policy tightening, which has resulted in a higher New Zealand dollar TWI since late 2018. The stronger exchange rate has reduced export earnings, and encouraged substitution towards imports. Uncertainty about the global economy has dampened business sentiment in New Zealand.

Another factor holding down GDP growth is slower growth in household consumption. Annual consumption growth fell from 6.1 percent in the September 2016 quarter to 3.5 percent in the December 2018 quarter. Declining population growth and house price inflation since 2016 have been key factors behind the moderation in consumption growth.

Lower population growth reflects declining net immigration (figure 4.2). The new outcomes-based immigration data published by Statistics New Zealand indicate that net immigration has been declining since 2016. The outcomes-based immigration data is subject to revision for 15 months, and revisions to recent data can be large. Until we understand these revisions better, we have decided to forecast net immigration from around nine months before the most recent release. We expect that net immigration will decline over the projection period, providing less support to economic growth. Our projection for net immigration is broadly consistent with trends in total overseas arrivals and departures.

New Zealand GDP growth is expected to remain low in the first half of 2019. In the most recent *Quarterly Survey of Business Opinion* (QSBO), firms reported that their trading activity weakened in the first quarter of

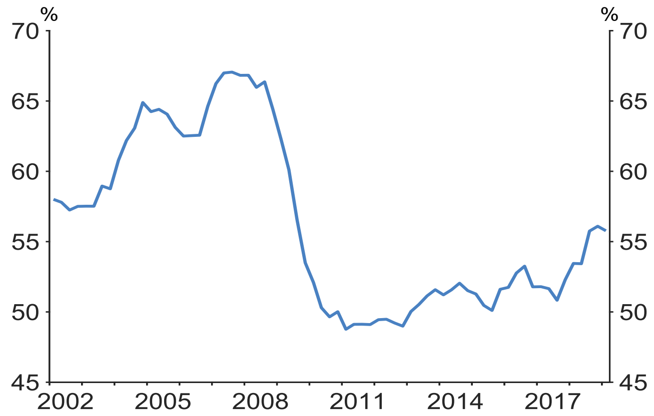
Figure 4.2
Net immigration
(quarterly, share of working-age population, s.a.)



Source: Stats NZ, RBNZ estimates.

Note: February *Statement* projections used the discontinued intentions-based migration data. May *Statement* projections use the new outcomes-based migration data.

Figure 4.3
Job-finding rate
(four-quarter moving average)



Source: Stats NZ, RBNZ estimates.

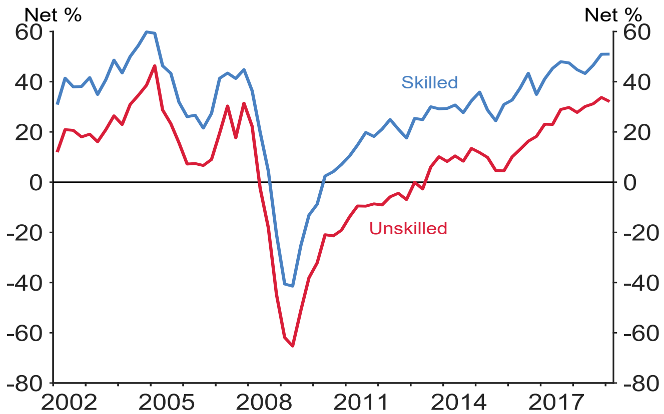
Note: The job-finding rate shows the probability of moving from unemployment to employment in each quarter.

2019 (see figure 4.1). Economic and policy uncertainty continue to hold down business confidence.

Capacity pressure expected to ease slightly

Our suite of labour market indicators suggests that employment is currently near its maximum sustainable level. Most labour market indicators that we monitor show a tightening in labour market conditions over the past year. Many indicators suggest that employment is near its maximum sustainable level, but there is a wide range around this (table 4.1). For example, the job-finding rate increased over 2018 (figure 4.3), and firms report that finding skilled and unskilled labour is increasingly difficult (figure 4.4).

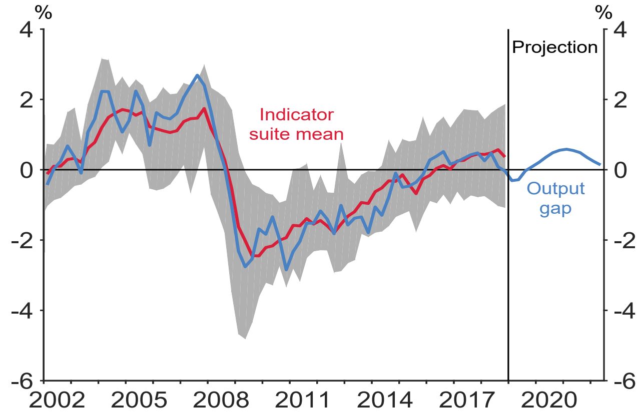
Figure 4.4
Difficulty finding labour
(s.a.)



Source: NZIER, RBNZ estimates.

Note: These measures show the net percentage of firms that reported an increase in the difficulty of finding labour over the past three months.

Figure 4.5
Output gap and indicator suite
(share of potential)



Source: RBNZ estimates.

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

The economy is currently operating near full capacity, despite the slowdown in economic growth (figure 4.5). Indicators of capacity pressure are expected to decline over the first half of 2019, reflecting the weaker outlook for GDP growth.

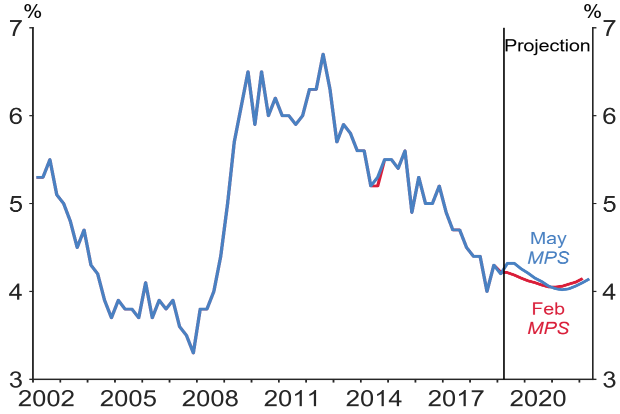
The labour market tightened over 2018, even as GDP growth declined sharply. This is similar to the experiences of other countries (see chapter 3). Weaker demand contributed to a decline in employment in the first quarter of 2019, although the unemployment rate declined to 4.2 percent (figure 4.6). Slower GDP growth since the second half of 2018 is expected to result in further softness in the labour market over 2019. Employment is expected to recover as GDP growth picks up from the second half of 2019. We expect employment to remain close to its maximum sustainable level over the projection period.

Table 4.1
Summary of indicators of employment and maximum sustainable employment (MSE)

Indicator type	**Employment below MSE**	**Employment at MSE**	**Employment above MSE**
Indicator suite	Employment rate gap (filled jobs)	LUCIL Employment rate gap (total employment) Unemployment rate gap (structural model) Unemployment rate gap (reduced-form model)	Hours worked gap
Unemployment	Underemployment rate Youth unemployment (15-19 years)	Range of NAIRU estimates Underutilisation rate Māori and Pacific unemployment Medium-term unemployment Youth unemployment (20-24 years)	
Business surveys			Difficulty of finding labour (QSBO) Labour as limiting factor (QSBO) Overtime worked (QSBO)
Flows data		Job-finding rate	Job-separation rate

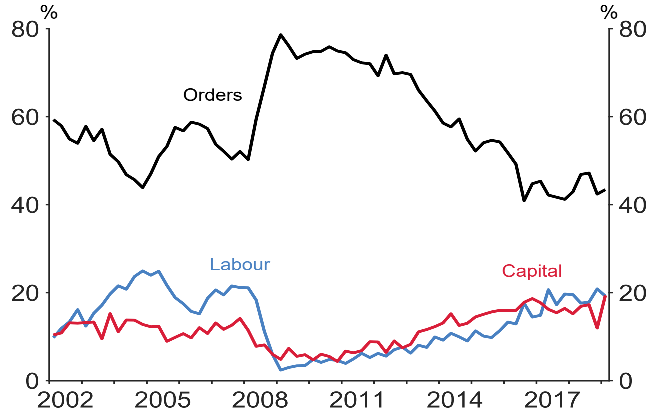
Note: LUCIL is the Labour Utilisation Composite Index in Levels – a principal component of a range of labour market variables. NAIRU stands for Non-Accelerating Inflation Rate of Unemployment. The job-finding rate is the probability of an unemployed person finding a job in a given quarter. The job-separation rate is the probability of an employed person losing their job in a given quarter. These rates have been adjusted to account for flows in and out of the labour force.

Figure 4.6
Unemployment rate
(s.a.)



Source: Stats NZ, RBNZ estimates.

Figure 4.7
Factor most limiting production increases
(s.a.)



Source: NZIER, RBNZ estimates.

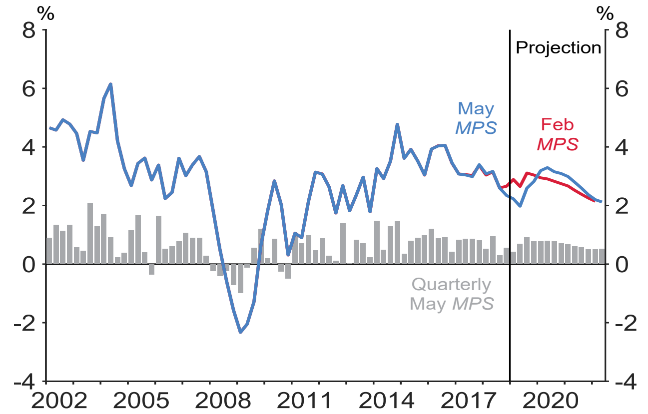
Note: These measures show the share of firms reporting each factor as most constraining their ability to increase production.

There is some uncertainty about the amount of capacity pressure in the economy. For example, the most recent QSBO showed that the share of firms that cited orders (demand) as the main factor limiting their expansion remained historically low (figure 4.7). The share of firms citing labour and physical capital was historically high. If we have underestimated capacity constraints in the economy, then capacity pressure and inflation could be stronger than we expect.

Monetary stimulus supports a pick-up in growth

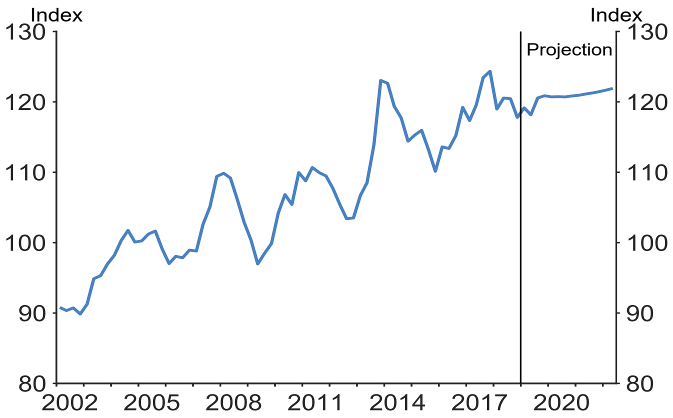
With a subdued outlook for demand and capacity pressure in early 2019, increased monetary stimulus is required to support inflation and employment. Annual GDP growth is forecast to increase to around 3 percent in 2020 (figure 4.8). In addition to increased monetary stimulus, an increase in the terms of trade is also expected to support growth (figure 4.9).

Figure 4.8
GDP growth
(s.a.)



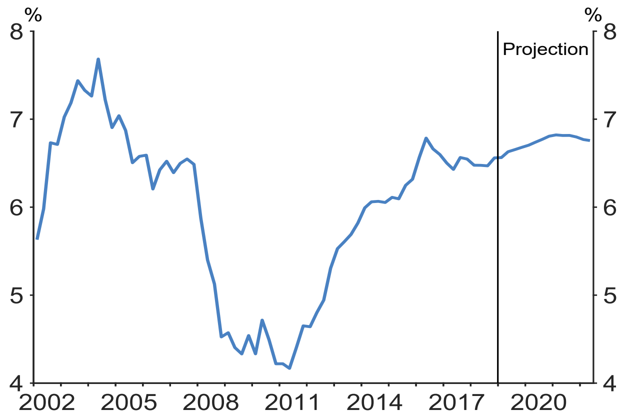
Source: Stats NZ, RBNZ estimates.

Figure 4.9
Terms of trade
(s.a.)



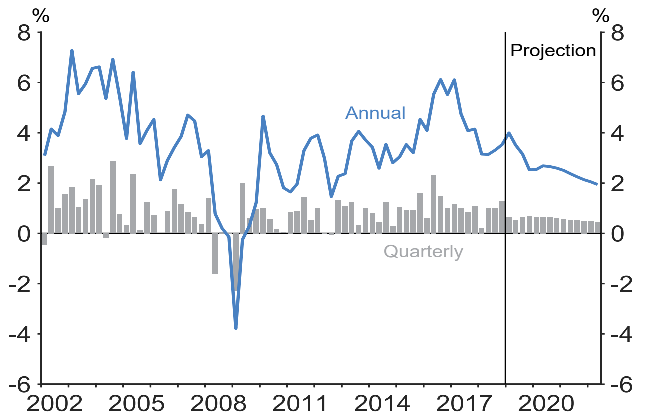
Source: Stats NZ, RBNZ estimates.

Figure 4.11
Residential investment
(share of potential, s.a.)



Source: Stats NZ, RBNZ estimates.

Figure 4.10
Household consumption growth
(s.a.)

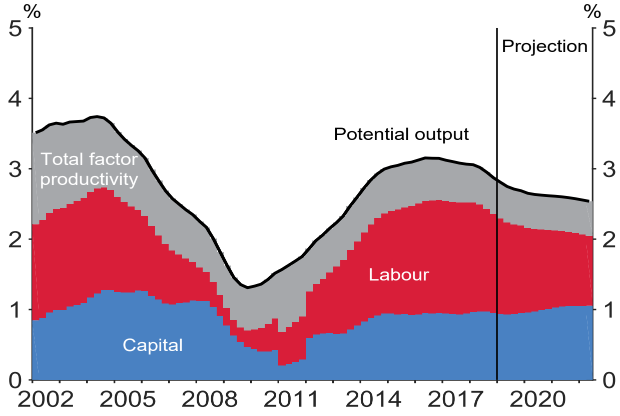


Source: Stats NZ, RBNZ estimates.

Increased monetary stimulus supports aggregate demand over the projection period, resulting in higher domestic spending. This provides support to household consumption growth over the projection period (figure 4.10). Increased capacity pressure generated by rising GDP growth is expected to encourage a pick-up in business investment. A lower outlook for New Zealand interest rates has contributed to the depreciation of the New Zealand dollar since March 2019, which will support net exports.

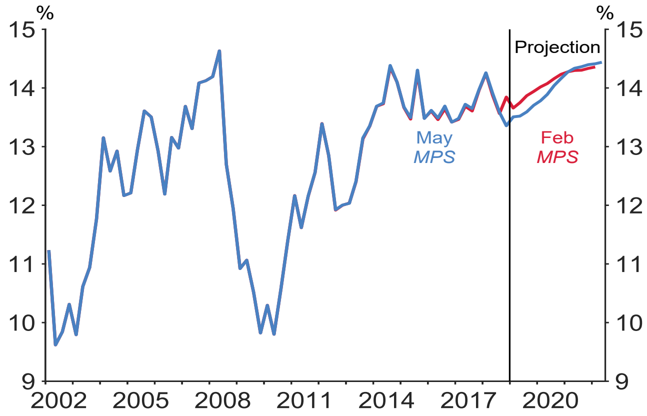
Ongoing support from fiscal policy also contributes to GDP growth over the projection period. This comes from direct government expenditure, particularly over 2019, as delayed spending planned for 2018 takes place. However, government spending growth is assumed to slow from 2020. The KiwiBuild programme is assumed to contribute to residential investment from the second half of 2019 (figure 4.11). Programmes

Figure 4.12
Composition of potential output growth
(annual)



Source: RBNZ estimates.

Figure 4.13
Business investment
(share of potential, s.a.)



Source: Stats NZ, RBNZ estimates.

within KiwiBuild, such as Land for Housing and Buying off the Plans, aim to increase the capacity of the construction sector by helping developers to find land and funding for residential investment projects. Government policies, including the Families Package and announced minimum wage rises, are expected to support household consumption over the projection period.

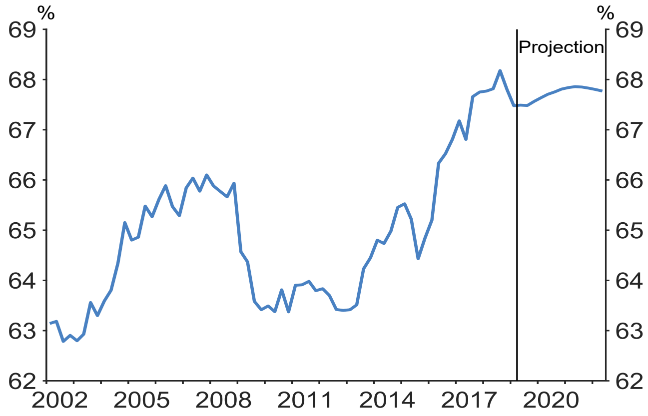
Strong but declining population growth continues to support GDP growth. High population growth has been a key driver of stronger growth in potential output over the past six years (figure 4.12). The overall contribution of population growth to economic growth is expected to decline over the projection period, in line with lower net immigration.

International developments are expected to dampen domestic growth over the projection period. With global growth declining towards average, demand for New Zealand exports has moderated. However, recent movements in commodity prices indicate that New Zealand's terms of trade will improve over 2019, supporting domestic incomes.

It is possible that GDP growth is weaker than we expect. For example, subdued business sentiment could restrain investment by more than we expect. Business investment has been weaker than our forecasts over the past year, and there is a possibility that the current projected pick-up fails to eventuate (figure 4.13). In addition, global economic conditions could deteriorate further. This could affect New Zealand through a range of trade, financial market, and confidence channels (see box B).

A stronger housing market could result in higher GDP growth. Fixed mortgage rates have declined sharply in recent months, and loan-to-value ratio restrictions have been eased. These factors could boost

Figure 4.14
Employment rate
(share of working-age population, s.a.)



Source: Stats NZ, RBNZ estimates.

house price inflation by more than we assume, which would flow through into stronger household consumption growth.

Labour market projected to strengthen

After softening in 2019, the labour market is projected to strengthen as stimulatory monetary policy drives an increase in growth and capacity pressure builds. Employment is expected to increase slightly as a share of the working-age population (figure 4.14). Monetary policy helps to keep employment near its maximum sustainable level over the projection period.

Chapter 5

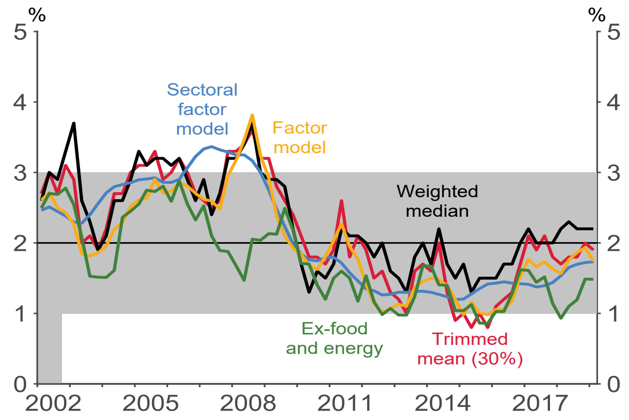
Costs and prices

- Most core inflation measures have increased to just below 2 percent over the past year. Wage inflation has increased since 2017 as the labour market has tightened.
- However, the outlook for domestic inflationary pressure has softened as a result of the slowdown in GDP growth. Non-tradables inflation is expected to ease slightly in the near term, before gradually rising as capacity pressure builds.
- Headline inflation returns to the 2 percent target mid-point in mid-2021, slightly later than projected in the February *Statement*.

Underlying inflation has increased

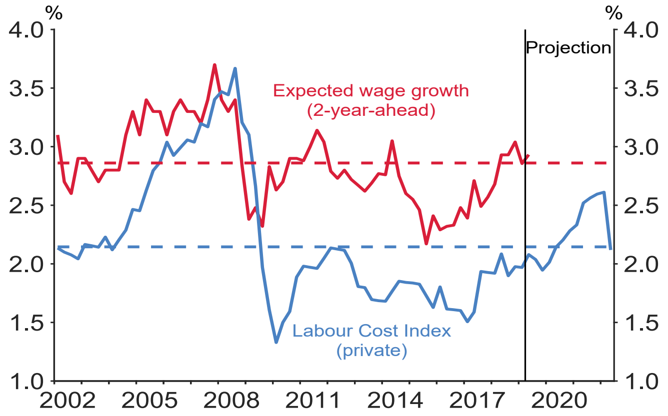
Measures of core inflation have increased over the past year, and are near or just below the 2 percent target mid-point (figure 5.1). These measures filter out temporary volatility in price movements (such as sharp rises in petrol prices) to estimate the underlying inflation trend.

Figure 5.1
Core inflation measures
(annual, excluding GST)



Source: Stats NZ, RBNZ estimates.

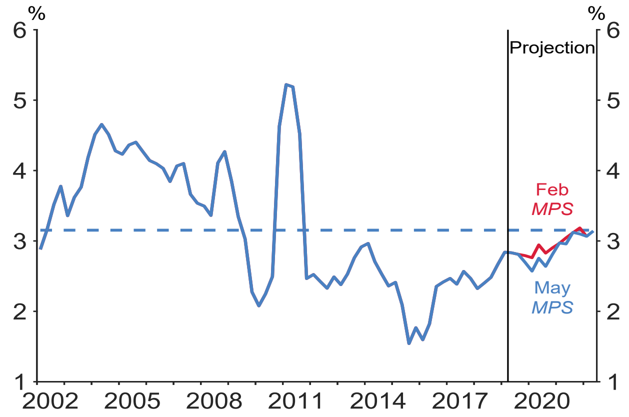
Figure 5.2
Wage inflation and expectations
(annual)



Source: Stats NZ, RBNZ Survey of Expectations, RBNZ estimates.

Note: The dashed lines are post-2000 averages. Annual growth in the Labour Cost Index falls in the June 2022 quarter when the contribution of the last announced increase in the minimum wage drops out.

Figure 5.3
Non-tradables inflation
(annual)



Source: Stats NZ, RBNZ estimates.

Note: The dashed line is the post-2000 average.

Wage inflation has increased since 2017, partly reflecting the tightening labour market (figure 5.2). Wage inflation has also been boosted by pay equity settlements and minimum wage rises. Announced minimum wage rises are expected to continue supporting wage inflation over the projection period. Surveyed wage expectations have increased since 2017.

Slower domestic growth dampens the inflation outlook

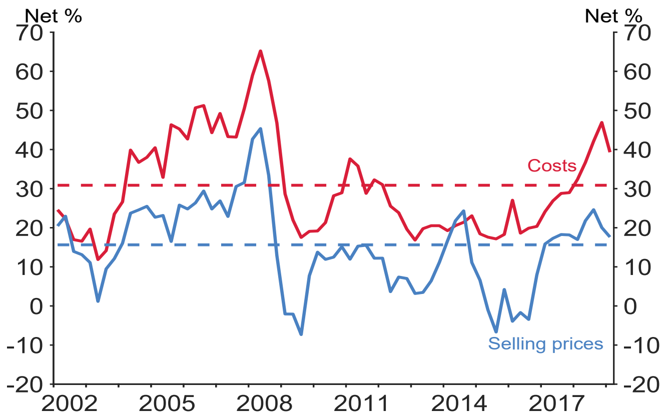
The slowdown in GDP growth and the resulting fall in capacity pressure reduce the outlook for domestic inflationary pressure (see chapter 4). We expect non-tradables inflation to decline modestly over the next year. Monetary policy stimulus then drives an increase in capacity pressure, lifting non-tradables inflation to around its 20-year average (figure 5.3).

The increase in the minimum wage in April 2019 is assumed to lift non-tradables inflation slightly from the June quarter, providing some offset to the fall in capacity pressure. We expect increases in the minimum wage over the projection period to contribute to higher domestic inflation.

Low inflation outturns over recent years are expected to continue to weigh on firms' pricing behaviour. While increasing capacity pressure has led to increasing costs for firms over the past year, pricing behaviour has remained subdued (figure 5.4). Correspondingly, over the past year the share of firms reporting declining profitability in the QSBO has risen.

Domestic inflation could be higher than we anticipate. Capacity pressure in the economy could be stronger than estimated. Minimum wage

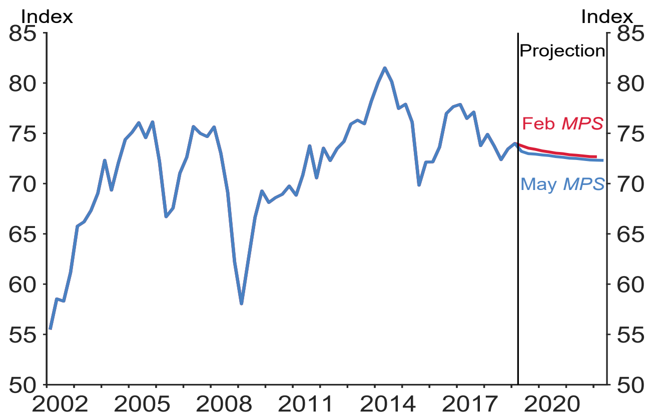
Figure 5.4
Firms' costs and selling prices
(s.a.)



Source: NZIER, RBNZ estimates.

Note: Dashed lines are post-2000 averages. These measures show the net percentage of firms that reported an increase in costs or selling prices over the past three months.

Figure 5.5
New Zealand dollar TWI



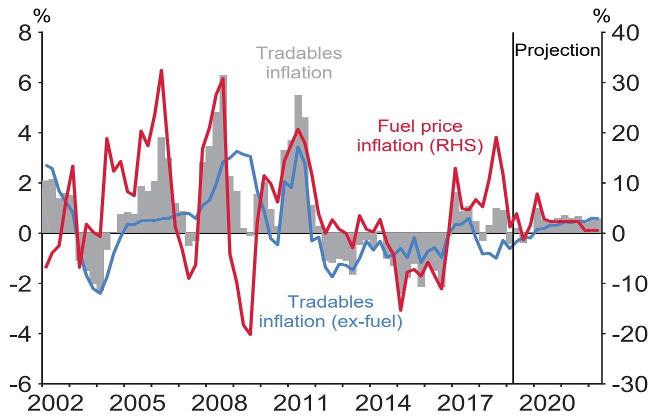
Source: RBNZ estimates.

increases could also lead to higher costs for firms. As a result, firms may pass on higher costs by more than we have assumed.

Tradables inflation remains low

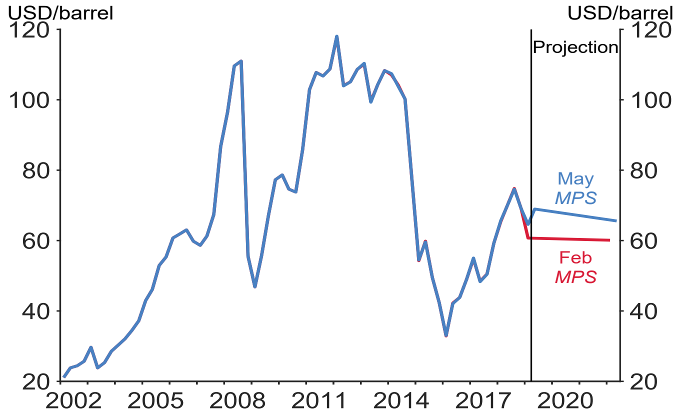
Tradables inflation was lower than anticipated in the March 2019 quarter. The appreciation of the New Zealand dollar in late 2018 may have dampened tradables inflation more than we expected (figure 5.5). Over the projection period, we expect that a weaker New Zealand dollar will support tradables inflation. However, moderate inflationary pressure domestically and abroad is expected to restrain tradables inflation (figure 5.6).

Figure 5.6
Tradables inflation
(annual)



Source: Stats NZ, RBNZ estimates.

Figure 5.7
Dubai oil prices
(s.a.)

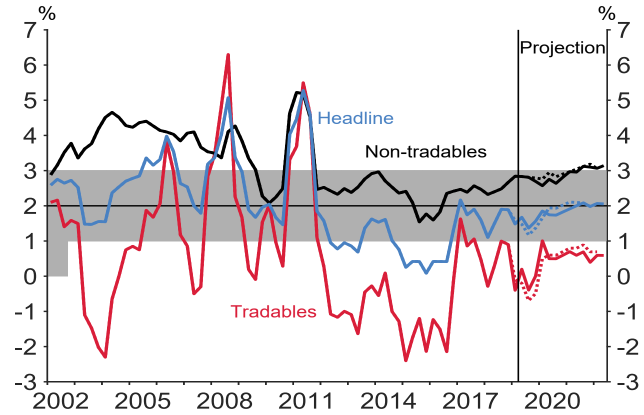


Source: Reuters, RBNZ estimates.

The drop in oil prices in late 2018 continues to hold down annual tradables inflation. The recovery in oil prices over 2019 to date provides some offset. Oil prices are assumed to stay around current levels over the projection period (figure 5.7).

There is a possibility that the slowdown in world demand growth leads to persistently lower imported inflation. If the global slowdown dampens CPI inflation by more than projected, additional monetary stimulus may be needed to lift inflation back to the target mid-point over the medium term.

Figure 5.8
Headline CPI inflation
(annual)



Source: Stats NZ, RBNZ estimates.

Note: Dotted lines show the forecast from the February *Statement*, solid lines show our current forecast.

CPI inflation slowly returns to 2 percent

Weakness in domestic and imported inflation means that CPI inflation takes longer to reach the 2 percent mid-point than projected in the February *Statement* (figure 5.8). Inflation is expected to increase in 2020 as capacity pressures build and previous declines in fuel prices drop out of the annual calculation. CPI inflation is projected to return to the target mid-point in mid-2021.

Chapter 6
Statistical appendix

Table 6.1
Key forecast variables

		GDP growth Quarterly	CPI inflation Quarterly	CPI inflation Annual	TWI	OCR
2017	Mar	0.8	1.0	2.2	77.9	1.8
	Jun	0.9	0.0	1.7	76.5	1.8
	Sep	0.9	0.5	1.9	77.1	1.8
	Dec	0.8	0.1	1.6	73.8	1.8
2018	Mar	0.5	0.5	1.1	74.9	1.8
	Jun	0.9	0.4	1.5	73.7	1.8
	Sep	0.3	0.9	1.9	72.4	1.8
	Dec	0.6	0.1	1.9	73.4	1.8
2019	Mar	0.4	0.1	1.5	74.0	1.8
	Jun	0.7	0.6	1.7	73.2	1.7
	Sep	0.9	0.6	1.4	73.0	1.6
	Dec	0.8	0.3	1.6	72.9	1.5
2020	Mar	0.8	0.4	1.9	72.8	1.4
	Jun	0.8	0.5	1.7	72.8	1.4
	Sep	0.8	0.6	1.7	72.7	1.4
	Dec	0.7	0.4	1.8	72.6	1.4
2021	Mar	0.7	0.5	1.9	72.5	1.4
	Jun	0.6	0.6	2.0	72.5	1.4
	Sep	0.6	0.7	2.1	72.4	1.5
	Dec	0.5	0.3	2.0	72.3	1.7
2022	Mar	0.5	0.6	2.1	72.3	1.8
	Jun	0.5	0.6	2.1	72.3	1.9

Table 6.2
Measures of inflation, inflation expectations, and asset prices

	2017		2018				2019	
	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun
Inflation (annual rates)								
CPI	1.9	1.6	1.1	1.5	1.9	1.9	1.5	
CPI non-tradables	2.6	2.5	2.3	2.4	2.5	2.7	2.8	
CPI tradables	1.1	0.5	-0.3	0.3	1.0	0.9	-0.4	
Sectoral factor model estimate of core inflation	1.4	1.4	1.5	1.7	1.7	1.7	1.7	
CPI trimmed mean (30 percent)	2.1	1.8	1.7	1.8	1.8	2.0	1.9	
CPI weighted median	2.0	2.0	2.2	2.3	2.2	2.2	2.2	
GDP deflator (expenditure)	3.8	3.3	1.3	2.2	1.1	-0.1		
Inflation expectations								
ANZ Business Outlook – inflation one year ahead (quarterly average to date)	1.9	2.2	2.1	2.2	2.2	2.2	2.1	2.0
RBNZ Survey of Expectations – inflation two years ahead	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0
RBNZ Survey of Expectations – inflation five years ahead	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.0
RBNZ Survey of Expectations – inflation 10 years ahead	2.1	2.0	2.1	2.2	2.1	2.2	2.1	2.0
Long-run inflation expectations[1]	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.0
Asset prices (annual percent changes)								
Quarterly house price index (CoreLogic NZ)	3.8	4.0	3.8	3.6	3.0			
REINZ Farm Price Index (quarterly average to date)	9.5	9.7	2.6	3.8	5.6	3.4	10.3	
NZX 50 (quarterly average to date)	6.6	17.5	17.5	16.8	17.3	8.3	10.7	14.8

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.

Table 6.3
Measures of labour market conditions
(seasonally adjusted, changes expressed in annual percent terms)

	2017	2018				2019
	Dec	Mar	Jun	Sep	Dec	Mar
Household Labour Force Survey						
Unemployment rate	4.5	4.4	4.4	4.0	4.3	4.2
Underutilisation rate	12.1	11.9	11.9	11.4	12.1	11.3
Labour force participation rate	70.9	70.9	70.9	71.0	70.9	70.4
Employment rate (percentage of working-age population)	67.8	67.8	67.8	68.2	67.8	67.5
Employment growth	3.7	3.1	3.7	2.8	2.3	1.5
Average weekly hours worked	33.7	33.9	34.1	33.6	32.9	34.5
Number unemployed (thousand people)	122	120	122	111	120	116
Number employed (million people)	2.60	2.62	2.63	2.66	2.66	2.66
Labour force (million people)	2.72	2.74	2.76	2.77	2.78	2.77
Extended labour force (million people)	2.82	2.85	2.86	2.88	2.90	2.88
Working-age population (million people)	3.84	3.87	3.88	3.90	3.93	3.94
Quarterly Employment Survey						
Filled jobs growth	1.8	1.2	1.2	1.2	1.3	1.1
Average hourly earnings growth (private sector, ordinary time)	3.1	3.9	3.3	3.6	3.7	3.7
Other data sources						
Labour Cost Index growth, private sector	1.9	1.9	2.1	1.9	2.0	2.0
Labour Cost Index growth, private sector, unadjusted	3.6	3.5	3.5	3.5	3.6	3.6
Estimated net migration (published, quarterly, thousand people)	9.3	10.1	10.2	11.9	13.6	
Change in All Vacancies Index	6.7	5.7	7.1	6.5	6.4	5.6

Note: The All Vacancies Index is produced by the Ministry of Business, Innovation and Employment as part of the Jobs Online report, which shows changes in job vacancies advertised by businesses on several internet job boards. The unadjusted Labour Cost Index (LCI) is an analytical index that reflects quality changes in addition to price changes (whereas the official LCI measures price changes only). For definitions of underutilisation, the extended labour force, and related concepts, see Statistics New Zealand (2016), *Introducing underutilisation in the labour market*. Estimated net migration (published) is the Stats NZ outcomes-based measure and recent outturns are subject to large revisions.

Table 6.4
Composition of real GDP growth
(annual average percent change, seasonally adjusted, unless specified otherwise)

	Actuals							Projections			
March year	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Final consumption expenditure											
Private	3.2	2.3	3.7	3.0	3.8	5.8	4.0	3.5	2.9	2.6	2.2
Public authority	1.7	-0.2	2.1	3.3	2.3	2.1	2.8	2.2	2.2	1.1	1.2
Total	2.9	1.7	3.3	3.1	3.5	4.9	3.7	3.2	2.8	2.3	2.0
Gross fixed capital formation											
Residential	3.0	17.6	15.1	8.2	7.1	8.5	1.0	3.1	5.1	4.4	2.8
Other	6.8	1.6	8.0	7.8	2.9	1.8	6.0	2.0	3.4	5.1	4.1
Total	6.0	5.0	9.7	7.9	4.0	3.5	4.7	2.3	3.8	4.9	3.8
Final domestic expenditure	3.5	2.4	4.7	4.2	3.6	4.6	4.0	3.0	3.0	2.9	2.4
Stockbuilding[1]	0.3	-0.3	-0.2	0.5	-0.3	0.1	-0.2	0.0	-0.1	0.1	0.0
Gross national expenditure	4.0	2.0	4.4	4.4	3.1	4.8	4.0	3.0	2.8	3.0	2.4
Exports of goods and services	2.3	3.1	0.1	4.6	6.1	1.4	2.9	2.9	2.5	3.2	2.7
Imports of goods and services	6.7	1.3	8.1	7.5	2.3	5.1	7.1	4.0	2.9	2.8	2.5
Expenditure on GDP	2.7	2.5	2.0	3.5	4.2	3.7	2.7	2.7	2.7	3.2	2.5
GDP (production)	2.3	2.2	2.6	3.7	3.6	3.7	3.1	2.6	2.6	3.1	2.5
GDP (production, March qtr to March qtr)	3.1	1.8	3.3	3.6	3.9	3.1	3.1	2.2	3.2	3.0	2.2

1 Percentage point contribution to the growth rate of GDP.

Table 6.5
Summary of economic projections
(annual percent change, unless specified otherwise)

	Actuals							Projections			
March year	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Price measures											
CPI	1.6	0.9	1.5	0.3	0.4	2.2	1.1	1.5	1.9	1.9	2.1
Labour costs	2.1	1.8	1.7	1.8	1.8	1.5	1.9	2.0	2.0	2.3	2.6
Export prices (in New Zealand dollars)	-2.6	-4.8	11.5	-9.2	-0.3	3.9	3.4	3.2	1.9	1.1	1.5
Import prices (in New Zealand dollars)	-1.7	-3.9	-3.0	-3.4	1.2	0.6	1.9	3.0	0.6	0.9	0.9
Monetary conditions											
OCR (year average)	2.5	2.5	2.5	3.4	2.9	2.0	1.8	1.8	1.6	1.4	1.6
TWI (year average)	72.2	74.0	77.6	79.3	72.6	76.5	75.6	73.4	73.0	72.7	72.4
Output											
GDP (production, annual average % change)	2.3	2.2	2.6	3.7	3.6	3.7	3.1	2.6	2.6	3.1	2.5
Potential output (annual average % change)	1.7	2.1	2.5	2.9	3.1	3.1	3.1	2.9	2.7	2.6	2.6
Output gap (% of potential GDP, year average)	-1.6	-1.5	-1.4	-0.7	-0.2	0.3	0.4	0.1	0.0	0.5	0.4
Labour market											
Total employment (seasonally adjusted)	0.6	0.2	3.7	3.1	1.8	5.4	2.7	1.4	1.9	1.8	1.3
Unemployment rate (March qtr, seasonally adjusted)	6.3	5.7	5.6	5.5	5.3	4.9	4.4	4.2	4.2	4.0	4.1
Trend labour productivity	1.0	0.9	0.8	0.8	0.8	0.7	0.8	1.0	1.1	1.2	1.2
Key balances											
Government operating balance (% of GDP, year to June)	-4.3	-2.0	-1.2	0.2	0.7	1.5	1.9	0.3	0.9	1.2	1.7
Current account balance (% of GDP)	-3.2	-3.7	-2.5	-3.5	-2.6	-2.6	-3.1	-3.5	-3.2	-2.8	-2.7
Terms of trade (SNA measure, annual average % change)	1.6	-4.3	11.7	-0.3	-3.0	2.7	4.6	-1.7	0.5	0.6	0.5
Household saving rate (% of disposable income)	2.3	0.4	0.3	-1.0	-0.6	0.1	-1.4	-1.9	-2.1	-1.1	0.2
World economy											
Trading-partner GDP (annual average % change)	3.4	3.3	3.5	3.7	3.4	3.4	3.8	3.5	3.4	3.3	3.3
Trading-partner CPI (TWI weighted)	2.7	2.3	2.3	1.0	1.2	1.9	1.9	1.5	2.1	2.1	2.3