B.33

Reserve Bank of New Zealand
Te Pūtea Matua

Monetary Policy Statement.

February 2024

Policy assessment.
OCR 5.50% – Monetary Policy remains restrictive

The Monetary Policy Committee today agreed to hold the Official Cash Rate (OCR) at 5.50%.

Over the past year or so, the New Zealand economy has evolved broadly as anticipated by the Committee. Core inflation and most measures of inflation expectations have declined, and the risks to the inflation outlook have become more balanced. However, headline inflation remains above the 1 to 3 percent target band, limiting the Committee's ability to tolerate upside inflation surprises.

Restrictive monetary policy and lower global growth have contributed to aggregate demand slowing to better match the supply capacity of the New Zealand economy. With high immigration and weaker demand growth, capacity constraints in the New Zealand labour market have eased.

However, recent high population growth is supporting aggregate spending, as evident in upward pressure on dwelling rents, for example.

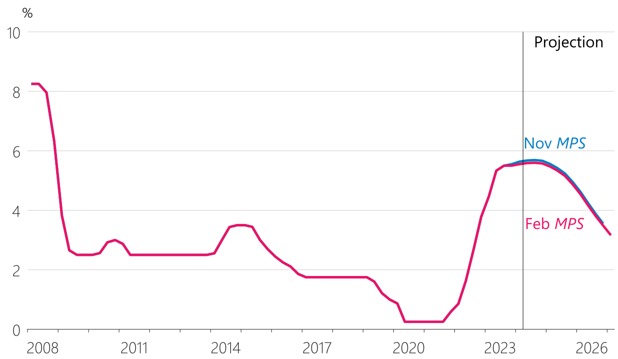
Internationally, global economic growth remains below trend and is expected to slow further during 2024. This subdued environment will support a further moderation in New Zealand's import price inflation.

The outlook for the China economy remains particularly weak relative to recent historical norms, with structural factors constraining long-term growth. A more general risk to global growth is that central banks may need to keep policy interest rates at restrictive levels for longer than currently reflected by financial market pricing, to ensure that inflation targets are met.

Figure i.1

Official Cash Rate (OCR)

(quarterly average)



Source: RBNZ estimates.

Heightened geopolitical and climate conditions remain a risk for inflation. The recent rise in global shipping costs is one manifestation of these risks. The Committee remains alert to these relative cost pressures and will act to limit spillovers into general inflation if necessary.

The Committee remains confident that the current level of the OCR is restricting demand. However, a sustained decline in capacity pressures in the New Zealand economy is required to ensure that headline inflation returns to the 1 to 3 percent target. The OCR needs to remain at a restrictive level for a sustained period of time to ensure this occurs.

Meitaki, thanks.

Adrian Orr
Governor

Monetary Policy Framework

The Monetary Policy Committee operates and makes decisions under the monetary policy framework that comprises the following key components:

- the *Remit*;
- the *Charter*;
- the *Code of Conduct*; and
- the monetary policy strategy.

The corresponding documents to these components and additional information can be accessed on our website under the monetary policy framework.

rbnz.govt.nz

REPORT AND SUPPORTING NOTES PUBLISHED AT:

www.rbnz.govt.nz/monetary-policy/monetary-policy-statement

Subscribe online: www.rbnz.govt.nz/email-updates

This report is published pursuant to section 129 of the Reserve Bank of New Zealand Act 2021.

ISSN 1770-4829

Thank you to RBNZ staff for photography in this report.

Cover: Kaikōura Peninsula. Photo: Matthew Brunt

Monetary Policy Statement.
February 2024

Contents

The projections were finalised on 22 February 2024. The Official Cash Rate (OCR) projection incorporates an outlook for monetary policy that is consistent with the MPC's monetary policy assessment, which was finalised on 28 February 2024.

Chapter 01

Summary record of meeting

Taranaki Maunga. Photo: Gerelmaa Bayarmagnai

Chapter 1.
Summary record of meeting

The Monetary Policy Committee discussed recent developments in the New Zealand and global economies. The Committee agreed that the New Zealand economy has evolved largely as expected over the past year or so. Headline inflation, core inflation and most measures of inflation expectations are continuing to decline. However, inflation remains above the Committee's target range. Restrictive monetary policy is contributing to an easing in capacity pressures. Monetary policy needs to remain restrictive to ensure that inflation returns to target.

Global growth was below trend last year. New Zealand's trading partner growth is expected to slow in 2024. This will support a further drop in global inflation and New Zealand import price inflation. Measures of headline and core inflation continue to fall among our trading partners. Global supply disruptions have eased, and restrictive monetary conditions continue to contribute to reduced demand. Although prices of New Zealand's exports have recently increased, below trend global growth is expected to limit the scale of further increases.

In discussing global financial conditions, the Committee noted that long-term wholesale interest rates have fallen since the November *Statement*. This has put downward pressure on domestic wholesale interest rates. Globally, central banks have generally kept policy interest rates steady at restrictive levels, and financial market participants have shifted their focus towards the timing and degree of potential policy rate cuts expected this year.

The Committee discussed recent domestic economic developments. Capacity pressures have eased significantly over the past year. Aggregate demand is now better matched with the supply capacity of the economy. A combination of lower demand and growing supply is bringing domestic inflation down. Below-trend global growth and slightly lower prices for our imported goods and services have also helped to lower headline inflation over recent quarters.

Members noted that gross domestic product (GDP) declined by 0.3 percent in the September 2023 quarter. This was weaker than projected in the November *Statement*. Revisions to GDP going back several years imply that potential GDP – the amount of production that the economy can supply sustainably – has also been lower than previously assumed. On net, these factors imply that the starting point for capacity pressures in the New Zealand economy is only slightly lower than previously assumed.

The Committee discussed the low rate of productivity growth implied by recent GDP data. If sustained, lower productivity would contribute to a lower rate of potential growth of the economy. This would limit the rate at which the economy can sustainably grow without generating inflation.

Members noted that strong net immigration is contributing to demand, with the recent increase in rent inflation an example. However, net immigration also means that there are more workers available, boosting the supply capacity of the economy. Businesses are reporting that it has become much easier to find workers. In general, capacity pressures in the labour market have eased.

Members discussed the recent increases in global dairy prices and lower prices for our imported goods and services. These developments have resulted in an improvement in New Zealand's terms of trade, which will increase primary sector incomes and domestic activity. Recent attacks on shipping in the Red Sea and drought near the Panama Canal are creating delays in getting exports to global markets and increasing global shipping costs. These rising costs could decrease exporter profitability and will likely feed into global and imported inflation if sustained.

Members noted that annual house price inflation remains modest. There is heightened uncertainty around the outlook for house prices. This reflects continued restrictive interest rates, the scale of decline in residential investment, and the net economic effects of currently strong net immigration.

The Committee discussed recent inflation outturns. Annual consumers price index (CPI) inflation declined to 4.7 percent in the December 2023 quarter. While this is much lower than its peak of 7.3 percent in mid-2022, it remains above the Committee's 1 to 3 percent target band. Inflation was lower than expected in the December 2023 quarter. Both tradable and non-tradables inflation fell, with tradables inflation falling by more than expected. Recent drops in core inflation and business inflation expectations are encouraging, but they remain above the 2 percent mid-point of the Committee's target band.

Members discussed the lags of monetary policy and how the economy has evolved relative to the series of projections made over the last year or so. In general, the economy has evolved as expected. Headline inflation is slightly lower than had been assumed, reflecting lower-than-expected tradables inflation. The unemployment rate is lower than projected, but wage inflation has been more subdued. The current assessment of capacity pressures is consistent with previous projections. These past forecasts and outcomes are consistent with the assessment that monetary policy settings have constrained demand broadly as expected.

The Committee discussed the implications of fiscal policy for the economic outlook and the potential impacts of new proposed policies. The Committee noted that the central projection for government spending is based on Treasury's published forecasts in the *Half Year Economic and Fiscal Update (HYEFU)* 2023. Government expenditure is projected to decline as a share of the economy in coming years. There is uncertainty over the timing and scale of new fiscal policy initiatives and the implications for monetary policy. The Committee will take any new fiscal initiatives into account when *Budget* 2024 is released in May.

The Committee discussed the recent publication of the selected price indices from Stats NZ. The Committee welcomed the publication of these monthly indicators. The Committee also noted that more frequent publication of inflation figures and more regular reweighting of the CPI would be consistent with global practice. Such changes would support the Committee in assessing the current state of the economy, particularly in periods of heightened economic uncertainty and volatility.

Members discussed recent developments in domestic financial conditions. Overall, credit growth remains subdued. Financial conditions have become less restrictive since the November *Statement*. Mortgage rates have dipped slightly at most tenors and term deposit rates have fallen at tenors of more than six months. The margin between mortgage rates and wholesale interest rates is expected to return to more historically normal levels, as competition for term deposits continues and funding conditions for banks continue to tighten. This is expected to see mortgage rates hold up relative to wholesale interest rates.

The Committee discussed the key risks to the outlook for inflation. Members noted that overall, risks to the outlook for inflation were more balanced than at the time of the November 2023 *Statement*. However, from a monetary policy perspective, there remains less capacity to absorb upside inflation surprises, relative to downside surprises.

The Committee discussed the outlook for China, given its significance for the global economy and for New Zealand export and import prices. Structural challenges facing the economy in China remain concerning for long-term growth. Potential growth is slowing, partly due to demographic trends, but also due to substantial declines in productivity growth. High levels of debt, particularly in the property sector, and weak demand remain the most acute downside risks.

The Committee discussed the backdrop of heightened geopolitical tension and risk of spillovers to the global economy. The current rise in global shipping costs is a realisation of these spillovers. Although higher shipping costs add to near-term inflation, projections assume that this relative price shock will reverse. There is considerable uncertainty over the size and duration of higher shipping costs. Consistent with the Remit, the Committee has therefore 'looked through' the first-round effect of recent higher shipping costs. Nevertheless, the Committee remains alert to these costs lasting longer than currently assumed. In that event, potential spillovers into general prices might require a monetary policy response.

Members also noted downside risks to the global growth outlook in advanced economies. Median analyst projections were for a steady decline in inflation, with global growth expected to track modestly below the growth rates seen in 2023. A more general risk to global growth is that central banks may need to keep policy interest rates at restrictive levels for longer than currently reflected in financial market pricing, to ensure that inflation targets are met.

Members noted that, while pressures in the New Zealand labour market are easing, some of the labour market capacity measures in our suite have eased only modestly. The Committee noted that variations in labour demand lag broader economic activity. Labour markets have evolved as expected, and a further moderation in labour market capacity pressure is expected. Capacity pressures in the labour market will need to continue to ease to meet our inflation mandate.

The Committee agreed that in the current circumstances, there is no material trade-off between meeting their inflation objectives and maintaining the stability of the financial system. The Committee discussed the Bank's current public consultation on the proposed settings for Debt-to-Income (DTI) restrictions on borrowing. The Committee agreed that the DTI policy will further support financial stability through the interest rate cycle.

The Committee noted the recent changes to the Reserve Bank Act, Remit and MPC Charter. In line with the Charter, the Committee discussed the reasons inflation is outside of the target range, the expected time for inflation to return to the target midpoint of 2 percent, and the reasons for that timeframe.

The Committee noted that high inflation reflected:

- the significant disruption to global supply stemming from COVID-related responses from policy makers, businesses, and households,
- the substantial disruption to domestic production from COVID-related policies and a tight domestic labour market,
- the impact on demand of the easing in monetary policy and rise in fiscal spending undertaken at the beginning of the pandemic in the face of substantial uncertainty and significant downside risks to the economy, and,
- the increase in commodity prices and shipping costs resulting from war and geopolitical tension.

These factors are discussed in detail in the November 2022 *Review and Assessment of the Formulation and Implementation of Monetary Policy.*

The Committee noted that annual headline CPI inflation was expected to return to the target band in the September quarter this year and that monetary policy settings are consistent with annual headline CPI inflation returning to the 2 percent target midpoint later in 2025. The Committee noted, given current projections, there was limited tolerance to increase the time to the target mid-point. The Committee is conscious that the economy has limited capacity to absorb further upside inflation surprises, as this could risk a rise in inflation expectations and make it more difficult to get inflation back to target.

The Committee noted that aggregate demand is now better matched with the supply capacity of the economy. Policy settings consistent with the projected time for CPI inflation to return to the 2 percent target midpoint result in a period of excess supply. These ongoing restrictive monetary policy settings are necessary to guard against the risk of a rise in inflation expectations, while avoiding unnecessary instability in output, employment, interest rates and the exchange rate.

In discussing the appropriate stance of monetary policy, members agreed they remain confident that monetary policy is restricting demand. A further decline in capacity pressure is expected, supporting a continued decline in inflation. The Committee agreed that interest rates need to remain at a restrictive level for a sustained period of time, to ensure annual consumer price inflation returns to the 1 to 3 percent target range. On Wednesday 28 February, the Committee reached a consensus to keep the Official Cash Rate at 5.50 percent.

Attendees:

Reserve Bank members of MPC:

Adrian Orr, Christian Hawkesby, Karen Silk, Paul Conway

External MPC members:

Bob Buckle, Peter Harris, Caroline Saunders

Treasury Observer:

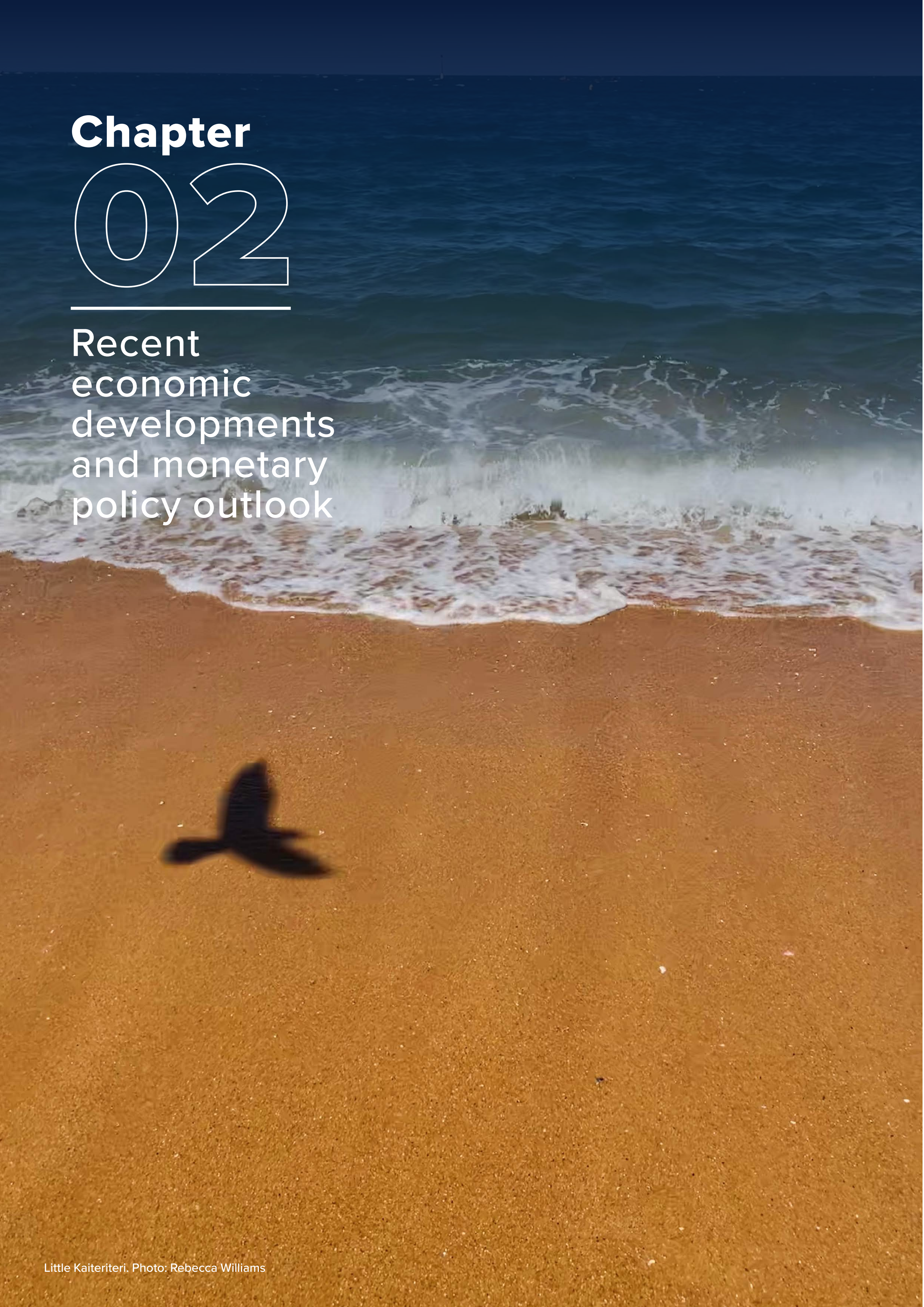
Dominick Stephens

MPC Secretary:

Adam Richardson

Chapter 02

Recent economic developments and monetary policy outlook



Little Kaiteriteri. Photo: Rebecca Williams

Chapter 2. Recent economic developments and monetary policy outlook

Summary

- High interest rates are reducing demand in the New Zealand economy. A combination of lower demand and growing supply is bringing domestic inflation down, but it remains elevated. Below-trend global growth and slightly lower prices for our imported goods and services have also contributed to declines in headline inflation in recent quarters.
- Growth in gross domestic product (GDP) slowed more than expected in the September 2023 quarter, declining by 0.3 percent. Revisions to GDP going back several years imply that potential GDP – the amount of goods and services that the economy can supply sustainably – has been lower than previously assumed. In combination, these factors imply that the starting point for capacity pressures in the New Zealand economy is only slightly lower than previously assumed.
- Recent developments in economic indicators have been mixed but point to subdued growth in the near term. Uncertainty about the global economic outlook and high interest rates have reduced private demand, as seen in declines in business investment and per capita consumption. Building consents have continued to fall and residential construction has slowed.
- Strong net migration is supporting overall demand. The demand effects of strong population growth are apparent in increasing pressure on rents. However, migration also means there are more workers available, boosting the productive capacity of the economy. Businesses say it is now much easier to find workers, with more people looking for jobs and less demand for extra workers. The unemployment rate increased slightly to 4.0 percent in the December 2023 quarter, and measures of slack in the labour market, such as the underutilisation rate, also edged higher. While annual wage inflation has continued to ease, it remains elevated. Wage inflation tends to lag broader labour market pressures.
- Demand for New Zealand's goods exports has remained relatively subdued. However, recent increases in global dairy prices and lower prices for our imported goods and services have significantly improved New Zealand's terms of trade in recent months. The recent conflict in the Red Sea and drought near the Panama Canal are creating delays and increasing global shipping costs. This will likely feed into higher global and imported inflation if sustained.
- Annual consumers price index (CPI) inflation declined to 4.7 percent in the December 2023 quarter. While this is much lower than its peak of 7.3 percent in mid-2022, it remains well above the Monetary Policy Committee's (MPC) 1 to 3 percent target band. Inflation was lower than expected in the December 2023 quarter. Both tradables and non-tradables inflation fell, but only tradables inflation fell more than expected. Recent drops in core inflation and business inflation expectations are encouraging, but they remain high compared to the 2 percent mid-point of the MPC's target band.
- Conditional on our central economic outlook, the Official Cash Rate (OCR) is expected to remain around current levels for an extended period in order for the MPC to meet its inflation target. The outlook for the OCR is slightly lower than in the November 2023 *Statement*. This reflects that the slightly lower outlooks for capacity pressures, import prices and house price inflation more than offset the higher outlook for export prices.

Current economic assessment

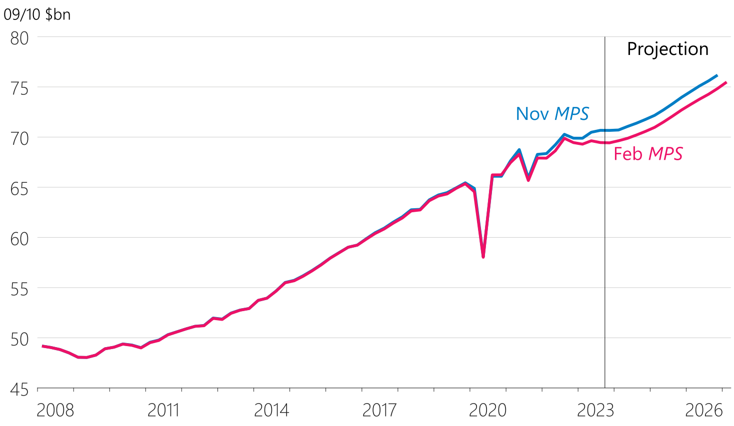
Growth has been weaker than expected

Economic activity in New Zealand, as measured by production GDP, fell 0.3 percent in the September 2023 quarter. This was much lower than the 0.3 percent expansion expected at the time of the November *Statement* (figure 2.1). While the services sector grew by more than assumed, manufacturing was weaker. On the expenditure GDP side, business investment and exports fell more than expected.

Figure 2.1

Production GDP

(seasonally adjusted)

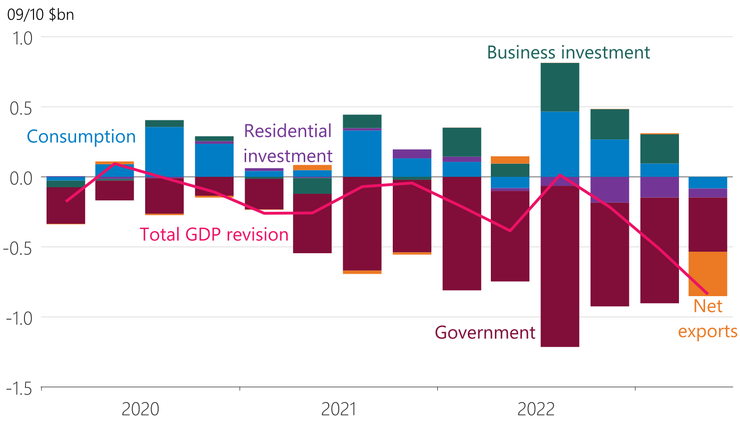


Source: Stats NZ, RBNZ estimates.

Figure 2.2

Contributions to revisions in expenditure GDP

(quarterly, seasonally adjusted)



Source: Stats NZ, RBNZ estimates.

Revisions imply that the level of potential GDP has also been lower

The most recent release of GDP data from Stats NZ also included significant revisions going back several years. These revisions reflected the use of more accurate, but much more lagged, economic data (a process known as 'annual benchmarking') and methodological changes. The downward revisions to growth in previous quarters mean that the size of the economy as a whole – as measured by expenditure GDP – is now 1.9 percent smaller than assumed in the November *Statement*.

The downward revisions to expenditure GDP were largely accounted for by downward revisions to real (inflation-adjusted) government expenditure and residential investment (figure 2.2). The downward revision to government expenditure was due to both lower government consumption and lower government investment. Much of this revision was due to new, but lagged, data on real investment in plant, machinery and equipment, and other construction. Part of the revision was also due to methodological changes, such as Stats NZ now accounting for attendance rates in schools, and a reclassification of some COVID-19-related spending. Overall, these revisions imply that the contribution of the government sector to real economic activity is lower than had been assumed.

While real government expenditure was revised to a lower level, private expenditure on household consumption and business investment was revised to a higher level. These upward revisions, combined with weaker growth in the September 2023 quarter, mean that the levels of household consumption and business investment are close to those assumed at the time of the November *Statement* (figures 2.3 and 2.4). Household consumption is assumed to ease further in per capita terms over the remainder of this year as high interest rates and a deteriorating labour market weigh on income growth. Subdued global growth and high interest rates are assumed to continue to reduce underlying business investment in 2024. However, household consumption and business investment are assumed to recover in the latter half of the three-year projection as interest rates start to decline.

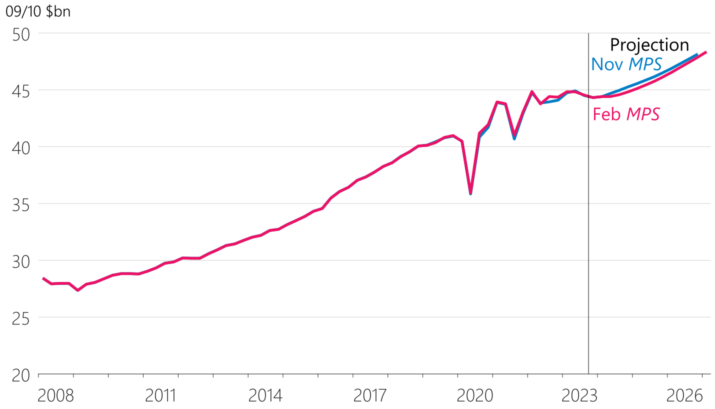
Capacity pressures are easing

The downward revisions to GDP over several years imply that the level of potential GDP is lower than previously assumed. This means that the starting point for the output gap – the difference between actual activity and the level of activity that the economy can support sustainably – is only slightly lower than assumed in the November *Statement* (figure 2.5). The output gap is estimated to have declined rapidly since mid-2022, as demand has declined and supply constraints have eased.

Economic growth is expected to remain subdued in the near term

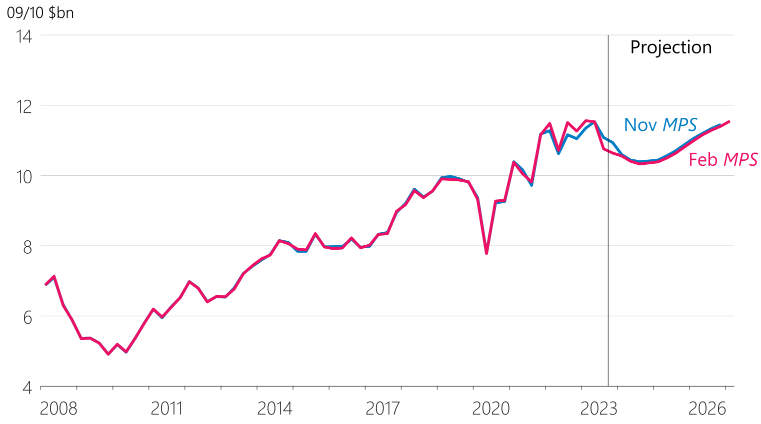
High interest rates and below-trend global growth are reducing demand in the economy. Recent developments in economic indicators have been mixed, but point to subdued growth in coming months on balance. Some survey measures of economic activity have recovered in recent months.

Figure 2.3
Total private consumption
(quarterly, seasonally adjusted)



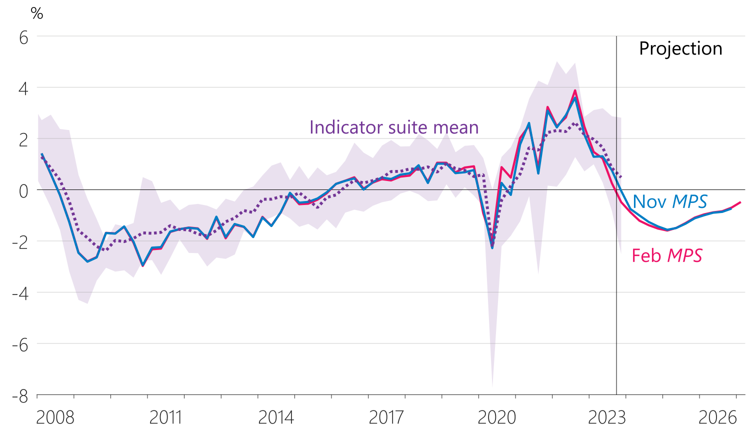
Source: Stats NZ, RBNZ estimates.

Figure 2.4
Business investment
(quarterly, seasonally adjusted)



Source: Stats NZ, RBNZ estimates.

Figure 2.5
Output gap and indicator suite
(share of potential GDP, seasonally adjusted)



Source: Stats NZ, NZIER, RBNZ estimates.

Business confidence has improved markedly since the new Government was elected at the end of last year, but such measures have not had strong relationships with realised activity in the past. Firms' expectations of their own activity in the coming year have increased since late last year. International visitor numbers have continued to recover, with a larger share of visitors from higher income countries such as the United States, who tend to spend more per person when they are in New Zealand. Total hours worked, which can be an indicator of overall activity, increased 0.8 percent in the December quarter.

On the other hand, the Performance of Manufacturing and Services Indices (PMI and PSI respectively) are below their long-run averages, with the PMI now indicating contraction in the manufacturing sector for 11 months (figure 2.6). The number of building consents issued have continued to decline, pointing to weaker residential construction in the next year.

Overall, New Zealand's economic growth is expected to remain subdued in 2024. Continued declines in business investment and residential construction account for this weakness. Government consumption and investment are assumed to evolve in line with the *Half Year Economic and Fiscal Update* 2024. Once the lower starting point for government consumption and investment in the latest GDP data is accounted for, government consumption is assumed to gradually decline, while government investment is assumed to increase substantially. As discussed in chapter 4.2, the central projection does not incorporate any policies proposed by the new Government, as we await more details.

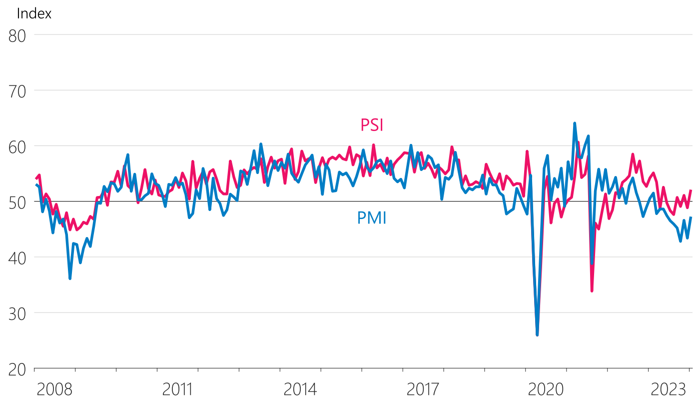
Economic growth and capacity pressures are expected to increase through 2025 and 2026, as interest rates start to decline from their elevated levels and the higher outlook for the terms of trade supports activity.

Strong migration is adding to both demand and supply

Strong population growth, mainly due to migration, is providing some support to economic activity. Net migration has increased rapidly since the end of 2022, adding 2.4 percent per annum to the population at the end of 2023. While the number of people leaving New Zealand has increased, the number of arrivals has more than offset this. Although migration data are subject to considerable revision until 16 months after the initial estimate, the most recent data indicate that the surge in migration may have peaked (figure 2.7). Migration is assumed to return to its 2014-2019 average rate over the medium term.

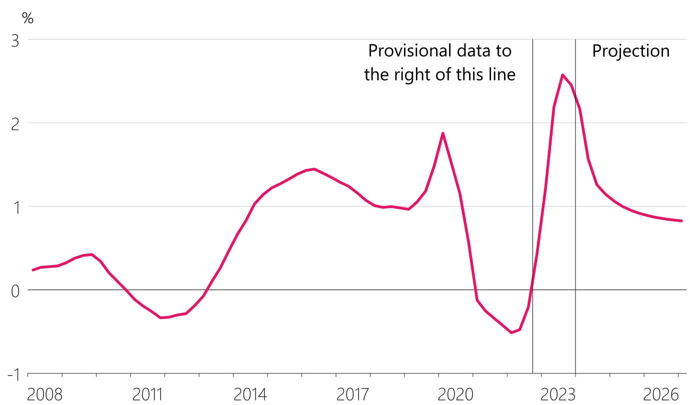
The demand effects of net migration are apparent in increasing pressure on rents. Despite strong growth in rents, demand in the housing market has been relatively subdued, and prices have increased only modestly in the past year, after declining about 15 percent from their November 2021 peak.

Figure 2.6
PMI and PSI
(seasonally adjusted)



Source: BNZ-BusinessNZ.

Figure 2.7
Net working age migration
(annual, share of working age population)

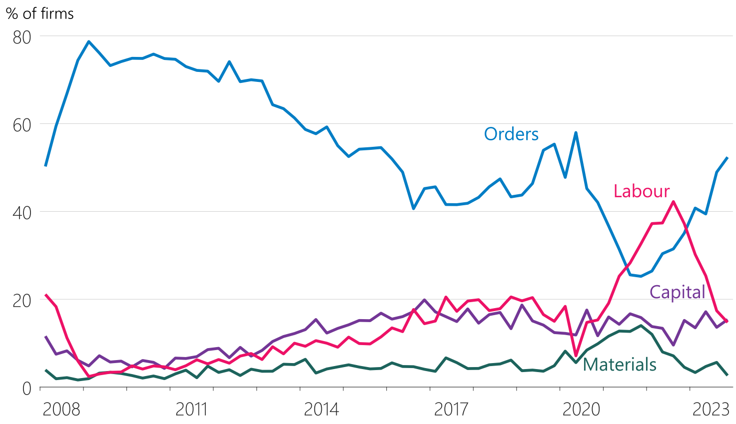


Source: Stats NZ, RBNZ estimates.

Annual house price inflation is assumed to return gradually to its long-run average rate of around 5 percent.

High migration is also boosting the productive capacity of the economy, by adding to the supply of labour. Initially, many migrants arrived on work and special visas, as businesses looked to fill extreme labour shortages resulting from the closed border during the pandemic. In the latest Quarterly Survey of Business Opinion (QSBO), businesses reported that it was much easier to find both skilled and unskilled labour. Labour as a factor most limiting output has declined since the start of 2023, after being reported as the factor most limiting output throughout 2022 (figure 2.8).

Figure 2.8
QSBO factor most limiting output
(seasonally adjusted)



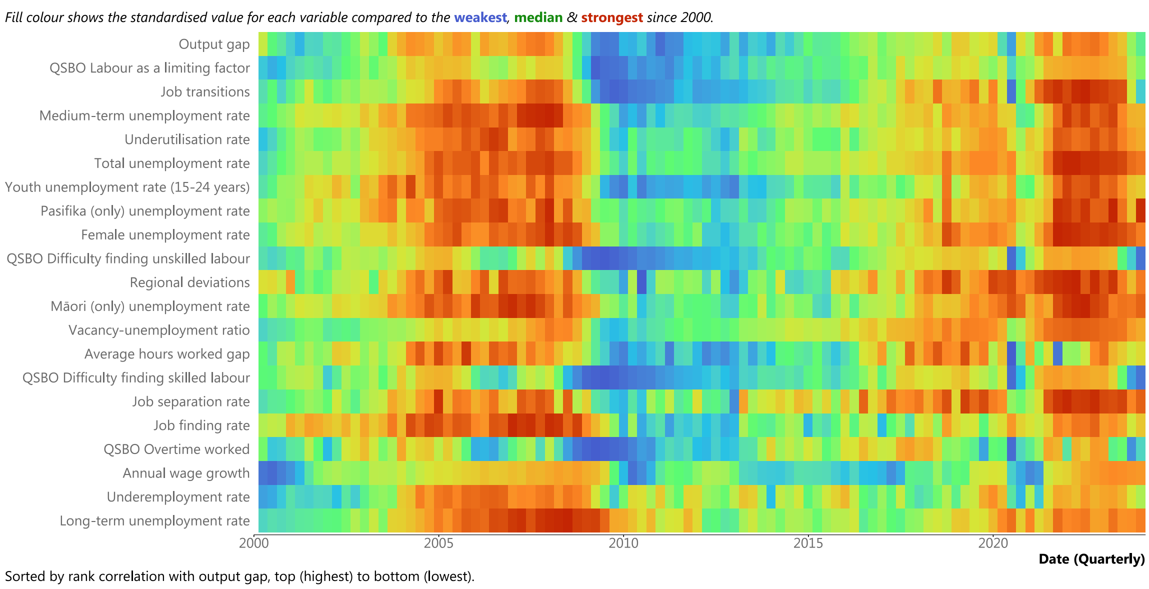
Source: NZIER, RBNZ estimates.

Labour market pressures are easing, but by less than expected

Easing labour shortages appear to be due to both lower demand for workers and increased supply. Various measures of labour market pressure eased further in the December 2023 quarter, although mostly by slightly less than anticipated at the time of the November *Statement*.

The unemployment and underutilisation rates increased to 4.0 percent and 10.7 percent respectively. While annual same-job wage growth (as measured by the labour cost index, ordinary time, private sector) declined from 4.1 percent to 3.9 percent, this decline was less than expected. Strong growth in wages was seen across several industry groups, suggesting wage growth is slightly stronger and more broad-based than expected. Overall, the degree of pressure in the labour market has clearly eased since the acute shortages of 2022. A new visualisation of labour market indicators, shown in figure 2.9, will be introduced in a forthcoming *Analytical Note*. The labour market is assumed to continue to ease over the medium term, with fewer job vacancies and rising unemployment.

Figure 2.9
Labour market indicator suite



Source: Stats NZ, NZIER, RBNZ estimates.

Productivity growth has been weaker than usual, likely due to COVID-19 disruptions

Recent GDP revisions imply that productivity growth in New Zealand has been lower than previously estimated during the COVID-19 period. While capital accumulation and technological progress are critical in driving productivity growth over time, the matching of workers with jobs that best utilise their skills is also key.

It is likely that the border closure and reopening significantly impacted job matching. Prior to COVID-19, New Zealand's labour market experienced high inward and outward migration flows. This was hugely disrupted during the COVID-19 pandemic, and the economy is still in the process of returning to normal, including very large inward and outward people flows in the past year. With GDP revised lower, and very strong growth in the working-age population, productivity growth appears to have been relatively weak. Once migration flows have stabilised, we might expect productivity growth to return to its previous trend.

If sustained however, lower productivity growth would contribute to lower growth in potential output, meaning lower incomes and well-being. This would also impose a lower 'speed limit' on the economy. Real GDP growth in excess of this limit would imply increasing capacity and inflationary pressures.

Investigating supply-side influences on the economy and inflation is a key priority for the Reserve Bank's research agenda, as highlighted in our *Review and Assessment of the Formulation and Implementation of Monetary Policy*.

Global growth remains below trend, but New Zealand's terms of trade have improved

Global demand growth remains below trend. Several factors are contributing to this, including high interest rates. While economic growth remains relatively strong in the US, it is continuing to slow in Australia and stagnating in the euro area. China achieved its "around 5 percent" growth target in 2023, but recent data still point towards a very weak property market and slowing consumer spending growth. Global growth is expected to slow further this year.

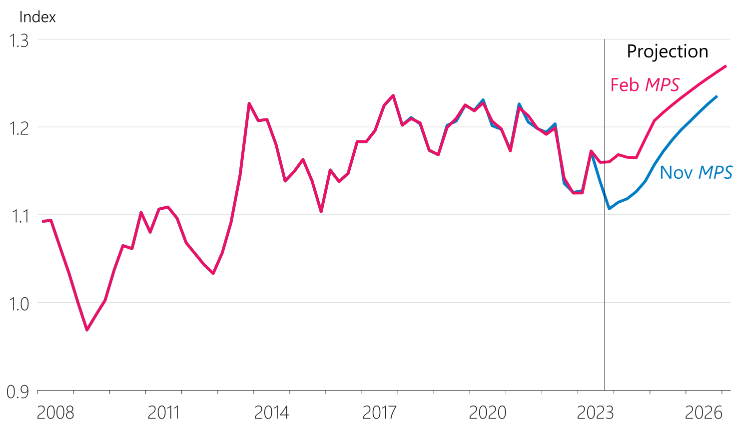
Below-trend global growth has been reflected in relatively weak demand for New Zealand's goods exports in recent quarters. However, global dairy prices have recovered in recent months following their rapid fall in the September 2023 quarter.

Headline inflation rates in many of our trading partners have declined more quickly than expected, reducing the global prices for imports to New Zealand. Higher export prices and declines in our import prices have resulted in an improvement in New Zealand's terms of trade, meaning that as a country we can afford more imports for a given level of exports (figure 2.10). However, the recent conflict in the Red Sea and drought near the Panama Canal are creating delays and increasing shipping costs. These are expected to feed into global and imported inflation in the near term, albeit to a lesser extent than during the peak of supply constraints during the COVID-19 pandemic (see chapter 4.1 for more discussion).

Figure 2.10

Terms of trade

(System of National Accounts, seasonally adjusted)



Source: Stats NZ, RBNZ estimates.

Headline inflation has declined, but remains above target

As in many other countries, headline inflation in New Zealand has fallen slightly more quickly than anticipated. Annual CPI inflation declined from 5.6 percent to 4.7 percent in the December 2023 quarter, below the 5.0 percent assumed at the time of the November *Statement*. However, the larger decline in headline inflation relative to our projection was entirely accounted for by lower tradables inflation, which measures price changes for goods and services that are more exposed to international competition (figure 2.11). Tradables inflation declined to 3.0 percent in the December quarter on an annual basis and was negative (-0.2 percent) on a quarterly basis.

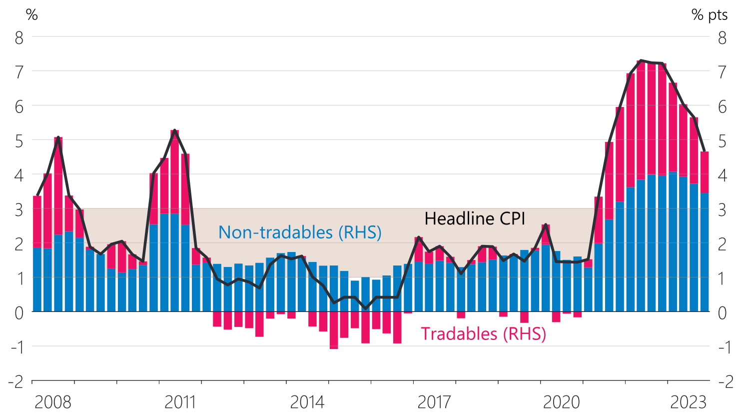
Non-tradables inflation – which measures price changes for goods and services less exposed to international competition – declined in the December 2023 quarter, but by marginally less than assumed in the November *Statement*. Non-tradables inflation declined from 6.3 percent to 5.9 percent on an annual basis, and from 1.7 percent to 1.1 percent on a quarterly basis.

Among the components of CPI, the main contributor to lower-than-expected inflation in the December 2023 quarter was the transport group (figure 2.12). This contrasts with most quarters since the end of 2021, when the transport group made a significant contribution to inflation being higher than anticipated. Within this, falling international airfares and petrol prices in the December 2023 quarter made the largest contributions. As discussed in Box B, the introduction of monthly CPI indices for some components (Selected Price Indices) by Stats NZ will support the Reserve Bank's near-term forecasting ability for these more volatile components.

Figure 2.11

Contributions to CPI inflation

(annual)



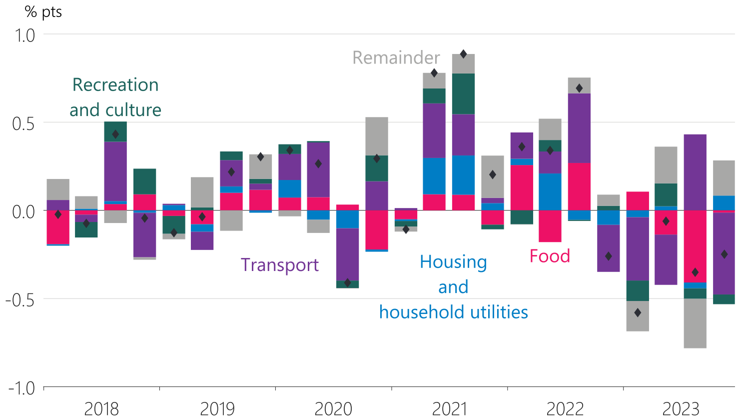
Source: Stats NZ, RBNZ estimates.

Note: The shaded area represents the MPC's 1 to 3 percent target range for inflation over the medium term.

Figure 2.12

Contributions to quarterly CPI forecast error

(one quarter ahead)

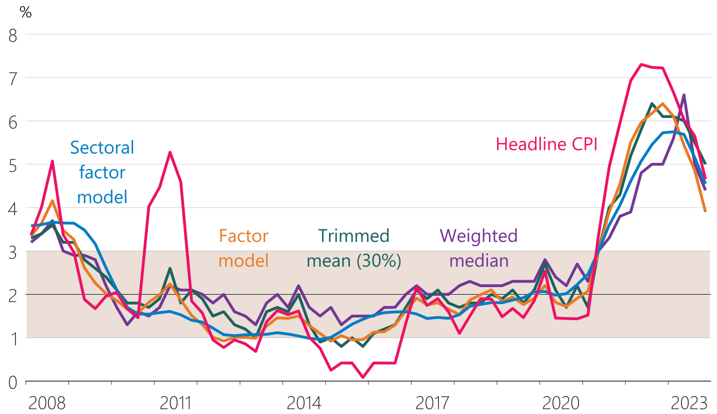


Source: Stats NZ, RBNZ estimates.

As headline CPI inflation has declined, measures of 'core' or persistent inflation have also eased (figure 2.13). All measures of core inflation declined in the December 2023 quarter. Survey measures of inflation expectations have also declined, with business expectations in the Reserve Bank's Survey of Expectations falling at all horizons surveyed (figure 2.14). Household inflation expectations declined one year ahead, but increased two and five years ahead. While the declines in core inflation and expectations are encouraging, they remain elevated and above the 2 percent midpoint of the MPC's target band.

Headline inflation is assumed to continue to decline over the medium term. Easing capacity pressures and declining inflation expectations are expected to reduce non-tradables inflation, albeit at a slightly slower pace than assumed in the November *Statement*. This is slightly more than offset by a much lower starting point and weaker outlook for tradables inflation, reflecting declining global prices for our imports. Annual headline CPI inflation is assumed to return to within the MPC's 1 to 3 percent target band by the September 2024 quarter, and to the 2 percent midpoint by the end of 2025 (figure 2.15).

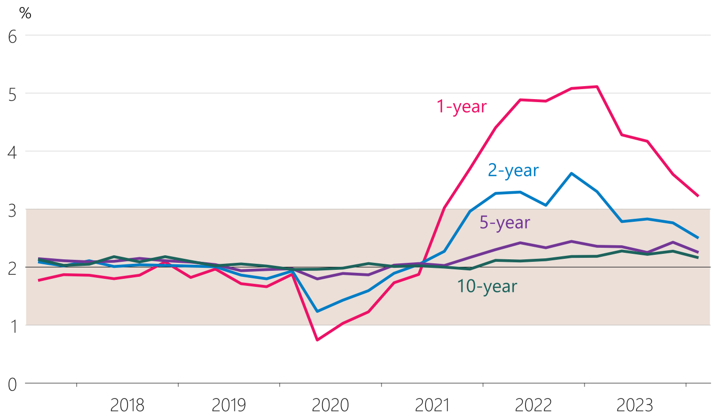
Figure 2.13
Headline and core inflation measures
(annual)



Source: Stats NZ, RBNZ.

Note: The shaded area represents the MPC's 1 to 3 percent target range for inflation over the medium term.

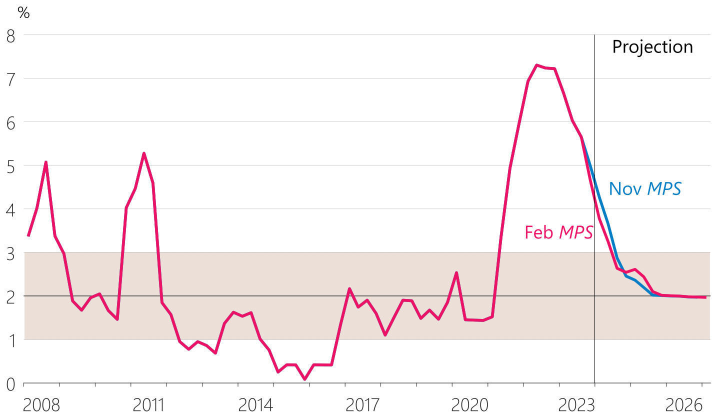
Figure 2.14
Business inflation expectations
(annual, years ahead)



Source: RBNZ *Survey of Expectations (Business).*

Note: The shaded area represents the MPC's 1 to 3 percent target range for inflation over the medium term.

Figure 2.15
CPI inflation
(annual)



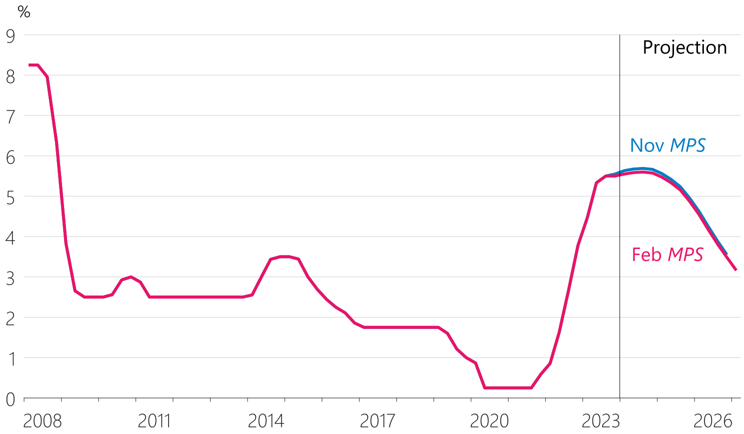
Source: Stats NZ, RBNZ estimates.

Note: The shaded area represents the MPC's 1 to 3 percent target range for inflation over the medium term.

Monetary policy outlook

Conditional on our central economic outlook, we expect the OCR will need to remain around current levels for an extended period in order for the MPC to meet its inflation target (figure 2.16). The outlook for the OCR is slightly lower than in the November 2023 *Statement*. This reflects that the slightly lower outlooks for capacity pressures, import prices and house price inflation more than offset the higher outlook for export prices.

Figure 2.16
Official Cash Rate
(quarterly average)



Source: RBNZ estimates.

Box A:
Changes to New Zealand's monetary policy framework

In December 2023, the Government made changes to New Zealand's monetary policy framework. These included amending the Reserve Bank of New Zealand Act 2021 (the Act) to focus the economic objective of the MPC on achieving and maintaining price stability by removing the second economic objective of supporting maximum sustainable employment (MSE). The changes to our monetary policy framework provide more clarity on the MPC's priorities.

To reflect the changes to the Act, the Minister of Finance amended the MPC *Remit*, which sets out the operational objectives for formulating monetary policy. The new *Remit*, issued in December 2023, removed the operational objective of supporting MSE. The removal of MSE as a primary objective is consistent with the views expressed in the Reserve Bank's 2022-2023 Remit Review, which recommended clarifying the primacy of achieving the inflation target.[1]

While MSE has been removed as a primary objective, the MPC will continue to consider labour market developments when formulating monetary policy.[2] This is because the labour market is an important factor that influences inflation. In addition, the amendments to the *Remit* added employment as one of the variables in which the MPC should seek to avoid unnecessary volatility.

The MPC and the Minister of Finance also agreed on a new MPC *Charter* in December 2023. The *Charter* sets additional transparency and accountability requirements for the MPC, as well as guidance on decision-making procedures. The amended *Charter* contains new requirements for the MPC to explain the timeframe over which inflation is expected to return to the target midpoint and the reasons for that timeframe. The new *Charter* also includes changes to reflect the removal of MSE as a primary objective in the *Remit*, changes to requirements relating to sustainable house prices[3] and requirements for the MPC to seek to understand interactions with the Government's economic objectives and support information sharing with the Treasury.

Following the changes to the Act and *Remit*, the MPC has also updated its *Statement of the MPC's Monetary Policy Strategy* that sets out the MPC's overarching plan for how it will formulate monetary policy under different circumstances to achieve its objectives. The changes were made in order to be consistent with the amended Act, *Remit* and *Charter*, and to better reflect the MPC's experience of setting monetary policy in recent years. These changes are relatively small and are intended to reflect current practice.

The latest *Remit*, *Charter* and *Statement of the MPC's Monetary Policy Strategy* can be found at monetary policy framework.

1 See Supporting New Zealand's economic stability – Toitu te Ohanga.

2 Reserve Bank Governor Adrian Orr's speech delivered on 16 February 2024 discusses the removal of MSE as a primary objective.

3 The amended *Charter* changed the requirement for the MPS to explain how monetary policy decisions affect sustainable house prices to a more general requirement for the MPC to seek to understand the effects of monetary policy decisions on the sustainability of house prices.

Box B:
Introducing the Selected Price Indexes

The Reserve Bank depends on high-quality economic data to achieve its monetary policy objectives. New Zealand is one of only a few developed countries that do not produce a monthly CPI. Furthermore, New Zealand does not review CPI weights as frequently as most developed countries. Timely reweighting is important because consumers substitute various goods and services when relative prices, preferences or availability changes. It is likely that many such substitutions have occurred since the most recent reweight in 2020 based on the Household Economic Survey 2018-19. More frequent publication and reweighting of the CPI would support the MPC in assessing the current state of the economy and reduce the risk of policy errors from slow data releases, particularly in periods of heightened uncertainty.

Toward this goal, in November 2023 Stats NZ began publishing additional CPI components on a monthly basis. The Selected Price Indexes (SPI) are published about two weeks after each reference month. The SPI represents about 45 percent of the total CPI basket. This includes food (18.8 percent) and rent (9.5 percent), which were already available monthly, as well as the following components:

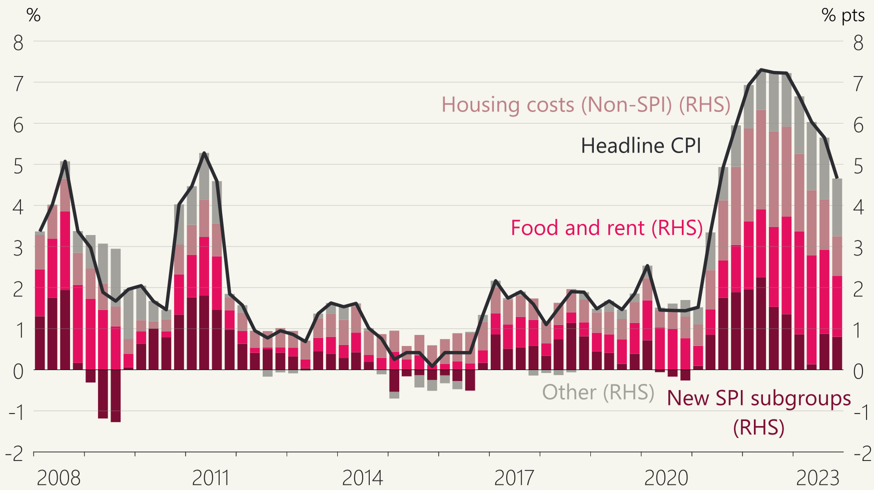
- Alcoholic Beverages and Tobacco (7.1 percent)
- Petrol (3.9 percent)
- Diesel (0.3 percent)
- Domestic Air Transport (0.7 percent)
- International Air Transport (2.0 percent)
- Domestic Accommodation (0.7 percent)
- Overseas Accommodation (2.2 percent)

These new SPI components represent an additional 17 percent of the CPI basket that is now available monthly.

The SPI components contributed significantly to recent headline inflation

The SPI includes components that tend to be the most volatile in the CPI basket. These include food, petrol and international air transport. These are particularly sensitive to global prices and shocks, which make them subject to large price swings. As inflation is a measure of change in the CPI, this volatility means that the SPI components tend to contribute a larger amount to headline inflation than might be expected given their weights in the CPI basket. Figure B.1 shows that although the new SPI components account for only 17 percent of the basket, they have been contributing significantly towards headline inflation, particularly in recent years. For example, the new components contributed around 2 percentage points to the 7.3 percent annual inflation in the year to June 2022. Furthermore, when food and rent are added, all the SPI have contributed to approximately two thirds of headline inflation since the start of the COVID-19 pandemic. This contribution highlights the potential of the SPI to improve near-term forecast accuracy.

Figure B.1
Component contribution to headline inflation



Source: Stats NZ, RBNZ estimates.

The SPI is not a monthly consumer price index

While the SPI provides some insight, it has some limitations relative to a monthly CPI. It does not include several components that contribute to domestically generated inflation. For example, in the year to December 2023 the decrease in headline inflation from 5.6 percent to 4.7 percent could largely be attributed to decreases in the volatile SPI subgroups, with food and transport contributing the most to this decrease. However, non-tradable components were stronger than expected, largely caused by housing costs, insurance and rental price inflation which tend to be more persistent and less volatile. Out of these three components, only rental prices are included in the SPI. More timely indicators of these non-tradable goods and services would be welcomed to further assist the Reserve Bank in setting monetary policy to achieve its inflation target.

The SPI improves the information available to forecasters

The SPI will be most useful in improving our bottom-up approach to forecasting headline inflation. This is a method where forecasts of each component of the CPI basket are aggregated to forecast a headline inflation rate. Having this higher frequency data on some of the more volatile subgroups will increase the accuracy of the bottom-up forecast. The SPI for the first month of the quarter will usually be available before the quarterly *Monetary Policy Statement*. Before interim Monetary Policy Reviews, two months of SPI data will be available. Initial analysis shows that the first month of SPI data for a given component explains a significant amount of the variation in ultimate CPI outcome for that component. When the second month of SPI data is included, the amount of explained variation increases further. Therefore, the partial information on the selected CPI components gives insight into the direction and magnitude of price changes for the upcoming CPI release.

While the SPI is not intended to be a perfect measure of the CPI, it is a step in the right direction and gets New Zealand closer to the global standard. Overall, the SPI has increased the frequency of available information on consumer prices and gives forecasters an additional set of data to indicate the size and direction of changes in inflation components in a timelier manner. The Reserve Bank encourages Stats NZ to continue improving the frequency at which prices are reported in the New Zealand economy.

Chapter 03

Global developments and outlook

Mangawhai Heads. Photo: Paul Conway

Chapter 3. Global developments and outlook

Global economic growth remains below its trend. Despite this, growth in 2023 was stronger than expected at the start of the year. In particular, the US economy remained more resilient than expected, growing 2.5 percent in 2023 against a Consensus Economics expectation of just 0.3 percent in January 2023. Growth in New Zealand's trading partners is expected to slow in 2024. In advanced economies, high interest rates continue to reduce demand. Trend growth in China is expected to moderate slightly, reflecting a variety of structural factors, including lower average rates of investment.

Globally, headline inflation is expected to ease gradually, but elevated core services inflation remains a concern in many economies. Labour markets remain strong in major economies. Unemployment rates are still low compared with pre-COVID-19 levels, although labour demand has eased from the high levels reached in 2022.

Major central banks have kept their policy rates unchanged in recent months, and financial market participants have shifted their focus towards the timing and degree of policy rate cuts expected this year. Global risk appetite has improved in recent months as longer-term interest rates have fallen, which supported a sharp increase in global equity prices.

Global economic activity has been resilient given high interest rates

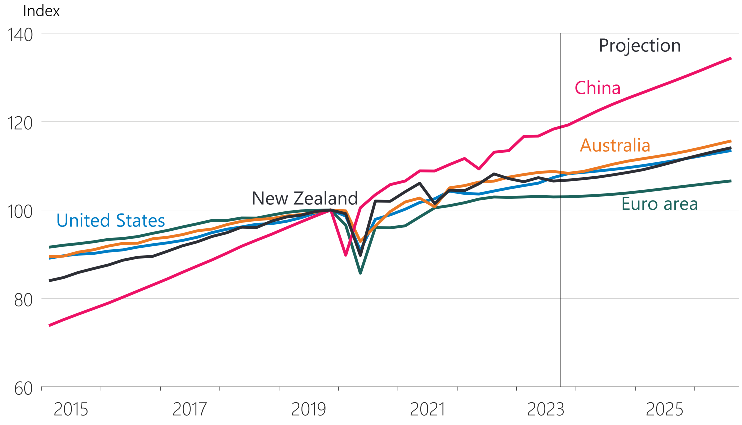
Global economic growth remained strong in late 2023 despite restrictive monetary policy. Growth in New Zealand's trading partners is estimated to have averaged 3.0 percent in 2023, slightly below the pre-COVID-19 (2014-2019) average of 3.6 percent. Trading-partner growth is forecast to decline to 2.7 percent this year, slowing across most economies (figure 3.1).

The US economy expanded 0.8 percent in the December 2023 quarter. This was higher than expectations and reflected strong household consumption. US annual GDP growth is projected to fall from 2.5 percent in 2023 to 2.1 percent in 2024 as monetary policy tightening continues to pass through. The US labour market has remained strong.

Figure 3.1

Key trading partner GDP forecasts

(index=100 in Q4 2019)



Source: Consensus Economics, Haver Analytics, RBNZ estimates.

Note: GDP forecasts are based on Consensus Economics estimates, except New Zealand's which is based on our current projection.

In contrast, euro area GDP growth has continued to stagnate due to the impact of the war in Ukraine, low consumer confidence and restrictive monetary policy. GDP growth remained at 0.1 percent in the year to the December 2023 quarter, and near-term indicators suggest growth will remain weak in early 2024.

In Australia, economic growth continues to slow, primarily due to weaker household consumption growth as real income growth remains weak. Strong investment continues to provide support to growth. GDP growth is forecast to decline from 1.8 percent in 2023 to 1.4 percent in 2024, as household consumption remains subdued and investment growth slows. This is despite strong population growth due to migration and a recovery in the tourism sector.

China's economy expanded 5.2 percent in 2023, consistent with the Government's target of around 5 percent growth for the year. Recent economic activity has gradually increased in response to fiscal and monetary policy support following a period of weakness in mid-2023. Further loosening of fiscal policy is expected to provide additional support this year. However, deflationary pressures remain persistent and consumption growth slowed significantly at the end of last year. The Chinese property sector has also weakened further, with declines in both house prices and transaction volumes.

Annual growth in China is forecast to be 4.6 percent in 2024 and 4.3 percent in 2025. This slower pace of growth largely reflects the ongoing effects of longer-term structural challenges, with potential growth slowing as a result of declining population, weakening productivity growth and intended rebalancing away from high rates of debt-financed investment. The slowing property market and acute financial stress amongst many property developers remain downside risks to Chinese growth.

Global labour market conditions are gradually easing

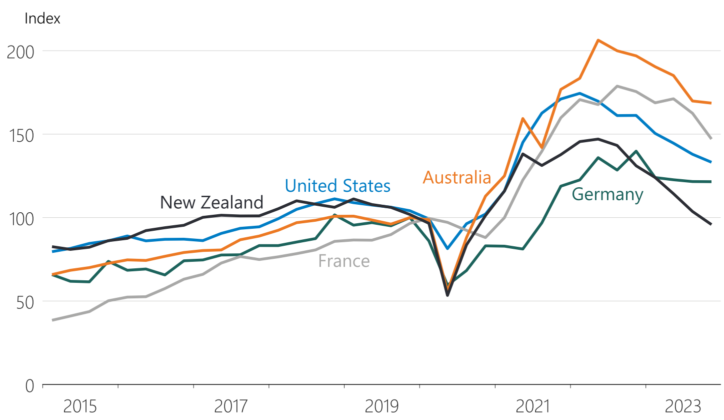
Labour market conditions are beginning to ease from tight levels. Labour demand (as seen in job openings) has fallen as a result of contractionary monetary policy and slowing demand (figure 3.2). However, unemployment rates remain low, having increased only gradually, and wage growth remains historically high.

The euro area labour market remains robust, with job openings still elevated and unemployment rates at record lows – despite weak economic growth. Labour markets in the US have seen a fall in demand for workers, although the unemployment rate has yet to increase materially. The US labour market is expected to gradually loosen further in coming months, reducing wage growth and services inflation towards more normal levels. Australia's labour market remains tight but is showing signs of easing, with elevated population growth and record high labour force participation boosting labour supply. Indicators of labour demand have eased further in recent months.

Figure 3.2

Job openings

(index=100 in Q4 2019)



Source: Federal Reserve Economic Data, Haver Analytics, MBIE.

Global inflation continues to decline

Headline inflation across advanced economies has continued to decline (figure 3.3). Lower energy, food and goods inflation has contributed to the recent decline in inflation in advanced economies. Oil prices have fallen since the November *Statement* in response to slowing global demand and supply increases from non-OPEC countries.

Inflation in the euro area has fallen faster than expected in recent months to an annual rate of 2.8 percent, due to lower energy prices and larger-than-expected declines in core inflation. In the US, annual headline inflation has fluctuated between 3 and 4 percent since June last year and fell to 3.1 percent in January 2024. Headline inflation is comparatively higher in Australia and the United Kingdom at annual rates of around 4 percent, although recent inflation in both countries was below expectations. Deflation in China has persisted in recent months. Weak domestic demand, alongside falling food and producer prices, is more than offsetting increasing services inflation.

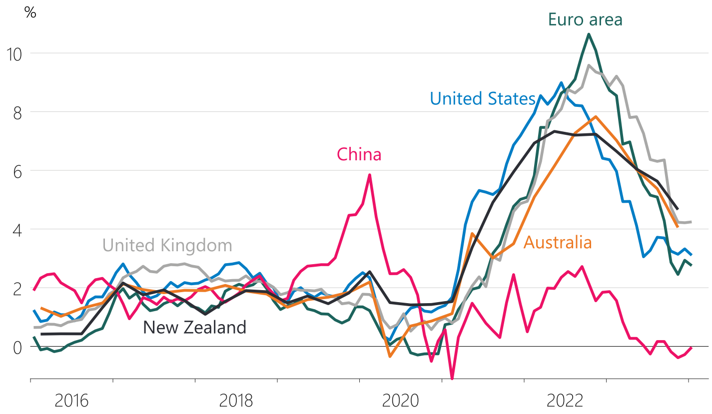
Core inflation (excluding food and energy) also continues to decline but is higher than headline inflation in many economies, due to high services inflation (figure 3.4). In recent months, annual core inflation rates have converged in the US, euro area and Australia to just below 4 percent. Core goods inflation has declined materially, and in some economies is now around or below pre-COVID-19 levels. In contrast, core services inflation has continued to ease more gradually and remains elevated across advanced economies.

Headline and core inflation in advanced economies are expected to continue to decline in 2024, returning headline inflation close to central bank targets in some economies by the end of the year. Easing capacity pressures and loosening labour markets as a result of previous monetary tightening are expected to reduce core services inflation. As discussed in chapter 4.1, higher global shipping costs pose an upside risk to global goods inflation in the near term. In China, headline inflation is forecast to increase gradually back towards more normal levels.

Figure 3.3

Headline inflation for key trading partners

(annual)



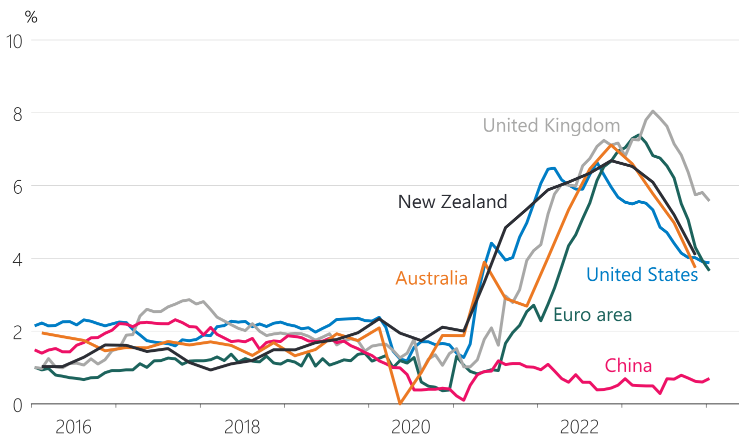
Source: Haver Analytics.

Note: Data are monthly, except for Australia and New Zealand, which only publish official inflation data quarterly.

Figure 3.4

Inflation excluding food and energy for key trading partners

(annual)



Source: Haver Analytics.

Note: Data are monthly, except for Australia and New Zealand, which only publish official inflation data quarterly.

Expectations for central banks' policy rates have fallen slightly

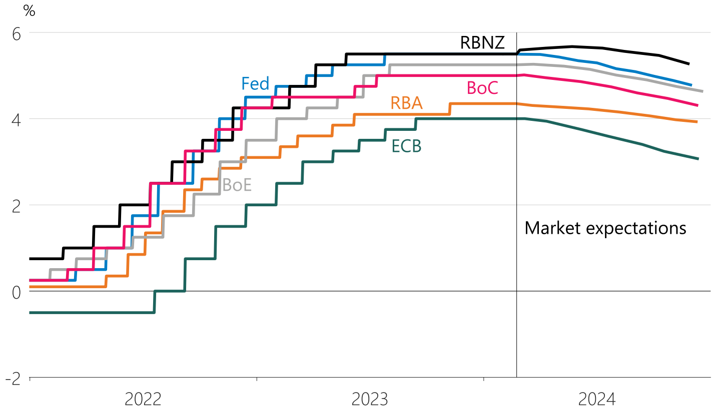
Most major central banks view their current monetary policy stances as restrictive, and some have begun to communicate the possibility of reducing policy rates later in 2024. In particular, the most recent policy rate projections from Federal Reserve (Fed) policymakers imply a decline of 75 basis points in 2024. This shift was largely in response to falling headline inflation in the second half of 2023. However, several major central banks have indicated there have been further signs of core inflation persistence and they are looking for further evidence of inflation being on a sustained path towards their targets before reducing their policy rates.

Financial market participants continue to expect policy easing to begin from around the middle of this year, followed by a more rapid easing of policy than has been indicated by central banks (figure 3.5). Markets are pricing the policy rates of the Fed and European Central Bank (ECB) to decline around 80 basis points this year, while a more moderate 45 basis point decline is expected from the Reserve Bank of Australia (RBA). This largely reflects the slower relative pace of disinflation in Australia to date. The RBA has indicated that further policy rate increases may still be required and that the outlook for its policy rate is balanced.

Sovereign bond yields have decreased slightly alongside lower expectations for central bank policy rates. Although the US 2-year yield is little changed since the November *Statement*, it has declined by around 40 basis points since October, with similar falls observed in other advanced economies (figure 3.6).

Figure 3.5

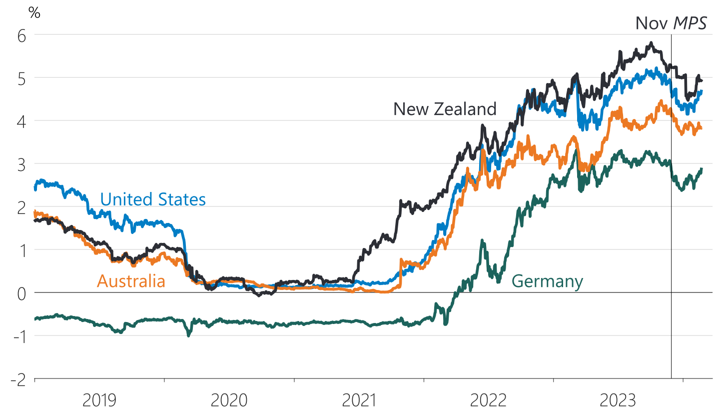
Market-implied path of policy rates



Source: Bloomberg.

Figure 3.6

2-year sovereign yields



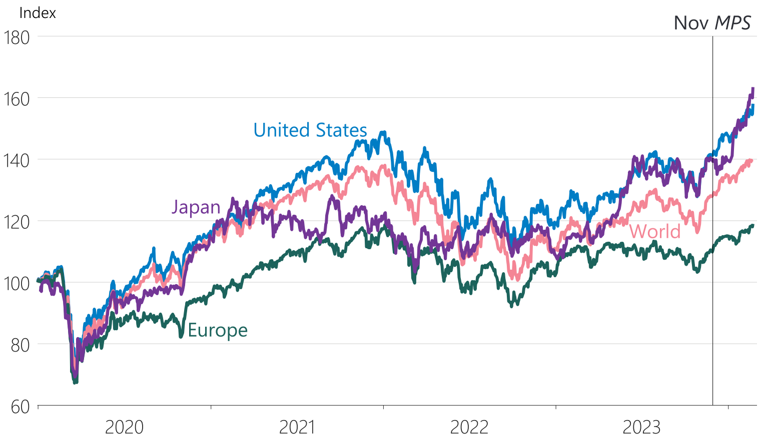
Source: Bloomberg.

Global risk appetite has improved in recent months

Weaker inflation and robust activity data, alongside expectations for lower interest rates, have supported global risk sentiment since the November *Statement*. Equity prices in advanced economies have increased sharply in recent months, reaching record highs in both the US and Japan (figure 3.7). US equity prices have also been supported by stronger-than-expected corporate earnings results.

Similarly, spreads on corporate bonds in both developed and emerging markets have narrowed to their lowest levels since early 2022. This reflects market perceptions that private sector balance sheets remain healthy and will be supported by market expectations for central bank policy rate cuts in the years ahead. Corporate debt issuance has increased sharply as issuers look to take advantage of the narrowing in corporate spreads. For example, large US corporates issued around US$190 billion of bonds in January, almost US$15 billion more than the previous record for January in 2017.

Figure 3.7
Global equity prices
(index=100 on 1 January 2020)



Source: Bloomberg.

Chapter 04

Special topics

Cape Kidnappers. Photo: Nele McHattie

Chapter 4. Special topics

Before the publication of each *Statement*, the Monetary Policy Committee is provided with analyses of some topical issues.

Topics for the February *Statement* included:

1. The effect of higher shipping costs on inflation and the Official Cash Rate
2. The effect of the Government's proposed policies on monetary policy

Special topics in the past 12 months

Topic	Date/publication
Monetary policy transmission lags	November 2023 *Statement* (Chapter 4)
The inflationary impact of recent migration	August 2023 *Statement* (Chapter 4)
Factors contributing to New Zealand's current account deficit and outlook	August 2023 *Statement* (Chapter 4)
The recovery in international tourism over the 2022/23 summer	May 2023 *Statement* (Chapter 4)
Have inflation expectations become more sensitive to higher inflation?	May 2023 *Statement* (Chapter 4)
The international dimension of non-tradables inflation	February 2023 *Statement* (Chapter 4)
Monitoring the labour market for inflationary pressures with high-frequency microdata	February 2023 *Statement* (Chapter 4)

1 The effect of higher shipping costs on inflation and the Official Cash Rate

Summary

- Conflict in the Middle East and drought in Central America have led to disruptions in global trade, with major delays and cost increases.
- Higher shipping costs are likely to increase import prices and inflation with a lag. Available research suggests that a sustained doubling in shipping costs could add about 0.3 to 0.7 percentage points to annual inflation over a 12-month period.
- In our current projections, we have incorporated a conservative and temporary impact of higher shipping costs on import prices and headline inflation.
- Although higher shipping costs add to near-term inflation, we currently assume in our projections that this is a *relative* price shock that will reverse. There is considerable uncertainty about the size and duration of higher shipping costs resulting from recent disruptions to shipping routes. Consistent with flexible inflation targeting, we have therefore 'looked through' the first-round effect of recent higher shipping costs. Nevertheless, we remain vigilant to these costs persisting for longer than currently assumed. In that event, potential spillovers into *general* prices might require a monetary policy response.

Overview of the disruptions

Several major shipping companies have stopped sending ships through the Red Sea in response to Houthi rebel attacks. Many ships are now travelling around the Cape of Good Hope, which increases journey times by around 30 to 50 percent. Since large scale re-routing around Africa began in mid-December 2023, traffic through the Suez Canal has declined by around 50 percent.[4]

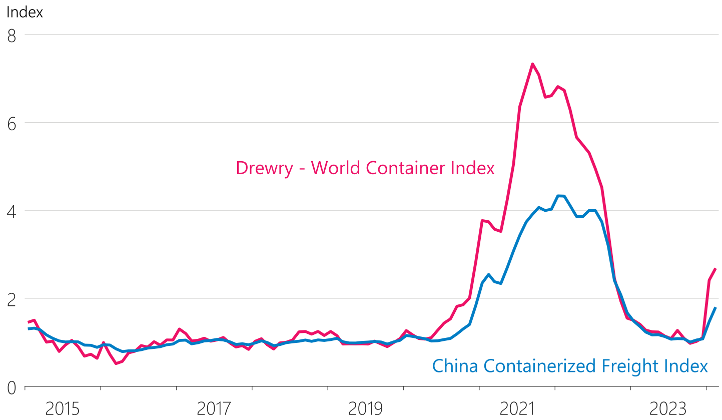
Meanwhile, the Panama Canal is suffering one of its worst droughts since the 1950s, reducing its capacity. The water level in Gatun Lake, which supplies water to the Panama Canal, has dropped to its lowest in several decades and is forecast to remain low in coming months. Average daily ship crossings through the Panama Canal have declined from around 36 to 24.

Shipping costs have increased

Most global goods trade occurs via sea freight. The Red Sea facilitates about 12 percent of global maritime trade and 30 percent of global container shipping trade. The Panama Canal accounts for about 5 percent of global maritime trade.

Shipping disruptions have increased shipping costs, either via higher fuel and labour costs, as shipping companies resort to alternative routes, or via queue-jumping fees. Longer voyages also generate capacity constraints on alternative routes, while risk surrounding the Red Sea crisis has increased insurance costs. As a result, various measures of global containerised shipping costs have doubled or tripled since early December 2023 (figure 4.1).

Figure 4.1
Shipping cost indices
(indexed to 2015-2019 averages)



Source: Bloomberg.

4 UN Global Platform; PortWatch

Currently, about 13 to 14 percent of New Zealand's exports go to the European Union and wider Mediterranean region, meaning they are potentially impacted by the Red Sea conflict (figure 4.2).

Freight costs for New Zealand businesses, measured as shipping and insurance costs as a proportion of the total value of consumer goods imports, have yet to show any significant increases as of January 2024 (figure 4.3). However, this measure is only available with a lag and will most likely increase going forward.

Some exporters have reported paying much higher fees to ensure priority shipping during previous periods of shipping disruption. In some cases, exporters have even substituted sea freight for air freight. This has been done in order to meet supply contracts and maintain market presence. This suggests that in the short term at least, shipping disruptions may not materially affect total export volumes but could lead to higher spending on transport services.

While shipping costs are increasing, there are some important differences between the current disruption and those that occurred in the COVID-19 pandemic. First, the current disruption is limited to two trade lanes, whereas COVID-19 affected all ports globally at different times, making it much more difficult to manage. Second, new ships commissioned during the COVID-19 pandemic are increasing shipping capacity, implying less upward pressure on shipping costs.

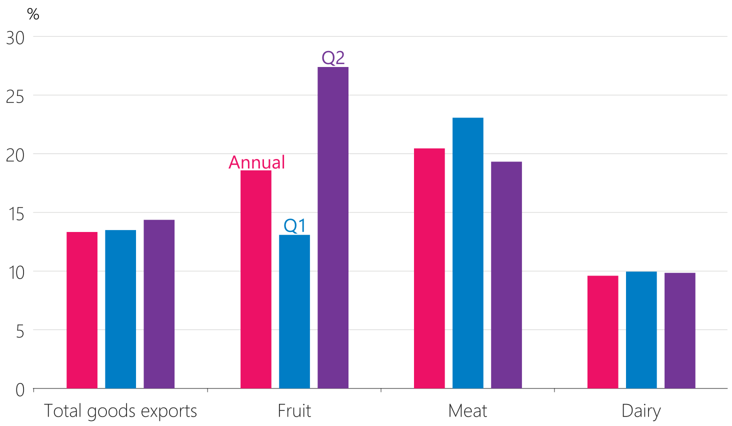
Other aspects of global supply chains also suggest that the effects of the current disruptions are likely to be less severe than those of the COVID-19 pandemic. Global demand for goods is weaker, in part owing to tighter monetary conditions, while the composition of demand has shifted from goods back towards services. On the supply side, global manufacturing is no longer being affected by lockdowns and China currently has large excess manufacturing capacity. This implies less capacity pressure, which will help to sustain downward pressure on global goods inflation.

In addition, shipping costs globally account for around 3 percent of the total cost of final imported goods prices. As such, there may also be scope for some firms to limit price rises temporarily by compressing profit margins.

Figure 4.2

Share of New Zealand exports to affected regions

(average of shares from 2014 Q2 to 2023 Q3)

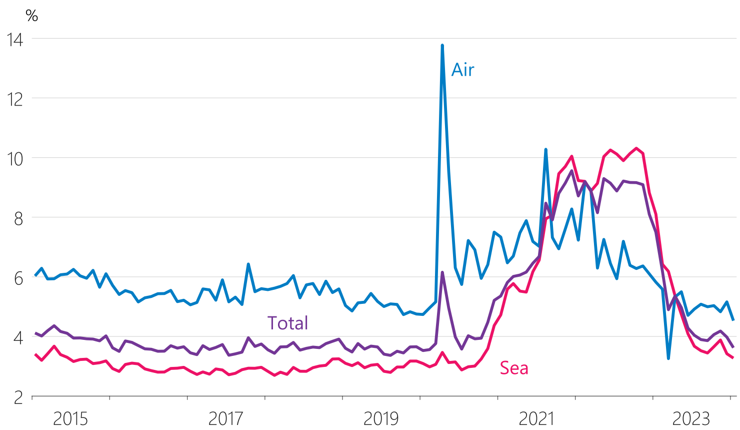


Source: Stats NZ, RBNZ estimates.

Figure 4.3

Shipping costs for consumer goods imports

(share of import value for duty)



Source: Stats NZ, RBNZ estimates.

Note: These series are estimated by taking the value of consumer merchandise imports including freight and insurance costs (CIF) and subtracting the reported value for duty (VFD), which excludes these costs. They are expressed as a percentage of the VFD figure.

Higher shipping costs tend to be inflationary

We have scaled the findings of research covering a range of countries to the effect of a sustained doubling in freight rates. Although only an estimate, this exercise suggests that a sustained doubling in freight rates may lead to an increase of 0.3 to 0.7 percent on the price level over a 12-month period (table 4.1). These varied impacts reflect factors such as the delays between ordering shipping services, the delivery of goods, and price adjustments by firms in response to elevated shipping costs. They likely also reflect the common practice among importers of locking in freight rates into the future.

More recent OECD research suggests that a persistent 100 percent increase in shipping costs could increase annual OECD import price inflation by almost 5 percentage points.[5]

Scaling the share of shipping costs in New Zealand's imports relative to the increase in several shipping cost indices to date suggests that the current shipping cost shock could increase New Zealand import prices by around 2 percent, compared to an estimated increase of 6 percent during the COVID-19 pandemic.

Our projections assume that the recent shipping disruption in both the Red Sea and Panama Canal add a total of 2 percentage points to non-oil import price inflation across the June and September 2024 quarters. We assume that the impact of the shipping cost shock is temporary and reverses at the same rate in the following two quarters. Modelled in this way, this shock increases annual headline inflation by 0.2 percentage points in the June and September quarters of 2024.

In terms of the monetary policy response, this is a *relative* price shock and therefore has little-to-no impact on the Official Cash Rate projection. Given our framework of flexible inflation targeting over the medium term, monetary policy effectively looks through the first-round effect of this temporary supply shock.

Of course, we remain vigilant to any spillovers into the *general* prices for New Zealand goods and services. An escalation of the Middle East conflict and further disruption in the Red Sea would increase the risk of a full shutdown of this route, pushing freight rates higher and delivery times longer.

All else being equal, this would further increase inflation and the likelihood of spillovers into generalised inflationary pressures. However, a sustained disruption may incentivise further efficiencies in shipping logistics, as shipping could optimise alternative trade routes more effectively.

Table 4.1

Estimates of a 100 percent rise in shipping costs' effect on inflation

Organisation	Impact on	Size of impact (% pts)
FRB Kansas City (2016)[6]	US Core PCE	0.6
OECD (2021)[7]	Global CPI	0.4
BoE Bank Underground (2022)[8]	US PCE	0.3
IMF (2023)[9]	Global CPI	0.7

5 See OECD Economic Outlook, Interim Report February 2024: Strengthening the Foundations for Growth

6 See How Does a Rise in International Shipping Costs Affect U.S. Inflation? – Federal Reserve Bank of Kansas City (kansascityfed.org)

7 See How will rising shipping cost affect inflation in OECD countries? – ECOSCOPE (oecdecoscope.blog)

8 See The impact of shipping costs and inflation – Bank Underground

9 See Shipping costs and inflation – ScienceDirect

2 The effect of the Government's proposed policies on monetary policy

Summary

- Government policies influence the behaviour of households, workers and businesses, and affect our international trade. Taxation and expenditure policies redistribute resources in the economy and through time.
- Government spending and taxation affect financial markets via debt issuance and sovereign credit ratings.
- Policy changes announced by the new Government will affect the economy in various ways. The net effect of these policy changes on inflationary pressures is currently uncertain because most policies have yet to be finalised.
- The MPC's central projection for government spending is based on Treasury's published forecasts in the *Half-Year Economic and Fiscal Update (HYEFU)* 2023. These will be updated following *Budget* 2024 in late May. Announced policy changes are assessed in this chapter relative to fiscal and regulatory settings as at the *HYEFU* 2023.

Our approach to forecasting government spending

Government spending makes up about a quarter of total expenditure in the economy each year. Changes in the amount and type of government expenditure cause changes in aggregate demand and therefore inflationary pressures.

Our forecasts split government expenditure into government consumption and government investment. Government consumption captures the operational expenditure associated with running the functions of government. Government investment reflects capital spending associated with building infrastructure and investment in other long-lasting assets.

Government transfers and subsidies are neither government consumption nor investment. We do not forecast these variables directly, but capture them indirectly in our projections of household consumption. We use a similar approach to capture the effects of tax changes.

In the current projection, our forecasts for government consumption and investment are consistent with Treasury's forecasts in the *HYEFU* 2023. The *HYEFU* had not incorporated proposed government policy changes nor September 2023 quarter GDP data.

We have adjusted our government forecasts for the downward revision in the level of government consumption and investment in the September 2023 quarter GDP release. For government investment, we have adjusted the *HYEFU* forecasts from GAAP accounting terms to System of National Accounts (SNA) categories, which is the standard for GDP reporting.[10] We have not incorporated the effects of any proposed policy changes. *Budget* 2024 policy changes will be incorporated in our forecasts after their announcement in late May.

10 To create our forecasts of government investment, we use fiscal forecasts that Treasury produces for some key variables, namely the purchase of physical assets and the purchase of intangible assets, and convert them to an SNA framework. In addition, we use announcements on specific policy initiatives to determine the timing and likely amount of spending to generate projections consistent with Treasury's economic and fiscal forecasts.

Announced changes in government policy

The announced policy changes that are most relevant for monetary policy are those affecting:

1. The incentives to purchase or build residential properties;
2. The size of government expenditure; and
3. Income tax rates and government transfers.

Most of these policies have yet to be finalised and the net effect on capacity and inflationary pressures in the economy is uncertain. However, preliminary assessments of the effects of these policies are as follows.

Purchasing and building residential properties

The reintroduction of interest deductibility and the easing of the bright-line rule are two policy changes that shift incentives for purchasing and building housing.

The **interest deductibility policy** allows residential property investors to deduct interest payments on debt from taxable rental income. The previous Government's policy was to phase out this deduction gradually, while allowing the owners of new builds to deduct interest for the first 20 years.

The reinstatement of interest deductions is expected to increase demand for existing properties from indebted investors. While increased demand is expected to put upward pressure on house prices at the margin, several factors suggest this impact will be relatively small:

- Cash investors and owner-occupiers, who comprise a much larger share of the housing market (approximately 63 percent of sales), are not affected by the policy change.[11]
- Indebted investors have been able to substitute investment in existing properties for new build investment, retaining the ability to deduct interest for the first 20 years.
- The high serviceability test rates currently being used by banks are constraining the borrowing capacity of potential investors.

The **bright-line rule** imposes a tax on the capital gain of an investment property sold within a given period. Prior to the policy change, a property purchased after March 2018 would be subject to this tax if it were:

a) sold within five years if purchased prior to March 2021, or if it was an eligible new build; otherwise

b) sold within 10 years of purchase

The new Government has decided all properties sold from 1 July 2024 will be subject to a 2-year bright-line rule.

We view the reduction in the bright-line rule as putting small upside pressure on house prices. We expect a marginal increase in investor demand given a greater after-tax payoff from potential capital gains. In the short term, investors who have owned property for more than two years, but less than the bright-line rule applied to their property, will no longer be locked into holding property to avoid the tax. As a result, there may be a near-term increase in property listings, which could temporarily dampen house prices.

We expect the effects of these policies to flow primarily to house prices rather than rents. Recently published research has found the drivers of rents in New Zealand in the past 20 years have been the number of people per dwelling and nominal income.[12] We therefore expect that changes in tax and interest rates are primarily capitalised into land prices.

11 The share of property sales is the average share of each buyer type between January 2013 and October 2023.

12 https://www.rbnz.govt.nz/hub/news/2023/08/what-drives-rents-in-new-zealand

Government expenditure

The Government's mini-budget, released alongside the *HYEFU* in December 2023, announced cutting government expenditure as a priority. More details on how this will be achieved, while balancing other fiscal objectives of reducing taxes and government debt, is expected at the May *Budget*. The mini-budget signalled that government consumption is intended to be lower than the *HYEFU* forecast.

Given announcements so far, we expect changes to government investment policy to be largely a re-prioritisation of projects, rather than a material increase or reduction in investment.

Income tax rates and subsidies

Intentions to change tax and transfer policies were announced at the mini-budget in December 2023. These included setting higher income thresholds on income tax rates, and some income relief for lower income households, including tax credits, the Family Boost childcare rebate and superannuants receiving a higher winter energy payment.

In isolation, all these policies should increase household disposable income. Higher disposable income should then lead to higher household consumption, although there is uncertainty about how much of the higher disposable income will be spent. This would put upward pressure on our household consumption forecast.

On the supply side, lower effective tax rates will incentivise some people to enter the workforce or work more, due to higher after-tax incomes. Lower tax rates will incentivise other people to work less given they can maintain their current income while working fewer hours. The aggregate outcome of these two effects is uncertain.

The childcare rebate might also incentivise more people to work at the margin, increasing labour supply. We will incorporate our estimate of these offsetting pressures once these policies are confirmed.

Conclusion

Due to uncertainty around magnitude and timing, these policy changes have not yet led to specific adjustments in our forecasts. However, as more details are confirmed, we will incorporate their expected effects. These uncertainties are at least partially offsetting, and it is not clear at this stage whether the net effect of proposed Government policy changes will be inflationary or disinflationary.

Chapter 05

Domestic financial conditions

Nelson Lakes. Photo: Mahia Pepper

Chapter 5. Domestic financial conditions

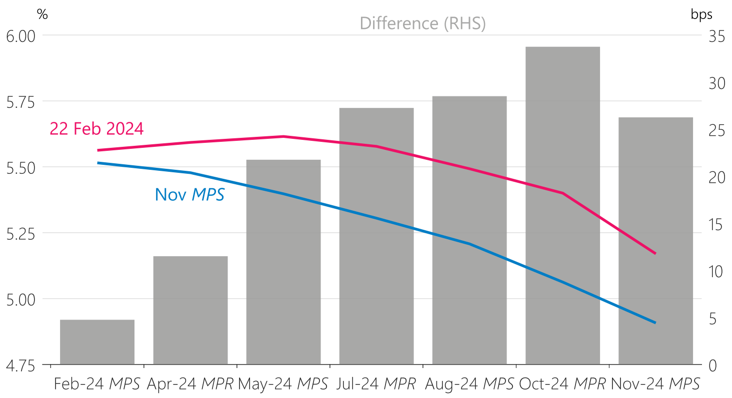
Monetary policy affects economic activity and inflation by influencing financial conditions in New Zealand. These include the interest rates at which households and businesses save and borrow, the exchange rate and other factors such as credit availability. This chapter outlines recent developments in financial markets.

Financial conditions have loosened slightly since the November *Statement*. Mortgage rates have dipped slightly at most terms and term deposit rates have fallen at terms of more than six months. Wholesale interest rates, such as swap rates, have been volatile in recent months. Overall, wholesale interest rates at terms of up to two years have increased when compared to immediately before the November *Statement*, while rates at terms of longer than two years have decreased.

Market participants' near-term expectations for the Official Cash Rate (OCR) decreased in mid-December 2023, following the release of weaker-than-expected New Zealand GDP data and the US Federal Reserve commenting on the possibility of policy easing in 2024. In recent weeks, OCR expectations have increased following stronger-than-expected New Zealand labour market data against a backdrop of increasing global interest rates. As of 22 February 2024, markets are pricing in a moderate chance of a rate increase by May 2024, with expectations for OCR cuts to begin by November 2024. Market expectations for upcoming decisions are higher than prior to the November *Statement* (figure 5.1).

Domestic wholesale interest rates, such as interest rate swaps, are little changed at shorter terms but have decreased at longer terms since the November *Statement* (figure 5.2). The 10-year swap rate has decreased by around 10 basis points. Following these moves, the interest rate swap curve is more inverted than at the time of the November *Statement*.

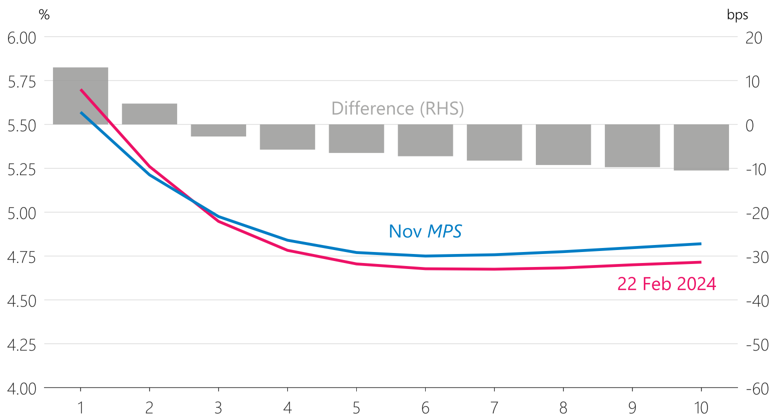
Figure 5.1
Market expectations for the OCR



Source: Bloomberg.

Note: Each data point represents market expectations of the level of the OCR at a given point in the future, as measured by overnight indexed swap pricing.

Figure 5.2
New Zealand interest rate swap rates
(terms in years)



Source: Bloomberg.

Note: Interest rate swap rates are wholesale interest rates often used as a benchmark by financial institutions in setting other interest rates in the economy. They represent the fixed interest rate that one party to the swap agreement receives in exchange for paying a floating rate to the other party for the duration of the agreement.

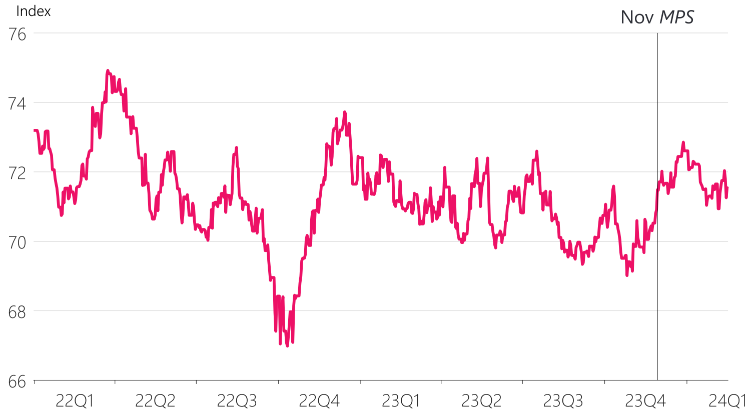
The New Zealand dollar exchange rate has moved higher on a trade-weighted basis since the November *Statement* (figure 5.3). New Zealand export commodity prices, which often have an influence on the exchange rate, are higher. An improvement in global risk sentiment has provided some support for the New Zealand dollar. This has been offset, to some extent, by a stronger US dollar.

Mortgage rates have decreased slightly since the November *Statement* (figure 5.4). Increases in shorter-term wholesale rates mean that the spread between mortgage rates and wholesale rates has decreased in the past month, following a sharp increase in prior months (figure 5.5). Despite this, the broad upward trend in spreads since the end of 2022 is likely to continue over the next few years. This is because increases in banks' cost of funding will likely continue to place upward pressure on mortgage rates in the years ahead, even in an environment of falling swap rates.

Figure 5.3

New Zealand dollar TWI

(nominal)

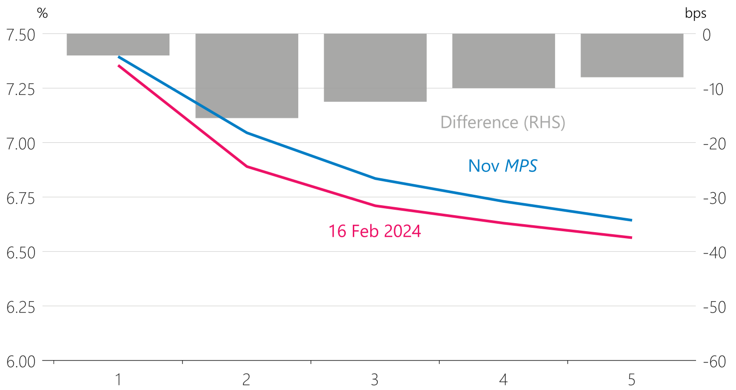


Source: RBNZ.

Figure 5.4

New Zealand mortgage rates

(terms in years)

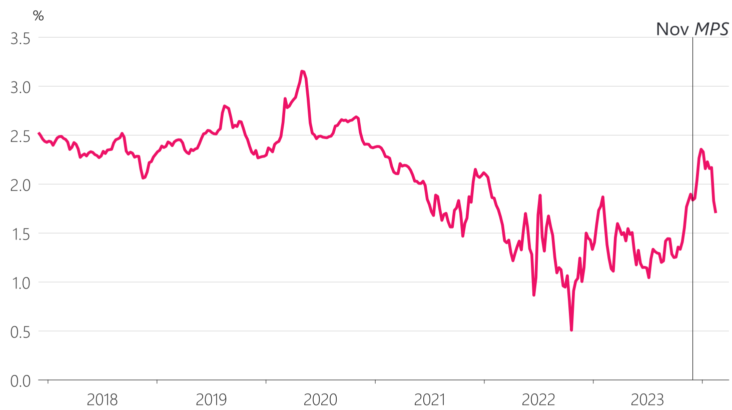


Source: interest.co.nz.

Note: the mortgage rates shown are the average of the latest fixed-term rates on offer from ANZ, ASB, BNZ and Westpac.

Figure 5.5

New Zealand 2-year mortgage rates as a spread to equivalent swap rates

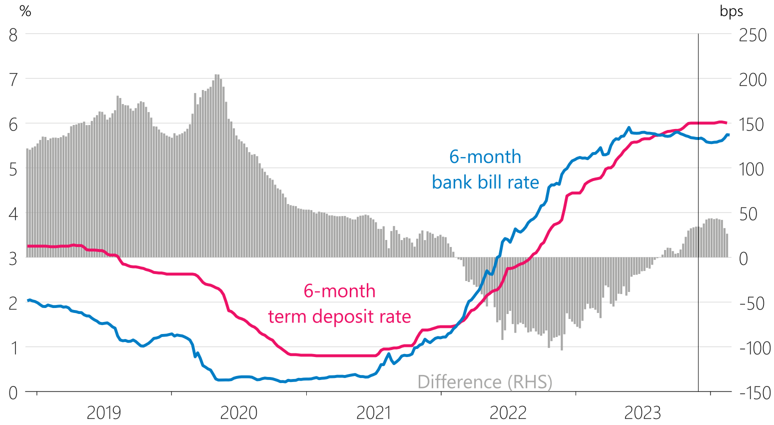


Source: Bloomberg, interest.co.nz.

Interest rates on term deposits, which make up a large share of banks' core funding, have increased slightly at the 6-month term but decreased at longer terms. The recent upward trend in the spread between term deposit rates and wholesale rates has stalled, as wholesale rates at shorter tenors have moved higher (figure 5.6). This spread remains significantly lower than pre-pandemic averages, holding down the cost of bank funding. A higher-than-normal share of customer deposits remain in day-to-day or transaction accounts that pay very low interest rates, further holding down bank funding costs. Bank funding costs are likely to increase further over the medium term, with banks expected to compete more aggressively for customer deposits as accommodative funding conditions for banks continue to fade.

Figure 5.6

Spread between the 6-month term deposit rate and the 6-month bank bill rate



Source: interest.co.nz, Bloomberg.

Note: The term deposit rates shown are the average of the latest fixed term rates on offer from ANZ, ASB, BNZ and Westpac. Bank Bill rates represent the rates at which banks are willing to borrow from, or lend to, one another for terms of one to six months.

Table 5.1

Developments in domestic financial conditions as of 22 February 2024

Wholesale interest rates	
Market pricing for the OCR	• The November *Statement* contributed to an upward shift in market participants' expectations for the OCR in 2024. This was primarily due to the higher-than-anticipated OCR forecast, which peaked at 5.69 percent. Market pricing for the OCR, which shifted lower in mid-December following the release of Q3 domestic GDP data and global factors, has recently moved higher on global and domestic data developments. • Market pricing for the OCR is currently higher than at the time of the November *Statement*. In recent weeks, markets have priced in a moderate chance of a further OCR increase by May 2024. As such, the expected peak OCR for this cycle, as measured by overnight indexed swap pricing, has increased by around 20 basis points to 5.67 percent. Markets still expect the OCR to decline in 2024, pricing in around 25 basis points of cuts by November. However, immediately before the November *Statement* markets were pricing in around 60 basis points of cuts this year. The current and expected OCR settings are contractionary, sitting above our estimates for the neutral OCR (see figure 7.4).
Interest rate swaps	• Short-term New Zealand swap rates are little changed since the November *Statement*. Conversely, long-term New Zealand swap rates have decreased over the same period, with the 10-year swap rate around 10 basis points lower. Consequently, the degree of inversion (when shorter-term rates are higher than longer-term rates) in the interest rate swap curve has increased, with the difference between the 2- and 10-year swap rates widening from around minus 40 basis points immediately before the November *Statement* to around minus 50 basis points. • Longer-term global interest rate swaps decreased in the period between the November *Statement* and the start of 2024, as markets began to anticipate additional policy easing this year. This fall has since partially reversed following some stronger-than-expected recent global economic data. Global interest rates continue to be a key influence on longer-term interest rate movements in New Zealand.
New Zealand government bonds (NZGB)	• Short-term NZGB yields have risen slightly since the November *Statement*. Long-term yields have decreased, driven by lower long-term global interest rates. • Bid-ask spreads, which is how far apart buyers and sellers are from reaching an agreed price to trade, are broadly unchanged since the November *Statement*. • The differences between NZGB yields and swap rates at different horizons remain at relatively high levels, reflecting increased supply of NZGBs.
New Zealand dollar	
Interest rate differentials	• The interest rate differential between New Zealand and Australia has increased since the November *Statement*, and this has supported an appreciation of the New Zealand dollar against the Australian dollar. The differential between New Zealand and the United States is broadly unchanged over the same period.
Risk sentiment	• On balance, market risk sentiment has improved since the November *Statement* as the value of risk assets, such as global equities, have moved higher and some measures of financial market volatility have moved lower. The improvement in risk sentiment is likely to have provided support for the New Zealand dollar.
Commodity prices	• Increases in New Zealand's key export commodity prices tend to be supportive for the New Zealand dollar. • Prices of key export commodities in New Zealand – particularly dairy – have increased since the November *Statement*, likely supporting the value of the New Zealand dollar.

Retail interest rates	
Mortgage rates	• Mortgage rates have decreased since the November *Statement*. The declines in mortgage rates occurred prior to much of the recent increase in wholesale rates. • Mortgage rates at terms of two to five years have decreased by more than the 1-year mortgage rate since the November *Statement*. The 2-year mortgage rate has decreased by around 15 basis points since the November *Statement*, while the 5-year mortgage rate has decreased by around 10 basis points. The 1-year mortgage rate has decreased by about 5 basis points. • The increase in the spread between mortgage rates and swap rates during 2023 has reversed since the start of 2024, as swap rates have increased. That said, mortgage rates are likely to increase relative to wholesale rates over coming years, as banks' funding costs increase.
Deposit rates	• Term deposit rates have decreased at all terms apart from six months since the November *Statement*. The increase in term deposit spreads to wholesale rates during 2023 has stalled since the November *Statement*. That said, term spreads to wholesale rates are likely to continue rising towards pre-COVID-19 levels over the coming years, as banks compete more aggressively for deposit funding. • Rates on other types of deposits, including bonus saver and transaction accounts, remain low compared to wholesale interest rates, holding down the cost of bank funding.

Bank funding conditions	
Funding composition	• Term deposit volumes have continued to increase in recent months, and at a faster rate than on-call transaction and savings deposits. Term deposit volumes grew by around $7 billion between October and December 2023, while on-call account volumes grew by around $3 billion. • Banks remain well funded and have strong liquidity buffers. Lower-cost deposit types, in particular transaction accounts, remain a larger share of bank funding compared to pre-COVID-19 averages. This has contributed to lower average bank funding costs. Bank core funding ratios remain high at 90.9 percent in December 2023. • Banks have begun to repay loans taken out under the Funding for Lending Programme. As these loans are repaid, banks are expected to increasingly compete for other sources of funding, such as deposits, and to issue additional debt in wholesale markets.
Credit spreads	• The cost of raising long-term wholesale bank funding relative to benchmark wholesale rates has been stable since the November *Statement*. • Domestic bank credit spreads are broadly unchanged from the time of the November *Statement*.

Chapter 06

Economic projections

Maungawhau Mt Eden. Photo: Lucas Chen

Chapter 6. Economic projections

This chapter summarises the baseline economic projections that Monetary Policy Committee (MPC) members considered when making their policy assessment. The projections were finalised on 22 February 2024.

These projections rely on a set of key assumptions about the global and domestic factors influencing the economy. These include:

- how much lower the level of potential GDP has been over history given the extent that GDP has been revised in previous years;
- the speed at which labour market and wage pressures ease, and the effects of these factors on household spending and core inflation;
- the outlook for net immigration, and the extent to which high net immigration contributes relatively more to aggregate demand or labour supply;
- the extent to which the decline in house prices from late 2021 to early 2023 and their recovery since mid-2023, on balance, contribute to lower residential construction activity and household consumption;
- the extent to which activity and inflation in our key trading partners slows in the coming year and the consequences for domestic financial conditions, demand for New Zealand's exports, and export and import prices;
- the scale and duration of the effect of recent shipping disruptions in the Red Sea and Panama Canal on global shipping prices and import inflation;
- the extent to which business investment weakens as a result of declining capacity pressures in the economy;
- how businesses, consumers and workers respond to ongoing cost pressures and high interest rates in New Zealand;
- the extent to which banks pass on any lower wholesale borrowing costs as global central banks start to move towards policy easing in the short or medium term, and
- that government consumption and investment evolve in line with the macroeconomic and fiscal forecasts in the *Half Year Economic and Fiscal Update (HYEFU)* 2023. Other Government economic policy settings as at this update are also assumed to be unchanged, including tax and transfer policies. As outlined in chapter 4.2, we do not yet have sufficient certainty in the form and timing of new policies to incorporate them into our central forecast.

Uncertainty around assumptions in our projections is high, as there are several partially offsetting factors influencing the economic environment. These factors include: the impact of higher interest rates on demand and inflation globally; the ongoing impact of regional wars; shipping disruptions; and a return to more normal fiscal spending from high levels during the COVID-19 pandemic. The change in government may also materially change the outlook for fiscal spending, revenue and economic policy.

GDP unexpectedly fell in the September 2023 quarter and was revised lower over recent years, largely reflecting downward revisions to real government spending. Higher-frequency data suggest that economic activity remained relatively flat at the end of 2023, as the lagged impact of monetary policy tightening on per capita spending was offset by high levels of net immigration. Taken together, this suggests that the starting point for the output gap was slightly lower than previously expected.

The net effect of lower GDP and potential output in recent data is reflected in a similar profile for the output gap over the projection horizon as in the November *Statement*. Projections for the levels of domestic spending (excluding government spending) are relatively similar to those in November. Net exports are expected to recover at a similar pace over the medium term as goods and services exports steadily recover after dropping sharply during the COVID-19 pandemic. Imports remain more subdued in the near term in line with relatively flat or falling levels of real domestic spending. A faster-than-expected recovery in export prices and a faster decline in import prices have also supported New Zealand's terms of trade.

Core inflation measures and business inflation expectation measures across all horizons have decreased in the past quarter, but are still high. The declines are consistent with easing labour market pressures and declining annual wage inflation. As these factors continue to ease and capacity pressures decline, non-tradables inflation is expected to decrease gradually over the medium term. Lower headline CPI inflation due to larger than expected declines in tradables inflation has also coincided with sharper falls in short-term inflation expectations. This is expected to help ease non-tradables inflation via lower wage and pricing pressure over time as a result of global shipping disruptions.

Overall, annual consumer price inflation is expected to return to within the Reserve Bank's 1 to 3 percent target band by the September 2024 quarter, as expected in the November *Statement*. This reflects a similar output gap outlook to the November *Statement*. Headline inflation is expected to reach the 2 percent target midpoint by the December 2025 quarter. This reflects in part the assumption of a small temporary lift in foreign import prices in the June and September 2024 quarters, which is subsequently reversed in the following two quarters. Overall, average inflation over the projection is slightly lower than projected in the November *Statement*. Conditional on this central economic outlook, the OCR is expected to be similar to that shown in the November *Statement*, in order for the MPC to meet its inflation objective.

Table 6.1

Key projection assumptions

Key factors	
Global factors	• In recent quarters, economic strength has been mixed among New Zealand's key trading partners. Economic growth remains strong in the US, while continuing to slow in Australia and stagnating in the euro area. Growth in China is moderate, after a weaker-than-expected recovery in 2023. • Recent disruptions to shipping in both the Red Sea and Panama Canal have led to a sharp increase in global shipping costs in recent months. We have assumed a small temporary increase in foreign import prices in the June and September 2024 quarters, which is subsequently reversed in the following two quarters, to reflect the effects of these disruptions. The overall scale and duration of the effects remain highly uncertain (see chapter 4.1). • On balance, global economic growth is expected to slow further in 2024 and remain subdued thereafter, similar to what was anticipated in the November *Statement*. The lagged impact of higher interest rates in 2022 and 2023 and the normalisation of government spending as a share of GDP from high levels reached during the COVID-19 pandemic are expected to further reduce demand. • Overall, slowing global demand continues to reduce capacity and inflationary pressures. Consequently, we generally expect that lower global inflation will result in lower imported inflation in New Zealand over time. However, supply-side shipping disruptions may at least partially offset this if sustained, keeping import inflation higher than otherwise in coming years. • Expected global policy interest rates are only marginally lower than assumed in the November *Statement*. This reflects lower inflation data and a slight shift towards an easing bias from some central banks, particularly in the US. However, market expectations for the speed and scale of easing have been scaled back more recently as activity and inflation data in some countries such as the US have been more resilient than expected. • The New Zealand dollar trade-weighted index (TWI) has appreciated since the November *Statement*. One supporting factor for the New Zealand dollar has been a recovery in export prices in recent months following a sharp decline during 2023. • The TWI is assumed to remain at 71.5 over the projection.
International tourism	• Services exports, particularly tourism and education, have recovered rapidly since the border was reopened in 2022. We maintain a strong growth projection for services exports. Additional spending by overseas tourists is contributing to capacity pressures across the transport, accommodation and hospitality sectors. • We assume that tourism exports have recovered to around 90 percent of their pre-pandemic levels in inflation-adjusted terms over the 2023-2024 summer season and will surpass pre-pandemic levels by the end of the projection.
Migration and house prices	• Net immigration since the border reopened has been exceptionally strong and higher than anticipated in previous *Statement*s. • Robust economic activity during the COVID-19 period, combined with constrained labour supply caused by tight border restrictions, contributed to strong wage inflation. Since the border reopened, many businesses have been able to fill vacant jobs with migrants. This has contributed to easing wage pressures. To this extent, high net immigration has been disinflationary. • Immigrants add to the supply of labour but also add to demand. Immigrants need to establish new homes in New Zealand, which increases demand for housing and housing-related goods and services. In recent months, the housing-related inflationary impacts from high net immigration have become more evident in some areas, especially rents. • The recovery in house prices continues, albeit at a moderate pace. Monthly REINZ house prices fell by around 15 percent in seasonally adjusted terms from their peak in November 2021 to March 2023. House prices have since risen by 3 percent to January 2024.

Migration and house prices cont.

- The lagged impact of recent monetary policy tightening continues to restrain the scale and speed of the housing market recovery, despite ongoing additional demand via high net immigration. We project slower house price growth in 2024 following weaker price momentum in late 2023. Mortgage rates have fallen by less than wholesale rates, causing a faster normalisation in mortgage rate spreads than previously assumed. We assume that house prices grow at a similar pace to that in the November *Statement* over the medium term, at around 6 percent per year. This reflects the lagged impact of high net immigration and lower interest rates later in the projection horizon.
- A slower recovery in house prices and housing market activity is associated with moderately lower household consumption levels in 2025 compared to the November *Statement*. However, this restraining impact fades towards the end of the projection horizon as house price growth returns to levels projected previously.

Economic growth

Production

- We assume that production GDP did not grow in the December 2023 quarter. Government consumption, private consumption and investment are expected to decline. The continued recovery in exports and government investment are factors supporting GDP growth. The stock of produced goods (inventories) is also expected to fall by less than in the previous quarter.
- Weaker-than-expected growth in the September 2023 quarter translates into a lower estimate of capacity pressures and a steeper fall already having occurred than assumed in the November *Statement*. However, this is only slightly lower than assumed in November given that the downward revisions to GDP also imply potential GDP has been lower. We estimate that the output gap peaked at 3.9 percent of potential GDP in the September 2022 quarter and has turned negative to -0.5 percent in the December 2023 quarter.
- We expect close to zero quarterly GDP growth in the December 2023 quarter, with high interest rates dampening domestic demand. However, quarterly changes in GDP are highly uncertain. For the June 2024 year, annual GDP growth is projected to slow to 0.3 percent before gradually increasing over the rest of the forecast.
- Over the medium term, the productive capacity of the economy is expected to improve, increasing economic activity. In large part, this is supported by strong population growth through net immigration that adds to labour supply.
- We expect the output gap to become negative from the December 2023 quarter after a sharp drop in the September 2023 quarter, with actual production lower than the economy's potential. An extended period of below-trend growth is expected to be necessary to reduce labour market pressures and see our inflation objective met sustainably over the medium term.

Consumption

- Consumption declined slightly less in the September 2023 quarter than expected in the November *Statement*. Recent card spending data suggest a further decline in consumption in the December 2023 quarter.
- Consumption is expected to grow only moderately in early 2024, as households with mortgages move onto higher interest rates and the effect of lower house prices continues to pass through to lower spending. In addition, the labour market is expected to weaken further and wage inflation is expected to fall, reducing aggregate labour income. However, high net immigration is expected to provide some support for aggregate consumption and house prices. Consumption is expected to decline on a per capita basis from the March 2023 to the March 2024 quarter by around 3.5 percent.
- Consumption is expected to gradually recover from mid-2024, supported by lower interest rates and increasing house price inflation.

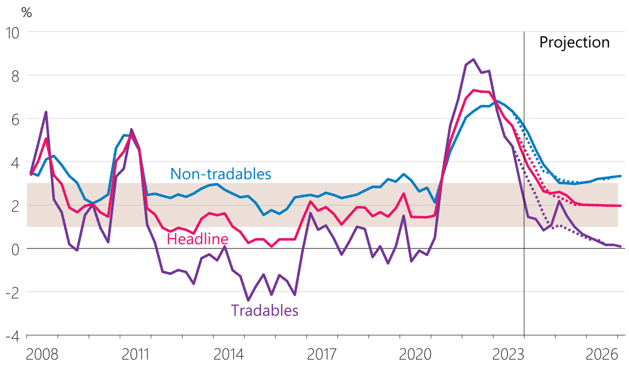
Investment	• Significant pressure on available resources has supported high levels of business investment in the last few years. • Business investment is expected to decline in coming quarters, due to high interest rates and easing capacity pressures. The global economic slowdown and regional wars are also likely to reduce business investment further by adding to uncertainty about future global demand. • Residential investment has fallen in recent quarters, consistent with a decline in the number of dwelling consents. Our projected decline in residential investment is consistent with current high mortgage interest rates, high construction costs and lower house prices relative to their peak in November 2021. • The impact of high net immigration on housing demand and house prices is expected to support a recovery in residential investment over the medium term. We project the share of residential investment to potential GDP to return to around pre-pandemic levels by the end of the forecast.
Government	• We assume that government consumption and investment evolve in line with the macroeconomic and fiscal forecasts in *HYEFU* 2023. • Government investment, particularly in infrastructure, is projected to increase considerably. • Government consumption is projected to decline moderately in 2024 and 2025 before stabilising toward the end of the forecast horizon. Spending declines slightly more rapidly in the coming two years and recovers more moderately in 2026 than in the November *Statement*. • Over the medium term, real government consumption and investment as a share of potential GDP is assumed to continue to decline gradually from high levels during the height of the COVID-19 pandemic. Historical downward revisions to government spending levels imply that government spending now accounts for a lower share of GDP than previously estimated. • The projections for government consumption and investment, and the impact of taxation on spending by private households and businesses will change under forthcoming policy changes under the new Government (see chapter 4.2).
Exports and imports	• Overall, prices of New Zealand's commodity exports have recovered in recent months after sharp falls during 2023, led by dairy prices. This has occurred as global growth expectations have stabilised. Market expectations have started to pivot towards policy easing in 2024 and 2025 for some central banks, supporting global demand for our goods exports. • Goods export volumes are expected to recover in the near term after falling slightly further than expected in the September 2023 quarter. Volumes gradually increase over the medium term, as global economic growth recovers from mid-2024. • International travel is recovering broadly as expected. By the end of the projection, services exports are assumed to have surpassed pre-COVID-19 levels. • Import prices fell by more than expected in the September 2023 quarter, largely accounted for by lower-than-expected oil prices. This is in line with declining global economic growth and an unwind of COVID-19 supply bottlenecks, including via falling shipping costs. • We assume that the recent shipping disruption in both the Red Sea and Panama Canal add a total of two percentage points to non-oil import price inflation across the June and September 2024 quarters. This increase is spread evenly in these two quarters and is subsequently reversed symmetrically. These assumptions are subject to significant uncertainty as to the timing and magnitude of these shipping disruptions. • Import prices are assumed to decline steadily over the later part of the projection. The pace of these declines is assumed to be similar to pre-COVID-19 trends, and that expected in the November *Statement*.

Labour market	
Employment and wages	• The New Zealand labour market continues to soften, but at a slightly slower pace than previously expected. The unemployment rate increased from 3.9 to 4.0 percent in the December 2023 quarter. The employment rate eased slightly from 69.1 to 69.0 percent as the increase in the number of people employed grew less than the working-age population. Overall, our suite of labour market indicators provides consistent evidence that labour market pressures have been easing relative to last year. • In coming quarters, employment growth is expected to remain low in line with slowing economic activity. Employment may fall below its maximum sustainable level for a time. Slowing economic growth, together with gradual growth in the labour force, is expected to further relieve labour market pressures. The unemployment rate is assumed to increase to around 5.1 percent in the first half of 2025, in line with the declining output gap. • Strong net immigration has been alleviating labour shortages. The number of job vacancies has been falling as immigrants fill existing job vacancies and high interest rates reduce new labour demand. These factors have created a better balance between labour supply and demand than during the time of the COVID-19 border restrictions. This reduces inflationary pressures, at least in the near term, without a rapid increase in unemployment. In line with this, annual same-job wage inflation decreased from 4.1 to 3.9 percent in the December 2023 quarter, although this drop was less than expected in the November *Statement*. To this extent, high net immigration has been disinflationary. However, in recent months net immigration has added to demand more substantially – in particular for housing via rents. • On balance, we expect same-job wage inflation to decline gradually over the medium term, as labour market pressures continue to ease. However, wage inflation is assumed to stay above pre-COVID-19 levels as nominal same-job wages catch up to some extent with lost purchasing power because of high consumer price inflation in recent years.

Inflation	
Headline	• Annual headline CPI inflation has continued to decline from its peak, at a slightly faster rate than previously expected. Headline CPI inflation dropped from 5.6 percent to 4.7 percent in the December 2023 quarter, accounted for by a faster-than-expected drop in tradables inflation. Inflation is projected to decrease further to 3.8 percent in the March 2024 quarter. • Annual headline CPI inflation is projected to return to within the 1 to 3 percent target band in the September 2024 quarter, as in the November *Statement*. Headline inflation reaches the 2 percent target midpoint in the December 2025 quarter. This in part reflects the impact of higher assumed import prices via shipping costs.
Tradables	• Annual tradables inflation has continued to decline from its peak and is projected to decrease overall across the forecast horizon, as global inflationary pressures ease further. Petrol prices and non-oil import prices are forecast to decline gradually overall, contributing to the fall in tradables inflation. However, tradables inflation is assumed to increase temporarily in the June and September quarters of 2024 on the assumed impact of global shipping disruptions.
Non-tradables	• Annual non-tradables inflation is assumed to have peaked but is still supported by ongoing domestic capacity pressures and strong wage growth. • The projection for capacity pressure is assessed to be similar to that assumed in the November *Statement*. These pressures are assumed to decline steadily as high interest rates restrain domestic demand growth. At the same time, the productive capacity of the economy is expected to increase, mainly because of high net immigration. • Falling headline inflation is also associated with lower inflation expectations, supporting lower wage and price setting. Overall, non-tradables inflation is assumed to decrease only slowly, as capacity pressures ease and core inflation and inflation expectations decline.

Charts

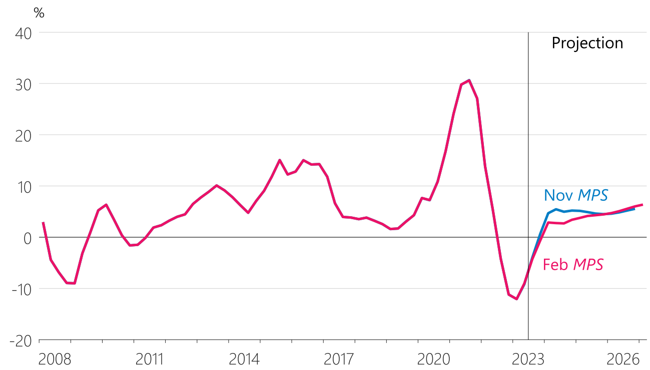
Figure 6.1
Inflation components
(annual)



Source: Stats NZ, RBNZ estimates.

Note: Dotted lines show the projections from the November *Statement*. The shaded area represents the MPC's 1 to 3 percent target range for annual CPI inflation over the medium term.

Figure 6.4
House price growth
(annual)

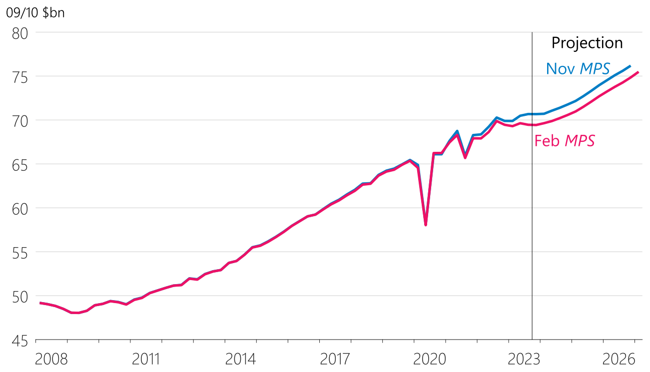


Source: CoreLogic, RBNZ estimates.

Figure 6.2
Private sector LCI wage inflation
(annual)

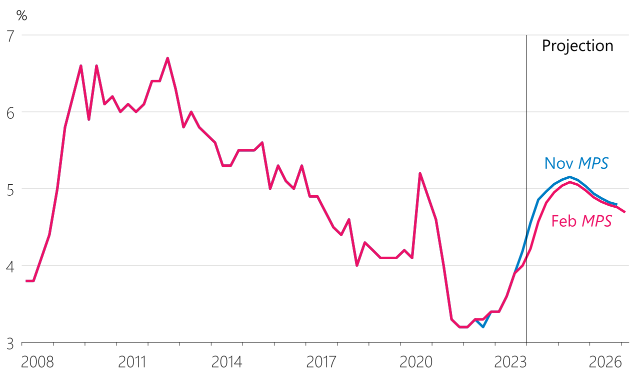
Source: Stats NZ, RBNZ estimates.

Figure 6.5
Production GDP
(quarterly, seasonally adjusted)



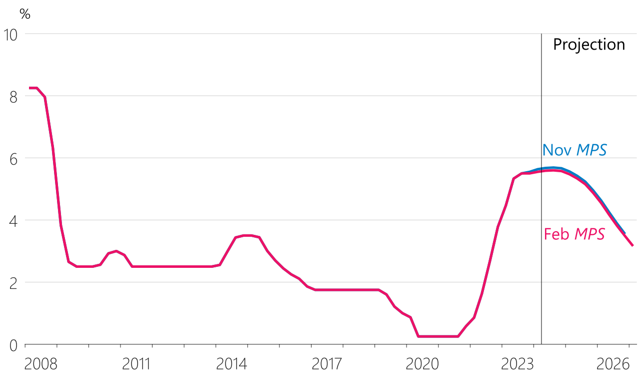
Source: Stats NZ, RBNZ estimates.

Figure 6.3
Unemployment rate
(unemployed people as a share of the labour force, seasonally adjusted)



Source: Stats NZ, RBNZ estimates.

Figure 6.6
OCR
(quarterly average)

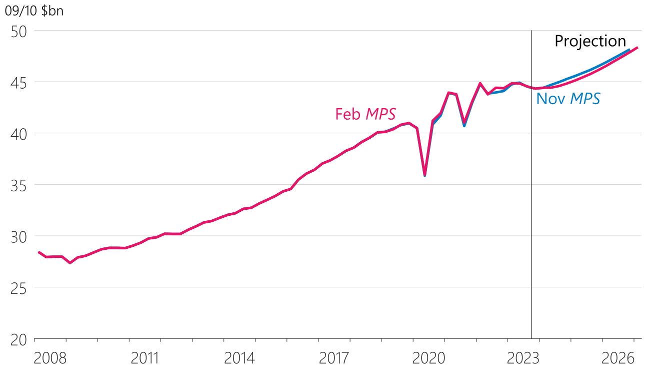


Source: RBNZ estimates.

Figure 6.7

Private consumption

(quarterly, seasonally adjusted)

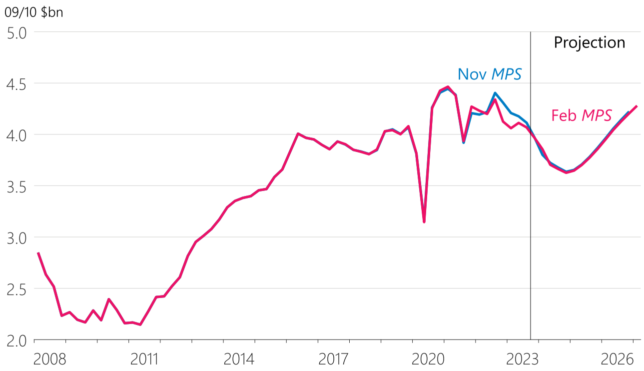


Source: Stats NZ, RBNZ estimates.

Figure 6.8

Residential investment

(quarterly, seasonally adjusted)

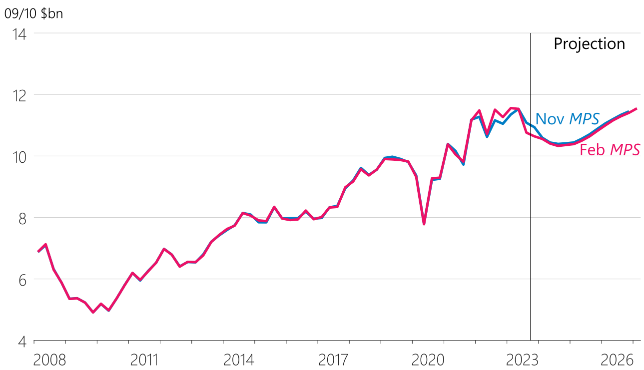


Source: Stats NZ, RBNZ estimates.

Figure 6.9

Business investment

(quarterly, seasonally adjusted)

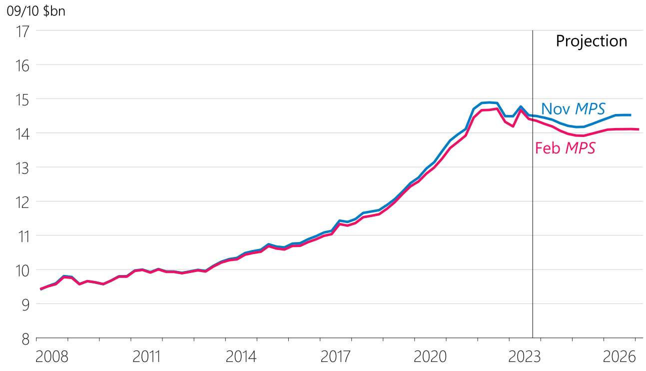


Source: Stats NZ, RBNZ estimates.

Figure 6.10

Government consumption

(quarterly, seasonally adjusted)

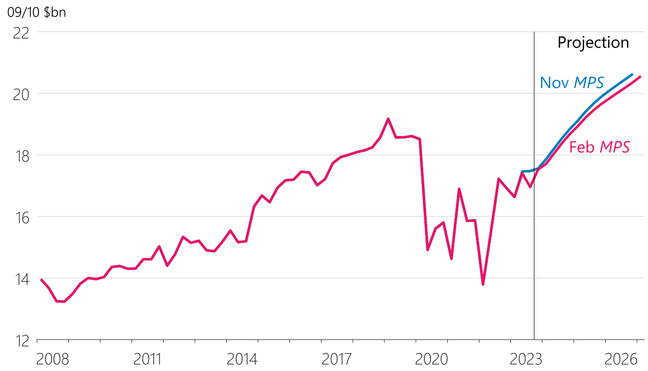


Source: Stats NZ, RBNZ estimates.

Figure 6.11

Total exports

(quarterly, seasonally adjusted)

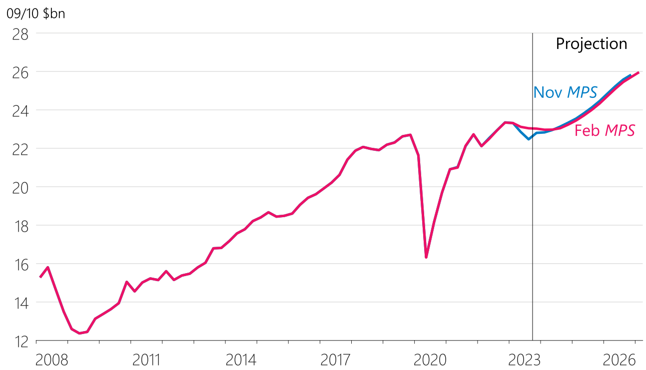


Source: Stats NZ, RBNZ estimates.

Figure 6.12

Total imports

(quarterly, seasonally adjusted)



Source: Stats NZ, RBNZ estimates.

Chapter 07

Appendices

Wairarapa. Photo: Karan Dasgupta

Chapter 7. Appendices

Appendix 1: Statistical tables

Table 7.1
Key forecast variables

		GDP growth Quarterly	CPI inflation Quarterly	CPI inflation Annual	Unemployment rate	TWI	OCR
2022	Mar	0.0	1.8	6.9	3.2	72.6	0.9
	Jun	1.1	1.7	7.3	3.3	72.1	1.6
	Sep	1.8	2.2	7.2	3.3	70.6	2.7
	Dec	-0.6	1.4	7.2	3.4	70.8	3.8
2023	Mar	-0.2	1.2	6.7	3.4	71.3	4.5
	Jun	0.5	1.1	6.0	3.6	71.0	5.3
	Sep	**-0.3**	1.8	5.6	3.9	70.6	5.5
	Dec	**0.0**	**0.5**	**4.7**	**4.0**	**70.8**	**5.5**
2024	Mar	**0.3**	**0.4**	**3.8**	**4.2**	**71.5**	**5.5**
	Jun	**0.3**	**0.6**	**3.2**	**4.6**	**71.5**	**5.6**
	Sep	**0.5**	**1.2**	**2.6**	**4.8**	**71.5**	**5.6**
	Dec	**0.5**	**0.4**	**2.5**	**5.0**	**71.5**	**5.6**
2025	Mar	**0.6**	**0.5**	**2.6**	**5.0**	**71.5**	**5.5**
	Jun	**0.7**	**0.4**	**2.4**	**5.1**	**71.5**	**5.3**
	Sep	**0.8**	**0.8**	**2.1**	**5.1**	**71.5**	**5.2**
	Dec	**0.9**	**0.3**	**2.0**	**5.0**	**71.5**	**4.9**
2026	Mar	**0.8**	**0.5**	**2.0**	**4.9**	**71.5**	**4.5**
	Jun	**0.7**	**0.4**	**2.0**	**4.8**	**71.5**	**4.2**
	Sep	**0.7**	**0.8**	**2.0**	**4.8**	**71.5**	**3.8**
	Dec	**0.8**	**0.3**	**2.0**	**4.8**	**71.5**	**3.5**
2027	Mar	**0.9**	**0.4**	**2.0**	**4.7**	**71.5**	**3.2**

Table 7.2

Measures of inflation, inflation expectations, and asset prices

	2022			2023				2024
	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar
Inflation (annual rates)								
CPI	7.3	7.2	7.2	6.7	6.0	5.6	4.7	
CPI non-tradables	6.3	6.6	6.6	6.8	6.6	6.3	5.9	
CPI tradables	8.7	8.1	8.2	6.4	5.2	4.7	3.0	
Sectoral factor model estimate of core inflation	5.1	5.5	5.7	5.7	5.7	5.2	4.5	
CPI trimmed mean (30% measure)	5.8	6.4	6.1	6.1	6.0	5.5	5.0	
CPI weighted median	4.8	5.0	5.0	5.6	6.6	5.0	4.4	
GDP deflator (expenditure)	6.3	4.6	5.2	5.7	6.4	7.3		
Inflation expectations								
ANZ Business Outlook – inflation 1 year ahead (quarterly average to date)	6.0	6.1	6.3	5.9	5.5	5.1	4.8	4.3
RBNZ Survey of Expectations – inflation 2 years ahead	3.3	3.1	3.6	3.3	2.8	2.8	2.8	2.5
RBNZ Survey of Expectations – inflation 5 years ahead	2.4	2.3	2.4	2.4	2.4	2.3	2.4	2.3
RBNZ Survey of Expectations – inflation 10 years ahead	2.1	2.1	2.2	2.2	2.3	2.2	2.3	2.2
Asset prices (annual percent changes)								
Quarterly house price index (CoreLogic NZ)	5.4	-4.2	-11.2	-12.1	-9.0	-4.3		
REINZ Farm Price Index (quarterly average to date)	28.1	12.2	5.0	-3.2	-5.7	-11.8	-10.9	
NZX 50 (quarterly average to date)	-9.0	-11.3	-12.8	-3.5	3.8	1.9	-0.2	-0.6

Table 7.3

Measures of labour market conditions

(seasonally adjusted, changes expressed in annual percent terms, unless specified otherwise)

	2022			2023			
	Jun	Sep	Dec	Mar	Jun	Sep	Dec
Household Labour Force Survey							
Unemployment rate	3.3	3.3	3.4	3.4	3.6	3.9	4.0
Underutilisation rate	9.3	9.0	9.3	9.1	9.9	10.4	10.7
Labour force participation rate	70.9	71.6	71.8	72.1	72.4	72.0	71.9
Employment rate (% of working-age population)	68.5	69.3	69.4	69.6	69.8	69.1	69.0
Employment growth	1.3	1.2	1.7	3.0	4.3	2.7	2.4
Average weekly hours worked	33.7	33.9	34.0	33.6	33.4	33.5	33.7
Number unemployed (thousand people)	97	96	100	103	110	119	122
Number employed (million people)	2.81	2.85	2.87	2.90	2.93	2.93	2.94
Labour force (million people)	2.91	2.95	2.97	3.00	3.04	3.05	3.06
Extended labour force (million people)	2.99	3.02	3.06	3.09	3.13	3.14	3.15
Working-age population (million people, age 15 years+)	4.10	4.11	4.13	4.17	4.20	4.23	4.26
Quarterly Employment Survey – QES							
Filled jobs growth	1.5	1.4	1.5	2.3	6.4	6.1	4.3
Average hourly earnings growth (private sector, ordinary time)	7.0	8.6	8.1	8.2	7.7	7.1	6.6
Other data sources							
Labour cost index growth, private sector, adjusted	3.4	3.9	4.3	4.5	4.3	4.1	3.9
Labour cost index growth, private sector, unadjusted	5.2	5.6	6.1	6.1	6.1	5.7	5.7
Estimated net working-age immigration (thousands, quarterly)	-3.2	7.8	20.3	25.9	38.1	24.7	
Change in All Vacancies Index	3.7	8.5	-5.1	-14.0	-21.8	-27.9	-28.2

Note: The All Vacancies Index is produced by MBIE as part of the monthly Jobs Online report, which shows changes in job vacancies advertised by businesses on internet job boards. The unadjusted labour cost index (LCI) is an analytical index that reflects quality change in addition to price change (whereas the official LCI measures price changes only). For definitions of underutilisation, the extended labour force, and related concepts, see Stats NZ (2016) '<u>Introducing underutilisation in the labour market</u>'. Estimated net working-age immigration is the Stats NZ outcomes-based measure.

Table 7.4

Composition of real GDP growth

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

	Actuals							Projection			
March year	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
Final consumption expenditure											
Private	6.4	4.8	4.5	2.4	0.2	6.0	2.7	**0.4**	**0.5**	**2.8**	**3.7**
Public authority	1.9	3.8	3.3	5.8	6.9	7.9	2.0	**-0.3**	**-2.7**	**-0.2**	**0.7**
Total	**5.4**	**4.6**	**4.3**	**3.2**	**1.8**	**6.4**	**2.5**	0.2	-0.3	2.0	3.0
Gross fixed capital formation											
Residential	8.8	-1.8	-0.1	2.7	2.2	3.2	-0.5	**-4.3**	**-8.5**	**4.4**	**9.0**
Other	0.0	10.0	7.1	2.7	-2.9	12.6	2.9	**-1.1**	**-0.6**	**3.9**	**4.8**
Total	**2.3**	**6.7**	**5.2**	**2.7**	**-1.7**	**10.2**	**2.1**	-1.9	-2.4	4.0	5.7
Final domestic expenditure	4.6	5.1	4.5	3.0	1.0	7.3	2.4	**-0.3**	**-0.8**	**2.5**	**3.6**
Stockbuilding*	0.1	0.2	-0.2	-0.3	-0.3	0.6	-0.1	**-0.7**	**0.5**	**0.1**	**0.0**
Gross national expenditure	**4.8**	**5.6**	**4.3**	**2.7**	**-0.3**	**8.6**	**2.6**	-1.0	-0.1	2.6	3.6
Exports of goods and services	2.0	3.8	3.3	0.2	-17.9	2.4	6.1	**5.1**	**6.4**	**5.6**	**3.8**
Imports of goods and services	5.1	7.8	4.8	1.3	-15.9	17.2	4.7	**0.1**	**0.6**	**4.4**	**5.6**
Expenditure on GDP	**3.9**	**4.3**	**3.9**	**2.5**	**0.0**	**4.7**	**2.7**	0.0	1.2	2.8	3.0
GDP (production)	3.8	3.4	3.5	2.4	-0.5	4.6	2.8	**0.3**	**1.2**	**2.8**	**3.0**
GDP (production, March qtr to March qtr)	3.3	3.5	3.5	0.7	4.5	0.7	2.1	**0.5**	**1.9**	**3.2**	**3.0**

* Percentage point contribution to the growth rate of GDP.

Table 7.5

Summary of economic projections

(annual percent change, March years, unless specified otherwise)

	Actuals							Projection			
March year	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
Price measures											
CPI	2.2	1.1	1.5	2.5	1.5	6.9	6.7	**3.8**	**2.6**	**2.0**	**2.0**
Labour costs	1.5	1.9	2.0	2.4	1.6	3.1	4.5	**3.8**	**3.6**	**3.4**	**3.2**
Export prices (in New Zealand dollars)	4.1	3.2	1.1	6.8	-6.1	20.8	1.0	**-1.7**	**2.7**	**2.6**	**2.4**
Import prices (in New Zealand dollars)	1.2	1.6	4.0	2.4	-2.4	18.9	7.0	**-5.4**	**-0.6**	**-0.2**	**0.1**
Monetary conditions											
OCR (year average)	2.0	1.8	1.8	1.2	0.3	0.5	3.1	**5.5**	**5.6**	**5.0**	**3.7**
TWI (year average)	76.5	75.6	73.4	71.7	72.4	74.0	71.2	**71.0**	**71.5**	**71.5**	**71.5**
Output											
GDP (production, annual average % change)	3.8	3.4	3.5	2.4	-0.5	4.6	2.8	**0.3**	**1.2**	**2.8**	**3.0**
Potential output (annual average % change)	3.2	3.2	3.1	2.8	-0.5	2.7	2.4	**3.0**	**2.7**	**2.6**	**2.5**
Output gap (% of potential GDP, year average)	0.3	0.5	0.8	0.4	0.3	2.3	2.7	**0.0**	**-1.4**	**-1.2**	**-0.7**
Labour market											
Total employment (seasonally adjusted)	5.9	2.9	1.5	2.6	0.1	2.5	3.0	**1.5**	**0.9**	**2.0**	**1.7**
Unemployment rate (March qtr, seasonally adjusted)	4.9	4.4	4.2	4.2	4.6	3.2	3.4	**4.2**	**5.0**	**4.9**	**4.7**
Trend labour productivity	0.6	0.6	0.6	0.6	0.6	0.3	0.0	**0.0**	**0.2**	**0.6**	**0.9**
Key balances											
Government operating balance* (% of GDP, year to June)	1.5	1.9	2.4	-7.3	-1.3	-2.7	**-2.5**	**-2.4**	**-1.5**	**-0.6**	**0.4**
Current account balance (% of GDP)	-2.5	-3.1	-3.8	-2.3	-2.5	-6.5	-8.2	**-6.7**	**-5.3**	**-3.9**	**-3.2**
Terms of trade (SNA measure, annual average % change)	2.1	4.4	-2.1	2.0	-1.0	0.4	-4.9	**1.5**	**1.4**	**4.1**	**2.5**
Household saving rate (% of disposable income)	-1.8	-2.0	-1.3	1.4	7.6	2.7	**2.1**	**1.3**	**0.5**	**1.1**	**1.3**
World economy											
Trading-partner GDP (annual average % change)	3.5	4.0	3.5	1.7	-0.5	6.1	2.7	**2.9**	**2.8**	**2.8**	**2.9**
Trading-partner CPI (TWI-weighted)	1.9	1.8	1.4	2.4	0.8	4.0	4.8	**2.3**	**2.2**	**2.1**	**2.1**

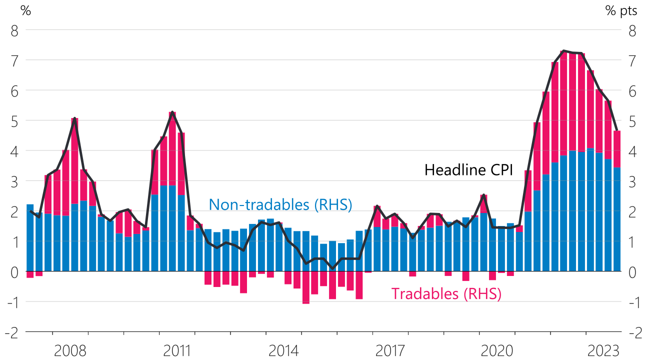
* Government operating balance is a model-based estimate of OBEGAL divided by nominal GDP in the projection. The estimate is partial because it relies on projections for some components from the *Pre-Election Economic and Fiscal Update* 2023.

Appendix 2: Chart pack

Figure 7.1

Composition of CPI inflation

(annual)

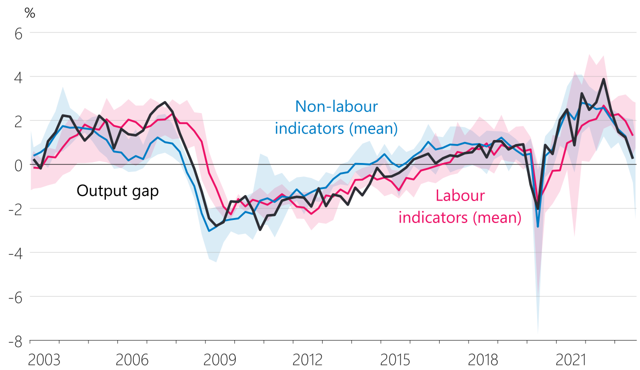


Source: Stats NZ.

Figure 7.2

Output gap and output gap indicators

(share of potential)



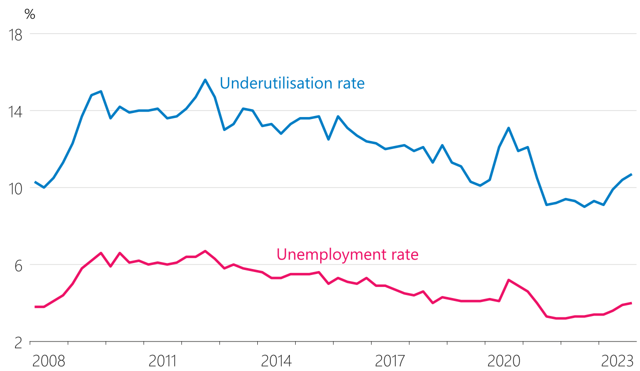
Source: NZIER, MBIE, Stats NZ, RBNZ estimates.

Note: The output gap indicators based on information about the labour market are shown separately from the other indicators. For each group of indicators, the shaded area shows the range of values and the line shows the mean value.

Figure 7.3

Unemployment and underutilisation rates

(seasonally adjusted)

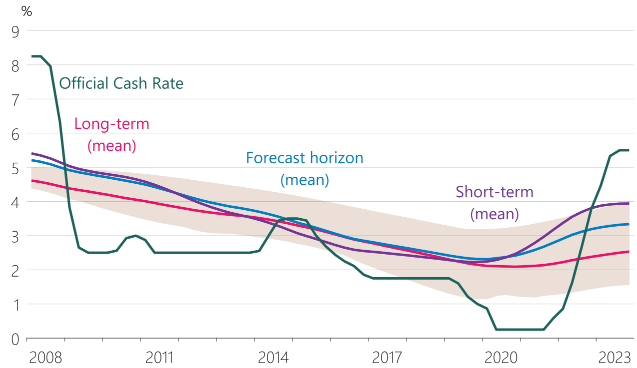


Source: Stats NZ.

Figure 7.4

OCR and nominal neutral OCR indicator suite

(quarterly average)



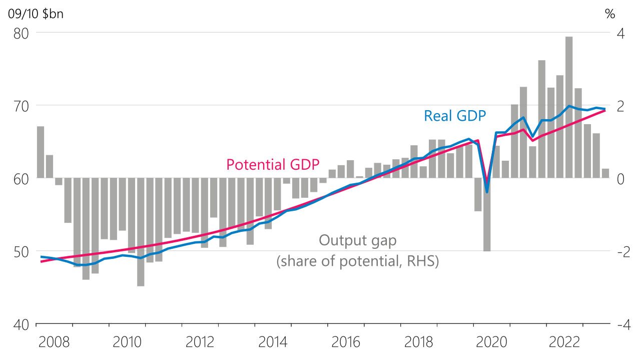
Source: RBNZ estimates.

Note: The shaded area indicates the range between the maximum and minimum values from our suite of long-run nominal neutral OCR indicators. See chapter 4.1 of the November 2022 Statement for more information.

Figure 7.5

GDP and potential GDP

(seasonally adjusted)

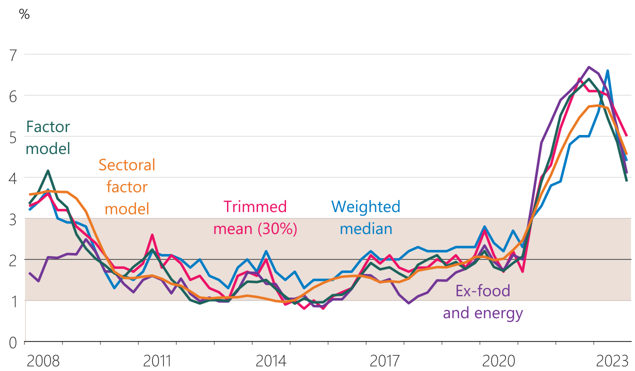


Source: Stats NZ, RBNZ estimates.

Figure 7.6

Measures of core inflation

(annual)



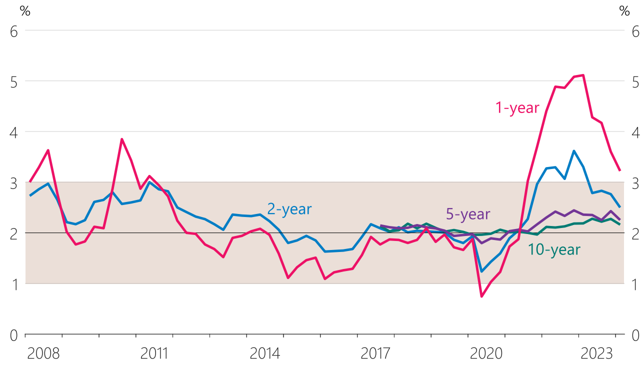
Source: Stats NZ, RBNZ estimates.

Note: Core inflation measures exclude the GST increase in 2010. The shaded area represents the MPC's 1 to 3 percent target range for annual CPI inflation over the medium term.

Figure 7.7

Inflation expectations

(annual, years ahead)

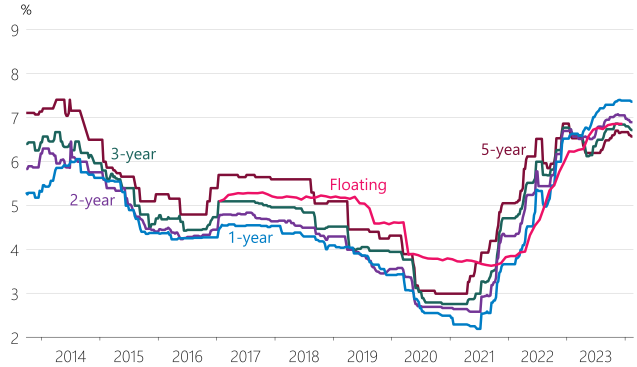


Source: RBNZ *Survey of Expectations (Business).*

Note: The shaded area represents the MPC's 1 to 3 percent target range for annual CPI inflation over the medium term.

Figure 7.10

Mortgage interest rates



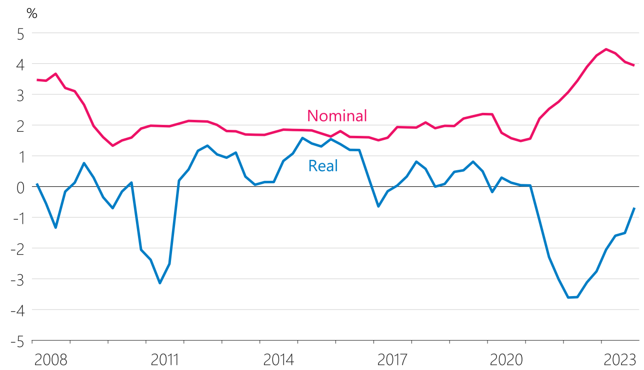
Source: interest.co.nz, RBNZ estimates.

Note: The rates shown for the fixed terms are the average of the advertised rates from ANZ, ASB, BNZ, and Westpac, shown as weekly data. The floating rate represents the monthly yield on floating housing debt from the RBNZ *Income Statement* survey.

Figure 7.8

Private sector wage growth

(annual)



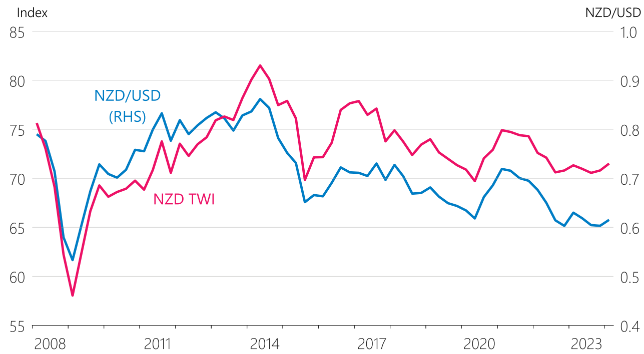
Source: Stats NZ, RBNZ estimates.

Note: Private sector wage growth is measured by the labour cost index, all salary and wage rates, private sector. Real labour cost index is deflated with headline CPI inflation.

Figure 7.11

New Zealand dollar exchange rates

(quarterly average)

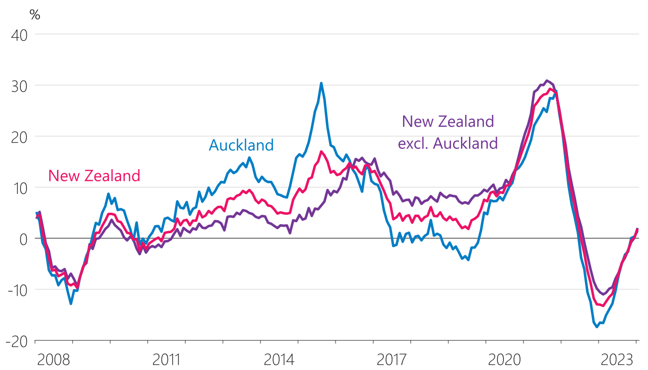


Source: NZFMA, RBNZ.

Figure 7.9

House price inflation

(annual, nominal)

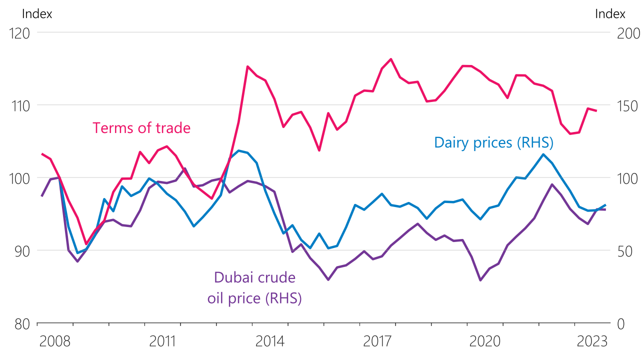


Source: REINZ.

Figure 7.12

Terms of trade, dairy and oil price indices

(index=100 in Q3 2008)



Source: Stats NZ, Global Dairy Trade, Refinitiv, RBNZ estimates.

Reserve Bank
of New Zealand
Te Pūtea Matua