THE TREASURY
Kaitohutohu Kaupapa Rawa

Budget Economic and Fiscal Update 2018

17 May 2018

ISBN: 978-1-98-855603-1 (print)   978-1-98-855604-8 (online)

An introduction to the *Budget Economic and Fiscal Update*

The Treasury is New Zealand's economics and finance ministry. We advise on the direction of New Zealand's economic policy with the aim of achieving a strong and sustainable economy, and raising New Zealand living standards. This includes reporting on the expenditure of government (fiscal) revenue, and assisting to ensure spending is fit for purpose and can improve outcomes for New Zealanders.

Sharing what we do

As the government's lead economic and financial adviser we forecast the economic outlook for New Zealand and the Government's fiscal outlook. This *Budget Economic and Fiscal Update (Budget Update)* is part of a suite of documents we release as required by the Public Finance Act 1989.

This *Update* primarily outlines what the Treasury observes in our current economic and fiscal climate, what we might see in the future, and what risks we may face over the next four years (our forecast period). This gives an indication of what the economy is most likely to do to inform decision-making.

Making it New Zealander-centric

Our advice is not just based on facts and figures. Improving outcomes means we need to understand which outcomes to improve, and what is important to New Zealanders. We use the Treasury's Living Standards Framework to recognise the different aspects of New Zealanders' living standards and well-being. Our framework is based on four areas:

- financial and physical capital eg, housing, machinery, buildings, money
- human capital eg, health, skills
- social capital eg, institutions, trust
- and natural capital eg, water, biodiversity.

We took this approach further and last year presented a living standards perspective that stretches over the next 40 years. *He Tirohanga Mokopuna: 2016 Statement on the Long-term Fiscal Position*, shares our take on long-term fiscal issues facing New Zealand. We know that sustainable government finances are a requirement to improving long-term living standards, and vice versa.

Understanding our path

The Treasury is in a unique position to focus on improving the way our economy can raise New Zealand living standards. Along with delivering first-rate economic and financial advice, we are committed to providing it in a way so New Zealanders understand how we work to achieve our goals. If you would like to know more about who we are and what we do, or want a simpler overview of the *Budget Update* please go to our website at https://treasury.govt.nz

Contents

List of Tables

List of Figures

Other information

On the Treasury's website is a series of other information that provides users of the *Budget Economic and Fiscal Update* with further detail. This other information should be read in conjunction with the published document.

Additional *Budget Update* information includes detailed economic forecast tables, a comparison of the Treasury and Inland Revenue tax forecasts, tax policy changes, additional fiscal indicators fiscal tables presented under the Government Finance Statistics (GFS) framework and accounting policies.

This other information can be accessed at: https://treasury.govt.nz/publications/efu/budget-economic-and-fiscal-update-2018

Statement of Responsibility

I make this statement in accordance with section 26W of the Public Finance Act 1989.

On the basis of the economic and fiscal information available to it, the Treasury has used its best professional judgement in preparing, and supplying the Minister of Finance with this *Economic and Fiscal Update*. The *Update* incorporates the fiscal and economic implications of both government decisions and other circumstances as at 26 April 2018 that were communicated to me by the Minister of Finance in accordance with the requirements of the Public Finance Act 1989 and of other economic and fiscal information available to the Treasury as at 26 April 2018. This *Update* does not incorporate any decisions, circumstances or statements that the Minister of Finance has determined, in accordance with section 26V of the Public Finance Act 1989, should not be incorporated in this *Update*.

Gabriel Makhlouf
Secretary to the Treasury

10 May 2018

To enable the Treasury to prepare this *Economic and Fiscal Update* I have ensured the Secretary to the Treasury has been advised, in accordance with the requirements of the Public Finance Act 1989, of all government decisions and other circumstances as at 26 April 2018 of which I was aware and that had material economic or fiscal implications.

In accordance with section 26W of the Public Finance Act 1989, I accept responsibility for the integrity of the disclosures contained in the *Update,* responsibility for the consistency and completeness of the *Update* information with the requirements of Part 2 (Fiscal responsibility) of the Public Finance Act 1989 and responsibility for the omission from the *Update* under section 26V of the Public Finance Act 1989 of any decisions, circumstances or statements not incorporated in it.

Hon Grant Robertson
Minister of Finance

10 May 2018

The Treasury approach to the Living Standards Framework

The New Zealand Treasury has long recognised the diversity of living standards outcomes. The Living Standards Framework (LSF) formalises this by drawing on the OECD's evidence-based "How's Life" analysis and their four capitals framework to organise indicators of **intergenerational** wellbeing, but has adapted it to the unique context of New Zealand.

The Four Capitals

Intergenerational wellbeing relies on the growth, distribution, and sustainability of the Four Capitals. The Capitals are interdependent and work together to support wellbeing. The Crown-Māori relationship is integral to all four capitals. The LSF is being continually developed and the next iteration of the framework will consider the role of culture, including Māori culture, as part of the capitals approach in more detail.

Natural Capital

This refers to all aspects of the natural environment needed to support life and human activity. It includes land, soil, water, plants and animals, as well as minerals and energy resources.

Social Capital

This describes the norms and values that underpin society. It includes things like trust, the rule of law, the Crown-Māori relationship, cultural identity, and the connections between people and communities.

Human Capital

This encompasses people's skills, knowledge and physical and mental health. These are the things which enable people to participate fully in work, study, recreation and in society more broadly.

Financial / Physical Capital

This includes things like houses, roads, buildings, hospitals, factories, equipment and vehicles. These are the things which make up the country's physical and financial assets which have a direct role in supporting incomes and material living conditions.

There is much to be done to create a practical approach to measuring and improving living standards in New Zealand. Just as the national accounting framework has evolved, the definitions and indicators of living standards will evolve as they are used. We started this process when we integrated the LSF into the Treasury's 2016 Long Term Fiscal Statement, *He Tirohanga Mokopuna*, and the 2018 Investment Statement *He Puna Hao Pātiki*. The next steps are:

- By the end of 2018 we will develop **a dashboard** of indicators with Statistics New Zealand to inform our understanding of intergenerational wellbeing in New Zealand. This will include indicators of current living standards and their long-term sustainability (the capitals), based on the OECD international standard.
- Engage with New Zealanders to develop **indicators of New Zealand's unique culture and heritage**, including te ao Māori, the distribution of living standards and the sustainability of the capitals.
- The Treasury will provide advice on policies to support the sustainable, productive and inclusive growth objectives of the Government's economic strategy.
- Helping the Government deliver a **wellbeing Budget** in 2019. This will use the LSF to prioritise the sustainability of the wellbeing of New Zealanders.
- Work to achieve a greater wellbeing orientation in public policy delivery, spending priorities and tracking of New Zealand's progress.

Executive Summary

Table 1 – Summary of the Treasury's Budget Economic and Fiscal Forecasts

June years	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Economic						
Real GDP (production basis, annual average % change)	3.3	2.8	3.3	3.4	2.7	2.5
Real GDP per capita (production basis, annual average % change)	1.2	0.7	1.3	1.7	1.3	1.3
Unemployment rate (annual average, %)	5.0	4.5	4.4	4.1	4.1	4.2
CPI inflation (annual average % change)	1.4	1.5	1.4	1.7	1.9	2.0
Current account balance (% of GDP)	-2.7	-2.6	-3.1	-3.0	-3.0	-3.1
Fiscal (% of GDP)						
Core Crown tax revenue	27.6	27.3	27.5	27.8	28.1	28.3
Core Crown expenses	27.8	28.1	28.5	28.2	28.3	28.0
Total Crown operating balance before gains and losses (OBEGAL)	1.5	1.1	1.2	1.7	1.7	2.1
Core Crown residual cash	0.9	-0.4	-1.3	-0.5	-0.6	0.2
Net core Crown debt (excluding the New Zealand Superannuation Fund and advances)	21.7	20.8	21.1	20.6	20.2	19.1
Net worth attributable to the Crown	40.3	40.4	40.9	41.7	42.7	44.2

Sources: Stats NZ, the Treasury

- Growth in the economy is being supported by strong population growth, accommodative monetary policy, rising household wealth and steady growth in household incomes. Further support for growth is coming from the global economy, which has strengthened over the past year, underpinning rising prices for New Zealand's exports. These forces are expected to continue to support growth, although easing net migration inflows and rising interest rates contribute to slowing growth over 2020/21 and 2021/22.

- Following several years of above trend growth, the economy appears to be operating at close to full capacity. In the labour market, the pace of employment growth remains more than sufficient to employ new entrants to the labour market and the unemployment rate has fallen to 4.4%. However, wage and price pressures remain subdued and consumer price inflation is low.

- Increased government operating and capital spending, including the introduction of the Families Package, is expected to contribute to a pick up in the pace of growth over 2018/19. Thereafter, growth in total government spending is forecast to slow and tax revenue to strengthen, which helps to restrain the build up of demand pressures in the economy.

- The pick up in growth is expected to lead to further declines in the unemployment rate and to put additional pressure on wages and prices to rise. Inflation is forecast to rise gradually towards 2.0%, the mid-point of the Reserve Bank's 1%-3% target range. Interest rates are projected to rise.

- The outlook for net migration continues to be a source of uncertainty, although net inflows have slowed in recent months. As in previous forecasts, net migration inflows are assumed to decrease over the forecast period, contributing to slower growth beyond 2019/20. However, net inflows are assumed to decline more slowly than previously, which raises population growth and economic growth beyond 2019/20 relative to the *Half Year Update 2017*.

- Tax revenue in the nine-months ended March 2018 was $1.1 billion higher than anticipated in the Treasury's *Half Year Update 2017*. This higher revenue is expected to persist. New tax measures proposed by the Government further increase revenue. Overall, tax revenue is forecast to be cumulatively $5.7 billion higher over the period to June 2022 than in the *Half Year Update 2017*.

- Forecasts of government operating and capital expenditure are higher than in the *Half Year Update 2017*, primarily reflecting the Government's decision to raise current and future budget allowances.

- Budget 2018 provides, on average, $2.8 billion per year of net new operating spending and a total of $3.8 billion of new capital investments. The operating allowances for Budgets 2019, 2020 and 2021 are now $2.4 billion for each Budget, an increase of $525 million in each year. Capital allowances are $3.7 billion for Budget 2019, $3.4 billion for Budget 2020 and $3.0 billion for Budget 2021, an increase of $300 million in each Budget.

- Reflecting increases in both revenue and expenses, the operating balance before gains and losses (OBEGAL) is still expected to increase over the forecast period, reaching a surplus of $7.3 billion (2.1% of GDP) in 2021/22.

- Over the five year forecast period, the cumulative changes in both OBEGAL and residual cash since the *Half Year Update 2017* are modest. Therefore net Core Crown debt in 2021/22 is little changed from the *Half Year Update 2017.*

- Residual cash deficits are forecast until 2020/21, reflecting capital spending exceeding operating cash flows. As a result, the value of net core Crown debt is forecast to increase from $60.4 billion in 2017/18 to $67.0 billion in 2021/22, but to decline as a share of GDP from 20.8% in 2017/18 to 19.1% in 2021/22.

Finalisation dates for the *Update*

Economic forecasts – 10 April 2018

Tax revenue forecasts – 26 April 2018

Fiscal forecasts – 26 April 2018

Specific fiscal risks – 26 April 2018

Text finalised – 9 May 2018

1

Economic Outlook

Overview

- GDP growth has slowed over the past year from 4.0% to 2.9% in the year to December 2017 and is expected to remain around these rates over the first half of 2018. Thereafter the demand outlook is broadly positive with activity underpinned by low interest rates, migration-led population growth, rising government spending and robust international growth. Annual average growth is forecast to pick up from 2.8% in the June quarter 2018 to a peak of 3.6% in the December 2019 quarter, as private consumption growth remains solid, increased government spending bolsters the economy, and both residential and business investment pick up. Growth is expected to slow to 2.5% by June 2022 as net migration inflows ease, and interest rates rise.

- Growth is expected to support a gradual decline in unemployment but also add to capacity pressures in the economy, contributing to rising inflationary pressures and increases in interest rates. International growth underpins demand for New Zealand exports and supports a historically high level for the terms of trade over the forecast period. The combination of the profile for real activity and the upwards pressure for prices results in higher nominal gross domestic product (GDP) across the forecast period.

- Changes in the outlook since the *Half Year Economic and Fiscal Update 2017 (Half Year Update)* reflect recent economic data, new government policies and changes to some key judgements. Revisions to historical data raise the starting point for GDP growth but show a greater slowing of momentum over 2017. Employment has continued to expand with unemployment falling more than expected. Increases to government spending mean that while still easing, growth in government consumption adds more to demand. An increase to the Treasury's long-run net migration assumption means population growth supports economic growth more in the later years of the forecast.

- Forecasts of nominal GDP are cumulatively $46 billion higher over the five years to June 2022 than forecast in the *Half Year Update*. However, around $40 billion of this increase is owing to revisions to historical GDP data and therefore does not directly change the outlook for tax. Overall, recent strength in tax revenue and the stronger forecasts for growth of the nominal economy increase core Crown tax revenues by $5.7 billion over the forecast period. The implications for the Crown's financial accounts are explored in the Fiscal Outlook chapter on page 23.

- The assumptions and judgements underpinning these forecasts are subject to a range of risks and uncertainties. These are discussed in the Risks and Scenarios chapter on page 47.

Table 1.1 – Economic forecasts

(Annual average % change, June years)	**2017 Actual**	**2018 Forecast**	**2019 Forecast**	**2020 Forecast**	**2021 Forecast**	**2022 Forecast**
Private consumption	5.2	4.0	3.2	2.5	2.3	2.3
Public consumption	3.2	4.4	1.7	1.7	1.8	1.7
Total consumption	**4.7**	**4.1**	**2.9**	**2.3**	**2.2**	**2.2**
Residential investment	4.9	2.3	1.4	5.0	5.5	3.9
Business investment[1]	3.9	4.5	5.3	6.8	4.1	3.2
Total investment	**4.1**	**3.9**	**4.3**	**6.3**	**4.4**	**3.3**
Stock change[2]	0.3	-0.3	0.2	0.0	0.0	0.0
Gross national expenditure	**4.7**	**3.5**	**3.6**	**3.3**	**2.7**	**2.5**
Exports	0.1	4.2	2.0	3.8	2.8	2.5
Imports	6.0	6.4	3.2	3.8	2.9	2.5
GDP (expenditure measure)	**3.1**	**3.2**	**3.1**	**3.2**	**2.7**	**2.5**
GDP (production measure)	**3.3**	**2.8**	**3.3**	**3.4**	**2.7**	**2.5**
Real GDP per capita	1.2	0.7	1.3	1.7	1.3	1.3
Nominal GDP (expenditure measure)	6.4	6.1	4.7	5.0	4.6	4.5
GDP deflator	3.1	2.8	1.5	1.8	1.9	2.0
Potential GDP	3.1	3.0	2.9	2.9	2.8	2.7
Output gap (% deviation, June quarter)[3]	0.2	-0.1	0.7	0.8	0.7	0.4
Employment	5.2	3.8	2.1	1.9	1.5	1.3
Unemployment rate[4]	4.8	4.5	4.2	4.1	4.1	4.2
Participation rate[5]	70.1	71.0	70.8	70.8	70.8	70.8
Nominal wages[6]	1.6	3.2	2.7	3.1	3.3	3.4
CPI inflation[7]	1.7	1.4	1.5	1.8	1.9	2.0
Terms of trade[8]	4.8	5.1	-0.5	0.8	0.2	0.0
House prices[9]	5.5	7.0	2.8	2.0	3.4	3.7
Current account balance						
$billions	-7.4	-7.6	-9.4	-9.5	-10.1	-11.0
% of GDP	-2.7	-2.6	-3.1	-3.0	-3.0	-3.1
Net International Investment Position (% of GDP)	-57.3	-54.7	-55.4	-55.7	-56.3	-57.0
Household saving ratio (% of HHDI)[10]	-2.8	-2.1	-0.6	0.1	0.9	1.0
TWI[11]	76.5	74.9	75.8	75.5	75.4	75.0
90-day bank bill rate[11]	2.0	2.0	2.6	3.4	3.9	4.0
10-year bond rate[11]	2.9	2.8	3.4	3.9	4.2	4.3

Sources: Reserve Bank of New Zealand, Stats NZ, the Treasury

Economic forecasts are presented on a June year basis for consistency with the fiscal forecasts. Longer time series for these variables are provided on page 142.

Notes:
1. Business investment is the total of all investment types excluding residential building.
2. Contribution to GDP growth.
3. Percentage difference between actual real GDP and potential real GDP.
4. Percent of the labour force, June quarter, seasonally adjusted.
5. Percent of the working-age population.
6. Quarterly Employment Survey, average ordinary-time hourly earnings, annual percentage change.
7. Annual percentage change.
8. System of National Accounts (SNA).
9. Quotable Value House Price Index, annual percentage change.
10. Percent of household disposable income (HHDI), March years.
11. Average for the June quarter.

Key economic forecast judgements and assumptions

These forecasts cover the period through to June 2022, and include the following assumptions.

- West Texas Intermediate (WTI) oil prices fall from US$62.9 per barrel in the March 2018 quarter to US$60.0 by mid-2018 and remain stable thereafter.
- The trade-weighted exchange rate is assumed to remain broadly stable around 75 over the forecast period.
- Net permanent and long-term immigration declines from 68,900 persons in the year ended February 2018 to 25,000 persons in the year ended June 2022.[1]
- Working-age population (15 years of age and over) growth averages 1.8% per year over the forecast period, including the contribution of net migration.
- The labour force participation rate is relatively stable across the forecast period, declining from 71.0% in the December quarter 2017 to 70.8% in June 2019 and beyond.
- Economy-wide multifactor productivity growth averages 0.5% per year over the forecast period.
- Economy-wide labour productivity growth averages 0.8% per year over the forecast period.
- Potential output growth averages 2.9% per year over the forecast period.
- The neutral nominal 90-day interest rate is 4.25% in June 2022.
- In the long run the non-accelerating inflation rate of unemployment (NAIRU) is assumed to converge to around 4.25%.

1 See page 17 for a discussion of the Treasury's updated net migration assumption.

Recent Developments

This section discusses recent developments and their impact on the economic outlook.

Economic growth slowed over 2017…

Economic growth slowed over the past year. Real production GDP grew 0.6% in the December quarter, weaker than the 0.8% in the *Half Year Update* forecasts, partly owing to weak agricultural production following volatile weather conditions. Historical GDP data have been revised higher by Stats NZ with the revised data also highlighting a more pronounced slowing in economic momentum. Quarterly growth is expected to pick up slightly from 0.6% in the December quarter to 0.7% in the March and June quarters as the impact of adverse weather conditions on agricultural production growth lessens.

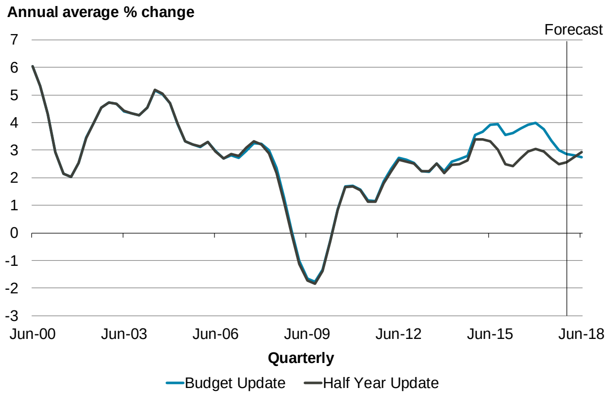
…with recent weather conditions disrupting activity…

September quarter GDP growth was in line with the *Half Year Update*, although there were significant revisions to historical data (discussed below). December quarter GDP on the other hand, came in slightly weaker than forecast. Volatile weather conditions over the past six months have disrupted agricultural production. In particular, a wet spring and then a very dry start to summer adversely affected milk production. The dry weather hindered pasture growth and saw some animal slaughter brought forward in response to lower feed levels. This negatively impacted December quarter GDP. This weakness is likely to persist, albeit to a lesser extent, through the March quarter, before GDP gradually recovers as farming conditions improve.

…while historical revisions have changed the starting point…

Large revisions to historical quarterly data, announced alongside the release of the September quarter GDP data, meant that the estimated size of the economy at the beginning of the forecast period is now larger than at the *Half Year Update.* Revisions to GDP data are common in the September quarter as Stats NZ aligns the quarterly data with their latest annual data release. Annual GDP measures are based on more comprehensive sets of data but are less timely than the quarterly estimates. Revisions at the September 2017 quarter were larger than usual and with new household consumption data replacing previously modelled data, drive large upward revisions to private consumption data. New data measuring construction activity also resulted in upward revisions to residential investment.

Figure 1.1 – Revisions to Production GDP growth



Sources: Stats NZ, the Treasury

Annual average growth was generally in the 3.5% to 4.0% range over most of the past three years, whereas prior to the revisions it was generally estimated to be in the 2.5% to 3.5% range (Figure 1.1). The revisions help to explain the strong tax revenue seen in recent years, with upward revisions to consumption, investment and exports. Measured consumption is also now more consistent with the upward trend in population growth over this period.

While these changes raised estimates of the size of the economy, they also highlighted a faster slowdown in economic growth over 2017. Annual average growth for the year ended December 2017 was 2.9%, compared with 4.0% in 2016. This loss of momentum presents a risk going forward. If GDP growth continues to slow, the weaker outlook would result in less employment and lower tax revenue than presented in these forecasts. Real growth is forecast to remain around current rates over coming quarters before picking up to a pace of 3.6% in the year to December 2019 as agricultural conditions normalise, government spending increases and investment lifts.

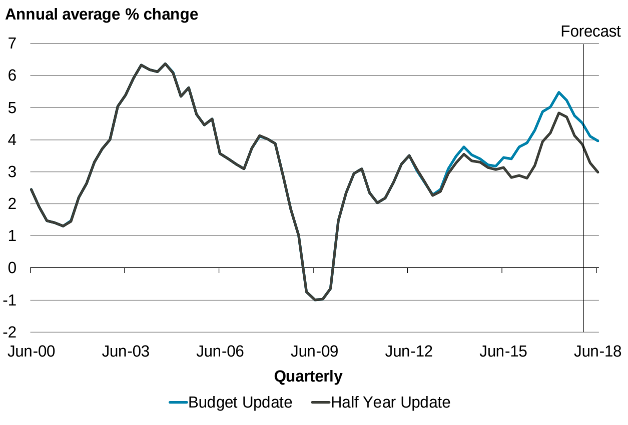
…particularly for nominal GDP

In contrast to the loss of momentum in the real economy, nominal GDP, which measures economic activity in current prices, has continued to grow solidly. Nominal GDP growth captures increases in the price of consumption goods (similar to the consumers price index (CPI)) but also in the price of other areas of GDP including the prices of investment goods, and the prices of exports and imports. Nominal GDP growth was 1.4% in the December 2017 quarter, exceeding the *Half Year Update* forecast of 0.5%, owing to a rise in the terms of trade. The improvement in the terms of trade is the result of strong export prices alongside relatively cheaper imports. This stronger growth builds upon the higher starting point for nominal GDP owing to historical revisions. In the year to June 2017, nominal GDP has been revised up by $6.2 billion and, by $2.0 billion in the June quarter alone.

Consumption and investment have continued to support growth

Revisions from Stats NZ lifted growth rates of consumption, supporting the upward revision to GDP. Consumption growth peaked in March 2017 and has been supported by a number of factors. Migration has continued to add to the population and therefore demand, although it is now slowing in line with our forecasts. Rising house prices have lifted household wealth and underpinned growth in spending. Consumer confidence has been mixed recently although it remains above long-term averages. Overall, consumption looks set to continue to support growth in coming quarters, although this contribution to growth is likely to continue to ease (Figure 1.2).

Figure 1.2 – Household consumption



Sources: Stats NZ, the Treasury

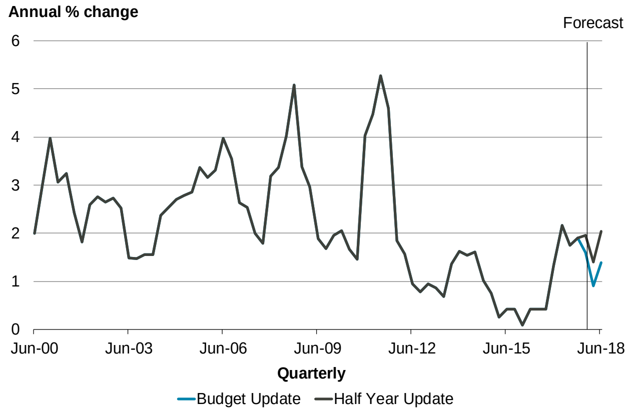
House price growth has picked up again since July 2017 following a brief lull, particularly in Auckland. Building consents recovered from their dip last year, but have been volatile in recent months. Looking through this volatility, there has been little growth in consents since October 2017, suggesting growth in residential investment over the first half of 2018 may be subdued.

Wage pressures begin to build but inflation remains mixed

Labour market data in the December 2017 quarter pointed to a tightening of the labour market. Unemployment dropped to 4.5% with employment growth at 4.2% and the participation rate remaining around its record level at 71.0%. We now assume the participation rate will remain around these levels throughout the forecast period. Labour market data for the March quarter, released after these forecasts were finalised, was roughly in line with these forecasts. Employment growth was as expected, but a slight dip in the number of unemployed saw the unemployment rate fall to 4.4%. Wage growth was slightly stronger than forecast at 3.5% as measured by the quarterly employment survey. This compared with wage growth in these forecasts of 3.2%. Further data are needed to confirm the persistence of stronger wage pressures than currently assumed.

CPI inflation in the December 2017 quarter came in at 0.1% compared with the Treasury's *Half Year Update* forecast of 0.5% (Figure 1.3). In contrast, inflation for the March 2018 quarter, which was released after these forecasts had been finalised, came in above expectations (0.5% compared with our forecast of 0.2%). The difference was largely owing to higher-than-expected petrol prices, seen as a 'one-off' surprise. This suggests little persistence and therefore limited implications for our forecasts. However, increases in oil prices since the finalisation of these forecasts present some upside risk to tradable inflation in the next few quarters.

Figure 1.3 – CPI inflation



Sources: Stats NZ, the Treasury

Export prices have continued to rise…

Commodity prices have generally been performing well in recent months. Meat prices have increased and remain high, buoyed by growing international demand. Dairy prices have slipped recently but remain well above the level required for farm profitability. Import prices have been constrained by technological improvements, increasing competition and relatively subdued international inflation. This combination led to a historically high terms of trade in the December quarter.

…driven largely by a robust international outlook

Growth amongst New Zealand's trading partners strengthened and broadened over 2017. In the US, the announcement of fiscal stimulus has buoyed markets and confidence, only somewhat offset by growing geopolitical risks. For the first time in a decade, economic growth in China was higher than the previous year. Growth in Japan and Europe continues to improve, supported by strong indicators of domestic activity. Risks from an abrupt exit of the UK from the EU have diminished, with a longer time horizon likely to support a more stable transition.

In a number of advanced economies, growth is estimated to be above sustainable rates and is beginning to place upwards pressure on wages. Global inflation remains subdued for now, although fiscal stimulus in the US and reducing slack in the labour market have led to expectations of a faster monetary policy tightening and higher global bond yields. For the first time in 20 years, bond yields in the US have risen above those in New Zealand. This could put downward pressure on the exchange rate as capital shifts towards higher interest rates in the US. However, it is difficult to forecast exchange rates and we assume the trade-weighted index (TWI) will remain around 75 over the forecast horizon.

Growth in nominal GDP to support tax revenues

Revisions to, and continued growth in, nominal GDP aligns with the recent strength in tax revenue data. In particular, in the year to March 2018, tax revenue has come in $1.1 billion ahead of the *Half Year Update* forecasts. The strength was fairly broad-based, driven by growth in corporate tax (owing to strong company profits), goods and services tax (GST) (reflecting solid consumption and residential investment) and source deductions (reflecting tighter labour market conditions). The positive economic outlook is forecast to continue to support increasing tax revenues (see the Fiscal Outlook chapter for more details).

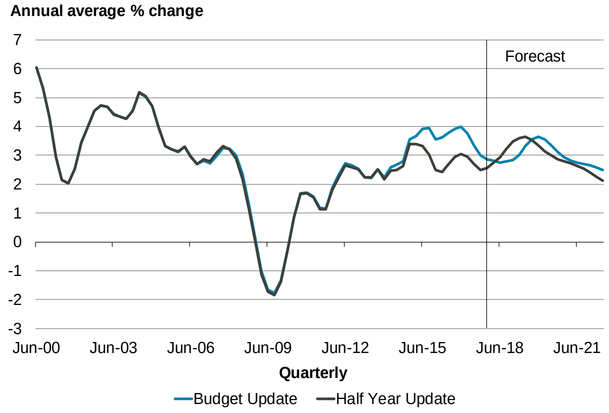
Economic Outlook

This section discusses the economic outlook for the period ending June 2022. The outlook is conditioned on a number of judgements and assumptions that are outlined on page 7. Should these assumptions and judgements prove incorrect, economic and fiscal outcomes would deviate from the outlook presented here. The Risks and Scenarios chapter discusses some of the key risks facing the economy and uses scenarios to assess the implications if some key assumptions and judgements were altered.

Economic growth to pick up…

GDP growth is expected to rise from 2.8% in the 2018 June quarter to a peak of 3.6% in the December 2019 quarter (Figure 1.4). Growth is underpinned by strong (albeit slowing) population growth, low interest rates, increased government spending and an expanding international economy. Thereafter, growth is forecast to ease to 2.5% by June 2022 as interest rates rise, and population and employment growth slows. Economic growth supports a gradual decline in the unemployment rate, a lift in inflation back towards 2.0% per year and tax revenue growth.

Figure 1.4 – Economic growth (production GDP)



Sources: Stats NZ, the Treasury

Compared with the *Half Year Update*, growth is weaker in the near term. The pick up in growth is slightly delayed, reflecting the impact of weather on agriculture as well as the slowing momentum in GDP growth evident in the revised data. Thereafter, stronger government spending, and a higher end point for migration, support higher growth in the latter half of the forecast period than in the *Half Year Update*. In the five years to June 2022, nominal GDP is cumulatively around $6 billion higher than forecast in the *Half Year Update*, after adjusting for the revised starting point.

…supported by increases in government spending…

Higher government spending is forecast to support a lift in economic growth. The Government's capital spending profile is forecast to pick up with capital allowances having increased by a total of $1.3 billion since the *Half Year Update*. This adds to business investment in the forecasts.[2] Higher operating allowances for future Budgets lead to higher forecast government consumption. Operating allowances, the total amount available for funding new ongoing initiatives in a Budget, have increased by $525 million per year, for Budgets 2019, 2020 and 2021. The fiscal impulse, which estimates the impact of changes in government activity on the economy, shows that government activity

[2] The term 'business investment' is used in the National Accounts to cover all investment excluding residential and therefore includes investment by local and central government. Owing to data quality issues, Stats NZ is no longer publishing the quarterly data that allows for a distinction between market and non-market investment.

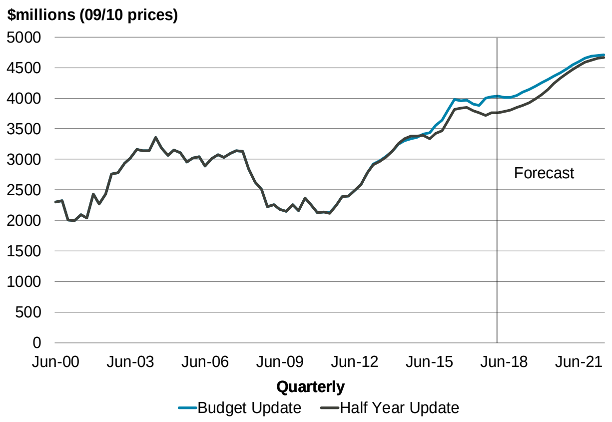
is more stimulatory than at the *Half Year Update* over the period 2019-2022. The fiscal impulse is discussed in more detail in 'Summary fiscal indicators' in the Fiscal Outlook chapter.

However, there are a number of offsetting factors that are likely to limit the growth captured from higher government spending within the forecast period. Capacity constraints and wage pressures mean some of the allocated spending is expected to go into higher prices, rather than an expansion of services. The stimulus is also partly offset by an increase in interest rates sooner than would otherwise have been the case. Finally, changes to assumptions around the profile of KiwiBuild mean less of the impact of KiwiBuild on residential investment occurs in the forecast period.

KiwiBuild is expected to add to growth in residential investment, particularly in the latter part of the forecast period, and for a considerable period beyond. However, changes in the timing of capital expenditure on KiwiBuild since the *Half Year Update* mean the boost to growth occurs later in the forecast period than previously assumed. For further information on the new profile of KiwiBuild and other changes to government spending, see the 'Economic impacts of new government policies' box below.

Residential investment growth more generally is expected to pick up over the forecast period. While capacity constraints limit the extent of this pick up in the near term, government policies including KiwiBuild visas, and technological improvements such as prefabricated housing, are assumed to ease capacity constraints to enable further growth in the medium term. This enables a further boost to residential investment towards the end of the forecast period than would otherwise be the case.

Figure 1.5 – Residential investment



Sources: Stats NZ, the Treasury

The economy is estimated to be operating broadly at capacity, although there will be considerable variation across sectors. For example, the construction sector appears to have limited room to expand without adding to inflationary pressure. The forecast pick up in growth will see capacity pressures build and lead to increased price pressures and therefore higher interest rates. These capacity pressures are unlikely to be completely unwound by 2022 with the impact of KiwiBuild-related construction becoming progressively larger over the forecast period (and beyond).

Economic impact of new government policies

The Government announced a range of new policies late last year that were incorporated into the *Half Year Update*[3] based on the best available information at the time. This box provides an update on the economic impact of some of these policies, notably changes to the KiwiBuild funding profile and new operating and capital allowances, and how these have been incorporated into the 2018 *Budget Update.*

KiwiBuild and residential investment

The KiwiBuild programme aims to deliver 100,000 affordable homes over 10 years for first home buyers through a combination of building on underutilised Crown land, purchasing or underwriting private developments off plan, and large-scale developments. While we do not forecast the number of new dwellings, we do forecast the real and nominal value of residential investment (chiefly dwelling construction) as an input into the economic and fiscal forecasts. Policy outcomes such as housing being available at lower prices could therefore be reflected in similar levels of residential investment. We make an assumption on the *additional* residential investment that is generated by KiwiBuild, which incorporates both the direct spending from KiwiBuild as well as policies designed to alleviate the capacity constraints that are currently limiting growth in the construction sector. There remains a high degree of uncertainty about the impact that these policies may have.

Since the *Half Year Update* the Government has made decisions about the funding profile of the KiwiBuild programme that are reflected in the *Budget Update*. While there is no change in our overall assumptions of additional nominal residential investment generated by KiwiBuild as a result of this, we have revised the timeframe over which we expect it to occur (Table 1.2). We now assume that around $2.5 billion of additional nominal residential investment will occur in the forecast period, compared with around $5 billion in the *Half Year Update*. This activity is not lost, but instead a greater proportion is assumed to occur outside the forecast period.

Table 1.2 – Capital injections for KiwiBuild and estimated additional residential investment

	Year ending 30 June $billions	**2018 Forecast**	**2019 Forecast**	**2020 Forecast**	**2021 Forecast**	**2022 Forecast**	**Total Forecast**
HYEFU	KiwiBuild capital injection	0.1	0.9	1.0	-	-	2.0
	Additional nominal residential investment	0.0	0.0	0.7	2.1	2.6	5.4
BEFU	KiwiBuild capital injection	0.1	0.3	0.5	1.0	-	1.9*
	Additional nominal residential investment	0.0	0.0	0.3	0.8	1.4	2.5

Source: The Treasury

* A net $134 million of capital expenditure has been shifted to operating expenditure as a result of the 'Buying off the Plans' programme.

Operating and capital allowances

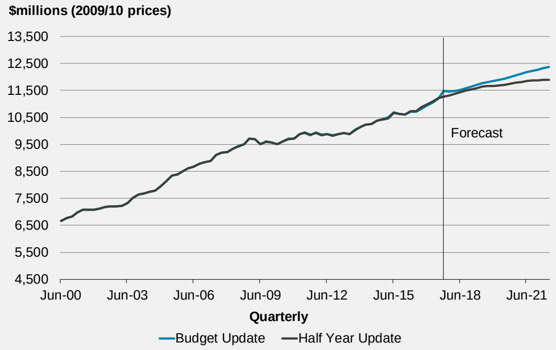
Updated operating allowances have been incorporated into the public consumption component of the GDP forecast, which is now higher than the *Half Year Update,* particularly through the later part of the forecast period when the differences to previous allowances are larger (Figure 1.6).

3 See the 'Impacts of new government policy' box in the *2017 Half Year Economic and Fiscal Update* for further details.

Capital allowances are incorporated within the business investment forecast. Overall, our forecast for business investment growth is a little weaker than in the *Half Year Update* (Figure 1.7), chiefly reflecting insights from our new forecasting model that suggest the share of business investment in the economy is a little lower in the long run than previously thought. Taken together, higher capital allowances but lower business investment growth implies that the public share of business investment is likely to be larger over the coming years.

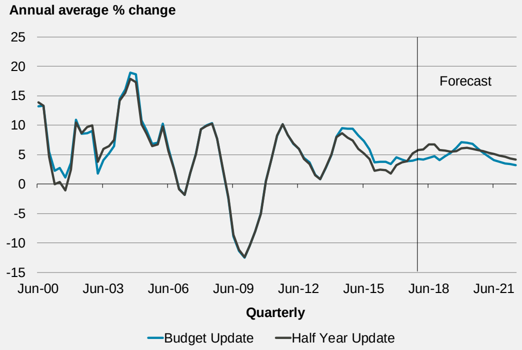
See the Fiscal Outlook chapter for further information on the operating and capital allowances and how they affect the fiscal forecasts.

Figure 1.6 – Nominal public consumption



Sources: Stats NZ, the Treasury

Figure 1.7 – Real business investment growth



Sources: Stats NZ, the Treasury

Other policies

The economic impact of a number of other policies remains unchanged from the *Half Year Update*. The Families Package and increased student allowances flow through into higher household disposable incomes and consequently higher private consumption growth from the middle of 2018. Fees-free tertiary education and tobacco excise tax increases had the expected impact on CPI inflation in the March quarter. The forecasts continue to incorporate the government policy of steady increases in the minimum wage from $16.50 per hour at present to $20.00 per hour by 1 April 2021, which places some additional upward pressure on wage growth beyond that created by the tightening labour market. The impact of Fair Pay agreements, further pay equity settlements and other labour market policies remain difficult to forecast.

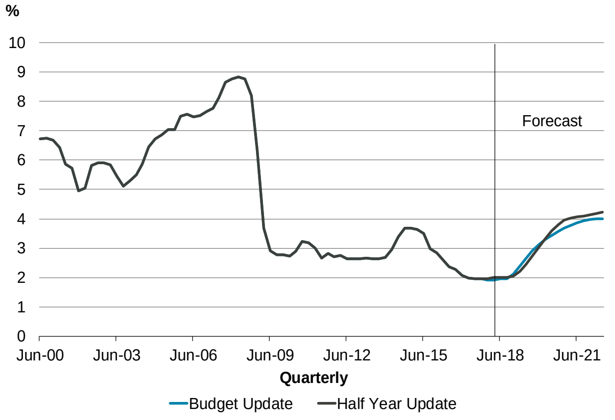
Summary

Overall, while there are some offsetting impacts, these policy changes boost demand and therefore activity in the economy, and influence the forecast interest rate profile. As in the *Half Year Update*, short-term interest rates are forecast to increase from the end of 2018. In the absence of these policy changes, the forecasts would have included a start to the monetary policy tightening cycle in the first half of 2019. There remains considerable uncertainty as to when and how fast interest rates will begin increasing (and it is possible that the next move could be lower, if economic conditions are softer than forecast).

…which adds pressure to interest rates

Rising inflationary pressures, along with rising rates globally, and a tightening labour market, add pressure to monetary policy, and therefore interest rates increase. Interest rates are assumed to rise steadily in order to dampen the rising inflationary pressures created by capacity constraints. This is similar to the interest-rate profile forecast at the *Half Year Update* (Figure 1.8). This reflects the offsetting impacts of our view that inflation expectations are likely to remain constrained, with the more stimulatory nature of government policy adding to capacity pressures.

Figure 1.8 – 90-day interest rates



Sources: Reserve Bank of New Zealand, the Treasury

Higher interest rates help keep inflation subdued for some time, with inflation rising only gradually towards 2.0%. Growth in prices is constrained by well-anchored inflation expectations following years of inflation below 2.0%, and rising interest rates. These dampening effects are offset by robust domestic activity, increasing government spending and rising inflation globally.

Solid population growth supports domestic activity

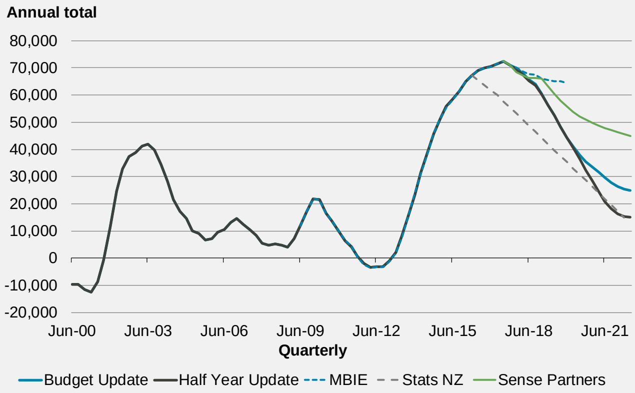
Net migration continues to drive population growth, with annual net migration still close to the peak reached in July 2017. Population growth is expected to continue to be supported by high levels of net migration across the forecast period, although this is expected to diminish over time as net migration falls towards its trend level. Since the *Half Year Update*, we have revised up our assumption of the net migration end point. In the past, we have taken Stats NZ's assumption of the long-run level of net migration (of 15,000 annually) as the end point of our forecasts. Following a review, we have revised this end point assumption to 25,000. This reflects structural changes in both student and work visa arrivals in recent years. This revision is relatively small compared with historical errors, which have tended to be to under-estimate net migration flows. While we have revised our long-run assumption higher, there remains a risk that migration may continue to surprise on the upside. This is explored further in Scenario Two in the Risks and Scenarios chapter.

Strong population growth, rising house price growth, the implementation of the Families Package, and higher student allowances all support consumption growth in the forecasts. The contribution of private consumption to overall GDP growth is expected to decline gradually over the forecast period as net migration eases, house price growth returns to trend and interest rates rise.

Changing our migration assumption for June 2022

The Treasury recently reviewed its net migration assumption. We assume annual net migration to fall from 68,000 in the year to March 2018 to 25,000 in the year ending in June 2022. Our current net migration assumption for 2022 is 10,000 higher than in the *Half Year Update* (Figure 1.9). This box outlines some of the reasons for and implications of this change. For more information, see the April Monthly Economic Indicators special topic.[4]

Figure 1.9 – Various forecasts of annual net migration



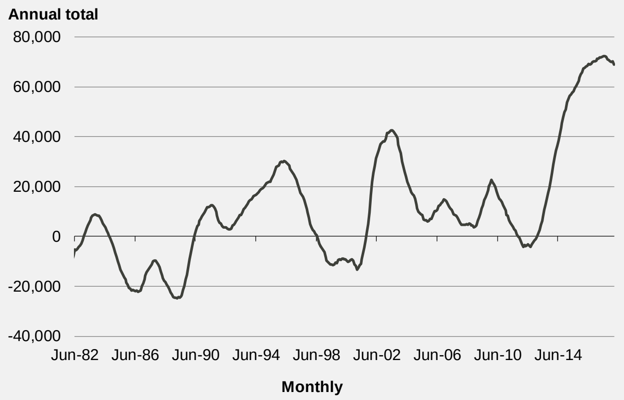
Sources: Stats NZ, the Treasury

The new migration forecast assumption adds almost 21,000 net migrants over the forecast period relative to the *Half Year Update*. Most of the increase occurs in the latter years. The higher population results in higher house prices, which boosts growth through higher consumption (wealth effects) and residential investment. The increase in residential investment results in more hiring and stronger business activity. The changes to our forecasts owing to the change in migration assumptions are fairly small.

These changes result in some additional tax revenue in the forecasts. However, the Treasury's forecasts assume any additional expenses that would be generated from a larger population are funded out of operating allowances. This means that the assumption of higher migration flows through to an improvement in the Government's fiscal position.

Net migration started to taper-off in the past few months after the record high of over 72,000 in the year ending in July 2017 (Figure 1.10).

Figure 1.10 – Annual net migration



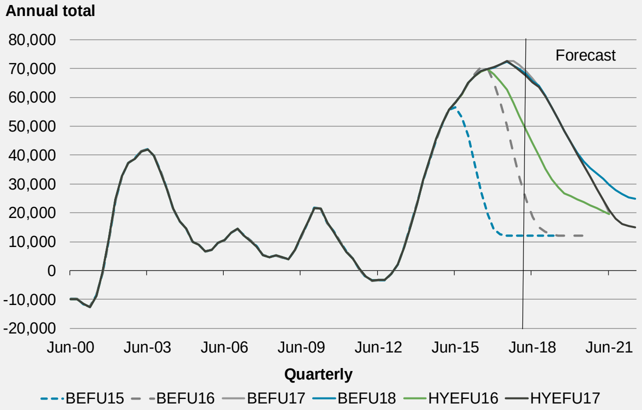
Source: Stats NZ

Our previous forecasts relied on the assumption that future outturns of net migration revert back to the historic long-term average sourced from Stats NZ's median population projection. As net migration continued trending upwards from the early 1980s until now (Figure 1.10), albeit cyclically, our forecast of net migration was consistently below the outturns (Figure 1.11). Changes to New Zealand's education system, work conditions, and overall economic attractiveness suggest that arrivals will continue to be higher than their long-term average, causing net migration to keep trending upwards in the long run.

4 For a discussion regarding the recent trends of migration by flow direction, visa type, and citizenship, refer to the Monthly Economic Indicators issue of April 2018, available at https://treasury.govt.nz/publications/mei/monthly-economic-indicators-april-2018

There is no consensus regarding the optimal method for forecasting migration. Each method has a different purpose. Figure 1.9 plots some of the forecasts of several institutions including the Treasury. Sense Partners' forecast is based on the average of five models that account for the economic drivers of migration, such as wage differentials and real exchange rates.[5] Stats NZ's projections are based on the long-term average of historic net migration. The projections are updated every three years. MBIE's forecast is updated quarterly and relies on certain assumptions about the future movements in the component variables of net migration as well as their historical trends.

Figure 1.11 – The Treasury's historical forecasts of annual net migration



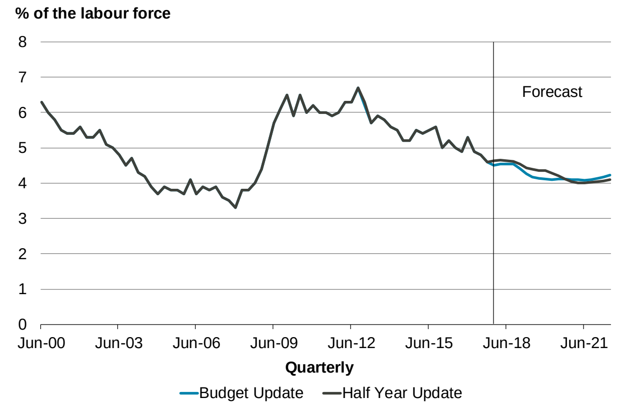
Sources: Stats NZ, the Treasury

Owing to the recent trends in net migration (Figure 1.10), we expect net migration to gradually decline within the forecast horizon, but not to long-term averages. Sense Partners' analysis is a useful progression towards greater economic meaning when forecasting migration. However, this type of modelling still depends heavily on assumptions around the future performance of different economies across the world. While there is still a high degree of uncertainty, our best judgement is that net migration will be around 25,000 by June 2022.

The labour market continues to strengthen

The participation rate is assumed to remain around recent record highs across the forecast period. Combined with strong, migration-led population growth, the labour force is expected to expand significantly. Economic growth results in employment continuing to expand and is forecast to see a steady decline in the unemployment rate towards 4% (Figure 1.12). Over most of the forecast period, the unemployment rate is expected to be at, or below, the assumed level of the NAIRU.[6]

Figure 1.12 – Unemployment rate



Sources: Stats NZ, the Treasury

Falling unemployment, alongside a rising minimum wage and labour-market reforms, are assumed to lift wage growth throughout the forecast period. Alongside this we assume

---

5 Sense Partners' study was commissioned by the Treasury to provide alternative population and migration forecasts. The report is available at https://treasury.govt.nz/publications/information-release/sense-partners-report-migration

6 The Policy Targets Agreement 2018 requires monetary policy to be directed at achieving and maintaining stability in the general level of prices over the medium term and avoiding unnecessary instability in employment.

that labour productivity will recover to around its historical rate, contributing to annual hourly wage growth increasing to 3.4% by the end of the forecast period.

A strong international outlook…

The international outlook has continued to improve, with solid growth and falling unemployment. While inflation and wage pressures have been slow to emerge, they are now beginning to take hold as many countries are growing faster than is likely to be maintained in the medium term. This is placing increasing pressure on monetary policy around the world, and leading to a tighter outlook for interest rates.

The improvement in the global outlook has been fairly broad-based, albeit with much of the improvement led by the US. In the US, increased fiscal stimulus, both in the form of lower taxation and higher spending, is expected to bolster the US economy in coming years, adding around 1.2% to growth over the next three years as estimated by the IMF. This stimulus is adding to an economy that is already growing above its sustainable growth path, causing tighter capacity constraints, particularly in the labour market. We expect this to continue to add to wage and price inflation pressures in the US economy and to cause the Federal Reserve to continue tightening monetary policy.

As previously noted, growth in other trading partners is expected to remain strong in the near term. In the medium term, this growth is expected to ease somewhat. Economic growth in a number of areas, including the UK, the euro area and Japan, is estimated to be above the long-run sustainable level for these regions. As monetary and fiscal policy become less accommodative, growth is likely to ease towards sustainable limits.

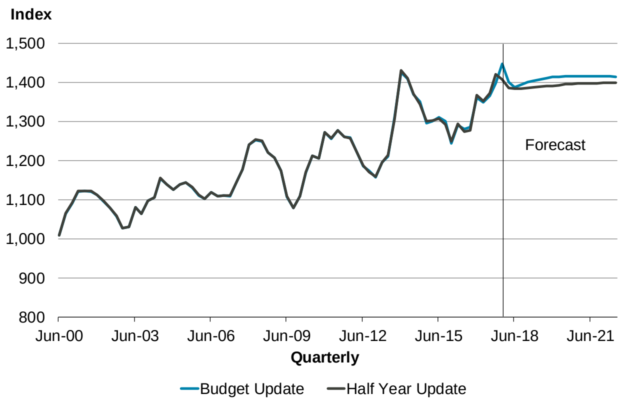
Growth in Australia is expected to pick up to around 2.7% in 2018 and 2019. Business confidence is high and non-mining business investment is increasing, while private consumption growth remains moderate. Employment growth has been strong over the past year, although the unemployment rate has been broadly stable at around 5.5% in recent months. The economy continues to operate with a degree of spare capacity and inflation is low. As growth strengthens, spare capacity is expected to gradually reduce and inflation to increase.

In China, growth rates are expected to decline as the Government continues to shift its focus towards the quality, rather than the quantity, of growth. In particular, the Chinese Government is increasingly focused on how to ensure growth is inclusive and environmentally friendly, while the focus on the pace of growth continues to diminish. This shift to consumption-led growth is likely to see demand for New Zealand exports remain solid, even as growth rates in China decline.

…supports international trade

In the near term, export prices are expected to fall owing to increased production, as weather becomes more supportive of growth. This will likely cause a modest retracement in the terms of trade. Thereafter, growing international demand for New Zealand's commodity exports is likely to see the terms of trade continuing to support nominal GDP (Figure 1.13).

Figure 1.13 – Terms of Trade



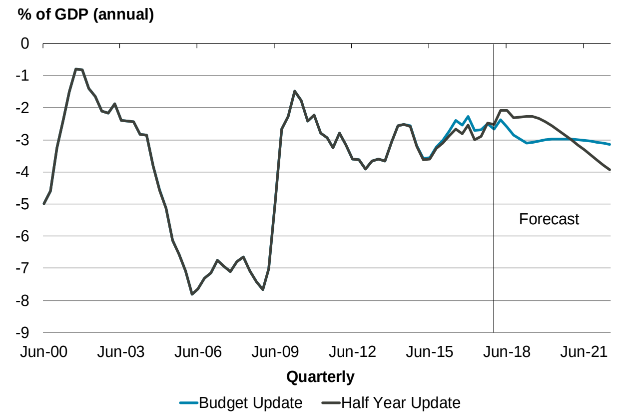
Sources: Stats NZ, the Treasury

On the volumes side, export growth is expected to continue to add to real GDP growth over the forecast period. Near-term weakness is expected to fade as domestic weather conditions revert to normal and global demand continues to grow. We have recently changed our modelling framework, which has led us to revisit some of our medium-term judgements (see 'The Treasury's new macroeconomic forecast model' box below for further detail on our new modelling approach). Since the *Half Year Update*, the end point for net exports has been lifted. This reflects a higher forecast end point for exports and a lower forecast end point for imports. Revisions to GDP data show that imports make up a smaller share of consumption and investment than previously thought. For exports, insights from our new model have suggested that export growth in the medium term is likely to be higher than we had previously thought, reflecting strong global demand, the shift towards consumption-led growth in China and the potential for trade agreements expanding our current export markets.

Risks around future trading conditions remain. In particular, geopolitical tensions, and protectionist sentiment have intensified in recent months. Our forecasts incorporate announced barriers to international trade. However, if tensions escalate further, or further trade barriers are announced, there would be a number of impacts to the domestic economy. This is explored in further detail in Scenario One in the Risks and Scenarios chapter.

The current account deficit is forecast to widen by less than at the *Half Year Update*. The December quarter 2017 current account was a deficit of 2.7% of GDP. Over the forecast period, this is expected to widen gradually to 3.1% of GDP in 2022, less of a widening than the 4.1% forecast at the *Half Year Update* (Figure 1.14). The narrower current account deficit is consistent with a stable net international investment position as a percentage of GDP.

Figure 1.14 – Current account balance



Sources: Stats NZ, the Treasury

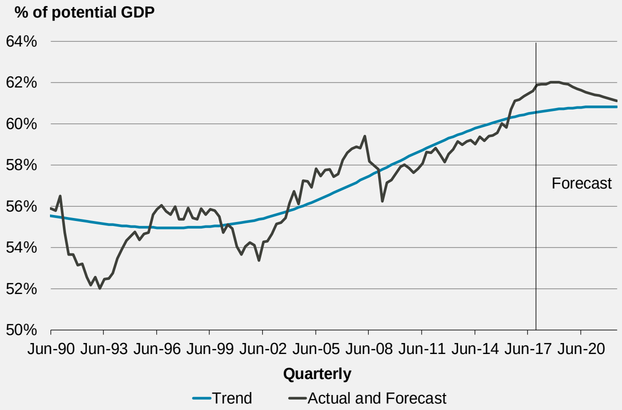
The Treasury's new macroeconomic forecast model

The Treasury uses a macroeconomic forecasting model of the New Zealand economy to help produce the economic and tax forecasts. During the Budget 2018 forecast round we have introduced a new model called Matai, which is one of a number of tools used to produce the forecasts. Matai replaces the New Zealand Treasury Model (NZTM). The change incorporates new modelling technology to make the forecasting process simpler and more transparent. Matai was run in parallel with NZTM at the *Half Year Update* forecasting round to better understand the differences between the models.[7]

In Matai, each variable is split into trend and cycle components. The trends in the forecast period converge towards an assumed long-run position.

The trend attempts to capture the elements of the data series that are expected to persist longer than the business cycle (Figure 1.15). All short-term and business-cycle elements are captured in the gap between actual and trend. For example, real GDP represents actual output in the economy, while sustainable or potential output is captured in the trend.

Figure 1.15 – Actual and trend consumption



Source: The Treasury

GDP is broken into the relative components which are modelled as a share of GDP. Each share converges to a constant or steady-state value. The steady-state part of the model creates a theoretically consistent set of end points for the trends. The benefits of this long-run consistency motivated us to re-examine the net exports assumptions mentioned earlier.

The steady-state flow of net exports is set to be consistent with a stable foreign-debt-to-GDP-ratio (net international investment position). Similarly the investment share is set consistent with producing a constant capital/output ratio. Public consumption is set exogenously, leaving private consumption as a residual that ensures all shares sum to unity.

A higher assumption for public consumption would, all else unchanged, result in an exact offset in private consumption. If the terms of trade (prices) were higher, net exports (volumes) would be lower in order to produce the same value for the trade balance (the balance consistent with stable foreign debt to GDP). So a higher terms of trade results in a lower net exports share and higher private consumption share.

As part of the forecast process, we examine a range of other models and information. This information is used to form judgements that influence the final forecasts. Perhaps the most important key inputs/judgements introduced from outside the model are assumptions for government spending, population growth (including migration) and, in the current forecast round, assumptions about how export volumes will be affected by adverse agricultural conditions (and the resulting recovery as conditions return to normal).

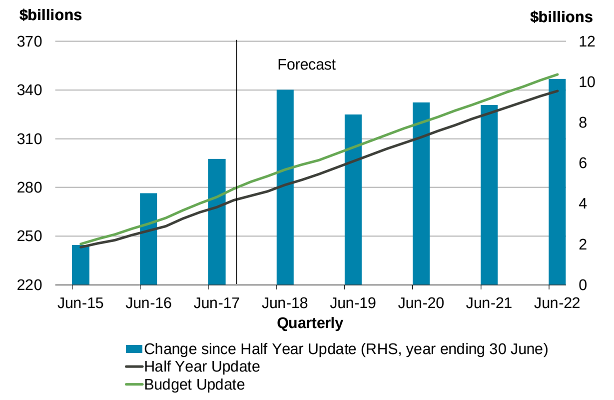
The model is a useful tool aiding consistency both within and between forecast rounds. Within rounds it retains an element of consistency with both economic theory and New Zealand-specific data. Between forecast rounds it provides a systematic record of the previous rounds and a benchmark starting point from which to launch an updated view. It provides a consistent and stable framework to document previous judgements.

7 For more information on Matai, see the March MEI special topic available at https://treasury.govt.nz/publications/mei/monthly-economic-indicators-march-2018-html#section-4

Stronger nominal GDP means higher tax revenue

The solid international outlook, high terms of trade, increased government spending, and continued growth in domestic economic activity are all expected to support growth in the nominal economy. Compared with the *Half Year Update* nominal GDP is cumulatively $46 billion higher over the five years to June 2022. However, $40 billion of this is owing to revisions to the starting point for nominal GDP (Figure 1.16). These revision-related changes are not expected to impact tax revenue as the larger nominal GDP is offset by a lower ratio of tax to GDP over history. This leaves around a $6 billion increase in nominal GDP driven by stronger growth. This increase is expected to contribute to stronger tax revenue.

Figure 1.16 – Change in nominal GDP since the Half Year Update



Sources: Stats NZ, the Treasury

Solid employment and wage growth are forecast to drive growth in compensation of employees and, along with the Families Package, growth in consumption. This supports pay as you earn (PAYE) and GST revenues respectively. Strong export growth combined with a robust domestic outlook will support business profits and corporate tax. Compared with the *Half Year Update* the combination of stronger growth in the nominal economy, some persistence in the recent strong tax outturns, along with some policy changes, leads to a lift in tax revenue across the forecast period. Over the five years to June 2022, core Crown tax revenue is forecast to be cumulatively $5.7 billion higher than forecast at the *Half Year Update*. Changes in the macroeconomic forecasts account for $3.4 billion of this increase, while policy changes add $0.7 billion. The remainder is largely owing to recent strong tax outturns. The implications of this stronger tax take are explored in more detail in the Fiscal Outlook chapter.

2

Fiscal Outlook

Overview

- The fiscal outlook is strong over the forecast period. The current year's results to 31 March tracked ahead of previous forecast levels as tax revenue has come in higher than that forecast in the *Half Year Economic and Fiscal Update 2017 (Half Year Update)*. This strength has been built into the forecast.
- Core Crown tax revenue increases by $23.4 billion reaching $99.0 billion in 2021/22 (28.3% of GDP). This increase in tax revenue reflects the continued growth in economic activity discussed earlier in the Economic Outlook chapter.
- Budget 2018 provides on average $2.8 billion per year of net new operating spending. The operating allowances for Budgets 2019 to 2021 are now $2.4 billion, an increase of $525 million in each Budget.
- The operating balance before gains and losses (OBEGAL) is expected to continue growing across the forecast period, reaching a surplus of $7.3 billion (2.1% of GDP) in 2021/22.
- In addition to operating expenditure, core Crown capital spending totalling $41.8 billion is included in the forecast to 2021/22. Capital allowances have increased and are set at $3.7 billion for Budget 2019, $3.4 billion in Budget 2020, and $3.0 billion in Budget 2021 onwards, an increase of $300 million in each Budget.
- While revised tax receipt forecasts result in an improvement to operating cash flows, capital spending is still expected to exceed net operating cash flows over the first four years of the forecast period. As a result, residual cash deficits are forecast for these years, before returning to a residual cash surplus in the final year of the forecast.
- To fund these residual cash deficits, net core Crown debt is forecast to increase in nominal terms before tracking down in the final year of the forecast. As a percentage of GDP, net core Crown debt is expected to stay relatively flat over the next four years, before reducing to 19.1% in 2021/22.
- The Crown's balance sheet continues to grow, with net worth attributable to the Crown reaching $154.7 billion (44.2% of GDP) in 2021/22. This growth is largely the result of continued forecast surpluses across the forecast period.

- Total assets are forecast to grow by $61.2 billion to be $374.8 billion by 2021/22, primarily due to growth in physical and financial assets. Total liabilities are expected to grow by $17.4 billion to be $214.5 billion by 2021/22, primarily as a result of increased borrowings and insurance liabilities.
- OBEGAL is expected to be higher in the first three years and lower in the last two years than what was forecast in the *Half Year Update*. Tax revenue in the first three years is higher than the increased expenditure. Decisions in Budget 2018 and increased future operating allowances results in a reduction in the last two years.
- Net core Crown debt is lower in the first four years of the forecast, but is $0.2 billion higher than the *Half Year Update* by 2021/22. Additional tax receipts are expected to reduce net core Crown debt by $6.1 billion, however these are more than offset by increased operating and capital expenditure and increased future budget allowances by 2021/22.
- Comparisons against the *Half Year Update* can be found on page 41.
- The Forecast Financial Statements and Core Crown Expense tables can be found on pages 97 to 134, and provide more detailed information on the fiscal forecasts.
- These forecasts are sensitive to a number of judgements and assumptions and should be read in conjunction with the Risk and Scenarios and Specific Fiscal Risks chapters.

Table 2.1 – Fiscal indicators

Year ending 30 June	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
$billions						
Core Crown tax revenue	75.6	79.5	83.9	89.0	93.9	99.0
Core Crown expenses	76.3	81.7	86.7	90.1	94.7	98.1
Total Crown OBEGAL[1]	4.1	3.1	3.7	5.4	5.7	7.3
Core Crown residual cash	2.6	(1.3)	(3.9)	(1.7)	(1.9)	0.7
Net core Crown debt[2]	59.5	60.4	64.2	65.9	67.6	67.0
Total borrowings	111.8	116.0	112.9	117.2	118.2	125.4
Net worth attributable to the Crown	110.5	117.6	124.5	133.3	142.9	154.7
% of GDP						
Core Crown tax revenue	27.6	27.3	27.5	27.8	28.1	28.3
Core Crown expenses	27.8	28.1	28.5	28.2	28.3	28.0
Total Crown OBEGAL[1]	1.5	1.1	1.2	1.7	1.7	2.1
Core Crown residual cash	0.9	(0.4)	(1.3)	(0.5)	(0.6)	0.2
Net core Crown debt[2]	21.7	20.8	21.1	20.6	20.2	19.1
Total borrowings	40.8	39.9	37.1	36.6	35.3	35.8
Net worth attributable to the Crown	40.3	40.4	40.9	41.7	42.7	44.2

Notes: 1 Operating balance before gains and losses.
2 Net core Crown debt, excluding the New Zealand Superannuation Fund (NZS Fund) and advances.

Source: The Treasury

Key judgements and assumptions

The fiscal forecasts are based on assumptions and judgements developed from the best information available at the time they were prepared. Actual events are likely to differ from these assumptions and judgements, while uncertainty around the forecast assumptions and judgements increases over the forecast period.

The forecasts incorporate government decisions and other circumstances known to the Government and advised to the Treasury (up to 26 April 2018). The criteria for inclusion in these forecasts, along with the key risks, can be found in the Risks and Scenarios and Specific Fiscal Risks chapters.

In addition to the key assumptions underpinning the economic forecasts (refer page 7), the following key judgements and assumptions supporting the fiscal forecasts were made:

- Tax policy changes enacted and announced by the Government will take place as planned and will affect tax revenue and receipts.
- The cost of commitments not explicitly included in the fiscal forecasts (or variations to the estimates included in the fiscal forecasts) can be met within the Budget operating and capital allowances included in the fiscal forecasts.
- Departments will continue to spend less than the upper limits of approved spending (referred to as appropriations). A top-down adjustment is made to compensate for this. The adjustment will be higher at the start of the forecast period as departments' appropriations (and therefore expenses) tend to be higher in these years, reflecting the flexibility departments have around transferring underspends to later years.
- Major capital programmes (eg, School Growth Package, KiwiBuild, City Rail Link, Housing Infrastructure Fund, Kaikōura rebuild and Crown Infrastructure Partners) will proceed as planned.
- Forecast returns on the large investment portfolios managed by the Accident Compensation Corporation (ACC) and the New Zealand Superannuation Fund (NZS Fund) are based on their expectations of long-term benchmark rates of return for their respective portfolios.
- Significant valuations (eg, student loan portfolio, ACC claims liability and the Government Superannuation Fund (GSF) retirement liability) are based on underlying assumptions (eg, discount rates, salary increases and inflation) made at the time the valuations were prepared.
- No revaluations of property, plant and equipment are projected beyond the current year. Only valuations that have already been completed are included in these forecasts.
- KiwiRail freight assets continue to be valued on a commercial basis (refer Specific Fiscal Risks chapter for risks to the valuation methodology).

Key judgements and assumptions (continued)

- The KiwiBuild programme has been included in the fiscal forecasts as a commitment to spend $2.0 billion. For further details refer to page 14.
- Contributions to the NZS Fund have resumed in the current financial year and are forecast to continue across the period. Table 2.2 sets out the assumption used in the forecast and the estimated contribution to the NZS Fund if contributions were to start in the current financial year, based on the legislated contribution formula. Over the forecast years, all Fund variables (apart from the capital contributions) are based on those provided by the NZS Fund itself. For more information, refer to the Treasury website for the NZS Fund model.

Table 2.2 – NZS Fund contributions

Year ending 30 June $billions	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Estimated contribution[1]	2.3	2.3	2.3	2.4	2.4
Forecast contribution	0.5	1.0	1.5	2.2	2.5

Note: 1 Calculations of annual contributions if they were to resume in 2017/18, using the NZS Fund model.

Further information on the underlying economic assumptions used in these fiscal forecasts can be found on page 45.

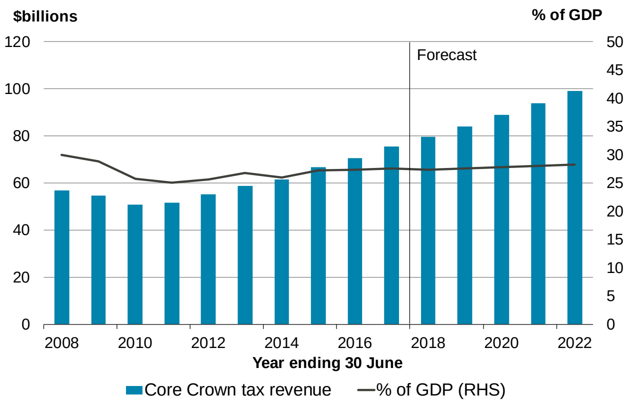
Core Crown Tax Revenue

Core Crown tax revenue is expected to increase over the forecast period…

Core Crown tax revenue (Figure 2.1) is forecast to rise in each year of the forecast period in nominal terms, while remaining relatively stable as a percentage of GDP. By 2021/22, core Crown tax revenue is expected to reach $99.0 billion, $23.4 billion higher than in 2016/17.

Recent strength in the tax outturns has been included in the current year of this forecast. Table 2.3 shows the largest tax types leading the way in nominal growth.

Figure 2.1 – Core Crown tax revenue



Source: The Treasury

Source deductions are forecast to grow by $9.9 billion over the forecast period, with nearly half of that growth coming from forecast wage growth. Growth in employment is expected to add $2.8 billion to source deductions over the forecast period, with a further $1.6 billion from fiscal drag (the effect whereby, owing to the progressive nature of the personal income tax scale, pay as you earn tax (PAYE) growth is boosted by rising average tax rates as wages increase).

Goods and services tax (GST) is forecast to increase by $5.7 billion over the forecast period, mainly owing to expected growth in nominal domestic consumption and a significant contribution from forecast residential investment.

Corporate tax is forecast to grow by $3.5 billion over the forecast period, mainly owing to expected growth in corporate profits.

Table 2.3 – Increase in core Crown tax revenue over the forecast period, by major tax type

Year ending 30 June $billions	**2018 Forecast**	**2019 Forecast**	**2020 Forecast**	**2021 Forecast**	**2022 Forecast**	**Total Change**
Source deductions	1.7	1.9	2.0	2.1	2.2	9.9
GST	1.2	1.3	1.0	1.1	1.1	5.7
Corporate tax	0.5	0.6	0.9	0.7	0.8	3.5
Resident withholding tax (on interest)	0.1	0.2	0.6	0.4	0.4	1.7
Other taxes	0.4	0.4	0.6	0.6	0.6	2.6
Total increase in core Crown tax revenue	**3.9**	**4.4**	**5.1**	**4.9**	**5.1**	**23.4**
Plus previous year	75.6	79.5	83.9	89.0	93.9	
Core Crown tax revenue	**79.5**	**83.9**	**89.0**	**93.9**	**99.0**	

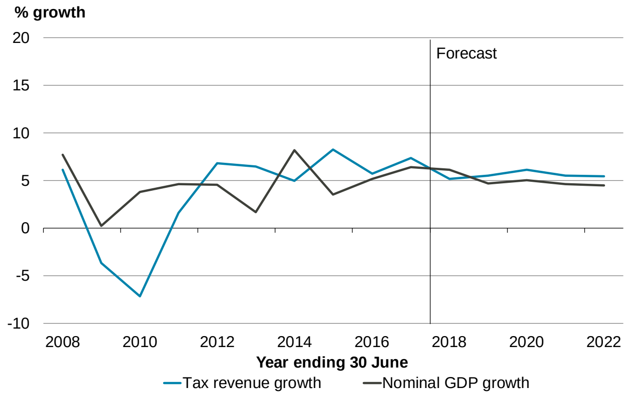
Source: The Treasury

…in line with a growing economy

The average annual nominal GDP growth over the five years to 2021/22 is forecast to be 5.0%. Over the same period, core Crown tax revenue is forecast to grow at a rate of 5.5% per year on average.

This means that, as a share of the economy, core Crown tax revenue is forecast to increase from 27.6% of GDP in 2016/17 to 28.3% in 2021/22.

Figure 2.2 – Core Crown tax revenue and nominal GDP growth



Source: The Treasury

Figure 2.2 shows that Core Crown tax revenue growth is forecast to ease in 2017/18, mainly owing to some unusually large one-off effects in the 2016/17 results, which increased corporate tax revenue significantly.

Tax revenue is then forecast to grow at a higher rate than GDP, owing to a number of factors:

- Fiscal drag is forecast to add 0.5% of GDP to tax revenue by 2021/22.
- New tax policy measures (eg, ring-fencing of residential property tax losses and GST on low-value goods imports) plus some previously-announced policy measures, such as the Base-Erosion and Profit Shifting rules first introduced in the *Budget Economic and Fiscal Update 2017* (Budget Update), are expected to increase tax revenue by 0.4% of GDP over the course of the forecast period.
- A forecast up-swing in deposit interest rates is expected to add 0.3% of GDP in total to resident withholding tax (RWT) on interest.

Somewhat offsetting these increases, some tax types are forecast to grow more slowly than GDP, thereby reducing forecast tax revenue relative to GDP. This occurs mainly within customs and excise duties, owing mainly to trends in tobacco and fuel consumption, and transport-related taxes (such as road user charges and motor vehicle fees), which tend to move more in line with real GDP than nominal GDP. This has the effect of decreasing forecast tax revenue by 0.3% of GDP by 2021/22.

Comparison with Inland Revenue forecasts

Inland Revenue has also prepared a set of tax forecasts which, like the Treasury's tax forecasts, were based on the Treasury's macroeconomic forecasts. The Treasury's forecasts of core Crown tax revenue are, on average, 0.2% higher than Inland Revenue's forecasts. Most of the forecast differences in tax forecasts arise from differences in the modelling methods used by the respective agencies to forecast some of the larger tax types, particularly source deductions, RWT on interest and road user charges.

This comparison is included in the Additional Information on the Treasury website at https://treasury.govt.nz/publications/budgets/budget-2018

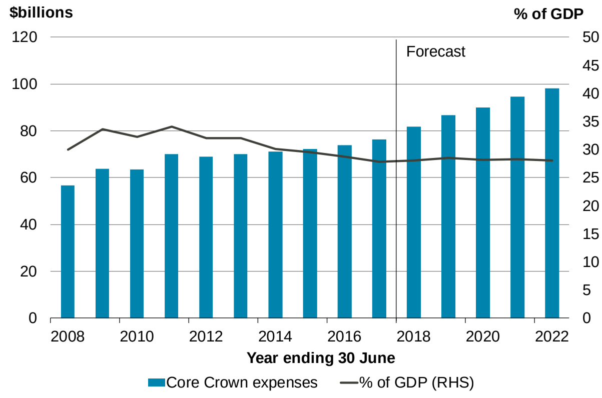
Core Crown Expenses

Core Crown expenses are expected to remain stable compared with GDP…

Core Crown expenses, while remaining relatively stable, are expected to peak at 28.5% in 2018/19 before declining to 28.0% at the end of the forecast period (Figure 2.3).

Nominally, core Crown expenses are expected to increase by $21.8 billion from $76.3 billion in 2016/17 to $98.1 billion in 2021/22, an increase of around $4.4 billion each year.

Figure 2.3 – Core Crown expenses



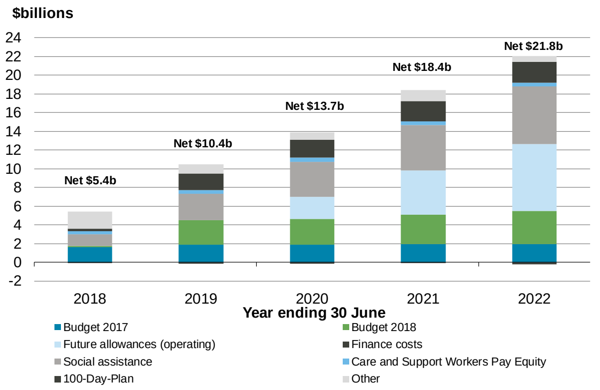
Source: The Treasury

The nominal growth is largely attributable to Budget decisions and new spending set aside for future Budgets. In addition, social assistance spending is forecast to increase by $7.8 billion across the forecast period, largely as a result of the forecast increase in those 65 and over (refer to page 31).

…however, increase in nominal terms primarily owing to Budget spending and allowances…

The increase in core Crown expenditure is made up of a number of factors. Figure 2.4[8] shows these components across the forecast period relative to 2016/17. Decisions from Budget 2017 and Budget 2018 are expected to add $1.9 billion and $3.5 billion respectively. The 100-Day Plan adds $2.3 billion to core Crown expenditure and allowances add $7.1 billion to forecast future expenditure.

Figure 2.4 – Increase in core Crown expenses, relative to 2016/17



Source: The Treasury

Future operating allowances are currently set at $2.4 billion for Budget 2019 and each subsequent Budget.[9] These forecasts assume any additional costs in relation to government commitments and future cost pressures will be met from operating allowances. For forecasting purposes, these allowances are assumed to be all operating expenditure and are net of identified savings. However, they can be used for a combination of revenue and expense initiatives when allocated.

8 The Specific Fiscal Risks chapter (page 61) outlines government decisions and other circumstances known to the Government that may have a material impact on the fiscal outlook.

9 New operating spending will be allocated to department baselines when Budget decisions are made. As a result, the different functional expense areas (eg, health spending), with the exception of social security and welfare and finance costs, remain flat across the forecast period (refer page 129). Therefore, comparisons across the forecast period will not necessarily reflect the expected spend at a functional level.

2018 Budget new operating spending

The purpose of this box is to explain how the new operating package allocated in Budget 2018 is incorporated in the fiscal forecasts. Details on individual initiatives can be found in the Summary of Initiatives in the Budget 2018 document.

The Budget 2018 net operating package totals $11.4 billion across the forecast period, an annual average increase of $2.8 billion from 2019. The package includes revenue initiatives that increase revenue by $1.7 billion and spending which increases expenditure by $13.1 billion (refer Table 2.4).

Table 2.4 – Impact of operating package

Year ending 30 June $millions	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	5-year Total
Gross spending	295	2,762	2,957	3,340	3,746	**13,100**
Savings and revenue initiatives	(176)	(219)	(313)	(461)	(541)	**(1,710)**
Budget 2018 net package	**119**	**2,543**	**2,644**	**2,879**	**3,205**	**11,390**
100-Day Plan operating expenditure	(196)	(144)	18	166	204	48
Total new spending	**(77)**	**2,399**	**2,662**	**3,045**	**3,409**	**11,438**
Impact of total new spending						
Increase in core Crown revenue	486	1,937	2,017	2,246	2,404	**9,090**
Increase in core Crown expenses	409	4,336	4,679	5,291	5,813	**20,528**
(Increase)/Reduction in OBEGAL	**(77)**	**2,399**	**2,662**	**3,045**	**3,409**	**11,438**

Source: The Treasury

Gross spending of the Budget 2018 package ($13.1 billion) is spread across a number of areas as outlined in Table 2.5 below. The core Crown expense tables on page 129 outline the total core Crown expenditure on each of these areas after these increases.

Table 2.5 – Composition of the increase in gross spending[10]

Year ending 30 June $millions	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	5-year Total
Health	20	784	825	817	811	**3,257**
Economic and industrial services	135	558	356	418	475	**1,942**
Education (including tertiary)	6	238	340	437	577	**1,598**
Law and order	31	236	238	276	317	**1,098**
Core government services	5	201	235	290	361	**1,092**
Social security and welfare	-	127	155	156	158	**596**
Housing and community development	-	95	108	122	182	**507**
Defence	-	28	106	106	106	**346**
Environmental protection	1	37	65	61	69	**233**
Primary services	51	61	51	21	23	**207**
Heritage, culture and recreation	-	12	8	10	11	**41**
Transport and communications	-	18	4	3	3	**28**
Other	-	83	48	39	39	**209**
Contingencies	46	284	418	584	614	**1,946**
	295	**2,762**	**2,957**	**3,340**	**3,746**	**13,100**

Source: The Treasury

The amounts classified as ‘contingencies’ represent centrally held contingencies that have yet to be allocated to a particular departmental baseline.

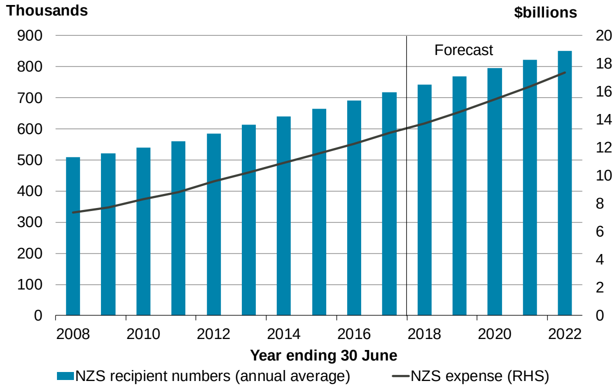
10 The breakdown by functional classification above is based on a framework developed by the OECD so may be different to the classification by portfolio in the Budget documents.

…an increase in the cost of New Zealand superannuation contributes to expenditure growth…

New Zealand superannuation (NZS) is forecast to increase as recipient numbers increase.

NZS payments account for $4.3 billion of the increase in core Crown expenses over the forecast period. This increase reflects the growth in the number of recipients and the increase in payment rates and other factors. By the end of the forecast period, NZS is around 53% of the core Crown social assistance spending and 18% of core Crown expenditure (compared with 52% and 17% respectively in 2016/17).

Figure 2.5 – Growth of NZS recipients and expenses



Source: The Treasury

Recipient numbers are forecast to increase from almost 717,000 in 2016/17 to over 850,000 by the end of the forecast horizon (an increase of 18.7%). The remaining increase is largely owing to indexation of entitlements to wage growth (Figure 2.5).

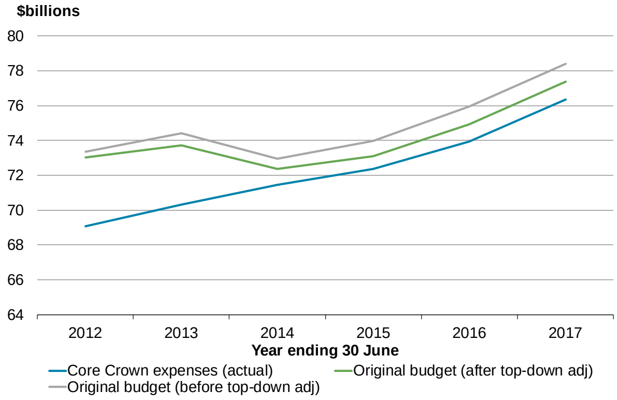
…and judgements continue to be made regarding the level of spending

The fiscal forecasts are a culmination of individual forecasts provided by departments and other government entities (a ‘bottom-up’ forecast).

Parliament provides the authority for departments to incur expenses (appropriations). History suggests that the actual level of spending is usually below these upper limits and that there is a bias towards over-forecasting expenditure.

This is owing to a number of reasons, such as expenditure being delayed or programmes not being implemented. The Treasury therefore estimates the extent to which expenditure is over-forecast and reduces the forecast accordingly. This adjustment is referred to as a ‘top-down’ adjustment (Figure 2.6).

Figure 2.6 – Variance in core Crown expenses to original budget[1]



Note 1: Original budget refers to the relevant Budget Update first full forecast year (ie, Original budget for 2017 is Budget 2016).

Source: The Treasury

To make this judgement, the Treasury analyses large departments' forecasts, including the past history of spending against forecasts and appropriations. Without the top-down adjustment the variance to forecast would be much larger.

Table 2.6 – Core Crown expenses (before and after top-down adjustment)

Year ending 30 June $billions	**2018 Forecast**	**2019 Forecast**	**2020 Forecast**	**2021 Forecast**	**2022 Forecast**
Core Crown expenditure (before top-down adjustment)	82.0	87.8	90.4	95.0	98.4
Top-down adjustment	(0.3)	(1.1)	(0.3)	(0.3)	(0.3)
Core Crown expenditure	**81.7**	**86.7**	**90.1**	**94.7**	**98.1**

Source: The Treasury

The top-down adjustment is higher in the 2018/19 year as departments' appropriations (and therefore forecast expenses) tend to be higher in these years, reflecting the flexibility departments have around transferring spending not incurred into the following years.

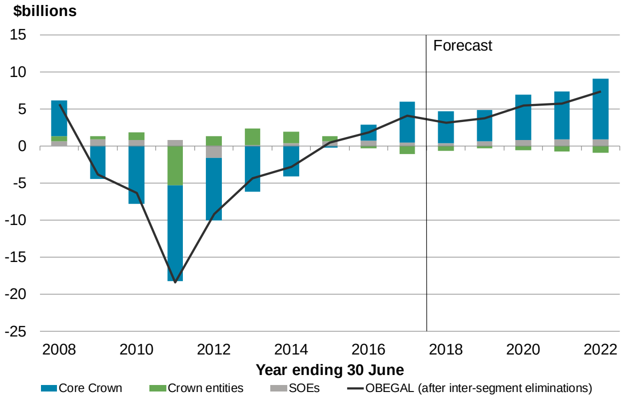
Operating Balance

OBEGAL is expected to climb over the forecast period…

The forecast movement in OBEGAL in the current forecast year largely reflects the higher-than-expected outturn for 2016/17 and the impact of spending decisions made in Budget 2017 (although partially offset by the 100-Day-Plan decisions).[11]

The forecast decline in OBEGAL in the current year is followed by growth in the remaining years of the forecast, as revenue grows at a faster pace than expenditure, reaching a surplus of $7.3 billion in 2021/22 (Figure 2.7).

Figure 2.7 – Components of OBEGAL by segment



Source: The Treasury

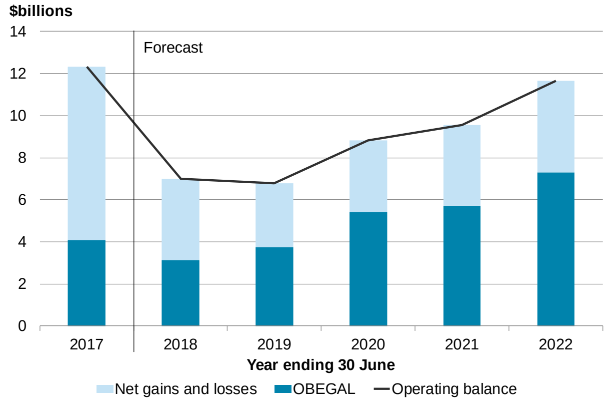
Crown entities (CEs) and State-owned enterprises' (SOEs) contribution to OBEGAL remains fairly stable. See pages 99 to 102 for a list of CEs and SOEs.

…while investment returns contribute to the growth in the operating balance

The total Crown operating balance, inclusive of gains and losses, is forecast to be in surplus across all years of the forecast period, and expected to reach $11.7 billion in 2021/22 (Figure 2.8).

The 2016/17 gains made on the Crown's large investment portfolios, largely ACC and the NZS Fund, reflected strong performance in the global equity markets. These forecasts then assume investment income returns to a long-term rate, resulting in stable returns going forward.

Figure 2.8 – Components of operating balance



Source: The Treasury

Partially offsetting these investment gains are expected net losses on non-financial liabilities of $1.6 billion in 2017/18, primarily driven by changes to discount rates used to calculate the ACC claims liability of $0.9 billion (compared with actuarial gains of $0.4 billion in 2016/17). As future actuarial gains or losses are not forecast, they do not impact the operating balance beyond 2017/18.

The level of operating balance plays a significant part in increasing the Government's financial assets and contributing to growth in the Crown's net worth.

[11] The 100-Day-Plan includes reversing the Budget 2017 Family Incomes Package (increasing revenue) and the inclusion of the Families Package and Tertiary Education Package (increasing expenditure).

Summary fiscal indicators

The Treasury calculates two summary fiscal indicators – the cyclically-adjusted balance (CAB) and the fiscal impulse – to help assess the Government's fiscal position. Further detail on these indicators can be found in the Additional Information on the Treasury website https://treasury.govt.nz/publications/budgets/budget-2018

The Treasury is currently reviewing these indicators to ensure they remain useful to users and fit for purpose. Any changes will be signalled prior to their publication.

Table 2.7 – Operating balance indicators and fiscal impulse

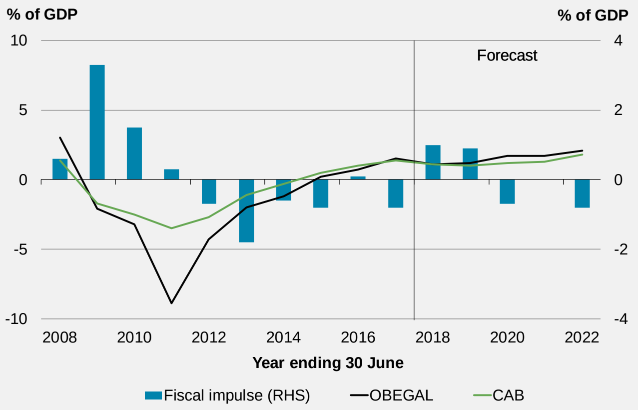
Year ending 30 June % of GDP	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
OBEGAL	1.5	1.1	1.2	1.7	1.7	2.1
Cyclically-adjusted balance	1.4	1.1	1.0	1.2	1.3	1.8
Fiscal impulse[12]	(0.8)	1.0	0.9	(0.7)	-	(0.8)

Source: The Treasury

Cyclically-adjusted balance

The CAB is an estimate of OBEGAL adjusted for the cyclical position of the economy. Cyclical factors (eg, higher tax revenue in an upturn or higher unemployment expenses in a downturn) are removed to assess the Government's underlying fiscal position. The CAB is in surplus across the entire forecast period, indicating the forecast surpluses are structural (ie, they are not owing to cyclical economic conditions). The profile of the CAB broadly reflects the profile of OBEGAL across the forecast period (Figure 2.9). The CAB is less than OBEGAL from 2018/19 onwards as the economy is forecast to be operating above its potential level. Cyclically-adjusted surpluses are forecast to increase from 1.0% of GDP in 2018/19 to 1.8% of GDP by the end of the forecast period and are, on average, similar to those forecast at the *Half Year Update.*

Figure 2.9 – Operating balance indicators and fiscal impulse



Source: The Treasury

Fiscal impulse

Unlike the CAB, which is an operating measure, the fiscal impulse is based on both operating and capital cash flows. The fiscal impulse is an estimate of discretionary changes (ie, excluding cyclical factors) in the fiscal position that have an impact on aggregate demand pressures in the economy. The fiscal impulse indicates that fiscal policy is forecast to have a stimulatory impact on aggregate demand in 2017/18 and 2018/19. This reflects strong growth in capital and operating expenditure including infrastructure investment, the Families Package and other expenditure on public services. For the remainder of the forecast period, fiscal policy is estimated to have, on average, a contractionary impact on aggregate demand. This is driven by declining capital spending and rising tax receipts as a percentage of GDP. Compared with the *Half Year Update*, the most significant change is in 2020/21 where the fiscal impulse is estimated to be neutral compared with an estimated (1.1%) of GDP at the *Half Year Update*. This is driven by changes in the timing of capital spending, higher capital and operating allowances over the forecast period and Budget 2018 decisions.

12 The fiscal impulse measure shown is the core Crown fiscal impulse plus CEs, excluding Earthquake Commission (EQC) and Southern Response payments. A positive number indicates stimulatory fiscal policy.

Core Crown Capital Spending

The Government is forecast to spend $41.8 billion cumulatively on net capital spending over the next five years, similar to the *Half Year Update*.

In total, Budget 2018 has allocated around $3.8 billion of new capital spending over the forecast period, with the largest areas being health and education. The Government has committed spending on the KiwiBuild programme (refer to page 14). This has been forecast to occur in the first four years of the forecast. Contributions to the NZS Fund have resumed in the current financial year and are forecast to continue across the period. Other key areas of capital spending include the roading network (through New Zealand Transport Agency (NZTA)), schools, City Rail Link and district health boards.

The estimated increase in the forecast capital spend from 2016/17 increases the risk that spending may be pushed into future periods as capacity constraints are tested.

Table 2.8 – Net capital expenditure activity[13]

Year ending 30 June $billions	**2017 Actual**	**2018 Forecast**	**2019 Forecast**	**2020 Forecast**	**2021 Forecast**	**2022 Forecast**	**5-year Total**
Education	0.7	0.9	1.0	0.9	0.8	0.7	**4.3**
Defence	0.4	0.6	0.6	0.8	0.5	0.5	**3.0**
KiwiBuild[14]	-	0.1	0.3	0.5	1.0	-	**1.9**
Corrections	0.1	0.2	0.4	0.1	0.1	0.1	**0.9**
Inland Revenue	0.1	0.1	0.1	0.1	0.1	0.1	**0.5**
Other	0.8	1.3	0.7	0.8	0.5	0.4	**3.7**
Net purchase of physical assets	**2.1**	**3.2**	**3.1**	**3.2**	**3.0**	**1.8**	**14.3**
Housing Infrastructure Fund	-	-	0.1	0.2	0.2	0.2	**0.7**
Student loans	0.2	-	(0.1)	(0.1)	(0.2)	(0.2)	**(0.6)**
Other	(0.3)	0.1	0.1	(0.1)	-	(0.1)	**-**
Net advances	**(0.1)**	**0.1**	**0.1**	**-**	**-**	**(0.1)**	**0.1**
NZTA	1.0	1.6	1.5	1.3	1.0	1.0	**6.4**
City Rail Link	-	0.3	0.3	0.3	0.4	0.3	**1.6**
District health boards	-	0.2	0.6	0.3	0.2	0.1	**1.4**
Crown Infrastructure Partners	-	0.2	0.3	0.2	0.3	0.2	**1.2**
KiwiRail	0.2	0.4	0.4	0.2	-	-	**1.0**
Southern Response	0.3	0.2	0.3	-	-	-	**0.5**
Ōtākaro	-	-	0.2	-	-	-	**0.2**
Other	0.2	0.3	0.3	0.2	0.1	-	**0.9**
Net investments	**1.7**	**3.2**	**3.9**	**2.5**	**2.0**	**1.6**	**13.2**
Future new capital spending	-	0.2	1.3	1.5	2.4	2.7	**8.1**
Top-down capital adjustment	-	(0.5)	(0.6)	(0.2)	(0.3)	-	**(1.6)**
Contribution to NZS Fund	-	0.5	1.0	1.5	2.2	2.5	**7.7**
Net capital spending	**3.7**	**6.7**	**8.8**	**8.5**	**9.3**	**8.5**	**41.8**

Source: The Treasury

[13] In addition to the above capital spending, a number of capital projects have been undertaken through Public Private Partnerships (PPPs). Unlike capital spending, where cash payments are made as the asset is being constructed, cash flows in relation to PPPs do not typically commence until the completion of the project.

[14] Some expenditure has been reclassified to operating.

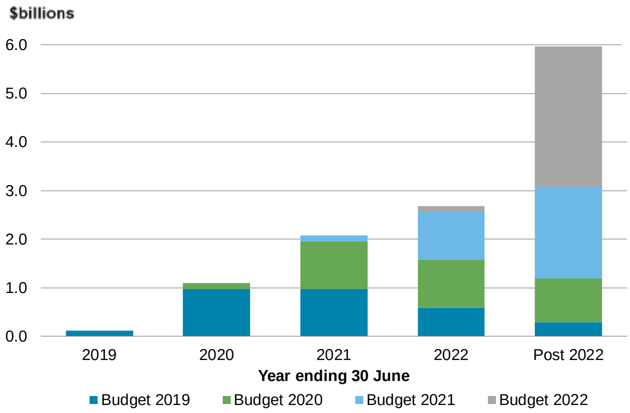
Table 2.8 outlines core Crown capital spending that has a net core Crown debt impact. It excludes capital spending undertaken directly by CEs and SOEs funded from their own resources (including third-party financing).

Approximately $0.6 billion of capital commitments, relating to City Rail Link, Housing Infrastructure Fund and Crown Infrastructure Partners, are expected to fall outside of the forecast horizon.

Capital allowances represent new capital spending expected to be allocated over the forecast period. The capital allowance for each Budget is spread over five fiscal years, reflecting the expected profile of spending. This profile is illustrated in Figure 2.10.

Capital allowances are set at $3.7 billion for Budget 2019, $3.4 billion in Budget 2020 and $3.0 billion in Budget 2021 onwards. These allowances are expected to add $6.0 billion in total to the forecast period, with $6.0 billion expected to fall outside the forecast period.

Figure 2.10 – Future capital allowances



Source: The Treasury

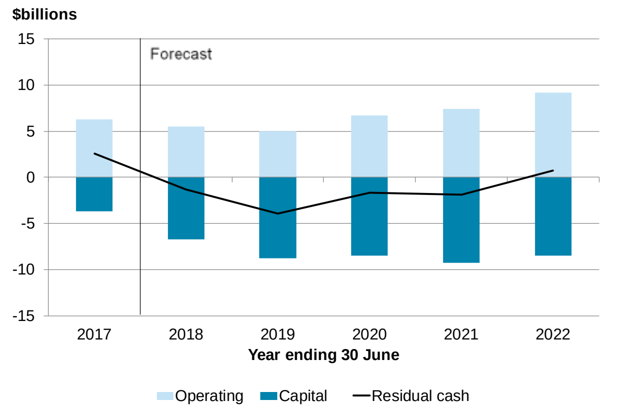
Residual Cash and Net Core Crown Debt[15]

After an initial decline, operating cash flows are expected to improve across the forecast period…

After initially declining, net operating cash flows are expected to rise over the forecast period. However, capital spending is forecast to exceed operating cash flows in the first four years of the forecast resulting in a forecast residual cash deficit in these years.

As capital spending steadies and forecast tax receipts continue to grow at a faster pace than operating payments, a residual cash surplus is forecast in the final year of $0.7 billion (Figure 2.11).

Figure 2.11 – Core Crown residual cash



Source: The Treasury

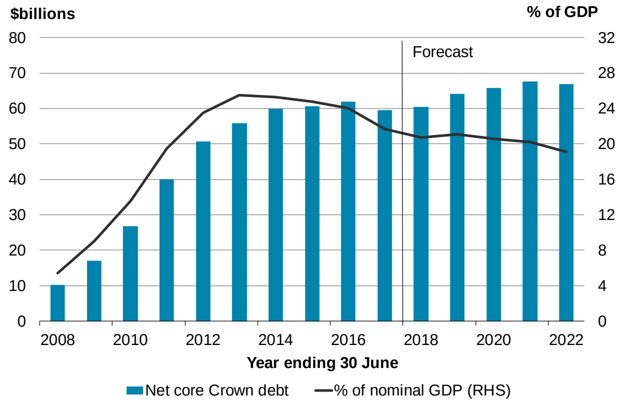
This expected growth in operating cash flows largely mirrors the trend shown in OBEGAL and reflects the growth in tax receipts exceeding the growth in operating payments.

…with net core Crown debt reducing as a percentage of GDP…

Net core Crown debt as a percentage of GDP is expected to decline across the forecast period from 21.7% in 2016/17 to 19.1% at the end of the forecast period (Figure 2.12).

However, as cash flows from operating activities are not expected to be sufficient to meet the increase in core Crown capital spending, nominal net core Crown debt grows until a residual cash surplus is achieved in 2021/22, at which point net core Crown debt is forecast to decline. Net core Crown debt peaks at $67.6 billion in 2020/21 before reducing to $67.0 billion in 2021/22.

Figure 2.12 – Net core Crown debt



Source: The Treasury

This forecast nominal increase in net core Crown debt in the short-term is expected to be funded through a combination of using existing financial assets of the Crown and funds raised through debt.

Net core Crown debt and other relevant debt indicators are discussed further on page 39.

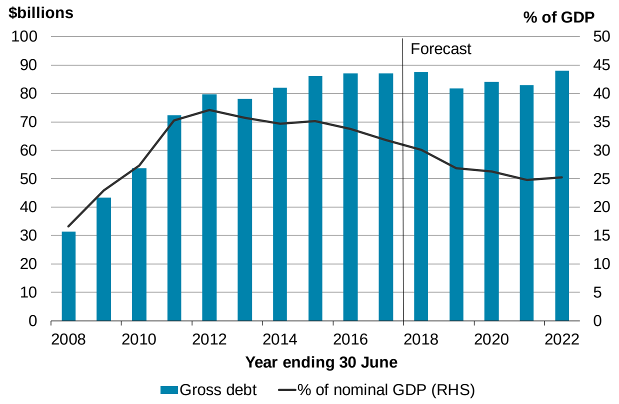
[15] Net core Crown debt and residual cash indicators are measured on a core Crown basis. Residual cash includes both operating and capital activity. This differs from OBEGAL, which is measured at a total Crown level and includes operating activity only.

...while overall, gross debt also declines as a percentage of GDP

Gross debt (of which the core Crown borrowing programme is the major component) is expected to decline as a percentage of GDP across the first four years of the forecast (Figure 2.13).

By 2020/21, gross debt is expected to decrease to 24.8% of GDP, from 31.8% at the end of 2016/17. In the final year of the forecast, gross debt climbs again to 25.2% of GDP, as steady bond issuance continues during a year with no forecast bond maturity.

Figure 2.13 – Gross debt



Source: The Treasury

The Government recognises the importance of maintaining a sustainable New Zealand Government Bond (NZGB) market. This is necessary to:

- Ensure ongoing government access to debt funding, supporting fiscal resilience in the event of future economic shocks.
- Reduce volatility of government borrowing programmes through economic cycles.
- Provide wider capital markets benefits, including reliable pricing benchmarks for other issuers.

As previously confirmed, the Government intends to maintain levels of NZGBs on issue at not less than 20% of GDP over time.

The core Crown borrowing programme includes forecast issuance for both government bonds and short-term borrowing (eg, Treasury Bills). Table 2.9 shows the bond programme is expected to raise funds of $37.8 billion over the forecast period. Bond maturities will result in $35.4 billion of existing debt being repaid. Short-term borrowing is expected to be $2.0 billion lower at the end of the forecast period.[16]

Table 2.9 – Net issuance of government bonds and short-term borrowing

Year ending 30 June $billions	**2018 Forecast**	**2019 Forecast**	**2020 Forecast**	**2021 Forecast**	**2022 Forecast**	**5-year Total**
Face value of government bonds issued (market)	7.0	8.0	8.0	8.0	7.0	38.0
Debt programme cash flows						
Cash proceeds from issue of market bonds	7.0	7.9	8.0	7.9	7.0	37.8
Repayment of market bonds	(7.3)	(11.2)	(5.8)	(11.1)	-	(35.4)
Net issue/(repayment) of short-term borrowing	-	(2.0)	-	2.1	(2.1)	(2.0)
Net debt programme cash flows	**(0.3)**	**(5.3)**	**2.2**	**(1.1)**	**4.9**	**0.4**

Source: The Treasury

[16] More information on the bond programme can be found at https://www.nzdmo.govt.nz/analyst-centre/media-statements

Total Crown borrowing

Different debt indicators

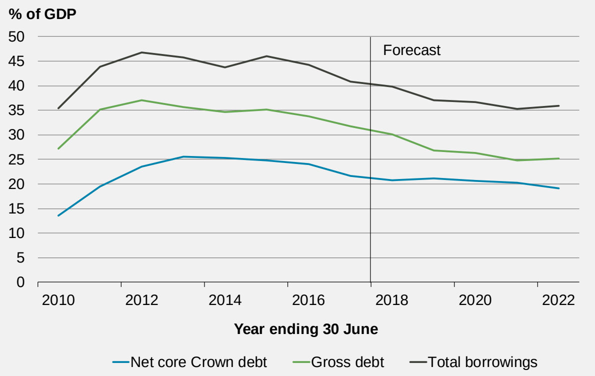
This box outlines some of the key debt indicators, discusses recent trends in these indicators and analyses total borrowings by segment. There are a number of different debt indicators that are presented in the forecast financial statements of the Government. The Budget documents focus on the net core Crown debt measure as it is one of the Government's key fiscal indicators. However, each debt indicator provides a different insight into fiscal sustainability of the Government.

Indicators	
Net core Crown debt	Represents the difference between gross debt and liquid financial assets (excluding the NZS Fund and advances). It shows how much debt (issued to fund Crown operating and capital activities) would remain after offsetting liquid assets. Net core Crown debt provides a means for assessing the Government's ability to sustain its current spending, tax and other policies in the long run. Net core Crown debt is the Government's key debt indicator.
Gross debt	Shows the amount of debt issued by the Crown primarily in order to finance activities beyond what is funded from the cash flows from the Crown's operating activities. This indicator looks at the debt without taking into account the financial assets. But it omits debt the Reserve Bank issues for liquidity management purposes.
Total borrowings	Shows the amount of borrowings by the whole-of-government. As well as debt issued by the Crown it also includes the independent borrowings undertaken by SOEs and Crown entities with third parties to fund their operations (including PPPs). Total borrowings provide a wider perspective of the fiscal sustainability of the Government's total operations.

Trends in debt indicators

Debt has grown since 2008 in reponse to the global financial crisis and the Canterbury earthquakes. By the end of the forecast period net core Crown debt starts to reduce, although total borrowings increase as a percentage of GDP. Gross debt follows the trend of the borrowings programme undertaken by the Treasury to fund activities of the Crown. Figure 2.14 shows the different debt indicators follow a similar trend. For more detail, refer to page 38.

Figure 2.14 – Debt indicator trends

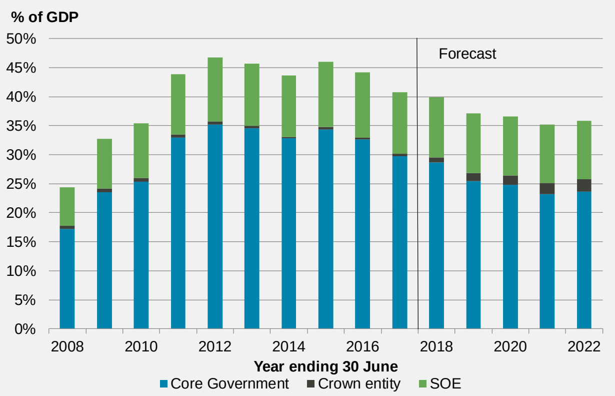


Source: The Treasury

Total borrowings by segment

Overall total borrowings for the Government continue to decline as a percentage of GDP. However, the composition is forecast to change. While core Crown and SOE debt is expected to fall as a percentage of GDP compared with 2016/17, Crown entity debt is forecast to increase from 0.5% to 2.2% of GDP by 2021/22 (Figure 2.15). The primary drivers of this increase relate to the current PPPs NZTA has entered into and additional borrowing forecast by both Housing New Zealand Corporation and Crown Infrastructure Partners. Decisions regarding these entities have been taken since the *Half Year Update* that increase borrowing by Crown entities over the forecast period. This borrowing is outside the definition of net core Crown debt.

Figure 2.15 – Borrowing by segment



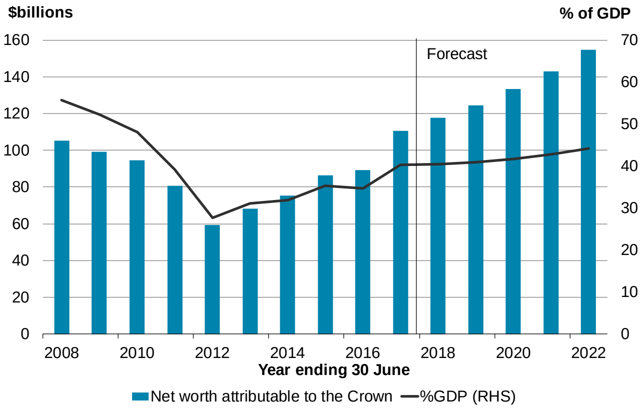
Source: The Treasury

Total Crown Balance Sheet

Growing operating balance surpluses result in a stronger balance sheet…

Figure 2.16 shows that in nominal terms, net worth attributable to the Crown has recovered from the decline that began in 2008 and is expected to grow across the forecast period reaching $154.7 billion by 2021/22. As a percentage of GDP net worth attributable to the Crown is forecast to reach 44.2% by 2021/22, albeit still below the peak of 55.6% in 2007/08.

***Figure 2.16** – Net worth attributable to the Crown*



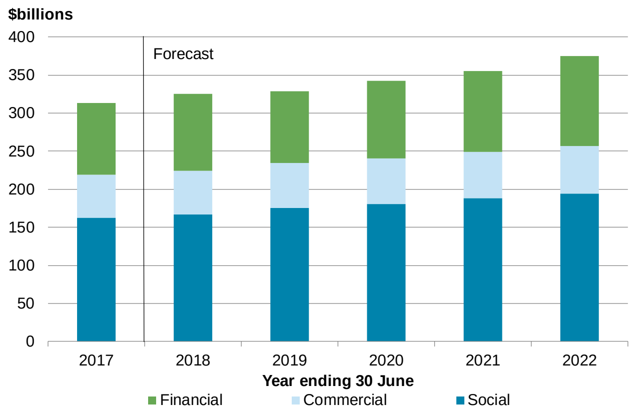
Source: The Treasury

…reflected through continued asset growth over the forecast period…

Total assets are forecast to grow by $61.2 billion over the forecast period to $374.8 billion in 2021/22, made up of additional investments in assets, both physical and financial (Figure 2.17).

The largest asset growth over the forecast period is in the social assets portfolio (around 52% of the total Crown balance sheet). Social assets (eg, schools, hospitals, social housing and infrastructure) are expected to increase by $31.6 billion over the forecast period to be $194.3 billion in 2021/22. This increase largely reflects the capital spending discussed earlier (refer to page 35).

***Figure 2.17** – Total Crown assets*



Source: The Treasury

...and a slower rate of growth is expected for the Crown's liabilities…

The Crown's liabilities across the forecast period reach $214.5 billion by 2021/22, an increase of $17.4 billion, primarily owing to the expected increase in total Crown borrowings of $13.6 billion and insurance liabilities. Insurance liabilities are expected to increase by $7.4 billion (17.4%), owing to an increase in the ACC claims liability (reflecting a growth in both volume and cost of claims), while the EQC and Southern Response liabilities are both expected to decrease ($1.6 billion and $0.7 billion respectively).

…the Crown's balance sheet remains sensitive to market movements

Many assets and liabilities on the Crown's balance sheet are measured at fair value to show current estimates of what the Crown owns and owes. This is intended to reflect the value of these items: it can be volatile, resulting in fluctuations in the value of the assets and liabilities reflecting changes in the market and underlying assumptions.

The Specific Fiscal Risks and Risks and Scenarios chapters include a section on balance sheet risks and should be read in conjunction with the fiscal forecasts.

Comparison to the *Half Year Update*

The *Half Year Update* was published on 14 December 2017. Since then, there have been a number of developments that have impacted the fiscal outlook. Table 2.10 below summarises the changes in the key fiscal indicators.

Table 2.10 – Key fiscal indicators compared with the *Half Year Update*

Year ending 30 June $billions	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Core Crown tax revenue					
Budget Update	79.5	83.9	89.0	93.9	99.0
Half Year Update	78.2	82.8	87.8	93.0	97.8
Change	**1.3**	**1.1**	**1.2**	**0.9**	**1.2**
Core Crown expenses					
Budget Update	81.7	86.7	90.1	94.7	98.1
Half Year Update	81.7	86.3	89.2	92.7	95.3
Change	**-**	**(0.4)**	**(0.9)**	**(2.0)**	**(2.8)**
OBEGAL[17]					
Budget Update	3.1	3.7	5.4	5.7	7.3
Half Year Update	2.5	2.8	5.0	6.5	8.8
Change	**0.6**	**0.9**	**0.4**	**(0.8)**	**(1.5)**
Core Crown residual cash					
Budget Update	(1.3)	(3.9)	(1.7)	(1.9)	0.7
Half Year Update	(2.6)	(4.7)	(2.6)	0.3	2.3
Change	**1.3**	**0.8**	**0.9**	**(2.2)**	**(1.6)**
Net core Crown debt					
Budget Update	60.4	64.2	65.9	67.6	67.0
Half Year Update	62.1	66.8	69.4	69.0	66.8
Change	**1.7**	**2.6**	**3.5**	**1.4**	**(0.2)**
Net worth attributable to the Crown					
Budget Update	117.6	124.5	133.3	142.9	154.7
Half Year Update	116.6	122.5	131.1	141.5	154.6
Change	**1.0**	**2.0**	**2.2**	**1.4**	**0.1**

Source: The Treasury

Core Crown tax revenue is expected to be higher than the Half Year Update...

Core Crown tax revenue is forecast to be $5.7 billion higher than in the *Half Year Update* over the five-year period up to 2021/22 (Table 2.11).

The increase is spread across a number of tax types:

- Source deduction revenue forecasts increased by $2.5 billion in total across the forecast period, mainly owing to a higher track for forecast employment growth which has been boosted by the change in the migration assumption (refer to page 17), particularly towards the end of the forecast period.

- GST forecasts have increased by $1.7 billion in total. The majority of this increase is owing to the current year's strength in residential investment and private consumption, with a further $0.5 billion arising from revised economic forecasts, particularly net tourist

[17] The OBEGAL balance excludes minority interests – the portion attributable to the investors in mixed ownership companies (Air New Zealand, Genesis, Mercury and Meridian).

spending in New Zealand and residential investment. In addition, approximately $0.2 billion is expected to be raised within the forecast period from the collection of GST on low-value goods imports.

- Net other persons' tax revenue forecasts are in total $1.0 billion higher than in the *Half Year Update*, with $0.3 billion expected to be raised from the ring-fencing initiative within the forecast period, and most of the remainder coming from a higher outlook for growth in entrepreneurial income.

Forecasts of other tax types are, in total, similar to the *Half Year Update* values.

Table 2.11 – Reconciliation of the change in core Crown tax revenue

Year ending 30 June $billions	**2018 Forecast**	**2019 Forecast**	**2020 Forecast**	**2021 Forecast**	**2022 Forecast**	**Total Change**
Movement in core Crown tax owing to:						
Source deductions	0.3	0.3	0.5	0.6	0.8	**2.5**
GST	0.4	0.5	0.3	0.2	0.3	**1.7**
Corporate tax	0.4	0.1	-	(0.1)	(0.1)	**0.3**
Other persons' tax	-	0.1	0.2	0.3	0.4	**1.0**
RWT (on interest)	-	-	0.1	-	(0.1)	**-**
Other taxes	0.2	0.1	0.1	(0.1)	(0.1)	**0.2**
Total movement in core Crown tax revenue	**1.3**	**1.1**	**1.2**	**0.9**	**1.2**	**5.7**
Plus *Half Year Update* tax base	78.2	82.8	87.8	93.0	97.8	
Core Crown tax revenue	**79.5**	**83.9**	**89.0**	**93.9**	**99.0**	
As a % of GDP	**27.3%**	**27.5%**	**27.8%**	**28.1%**	**28.3%**	
Core Crown tax movements consist of:						
Policy changes	-	-	0.1	0.3	0.3	**0.7**
Forecast changes	1.3	1.1	1.1	0.6	0.9	**5.0**

Source: The Treasury

…while OBEGAL growth slows across the period, as new spending takes effect…

The major movements in OBEGAL since the *Half Year Update* are outlined in Table 2.12 below. Cumulatively, OBEGAL is $0.4 billion lower across the forecast period.

Table 2.12 – Changes in OBEGAL since the *Half Year Update*

Year ending 30 June **$billions**	**2018** **Forecast**	**2019** **Forecast**	**2020** **Forecast**	**2021** **Forecast**	**2022** **Forecast**
OBEGAL – *Half Year Update*	**2.5**	**2.8**	**5.0**	**6.5**	**8.8**
Changes in forecasts:					
Core Crown tax revenue forecast change	1.3	1.1	1.1	0.6	0.9
Core Crown tax policy change	-	-	0.1	0.3	0.3
Increase to future operating allowances	-	-	(0.5)	(1.0)	(1.5)
Budget 2018 new operating spending	0.1	-	(0.2)	(0.6)	(1.0)
Social assistance forecasting changes	-	(0.2)	(0.2)	(0.2)	(0.2)
Net core Crown finance costs	-	0.2	0.3	0.3	0.2
ACC results	(0.1)	(0.1)	-	(0.1)	(0.2)
EQC results	(0.2)	-	-	-	-
Other changes	(0.5)	(0.1)	(0.2)	(0.1)	-
Total changes since the *Half Year Update*	**0.6**	**0.9**	**0.4**	**(0.8)**	**(1.5)**
OBEGAL – *Budget Update*	**3.1**	**3.7**	**5.4**	**5.7**	**7.3**

Source: The Treasury

Core Crown tax revenue has increased as a result of both forecasting changes and changes in tax policy (refer to page 41 for a discussion of the increase in tax revenue since the *Half Year Update*).

Future Budget operating allowances have increased since the *Half Year Update* and impact on the last three years of the forecast. The updated allowances are $2.4 billion for Budget 2019 and all subsequent Budgets. This is higher than was previously forecast and results in a reduction in OBEGAL across the forecast period compared to the *Half Year Update*.

Budget 2018 new operating spending has reduced OBEGAL across the forecast period. This primarily relates to higher expenditure for Budget 2018 when compared with what was previously forecast in the *Half Year Update* for Budget 2018. For further information on Budget 2018 new operating spending, refer to the box on page 30.

Social assistance spending has increased since the *Half Year Update* with forecasting increases mainly caused by an increase in expected NZS recipient numbers and wage revisions. These increases are partly offset by a lower CPI track compared to the *Half Year Update*.

Net core Crown finance costs have reduced across the forecast period largely owing to a reduction in interest expense along with a small increase in interest revenue. This change is driven by changes in the Crown's mix of financial assets and liabilities.

Updated ACC forecasts have resulted in a decrease in OBEGAL across the forecast, largely owing to a growth in claim volumes and higher insurance expenses compared with that forecast at the *Half Year Update*. An updated valuation of EQC's outstanding claims liability has resulted in an increase in insurance expenses in the current year since the *Half Year Update*.

...and net core Crown debt is higher across the forecast period compared with the Half Year Update

Core Crown residual cash is $0.8 billion lower than the Half Year Update. This results in an increase to net core Crown debt, which is expected to be around $0.2 billion higher than previously forecast across the forecast period (Table 2.13).

Table 2.13 – Changes in net core Crown debt since the *Half Year Update*

Year ending 30 June $billions	**2018 Forecast**	**2019 Forecast**	**2020 Forecast**	**2021 Forecast**	**2022 Forecast**
Net core Crown debt – *Half Year Update*	**62.1**	**66.8**	**69.4**	**69.0**	**66.8**
Changes in forecasts (cumulative):					
Increase to future operating allowances	-	-	0.5	1.5	3.0
Increase to future capital allowances	-	-	0.1	0.3	0.6
Budget 2018 new operating spend	(0.1)	(0.1)	0.1	0.7	1.7
Budget 2018 new capital spend	0.1	-	(0.2)	(0.2)	(0.3)
Capital phasing changes	0.3	(0.3)	(0.8)	(0.1)	(0.1)
Tax receipt forecasts	(2.1)	(3.0)	(4.1)	(4.7)	(5.5)
Tax receipts policy decisions	-	-	(0.1)	(0.3)	(0.6)
Social assistance forecasting changes	0.1	0.4	0.7	1.0	1.3
Net core Crown finance costs	-	-	(0.1)	(0.2)	(0.3)
Other changes	-	0.4	0.4	0.6	0.4
Total changes since the *Half Year Update*	**(1.7)**	**(2.6)**	**(3.5)**	**(1.4)**	**0.2**
Net core Crown debt – *Budget Update*	**60.4**	**64.2**	**65.9**	**67.6**	**67.0**

Source: The Treasury

Increases to both the operating and capital allowances for future budgets, as well as the increases in Budget 2018, have increased net core Crown debt by $5.3 billion across the forecast.

In addition to the new Budget 2018 capital decisions, there have been a number of changes to phasing assumptions to existing capital programmes such as KiwiBuild and the Crown Infrastructure Partners programme which together result in a $0.1 billion decrease in net core Crown debt by the end of the forecast period.

Tax receipts have increased across the forecast period since the *Half Year Update* while social assistance payments have also increased. These are largely consistent with the OBEGAL movements discussed earlier although with slightly different profiles, reflecting the timing difference of when cash is received or payments are made.

Net finance costs have reduced by $0.3 billion across the forecast period since the *Half Year Update*. This is largely owing to the change in interest receipts exceeding the change in interest costs as a result of higher short-term interest rates.

Key Economic Assumptions used in the Forecast Financial Statements

The forecast financial statements are prepared on the basis of underlying economic forecasts. Such forecasts are critical for determining revenue and expense estimates. For example:

- A nominal GDP forecast is needed to forecast tax revenue.
- A forecast of CPI inflation is needed because social assistance benefits are generally indexed to inflation.
- Forecasts of interest rates are needed to forecast finance costs, interest income and discount rates.

A summary of the key economic forecasts that are particularly relevant to the forecast financial statements is provided in Table 2.14 below.

Table 2.14 – Summary of key economic forecasts used in the forecast financial statements

Year ending 30 June	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Real GDP[1] (annual average, % change)	3.3	2.8	3.3	3.4	2.7	2.5
Nominal GDP[2] ($millions)	274,220	291,020	304,591	319,971	334,721	349,792
CPI (annual average, % change)	1.4	1.4	1.4	1.7	1.9	2.0
Govt 10-year bonds (annual average, %)	2.9	2.9	3.2	3.8	4.1	4.3
5-year bonds (annual average, %)	2.3	2.4	2.8	3.6	3.9	4.1
90-day bill rate (annual average, %)	2.1	1.9	2.3	3.2	3.7	4.0
Unemployment rate (annual average, %)	5.0	4.5	4.4	4.1	4.1	4.2
Employment (annual average’ % change)	5.2	3.8	2.1	1.9	1.5	1.3

Notes: 1 Production measure.

2 Expenditure measure.

Source: The Treasury, Statistics New Zealand

3

Risks and Scenarios

Overview

- This chapter discusses some of the key risks facing the economy and uses two alternative scenarios to assess the implications of different assumptions and judgements.
- Scenario One shows the impact of growing trade protectionism, which leads to weaker trading partner growth, lower prices for New Zealand commodities and less nominal gross domestic product (GDP). Scenario Two shows how higher net migration would lead to a stronger business cycle and boost nominal GDP.
- More generally, the outlook for the domestic economy may differ from the forecast in the Economic Outlook chapter in a number of ways. Growth in real residential investment may be weaker than forecast if capacity constraints are more binding than assumed. If capacity generally is more stretched than assumed, less growth is possible before increased inflationary pressures result in the need for higher interest rates. Higher wage growth or lower unemployment have the potential to keep net migration higher for longer, which would likely lead to higher house prices and consumption growth.
- Changes in the international economy also have the potential to impact the economic outlook. Stronger-than-forecast growth in our trading partners could increase demand for exports and result in higher terms of trade. A more rapid tightening in monetary policy in the US could lead to higher global interest rates and weaker growth. Geopolitical tensions and growing trade protectionism also remain as risks to the global economy.
- The Crown's balance sheet is exposed to a number of risks beyond those associated with the operating balance. The Crown's financial position is exposed to risk through changes in the value of the Crown's assets or liabilities and through the potential impact of the Crown's fiscal obligations that arise from policy choices.

Risks to the Economic and Fiscal Outlook

Key risks are discussed below, and the section that follows presents two alternative scenarios. Key risks are those that are either relatively likely to occur, or would have a significant impact to the economy if they did. Risks to the economic outlook represent risks to the Government's fiscal position, because tax revenue varies with the performance of the economy.

Supplementing this, the Specific Fiscal Risks chapter details potential government decisions, contingent liabilities and contractual obligations that may also have a material impact on the economic or the fiscal outlook.

Less spare capacity in the economy could lead to higher inflation…

Capacity constraints in the economy may be more binding than assumed. Strong population growth, high house prices and low interest rates have motivated strong household consumption, boosting demand in the economy. To keep pace with growing demand, businesses have been expanding, with increasing reports of difficulty finding labour and the unemployment rate falling steadily to 4.4% in March 2018, from 5.3% in December 2016.

The risk from capacity pressures being stronger is that less economic growth is possible before it begins to drive up inflation. Costs and prices are bid higher as businesses struggle to keep up with demand.

There is also uncertainty around how quickly higher inflation returns. Weak inflation over recent years has weighed on expectations, making businesses slow to increase prices in order to stay competitive. Lower expectations could persist even with early signs of inflation, or expectations could turn around sharply, leading to an acceleration in inflation.

…leading to higher interest rates and less real growth

The emergence of stronger inflation would likely see monetary policy respond via higher interest rates. Higher inflation would boost nominal growth, but higher interest rates would constrain real growth. Businesses invest less with higher borrowing costs and households switch away from spending now in favour of investing for a higher return or paying down debt. Households could be especially sensitive to higher interest rates, given that current levels of household debt are at record highs relative to income.

The risk that capacity is tighter than expected also applies to the rest of the world. Tighter world capacity would raise the cost of sourcing funding overseas for New Zealand banks, and could cause the New Zealand dollar to depreciate with capital leaving the country in search of a better return. If both New Zealand and the rest of the world had tighter capacity than expected, we could see a compounding effect on interest rates in New Zealand, slowing economic growth. However, a lower New Zealand dollar would likely provide some offset by boosting export returns.

Alternatively, tight capacity could be specific to construction

Rather than being generalised, capacity pressures may be more concentrated in particular sectors. To the extent that spillover effects on general prices were limited, this may exert less pressure on interest rates. Capacity is particularly stretched in the construction sector, especially in the form of labour shortages. The construction sector also faces constraints, like credit restrictions and limited land supply. Limited capacity could prevent KiwiBuild from adding to residential investment as much as expected, with the risk that it instead substitutes for different developments that would have otherwise taken place.

The Government has identified a number of policies to promote capacity which are factored into the forecasts. Potential policies include KiwiBuild visas to attract more builders, or a focus on modular housing to improve productivity. The exact nature and timing of these policies is still being developed, and so the impact is difficult to assess at this stage. We will update our forecasts as more policy detail emerges or evidence of easing constraints becomes available.

House prices could rise faster…

House price inflation over the past few years has made home owners wealthier and contributed to consumption growth. House prices appeared to be settling down in the middle of last year, but have picked up over the past six months. The re-emergence of stronger price growth is not expected to continue. In part, this is because already high prices are keeping people from entering the market. There are also a number of government policies taking effect from the middle of the year which are expected to limit demand, such as the restriction on foreign buyers. If house prices continue to rise, households may choose to spend more for longer.

…especially if net migration stays higher for longer

The risk of higher house prices is particularly sensitive to changes in migration: if net migration is higher than expected it will add to demand and create further pressure on house prices. There is a high degree of uncertainty when forecasting net migration, especially trans-Tasman flows which are not controlled by visa requirements. If the Australian economy changes relative to New Zealand's, incentives for New Zealanders to leave or return change. We may also see higher arrivals of non-New Zealand citizens. In the central forecast we revised up the end point assumption to a net inflow of 25,000 from 15,000 previously (see page 17 for more on this change). The impact of higher net migration than the central forecast is explored in Scenario Two.

Low business confidence could dampen investment and employment growth

Various measures of both consumer and business confidence fell in the second half of 2017. While consumer confidence appears to have mostly rebounded, business confidence is still well below the average of the past few years. Our current forecasts assume this to be temporary and to have limited effect on investment and hiring decisions. However, there is a risk that the measures of confidence flow through to reduced investment or keep businesses from hiring new staff, and ultimately curb growth. We have heard that a number of businesses expect minimum-wage changes to have little impact on their own activity, but it is possible that uncertainty around any other reforms and their combined impact leads to more cautious behaviour.

Trade growth at risk from volatile weather…

New Zealand experienced volatile weather over the past year, from flooding in the middle of 2017 to drought over the summer. This weather caused weaker-than-expected exports of meat and dairy. As climate change progresses, there is a risk that greater extremes in weather conditions will become the new normal. This hurts exports of dairy, meat and other products, and could impact whether people choose New Zealand as a tourist destination.

At different stages, New Zealand might benefit from extreme weather at the expense of other countries: dry weather limiting the milk production of competitors would boost the price and therefore profits for New Zealand dairy farmers. However, competitors could respond by shifting to less weather impacted alternatives, like synthetic milk products. Climate change is a prevalent issue, but is unlikely to change the economic outlook materially over the forecast period. Dependence on exports vulnerable to weather conditions could adversely affect New Zealand's long-run growth prospects.

…and swings in global equities markets

Asset prices in the US have increased strongly since 2016 and there is a risk that they are overvalued. Asset prices started to fluctuate at the start of this year, perhaps suggesting a slight shift in business confidence, although they have not fallen far from January peaks. A financial market correction may be triggered by expectations of a more rapid tightening in financial conditions, arising from signs of increased inflation pressure in the US. Higher US interest rates would raise the cost of borrowing in New Zealand, but if higher US interest rates triggered a sharp fall in asset prices, they would also lower global business confidence and demand for New Zealand goods overseas.

…and other global developments, including trade protectionism

There is a range of international risks to trading partner growth. There have been developments in trade protectionism, particularly with China and the US imposing new tariffs, and there is potential for more countries to respond. There is still a high degree of uncertainty over the way the economic relationship will evolve between the UK and the EU. The risk remains that conflict in the Middle East could escalate and embroil more countries.

In China, authorities continue to implement measures to address risks in the financial system. Nonetheless, risks remain high given the rapid growth and high level of corporate sector debt, and the lack of transparency in some parts of the system.

We explore a negative shock to global trade growth and prices for New Zealand exports in Scenario One.

Alternative Scenarios

The following scenarios show how the economy might evolve if some of the assumptions in the main forecast are altered. They illustrate only two of the many ways that the economy may deviate from the main forecasts.

Scenario One illustrates the economic and fiscal impacts of increasing trade protectionism, particularly focused on agriculture. In this scenario, trading partner growth falls and prices for New Zealand exports fall, leading to a lower exchange rate. New Zealand receives less income from exports and more expensive imports cause slower growth in both consumption and investment. Lower nominal GDP and tax revenues generate a weaker fiscal position.

Scenario Two illustrates the economic and fiscal impacts of higher migration. In this scenario, higher migration pushes house prices higher, and boosts consumption and residential investment. The added growth drives inflation higher and the unemployment rate lower. Stronger nominal GDP and tax revenues generate a stronger fiscal position.

Table 3.1 – Summary of economic and fiscal variables for main forecasts and scenarios

June years	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Real GDP (annual average % change)					
Main forecast	**2.8**	**3.3**	**3.4**	**2.7**	**2.5**
Scenario One: Rise in trade protectionism	2.8	3.0	2.7	2.5	2.4
Scenario Two: Higher net migration	**2.8**	**3.5**	**3.7**	**3.0**	**2.6**
Nominal GDP (annual average % change)					
Main forecast	**6.1**	**4.7**	**5.0**	**4.6**	**4.5**
Scenario One: Rise in trade protectionism	6.0	3.0	4.3	4.9	4.9
Scenario Two: Higher net migration	**6.1**	**4.9**	**5.6**	**5.1**	**4.8**
Operating balance before gains and losses (% of GDP)					
Main forecast	**1.1**	**1.2**	**1.7**	**1.7**	**2.1**
Scenario One: Rise in trade protectionism	**1.1**	**1.0**	**1.1**	**1.1**	**1.6**
Scenario Two: Higher net migration	**1.1**	**1.3**	**1.9**	**2.2**	**2.7**
Net core Crown debt (% of GDP)					
Main forecast	**20.8**	**21.1**	**20.6**	**20.2**	**19.1**
Scenario One: Rise in trade protectionism	20.8	21.8	22.0	22.1	21.4
Scenario Two: Higher net migration	**20.8**	**21.0**	**20.1**	**19.2**	**17.4**

Source: The Treasury

Scenario One – Rise in Trade Protectionism

In the first scenario, increasing trade protectionism causes a general fall in global income growth. We also assume that protection focuses on agriculture, causing commodity prices to fall.

Weaker global income growth triggers a fall in trading partner growth. However, the largest impact on nominal GDP comes from the lower commodity prices, reducing income received from exports and lowering the trade-weighted index (TWI). The lower TWI makes imports more expensive for both consumers and businesses wishing to invest. GDP and tax revenue are lower.

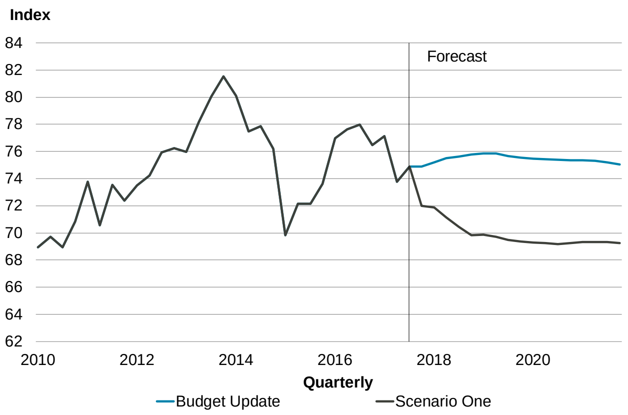
Weaker commodity prices dampen exports and investment…

Weaker commodity prices cause the TWI to fall, with the TWI staying around 8.0% lower over most of the forecast period (Figure 3.1). The volume of goods exported falls by little but the lower prices hurt exporter income (Figure 3.2). Lower commodity prices also cause businesses to anticipate weaker future profits and to carry out less investment.

...and lower real wages lead to less real consumption growth

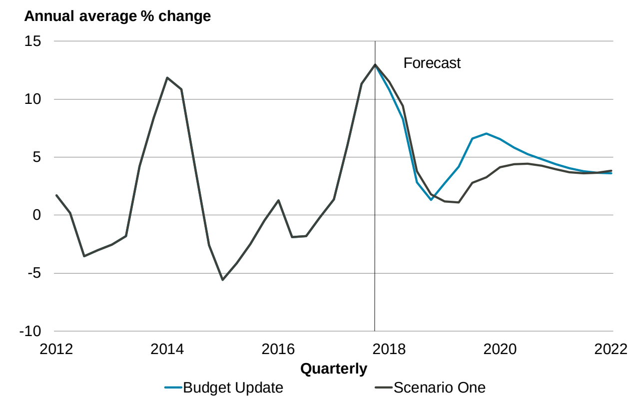
Higher import prices cause tradables inflation to rise more strongly, lifting overall consumers price index (CPI) inflation. Nominal wages are slow to adjust to higher inflation, and less investment eases pressure in the labour market, making real wages lower. Weaker real wages reduce growth in real consumption.

Figure 3.1 – Trade-weighted index



Sources: Reserve Bank of New Zealand, the Treasury

Figure 3.2 – Annual growth in nominal goods exports



Sources: Stats NZ, the Treasury

The weaker economy lowers labour demand, and the unemployment rate does not fall below its current rate of 4.4%, compared with a low of 4.1% in the central forecast.

On the positive side, the weaker dollar attracts more visitors to New Zealand, causing a slight lift in services exports.

Weaker economy causes slower rise in interest rates

Despite stronger inflation, the weaker economy means interest rates rise more slowly than they do in the main forecast. Lower interest rates provide some offset to weaker economic activity, but annual growth in real GDP is still lower throughout the entire forecast period.

…with a much larger current account deficit

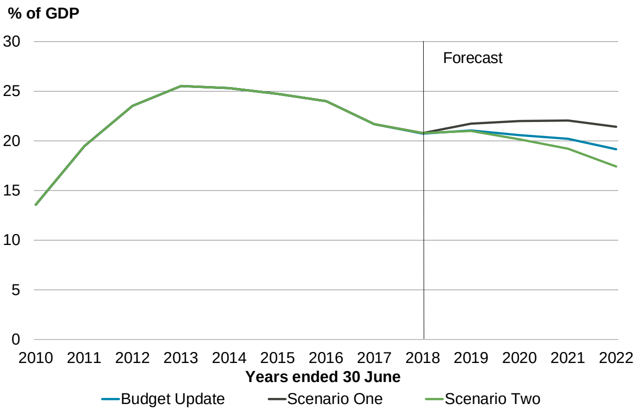
The lower TWI leads to a fall in nominal net exports, causing the current account deficit to expand to 4.8% of GDP by the end of 2019. The current account deficit stabilises near 4.6% of GDP, compared with 3.1% in the central forecast.

…and lower GDP and tax

Nominal GDP is lower by around $26 billion cumulatively by June 2022 compared with the main forecast and results in lower tax revenue of $6.4 billion.

In this scenario, we assume that the Government's operating and capital allowances are unchanged from those in the main forecast. Operating balance before gains and losses (OBEGAL) surpluses are smaller in each year, reaching $5.4 billion (1.6% of GDP) in 2022 (Table 3.1 on page 51). This is $1.9 billion lower than in the main forecast. The Government's debt position is also weakened, with the level of net core Crown debt $6.7 billion higher by June 2022, at 21.4% of GDP (Figure 3.3).

Figure 3.3 – Net debt as a percentage of GDP

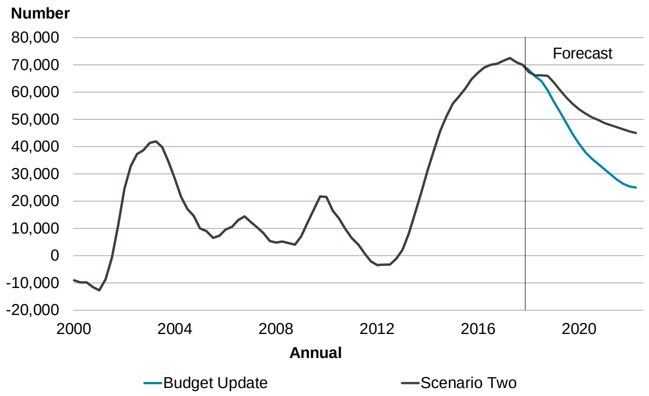


Sources: Stats NZ, the Treasury

Scenario Two – Higher Net Migration

In this scenario, net migration stays higher for longer, owing to both fewer New Zealanders leaving for Australia and stronger net arrivals of non-New Zealand citizens. Fewer New Zealanders leave for Australia if our wages rise faster and people have better employment prospects here. We assume the end point to be an inflow of around 40,000 people (see page 17 for more detail on forecasting migration).

Figure 3.4 – Net permanent and long-term migration



Sources: Stats NZ, the Treasury

Higher migration pushes up house prices, consumption and residential investment. The added growth drives inflation higher and the unemployment rate lower. Nominal GDP is stronger and tax revenue increases.

Higher net migration drives higher house prices, consumption and residential investment…

Higher net migration adds around 60,000 people cumulatively to the economy, compared with the main forecast. The additional people increase demand for housing, and house prices are around 7% higher by 2022. Higher house prices stimulate faster growth in residential investment.

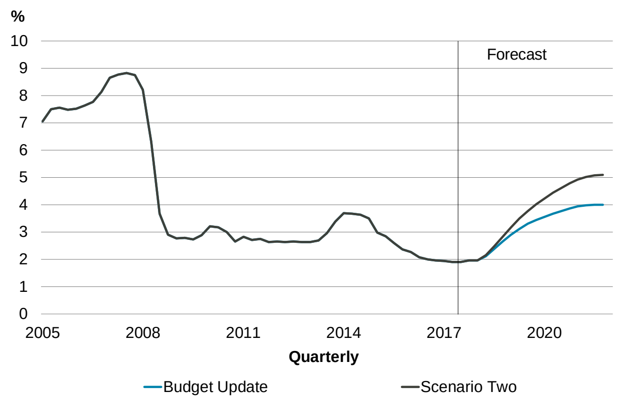
The combination of more people in the country and higher house prices creating a wealth effect fuels stronger consumption growth. In response, businesses are motivated to increase investment to reduce capacity pressures and boost capital stocks.

…leading to lower unemployment, and higher inflationary pressures and interest rates

The stronger migration cycle creates greater demand, and labour supply takes some time to respond. This drives a fall in the unemployment rate, higher inflation and a faster increase in interest rates (Figure 3.5).

In the long-run, after additional investment has been created, the supply impact from increased migration more or less matches demand. Under this scenario, we assume a permanent increase in long-run population growth, consistent with a net inflow of around 40,000 people.

Figure 3.5 – 90-day interest rates



Sources: Reserve Bank of New Zealand, the Treasury

GDP increases, generating additional tax revenue

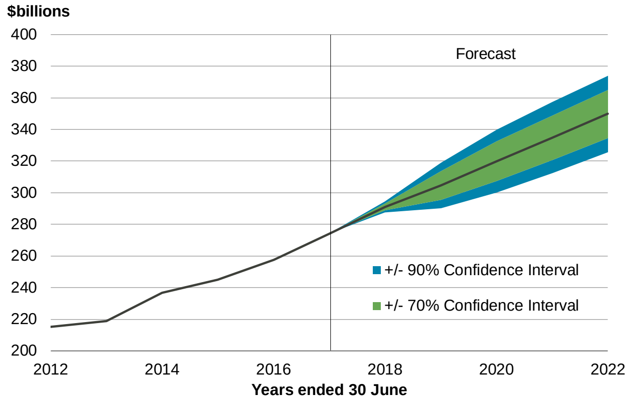
Stronger real growth combined with higher inflation result in nominal GDP being around $12 billion higher cumulatively than in the main forecast by June 2022. Total tax increases by $5.1 billion over the forecast. Resident withholding tax (RWT) increases by most as a percentage, and is around 20% higher in June 2022. RWT is charged on deposit earnings, which increase with higher interest rates.

Under this scenario, it is likely both operating and capital expenses would be higher. However, as in Scenario One, it is assumed any changes in expenses are met from the Government's operating and capital allowances, and therefore remain unchanged. OBEGAL surpluses increase to $9.7 billion (2.7% of GDP) in 2022. Net debt is lower across the forecast period.

General Uncertainties in the Economic and Fiscal Outlooks

While the chapter thus far has focused on key assumptions and judgements that may eventuate differently and alter our main forecasts, there are almost limitless ways the economy could evolve. It can therefore be useful to assess the general uncertainties in our forecasts and the sensitivity of these forecasts to changes in the economy.

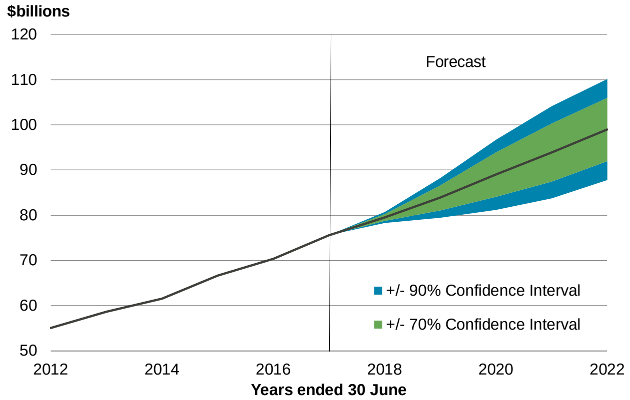
Figure 3.6 – Nominal GDP fan chart



Sources: Stats NZ, the Treasury

The wide range of economic outcomes can be illustrated using fan charts that show the uncertainty in our forecasts. Figure 3.6 shows a fan chart of nominal GDP.[18] The width of the fan increases further into the forecast period, meaning the further away from the present the more uncertainty there is around the main forecast. The combined blue and green areas of the fan show where nominal GDP is expected to be 90% of the time. At the end of the forecast period, this is within +/-7% ($24.3 billion per year) of the main forecast. The green area of the fan shows where nominal GDP is expected to be 70% of the time. At the end of the forecast period, this is within +/-4.4% ($15.3 billion per year) of the main forecast. In the two scenarios considered in this chapter, nominal GDP forecasts remain within the green area fan (70th percentile).

Figure 3.7 – Tax revenue fan chart



Source: The Treasury

The amount of tax revenue the Government receives in a given year is closely linked to the performance of the economy. For example, lower private consumption could mean less revenue from goods and services tax (GST), while higher unemployment could mean less revenue from taxes on wages and salaries.

Figure 3.7 shows the uncertainty surrounding the main tax revenue forecast.[19] At the end of the forecast period, the combined blue and green areas capture a range of

[18] For further details, see https://treasury.govt.nz/publications/staff-insight/mei-special-topic-illustrating-forecast-uncertainty

[19] Parkyn, O. (2010), *Estimating New Zealand's Structural Budget Balance*, New Zealand Treasury Working Paper 10/08, available at https://treasury.govt.nz/publications/wp/wp-10-08

approximately +/-$11.2 billion, within which actual tax outturns are expected to fall 90% of the time.[20]

The fiscal position is also impacted by changes in government expenses, which may also be impacted by economic developments. For example, the demand for working-age benefits is closely linked to labour market conditions. Changes in net migration flows may also impact on the demand for central government services, particularly health, education and publicly funded infrastructure. Over the longer term, current policies imply population growth and population ageing will place increasing pressure on public expenditure, particularly in health and superannuation.[21]

---

20 For circumstances that can result in tax revenues significantly beyond the outermost shaded area, see Fookes, C. (2011), *Modelling Shocks to New Zealand's Fiscal Position*, New Zealand Treasury Working Paper 11/02, available at https://treasury.govt.nz/publications/wp/wp-11-02

21 For more detail on the longer-term challenges and opportunities facing New Zealand, see *He Tirohanga Mokopuna: 2016 Statement on New Zealand's Long-term Fiscal Position,* available at https://treasury.govt.nz/publications/ltfp/he-tirohanga-mokopuna-2016-statement-new-zealands-long-term-fiscal-position

Fiscal Sensitivities

While significant economic shocks will naturally flow through to changes in the fiscal position, even small changes to the economic outlook can have a fiscal impact. Table 3.2 sets out some rules of thumb on the sensitivities of the fiscal position to small changes in specific variables. For example, if nominal GDP growth is one percentage point higher than forecast in each year up to June 2022, tax revenue would be around $5.1 billion higher than forecast in the June 2022 year as a result. The sensitivities are broadly symmetric: if nominal GDP growth is one percentage point lower than expected each year, tax revenue would be around $4.9 billion lower than forecast in the June 2022 year. The figures are indicative and can be influenced by the composition of growth, as different types of activity have different effective tax rates.

A different interest rate path from the forecast would also impact the fiscal position owing to the effect on the portfolios of various government reporting entities, such as the New Zealand Superannuation Fund (NZS Fund), Accident Compensation Corporation (ACC) and the Treasury's New Zealand Debt Management Office (NZDMO). For example, at 30 June 2017, a 1.0% increase in New Zealand interest rates would have reduced the total Crown operating balance by $946 million, while a 1.0% decrease would have increased the total Crown operating balance by $1,122 million. The majority of the Government's borrowings and a large number of financial assets are managed by NZDMO. To illustrate the interest rate sensitivities on the NZDMO portfolio, Table 3.2 provides the estimated impact of lower interest rates on those assets and liabilities.

Table 3.2 – Fiscal sensitivity analysis

Years ended 30 June ($millions)	**2018 Forecast**	**2019 Forecast**	**2020 Forecast**	**2021 Forecast**	**2022 Forecast**
Impact on tax revenue of a 1 percentage point increase in growth of					
Nominal GDP	795	1,700	2,720	3,845	5,100
Wages and salaries	340	730	1,170	1,660	2,210
Taxable business profits	170	390	630	895	1,190
Impact of 1% lower interest rates on					
Interest income[1]	-41	-75	-33	-64	-29
Interest expenses[1]	-20	-114	-194	-291	-356
Net impact on operating balance	-21	39	161	227	327

Note: 1 Funds managed by the Treasury's NZDMO only.

Source: The Treasury

The forecast financial position is based on a number of judgements and assumptions about the future. To inform these judgements and assumptions we rely on market information. Some additional assumptions include those around foreign exchange rates, share prices, the carbon price and property prices. Where the actual outcome differs from our assumptions, the Crown's actual financial position and operating balance is likely to differ from the forecasts. For example, a strengthening of share prices may result in higher returns from the Government's direct share investments.

Balance Sheet Risks

The Crown's balance sheet is exposed to a number of risks beyond those associated with OBEGAL. These risks affect the Crown's financial position through changes in the value of its assets or liabilities, along with the potential impact of the Crown's explicit (through policy settings) and implicit (a strong expectation the Crown would respond to an event) obligations.

Main source of balance sheet risk

A large source of balance sheet risk is owing to movements in market variables, which change the value of the Crown's assets and liabilities. As noted earlier, these changes may also impact the Crown's operating balance. Three areas of the balance sheet are particularly susceptible to market risk:

- Financial assets held by the Crown financial institutions (CFIs) are sensitive to financial-market volatility, such as movements in interest rates, exchange rates and equity prices. CFIs tend to diversify their portfolios across a range of financial assets to manage exposures to specific types of market risks.
- Insurance and retirement liabilities are prone to volatility through their actuarial valuations, including changes to expectations of future interest rates and inflation rates.
- Physical assets such as land, buildings, state highways and military equipment are susceptible to valuation movements through changes in property market conditions, interest rates and changes in the costs of construction.

Other sources of balance sheet risk

- **Business risk**: A number of commercial entities owned by the Crown have their financial performance and valuations impacted by the commercial environment they operate in.
- **Funding risk**: The New Zealand Government remains amongst the highest-rated sovereigns globally, with the top Aaa foreign-currency rating from Moody's and AA foreign-currency ratings from Standard & Poor's and Fitch. In the case of an increase in global risk aversion in the future, New Zealand may face increased funding pressure. All else equal, a deterioration in the ratings outlook could raise debt-servicing costs and lessen the funding capability for the Crown.
- **Liquidity risk**: The Crown incurs liquidity risk with respect to its ability to raise cash to meet its obligations. This risk is managed by each agency to meet their specific liquidity risk requirements and by the Treasury's NZDMO to manage the Crown's liquidity requirements.
- **Contingent liabilities**: The Crown faces contingent liabilities; for example, relating to natural disasters and financial system stress. The Specific Fiscal Risks chapter discusses contingent assets and liabilities in greater detail.

Managing risk

While the Crown's exposure to risks is sometimes unavoidable, the Crown's general approach is to identify, measure and treat these risks where practicable. However, some risks cannot be reduced. Maintaining debt at prudent levels and holding a healthy level of net worth helps manage residual risks and increases the Crown's resilience to shocks. A strong balance sheet helps by absorbing the impact from risks so that the wider economy does not need to adjust immediately, at a greater economic cost. A strong balance sheet also provides the Government fiscal space and choices on how it can respond to shocks.

Investing for Wellbeing: The 2018 Investment Statement He Puna Hao Pātiki discusses the importance, principles of and progress towards good balance sheet management, and explores how it can be extended to incorporate the Treasury's Living Standards Framework.

4

Specific Fiscal Risks

Overview

This statement of specific fiscal risks is required by the Public Finance Act 1989. In addition to the discussion of risks to the economic and fiscal forecasts presented in the Risks and Scenarios chapter (Chapter 3), it sets out (to the fullest extent possible) all government decisions and other circumstances known to the Government that may have a material effect on the fiscal outlook, but that are not certain enough in timing or amount to include in the fiscal forecasts. This chapter covers:

- the nature of fiscal risks to the economic and fiscal outlook
- how risks set out in the chapter are managed
- criteria for inclusion and exclusion of fiscal risks in this chapter
- statement of specific fiscal risks
- contingent liabilities and assets.

The risks disclosed in this chapter reflect those that are known at the date of the finalisation of the fiscal forecasts, 26 April 2018. Although the process for disclosure of specific fiscal risks involves a number of entities, including government departments, the Treasury and the Minister of Finance, there remains a possibility that not every significant risk is identified.

Nature of Risks to the Economic and Fiscal Outlook

Risks can be positive or negative, and can affect revenue and spending or assets and liabilities. The table below reflects a wide range of potential risks that may exist to the economic and fiscal forecasts.

Risk types 1 to 3 below are in the scope of this chapter, whereas risk types 4 and 5 were covered in the Risks and Scenarios chapter. Further detail on the criteria for disclosing a specific fiscal risk is set out in a section below.

Nature of risk	Description
1 Policy changes	Potential decisions likely to be taken by the Government related to both new policy and existing policy settings (eg, changes to eligibility criteria for a benefit).
2 Cost pressures associated with existing policies and risk of cost variances	Changes in demand or pricing that impact the cost of delivering services under existing policy settings (eg, an increase in the number of students enrolling in schools). This category includes variances to costs of policies included in the fiscal forecasts.
3 Contingent liabilities and assets	Potential costs or income to the Crown that depend on whether particular events occur.
4 Deviation from key assumptions and judgements	Any deviations from the key assumptions and judgements used for the economic and fiscal forecasts that have flow-on impacts for the fiscal forecasts.
5 Other uncertain events	Significant events relating to changes in the external environment (eg, natural disasters, international events).

How Risks Outlined in this Chapter are Managed

A key principle guiding the disclosure of risks is transparency. This means that risks are disclosed in this chapter regardless of whether they can be managed through existing funding sources (eg, through reprioritisation of funding already available to departments) or the Budget operating and capital allowances (future new spending built into the fiscal forecasts). This is done to ensure a prudent approach to the disclosure of risks, to improve transparency and to avoid prejudging future decisions by governments about what may or may not be funded from allowances.

The Government has a number of options to manage the risks disclosed in this chapter. Therefore, the risks disclosed in this chapter may not arise in a way that affects the fiscal forecasts presented in this *Economic and Fiscal Update*.

1 Re-prioritisation

Core Crown expenses for the year ended 30 June 2017 were $76.3 billion, while capital spending for the same period totalled $3.7 billion. Agencies are expected to fund pressures and new activities from within the funding already allocated to them. This could include repurposing low-value expenditure or generating efficiency savings.

2 Budget allowances

The following allowances for new expenditure have been signalled in the Government's *Fiscal Strategy Report* (FSR) and been included in the Treasury's fiscal forecasts (Fiscal Outlook chapter, Chapter 2).

$billions	Budget 2019	Budget 2020	Budget 2021
Operating allowances (per year) *Budget Update*	2.4	2.4	2.4
Capital allowances (total) *Budget Update*	3.7	3.4	3.0

These allowances are included in the fiscal forecasts to reflect future new spending by the Government and better link the forecasts to the Government's fiscal strategy. This means that new spending decisions in future Budgets should not impact the Government's fiscal targets.

The allowances are the main mechanism for the Government to allocate new expenditure each Budget. It does this through providing a self-imposed limit on expenditure that helps to ensure any new spending is targeted to areas of high priority. The allowances have been set at a level that allows the Government to achieve its broader fiscal and policy objectives and under the expectation that any new policy initiatives and cost pressures can be managed within these parameters.

3 Policy choices

For a number of risks, the Government has choices around future funding, including how much is funded and the timing of funding.

Criteria for Inclusion in Either the Fiscal Forecasts or as a Specific Fiscal Risk

Specific criteria based on section 26U of the Public Finance Act 1989 determine what is included in the fiscal forecasts as opposed to what is disclosed as a specific fiscal risk.

Fiscal forecasts	Specific fiscal risks
Matters are incorporated into the fiscal forecasts when they meet the following criteria: • the matter can be quantified for particular years with reasonable certainty, and • a decision has been taken, or a decision has not yet been taken but it is reasonably probable[22] that the matter will be approved, or it is reasonably probable the situation will occur.	Matters are disclosed as specific fiscal risks if the likely impact is more than $100 million over five years and either: • a decision has not yet been taken but it is reasonably possible[23] (but not probable) that the matter will be approved or the situation will occur, or • it is reasonably probable that the matter will be approved or the situation will occur, but the matter cannot be quantified or assigned to particular years with reasonable certainty.

[22] For these purposes, 'reasonably probable' is taken to mean that the matter is **more likely than not** to be approved within the forecast period (by considering, for example, whether there is a better than 50% chance of the matter occurring or being approved).

[23] For these purposes, 'reasonably possible' is taken to mean that the matter **might** be approved within the forecast period (by considering, for example, whether there is a 20% to 50% chance of the matter occurring or being approved).

Change in the Treatment of the Disclosure of Cost Pressure Risks

In previous years, the Specific Fiscal Risk chapter has aggregated together a generic risk on future cost pressures agencies may face. To provide more transparency to the reader on these risks the chapter now separately discloses sectors that are likely to be significantly impacted by future cost pressures. This change has resulted in some risks previously being aggregated as a cross-portfolio risks now being disclosed as separate specific fiscal risk.

General Risks Not Included in this Chapter

A range of general risks to the fiscal forecasts exist but are not separately disclosed as specific fiscal risks:

- Risks from changes to economic assumptions. The most significant economic risks have been identified in the Risks and Scenarios chapter (Chapter 3).
- Business risks and volatility in the returns from, and valuation of, the Government's investments relating to the broader economic and commercial environment.
- The costs of future individual natural disasters, biosecurity incursions and other major events, as they usually occur infrequently and their occurrence, nature and timing cannot be predicted. Once a disaster does occur, a number of choices arise about how to respond and when potential liabilities are recognised. Specific risks are disclosed at that point based on the range of possible responses.

Exclusions to Disclosure

Additionally, the Minister of Finance may determine, under section 26V of the Public Finance Act 1989, that a matter not be included in the fiscal forecasts or a specific fiscal risk not be disclosed, if such disclosure is likely to:

- prejudice the substantial economic interests of New Zealand
- prejudice the security or defence of New Zealand or international relations of the Government
- compromise the Government in a material way in negotiation, litigation or commercial activity, or
- result in a material loss of value to the Government.

Section 26V requires the Minister of Finance, if possible, to avoid withholding the matter, either by making a decision on it before the forecasts are finalised, or by disclosing it without quantifying the risk.

Contingency Liabilities and Assets

The final part of the chapter contains a current list of contingent liabilities and contingent assets. Contingent liabilities are costs the Crown will have to face if a particular event occurs or are current liabilities that are unable to be measured. Typically, contingent liabilities consist of guarantees and indemnities, legal disputes and claims on uncalled capital. The largest quantified contingent liabilities are to international financial organisations and mostly relate to uncalled capital and promissory notes. Contingent assets are possible assets that have arisen from past events but for which the value of the asset, or whether it will eventuate, will not be confirmed until a particular event occurs.

Summary Table

The matters listed below are disclosed as specific fiscal risks because they meet the rules for disclosure. Full descriptions are set out in the next section.

The table below is categorised based on the nature of the risk: policy changes, cost pressures and cross-portfolio risks. Within these categories, the risks have been ordered by portfolio and include the title of the risk, its status and whether it has an impact on revenue, expenses or capital expenditure. The status of the risk describes whether the risk reflects a new matter or is changed or unchanged since the *Half Year Economic and Fiscal Update 2017* (*Half Year Update*).

Statement of Specific Fiscal Risks as at 26 April 2018

Policy changes by portfolio	Status[24]	Type of risk
Accident Compensation		
Impacts of Changes to Accident Compensation Policy Settings	Unchanged	Expenses
Work-related Gradual Process Disease and Infection	Unchanged	Expenses
Biosecurity		
Mycoplasma Bovis Biosecurity Response	New	Expenses
Broadcasting, Communications and Digital Media		
Increased Public Broadcasting Funding	Unchanged	Expenses
Children		
Oranga Tamariki Future Operating Model	Unchanged	Expenses
Customs		
Joint Border Management System Further Development	Unchanged	Expenses and Capital
Defence		
Defence Funding Requirements under the Defence White Paper 2016	Unchanged	Expenses and Capital
Disposal of New Zealand Defence Force Assets	Unchanged	Expenses
Replacement of the P3 Orion Air Fleet	New	Expenses and Capital
Education		
Additional Funding for Schools in Lieu of Parental Donations	New	Expenses
Addressing School Property Condition	New	Expenses and Capital
Extension of the Fees-free Tertiary Education Policy	Unchanged	Expenses
Possible School of Rural Medicine	Unchanged	Expenses and Capital
Reinstating Higher Funding Rates for Early Childhood Education Services	New	Expenses
School and Early Childhood Education Funding Review	Unchanged	Expenses

24 *Unchanged* – risks where the nature and/or scale of the risk has not changed substantively since the *Half Year Update*.

Changed – risks where the nature and/or scale of the risk has changed substantively since the previous *Half Year Update*.

Policy changes by portfolio	Status[24]	Type of risk
Foreign Affairs		
Hosting the Asia Pacific Economic Cooperation Forum 2021	Changed	Expenses
Official Development Assistance	Changed	Expenses
Greater Christchurch Regeneration		
Canterbury Earthquake Recovery Residential Red Zone	Changed	Expenses and Capital
Christchurch Central Recovery Plan – Anchor Projects	New	Expenses and Capital
Health		
Dunedin Hospital	New	Expenses and Capital
Housing and Urban Development		
Crown Infrastructure Partners	Unchanged	Capital
Healthy Homes	Changed	Expenses
Housing Infrastructure Fund	Unchanged	Expenses and Capital
KiwiBuild	Unchanged	Expenses and Capital
Public Housing	Changed	Expenses
Immigration		
Increasing the Refugee Quota	Unchanged	Expenses
Internal Affairs		
Archives New Zealand Storage Capacity	Unchanged	Expenses and Capital
Justice		
Justice Commitments	Unchanged	Expenses
Reducing Family Violence – Increased Investment	New	Expenses
Land Information		
Upgrading Landonline	Changed	Expenses and Capital
Māori Development		
Proposed Māori Land Services	New	Expenses and Capital
Regional Economic Development		
Provincial Growth Fund	Changed	Expenses and Capital
Revenue		
Potential Tax Policy Changes	Changed	Revenue
Social Development		
Changes to the Welfare System	Changed	Expenses
Removal of Section 70A of the Social Security Act 1964	New	Expenses
Tourism		
Queenstown Tourism Infrastructure	New	Expenses and Capital
Transport		
Auckland City Rail Link	Changed	Expenses and Capital
National Land Transport Fund	Changed	Revenue, Expenses and Capital
Treaty Negotiations		
Government Response to WAI262	Unchanged	Expenses

Cost pressures by portfolio	Status[25]	Type of risk
Accident Compensation		
Accident Compensation Levies	Unchanged	Expenses
Non-earners' Account	Unchanged	Expenses
Corrections		
Prison Capacity	Changed	Expenses and Capital
Prisoner-related Costs	Changed	Expenses and Capital
Economic Development		
New Zealand Screen Production Grant	Unchanged	Expenses
Education		
Education Operating Cost Pressures	New	Expenses
Learning Support	Unchanged	Expenses
Finance		
Earthquake Commission	Changed	Expenses
Goodwill on Acquisition	Unchanged	Expenses
Foreign Affairs		
Antarctica NZ – Redevelopment of Scott Base	New	Expenses and Capital
Greater Christchurch Regeneration		
Southern Response Earthquake Services Support	Unchanged	Expenses and Capital
Health		
Caregiver Employment Conditions	New	Expenses
Health Capital Pressure	New	Capital
Health Operating Pressure	New	Expenses
Primary Care Services	Changed	Expenses
Housing and Urban Development		
Divestment and Development of HNZC Housing	Unchanged	Expenses
Emergency Housing Special Needs Grants	New	Expenses
Tāmaki Regeneration Project	Unchanged	Expenses
Internal Affairs		
NZ Fire Service Levy	Unchanged	Revenue
Research, Science and Innovation		
Research and Development Tax Incentive	New	Expenses
Revenue		
Cash Held in Tax Pools	Unchanged	Revenue
Student Loans – Valuation	Unchanged	Expenses
Transformation and Technology Renewal	Unchanged	Expenses

25 *Unchanged* – risks where the nature and/or scale of the risk has not changed substantively since the *Half Year Update*.

Changed – risks where the nature and/or scale of the risk has changed substantively since the *Half Year Update*.

Cost pressures by portfolio	Status[25]	Type of risk
Transport		
Rail Network Valuation Approach	Unchanged	Expenses
Support for KiwiRail	Changed	Capital
Treaty Negotiations		
Relativity Clause	Unchanged	Expenses
Treaty Settlement Forecasts	Unchanged	Expenses

Cross-portfolio specific fiscal risks	Status[25]	Type of risk
Addressing the Gender Pay Gap in the State Sector	Unchanged	Expenses
Changes to Institutional Form of Government Agencies	Unchanged	Expenses
Changes in Accounting Standard for Financial Instruments	Unchanged	Expenses
Increasing the Minimum Wage	Unchanged	Expenses
Other Capital Cost Pressures	Unchanged	Capital
Other Operating Cost Pressures	Unchanged	Expenses
Outcomes from Government Inquiries and Reviews	New	Expenses
Pay Equity Claims Following the Care and Support Worker Settlement	Unchanged	Expenses
Remediation of Per- and Poly-Fluoroalkyl Substances Contamination	New	Expenses
Services Funded by Third Parties	Unchanged	Expenses
State Sector Employment Agreements	Unchanged	Expenses
Unexpected Maintenance for Crown-owned Buildings	Unchanged	Capital

Policy Change Risks by Portfolio

The following section outlines risks relating to potential decisions likely to be taken by the Government relating to both new and existing policy settings.

Accident Compensation

Impacts of Changes to Accident Compensation Policy Settings (Unchanged)

The Government has signalled it will review a number of Accident Compensation scheme policy settings. Each change could result in a potential aggregated impact on expenses in excess of $100 million per year. However, all of the policy issues identified would require either legislative or regulatory change and are therefore uncertain.

Work-related Gradual Process Disease and Infection (Unchanged)

Under current legislation, the Government incurs an obligation for Work-related Gradual Process Disease and Infection claims when the claim is made, and an expense is recognised at this point. The liability for commercial accident and sickness insurance contracts would usually be recognised when exposure to conditions that will give rise to a claim occurs. An amendment to legislation would be required to recognise claims at the same time as for commercial contracts. An initial adjustment to the liability and an expense of about $1.0 billion to $1.5 billion would need to be reported if such an amendment were to be enacted.

Biosecurity

Mycoplasma Bovis Biosecurity Response (New)

The Ministry for Primary Industries is currently managing the response to the cattle disease Mycoplasma bovis. Response options range from long-term management to full eradication, and costs are dependent on the approach taken. Any approach is likely to be a large-scale response, and the Ministry is unlikely to be able to meet operational and biosecurity costs within its baseline.

Broadcasting, Communications and Digital Media

Increased Public Broadcasting Funding (Unchanged)

The Government has committed to transforming Radio New Zealand into a multi-platform provider, including a free-to-air non-commercial television service, and the establishment of a new Public Media Funding Commission to recommend directly to Parliament funding for public broadcasting on a three-yearly rolling cycle. A Ministerial Advisory Group on public broadcasting has recently been established to advise how to support the contribution of public and private media to an informed democracy. While $15 million has been set aside in a contingency in Budget 2018 to implement any immediate recommendations of the Ministerial Advisory Group, further funding may be required in the future to address the Government's long-term intentions for the public media system.

Children

Oranga Tamariki Future Operating Model (Title changed, substance of risk unchanged)

Changes to the Oranga Tamariki Act 1989 coming into effect no later than 1 July 2019 include, for example, extending the scope of the Ministry to provide more support for young people aged 18 to 25. To the extent that the costs associated with the Ministry's new functions cannot be funded from within baselines, additional funding is likely to be required.

Customs

Joint Border Management System Further Development (Unchanged)

The new functionality of Tranche 1 of the Joint Border Management Systems (JBMS) went live in 2017. Customs and the Ministry for Primary Industries will now implement Tranche 2 through a series of smaller projects that will either enhance or replace elements of the current systems with the aim to realise the full benefits to the Crown and industry of the JBMS programme. Funding for these projects may be required.

Defence

Defence Funding Requirements under the Defence White Paper 2016 (Title changed, substance of risk unchanged)

In 2016, the previous Government reconsidered New Zealand Defence Force (NZDF) capability and funding requirements through the Defence White Paper 2016. The Government has indicated it will re-examine the Defence procurement programme within the context of the existing indicative funding for the Defence White Paper. It is expected that changes to NZDF operating and capital funding will be made over the forecast period to achieve the Defence White Paper settings. However, the precise quantum and timing of these changes will be dependent on a range of business cases that will be considered by Cabinet in the future.

Disposal of New Zealand Defence Force Assets (Unchanged)

The Government is considering the potential to dispose of a number of New Zealand Defence Force (NZDF) assets. Depending on market conditions, the timing of disposal and sale price received there could either be a positive or negative impact on the Government's overall financial position. NZDF regularly completes an analysis of inventory that is surplus to requirements and that is over and above the existing provision for obsolescence. The existing provision is reviewed regularly to ensure that all items comprising the provision are still relevant.

Replacement of the P3 Orion Air Fleet (New)

The P3 Orion air fleet is nearing the end of its useful life, so the Government may need to consider a suitable replacement. To the extent the purchase of the replacement aircraft cannot be managed within existing baselines, funding may need to be provided by the Crown.

Education

Additional Funding for Schools in Lieu of Parental Donations (New)

The Government has indicated that it will provide additional annual funding of $150 per student to those state and state-integrated schools that do not request donations from parents. The fiscal impact of this policy is uncertain at this point, as it will be driven by the level of uptake by eligible schools.

Addressing School Property Condition (New)

The Government has made a commitment to accelerate property works on school buildings in poor condition. It is possible this commitment will be unable to be met through existing baselines and therefore may require additional funding from the Crown.

Extension of the Fees-free Tertiary Education Policy (Unchanged)

The Government has committed to expand fees-free tertiary education to two years from 2021 and three years from 2024. The Government has indicated that the timeline for the third year may be brought forward depending on economic conditions. The behavioural changes from extending the policy, and therefore the impact on future costs, are unquantifiable at this early stage but there is an expected general increase in demand for tertiary education beyond the forecast period.

Possible School of Rural Medicine (Unchanged)

In August 2017, the previous Government agreed in principle to the establishment of a School of Rural Medicine, in part as a response to two proposals, one from the University of Waikato and Waikato District Health Board (DHB), and a joint proposal from the universities of Auckland and Otago. The previous Government also noted that funding would be required for the establishment of the school, and its operating costs, and this would be sought through future Budgets. The proposal represents a fiscal risk, as no funding has been set aside if the Government decides to progress it.

Reinstating Higher Funding Rates for Early Childhood Education Services (New)

The Government has indicated it will reinstate higher hourly funding rates for early childhood education (ECE) services with 100% qualified teachers as were a feature of the ECE funding system until February 2011. The fiscal impact of this policy depends on the number of providers with fewer than 100% certificated teachers that respond by moving to 100%, the speed at which they do so and the higher funding rate chosen. These variables are uncertain at this time.

School and Early Childhood Education Funding Review (Unchanged)

The previous Government made decisions on the Review of Education Funding Systems across the schooling and ECE sectors, agreeing that for state and state-integrated schools, ECE services and ngā kōhanga reo the decile system would be replaced by a predictive risk index to allocate funding, and to help overcome educational disadvantage. The current Government plans to take forward the review of funding arrangements, consistent with the objective of barrier-free access, but further work will be done on whether to proceed with the decision to replace the decile system. Depending on the decisions made, any revisions to the way funding is allocated may have expenditure implications.

Foreign Affairs

Hosting the Asia Pacific Economic Cooperation Forum 2021 (Changed)

The New Zealand Government has committed to hosting the Asia Pacific Economic Cooperation (APEC) Forum in 2021. This will involve hosting meetings and events throughout the year, culminating in Leaders' Week in Auckland in November.

Some funding for the operations and hosting components of APEC has been allocated through Budget 2018. However, funding has not yet been allocated for the associated security responsibilities and remaining hosting costs (approximately $100 million to $170 million over the forecast period). Funding will also depend on the assessment of threat and risk levels in the lead up to APEC.

Official Development Assistance (Changed)

Each year, New Zealand's Official Development Assistance (ODA) expenditure is measured as a proportion of Gross National Income (GNI). Budget 2018 provides a $714 million increase in funding to lift ODA to 0.28% of GNI over the next four years. The Government sets the overall budget for the New Zealand Aid Programme on a triennial basis. Therefore there remains a fiscal risk that there is a further funding decision prior to the following triennium.

Greater Christchurch Regeneration

Canterbury Earthquake Recovery Residential Red Zone (Changed)

The Crown currently owns a significant area of red-zone property in Christchurch. The Government has a number of options for future use of this land. Depending on the decisions made there may be fiscal impacts.

Christchurch Central Recovery Plan – Anchor Projects (New)

The Crown is partially funding the construction of Anchor Projects as part of the Christchurch Central Recovery Plan. The funding for the construction of Anchor Projects will vary from project to project, dependent on final scope, ownership decisions, implementation and project costs, and may to some extent eventually be recovered. Some projects are under construction while others are progressing through the decision-making process. The construction costs for planned projects will become increasingly clear through the procurement and construction phases, but the cost to the Crown of uncompleted projects may still vary from current projections. The quantum and timing of Crown contribution may differ from that included in the fiscal forecasts.

Health

Dunedin Hospital (New risk, previously included as a cross portfolio risk – Other Capital Cost Pressures)

The Government has signalled its intention to redevelop Dunedin Hospital. Funding has been set aside in Budget 2018 for initial project management, resource consents and design costs for the redevelopment. Once a detailed business case is completed the Government will consider redevelopment options and their costs and funding options.

Housing and Urban Development

Crown Infrastructure Partners (Unchanged)

The previous Government tasked Crown Fibre Holdings (now known as Crown Infrastructure Partners) with negotiating and, where viable, funding Crown investment to enable housing infrastructure development in a manner that accelerates growth. There is a high level of uncertainty in the areas noted below, which may affect the final fiscal impacts:

- the amount invested by the Crown
- the timing and amount of investments
- whether an economic return will be earned on all investments
- the amount and timing of repayments to the Crown.

Healthy Homes (Changed)

As part of the Government's 100-Day Plan, Parliament has passed the Healthy Homes Guarantee Act 2017, requiring all rental homes to be warm and dry. When this legislation comes into force it will require improvements in insulation, ventilation and heating in 30,000 Housing New Zealand properties, which is estimated to cost a minimum of $90 million over the forecast period.

Housing Infrastructure Fund (Unchanged)

In June 2016, the previous Government agreed to establish a $1.0 billion Housing Infrastructure Fund to which high-growth councils could apply to help finance roading and water infrastructure needed to unlock residential development. The previous Government approved in principle funding of $889 million for five councils. The successful councils are now preparing detailed business cases. The first of these has been completed, and negotiations on the detailed funding arrangements are continuing and final agreements are expected later this year. Actual expenditure may vary from what has been included in the fiscal forecasts owing to:

- changes in the agreed spending levels for each project
- the timing and size of drawdowns and of repayments of capital (both annual and final) varying from what is included in the financial forecasts
- the value of interest foregone
- the resultant reduction in the fair value of loans made
- a different split between capital expenditure and operating expenses.

KiwiBuild (Unchanged)

Budget 2018 includes appropriations for the acquisition of land and housing for KiwiBuild, including the guarantees and holding costs of the buying-off-the-plans approach and the monitoring function and machinery of government for KiwiBuild. In addition to the risk that costs will be different from what has been appropriated, the potential establishment of home-ownership products and likely increase in the take-up of the HomeStart grant may also have an impact on fiscal indicators.

Public Housing (Changed)

The Government has committed to taking serious action to end homelessness and improving access to public housing. Increases in demand for public housing may result in pressure to increase spending. The cost of providing public housing can increase owing to increases in market rent and higher quality requirements. If any of these risks eventuate, they may have a significant fiscal impact.

Immigration

Increasing the Refugee Quota (Unchanged)

The Government has indicated that it may increase the refugee quota to 1,500 over three years. An increase would require increased refugee settlement services and have flow-on costs to health, education and welfare. Additional work needs to be completed to properly assess the cost of this change.

Internal Affairs

Archives New Zealand Storage Capacity (Title changed, substance of risk unchanged)

There is insufficient storage capacity in the Wellington region for current and future Archives New Zealand holdings and the Wellington region storage is not fit for purpose. A business case has been prepared to assess the options for the Department of Internal Affairs to continue to meet its statutory and business requirements. The extent of the fiscal risk to the Crown will depend on the costs and funding option that the Government approves.

Justice

Justice Commitments (Unchanged)

The Government has committed to increasing access to justice and reducing and preventing family violence. This includes a commitment to increase Community Law Centre funding, establish a Criminal Cases Review Commission and increase funding to family violence prevention networks. The potential cost and timing of these initiatives is uncertain and will be subject to final Cabinet decisions.

Reducing Family Violence – Increased Investment (New)

Reducing and preventing family violence is a government priority. The Ministry of Justice and the Ministry of Social Development are currently leading the development of a range of potential investment options. While the timeframe and potential costs of this investment are not yet known, and will be subject to a final decision on any reforms in this area, initial estimates are more than $100 million over the forecast period.

Land Information

Upgrading Landonline (Changed)

After exploring a number of options for replacing the outdated Landonline technology to meet the changing technology needs of users and government, Land Information New Zealand is currently preparing a business case for its preferred option for consideration by Cabinet later this year. The extent of the fiscal risk to the Crown will depend on the costs and funding option that the Government approves.

Māori Development

Proposed Māori Land Services (New)

Cabinet has agreed that there are issues with the Crown's administration of Māori freehold land that create challenges for unlocking the value of this land. Cabinet has invited the Ministers of Māori Development and Justice to return to Cabinet with options for resolving these issues and responding to these challenges. The draft business case indicates that the recommended option will have estimated costs of around $150 million over five years.

Regional Economic Development

Provincial Growth Fund (Changed)

The Government has committed to a Provincial Growth Fund of $3.0 billion over a three-year period. The Provincial Growth Fund supports projects that lift regional productivity potential. Budget 2018 provides $1.0 billion with additional funding of $2.0 billion being sought in Budgets 2019 and 2020. The exact capital and operating split of this further funding is yet to be determined, so this cannot reliably be included in the fiscal forecasts.

Revenue

Potential Tax Policy Changes (Changed)

The tax policy work programme can be viewed on the tax policy website www.taxpolicy.ird.govt.nz. The fiscal implications of many of the policy topics under review are unquantified at this stage and the outcomes of the Tax Working Group are yet to be determined. Moreover, while the expected impact of certain policy items (eg, goods and services tax (GST) on imported goods and loss ring-fencing) has been included in the baseline forecasts, the impacts of the final policies may differ from the amounts included.

Social Development

Changes to the Welfare System (Changed)

The Government has committed to overhauling the welfare system to ensure it is fair and accessible for all New Zealanders. The behavioural change associated with overhauling the system is unknown. Such changes could have an impact on the operating balance.

Removal of Section 70A of the Social Security Act 1964 (New)

Section 70A of the Social Security Act 1964 reduces the amount of benefit payments owed to sole parents who do not disclose the identity of the other parent of their child and/or apply for child support, subject to some exemptions. The Government has indicated a commitment to remove this section from the Act, which will see more sole parents receive the full main benefit. The exact behaviour change associated with the removal of this section, in terms of applications for child support, is unknown. However, it is expected that it will lead to the cost of removing the sanction increasing over time as the amount of child support retained by the Crown each year decreases.

Tourism

Queenstown Tourism Infrastructure (New)

The Government will be asked to consider a contribution to Queenstown Lakes District Council for tourism-related infrastructure owing to the area's high ratio of visitors relative to its rating base. The Council has presented a business case to Government in 2018 which requests funding owing to local government constraints. The timing and amount of any such funding are uncertain at this stage.

Transport

Auckland City Rail Link (Changed)

The Government has committed to fund 50% of the costs associated with the City Rail Link project, which is estimated to cost $3.4 billion. Based on this estimate, the Government's contribution to the project will be around $1.7 billion. There is a risk that the timing, scope and amount of the government contribution to the project could be different from what is included in the forecasts.

National Land Transport Fund (Changed)

The Government has committed to reprioritise National Land Transport Fund (NLTF) spending to increase investment in, for example, road safety, public transport and rail. The Government has also indicated support for specific projects that might receive funding through the NLTF if prioritised and approved by the New Zealand Transport Agency Board to be included in the National Land Transport Programme (NLTP), including through the revised Auckland Transport Alignment Project (ATAP 2). The NLTP will be released by August 2018. The draft Government Policy Statement on Land Transport 2018 anticipates an increase in road-user revenue. If this is not approved, Crown funding may need to be provided for projects if they do not receive NLTF funding.

Treaty Negotiations

Government Response to WAI262 (Unchanged)

The Waitangi Tribunal's report on the WAI 262 claim focuses on the protection of Māori culture and identity, with a particular focus on mātauranga Māori and associated taonga. The Tribunal's recommendations are directed towards a number of government agencies individually, as groups and across sectors. The Government has yet to respond to the Tribunal's report and recommendations.

Cost Pressure and Cost Variance Risks by Portfolio

The following section outlines risks of cost pressures and variance risks of items included in the fiscal forecasts (where applicable). The majority of agencies are likely to face cost pressures in the future owing to changes in demand or costs of inputs used in the delivery of existing services or products. The key drivers of future cost pressures are likely to come from population changes, wage increases (both pay negotiations and progression through pay scales) and price inflation of inputs. A number of sectors (such as health, education and justice) are more likely to be materially impacted by cost pressures and are discussed further in this section. In addition, cross-portfolio risks for other operating and capital cost pressures are outlined on page 84.

Accident Compensation

Accident Compensation Corporation Levies (Unchanged)

Indicative future levy rates for the Work, Earners' and Motor Vehicle accounts have been included in the forecasts. However, final levy decisions are made by the Government and may differ from the forecast levy path. In addition, revenue from the levies set for these accounts may be more or less than is required to cover the cost of claims. If factors such as claims experience, Accident Compensation Corporation (ACC) performance and economic assumptions (particularly discount rates and unemployment rates) turn out differently from what has been forecast, ACC's levy revenue, claims costs and liability may also differ from forecast. Any variance will have a corresponding impact on the operating balance.

Non-earners' Account (Unchanged)

The amount of funding provided by the Crown (and included in the fiscal forecasts) for the Non-earners' Account may be more or less than is required to cover the cost of claims. If factors such as claims experience, ACC performance and economic assumptions (particularly discount rates) turn out differently from what has been forecast, any such variance will have a corresponding fiscal impact.

Corrections

Prison Capacity (Changed)

The previous Government set aside funding for investment in prison capacity in Budget 2017. Decisions have yet to be taken on the exact form of this investment and there may be a risk that additional funding may be required once final decisions are taken.

Prisoner-related Costs (Changed)

The Government is committed to reducing the prison population over time and is currently considering options to do this. The fiscal forecasts include estimates for the direct costs of accommodating projected increases in the number of prisoners up to 2020. There is a risk that growth in the prison population is different from what is currently projected. The Department of Corrections is likely to seek additional funding (both operating and capital) relating to the costs of accommodating prisoners if numbers are above those projected through to 2020 and for any growth in prison numbers beyond 2020.

Economic Development

New Zealand Screen Production Grant (Unchanged)

The New Zealand Screen Production Grant is an uncapped, on-demand grant that incentivises international studios to locate production work in New Zealand by offering them a rebate on their qualifying expenditure. There is currently a high level of international interest in New Zealand as a place to do screen business. Based on the current rising trend, there is a risk that demand for the Screen Production Grant will exceed what is included in the fiscal forecasts.

Education

Education Operating Cost Pressures (New risk, previously included as a cross-portfolio risk – Other Operating Cost Pressures)

The education sector faces significant cost pressures from increasing demand in early childhood education (ECE) and schooling, largely as a result of population growth. Demographic change has an impact on expenditure on ECE subsidies, especially for the 20 hours fully subsidised entitlement for three- to five-year-olds; the per-pupil component of schools' operational funding; and schools' full-time teaching equivalent entitlement, which is based on staff-to-student ratios.

Learning Support (Unchanged)

There are a number of cost pressures building in the supply of learning support services owing to population growth and increased reporting of neurodevelopmental or other conditions meeting the eligibility criteria for particular programmes. These include the Ongoing Resourcing Scheme, English for Speakers of Other Languages (ESOL), Early Intervention and Sensory Learning. To the extent that these pressures cannot be managed within existing baselines, additional funding is likely to be required.

Finance

Earthquake Commission (Changed)

The Earthquake Commission's (EQC's) independent actuary undertakes half-yearly valuations of the total earthquake liability to the Crown. This includes settled and yet-to-settle claims (including those in litigation), an estimation of future claims not yet received, insurer finalisation and any associated reinsurance recoveries. Based on these valuations, a profile of the claims yet to settle is included in the fiscal forecasts. There remains some risk that EQC's remaining settlement expenditure relating to the Canterbury and Kaikōura earthquakes will be different (higher or lower) than forecast.

EQC's remaining settlement expenditure relating to the Canterbury earthquakes does not incorporate any liability recognition or provision for costs relating to the over-cap portion of any building claims, whether they are on-sold remedial building claims or otherwise. EQC only recognises expected future costs where it is liable for such costs under the Earthquake Commission Act 1993.

Goodwill on Acquisition (Unchanged)

As at 30 June 2017, the Government had goodwill on acquisition of a number of sub-entities totalling $744 million. Under New Zealand accounting standards (PBE IPSAS 26), such goodwill items are required to be assessed annually for impairment. If there is any indication that the goodwill may be impaired, the recoverable amount of the cash-generating units to which the goodwill is allocated is required to be estimated. If the recoverable amount is less than the carrying amount of those units, the units and the goodwill allocated to them are regarded as impaired and the Government is required to recognise impairment losses in the operating statement. Such assessments will be conducted at the end of the financial year. The fiscal forecasts currently make no allowance for such impairment losses.

Foreign Affairs

Antarctica NZ – Redevelopment of Scott Base (New risk, previously included as a cross-portfolio risk – Other Capital Cost Pressures)

The infrastructure at Scott Base is approaching the end of its functional life. The redevelopment of Scott Base including the replacement of wind-farm assets would likely cost around $150 million. The precise cost has yet to be determined by the Government on the basis of a detailed business case.

Greater Christchurch Regeneration

Southern Response Earthquake Services Support (Unchanged)

The ultimate cost to the Crown of settling earthquake claims remains subject to significant uncertainty. Forecasts assume that the actual cost to settle claims will align with the actuary's central estimate of the claims provision. There is a risk that the actual cost could vary from this estimate, which is sensitive to its underlying assumptions such as damage estimates, legal challenges, reinsurance recoveries and the forecast profile of claims settlement. Because the net claims liability is large, small percentage changes in the liability can have a material impact on costs and forecasts.

Health

Caregiver Employment Conditions (New risk, previously included as a cross-portfolio risk – Pay Equity)

Several cases and funding claims, such as in-between travel costs, in the disability support and aged care sectors may involve significant costs to the Crown relating to interpretation of the Minimum Wage Act 1983 and the Government's policy of paying certain family members through its Funded Care Policy. Changes to the existing policy could require additional funding. Successful litigation may have implications for agencies that target assistance based on family circumstances and/or employ workers under similar contracts.

Health Capital Pressure (New risk, previously included as a cross-portfolio risk – Other Capital Cost Pressures)

District Health Boards (DHBs) have submitted updated capital intentions, which identify the indicative need for Crown funding over the next four years. These pressures are largely driven by asset condition issues (over 19% of hospital assets are rated in poor or very poor condition) and demographic growth (population growth and an ageing population) pressures on infrastructure capacity.

Health Operating Pressure (New risk, previously included as a cross-portfolio risk – Other Operating Cost Pressures)

The health sector is likely to face significant operating pressures against its baselines in order to maintain the delivery of existing health services. The main factors that are likely to drive operating pressures in the future include changes in population (both growth and an ageing population), wage costs (both pay negotiations and progression through pay scales) and price inflation of inputs.

Primary Care Services (Changed)

Budget 2018 provides funding for primary care services to reduce general practitioner (GP) fees for certain groups, provide additional funding for GP practices and provide for scoping an initiative to deliver one free annual health check for SuperGold card holders. There is a risk that changes in demand or pricing may impact on the cost of implementing these policies.

Housing and Urban Development

Divestment and Development of HNZC Housing (Unchanged)

The forecasts include business-as-usual divestments and redevelopments of housing property as part of Housing New Zealand Corporation's (HNZC's) asset management strategy. Proceeds from property divestments will be used to help fund investment in redeveloping and growing HNZC's stock. Market conditions impact on the proceeds of sale and the cost of acquisitions and development. Given these uncertainties, there is a risk that there will be variations from the fiscal forecasts.

Emergency Housing Special Needs Grants (New)

Emergency Housing Special Needs Grants help individuals and families with the cost of staying in short-term accommodation if they are unable to access a transitional or a public housing place. If demand increases and/or the number of transitional or public housing places does not increase as forecast, this would increase demand for the grants, with associated fiscal costs.

Tāmaki Regeneration Project (Unchanged)

There are 7,500 new houses planned to be built in Tāmaki in place of about 2,500 existing houses. Development involves writing off existing public housing assets. If land sale proceeds are less than the value of the write-offs in the year that they occur, there will be a negative impact on the operating balance.

Internal Affairs

NZ Fire Service Levy (Unchanged)

The Fire Services were unified into Fire and Emergency New Zealand on 1 July 2017. The increase in levies required to meet the increase in expenditure on fire services, and to contribute to repaying a loan from the Crown, has been approved for 2017/18 and 2018/19 only. Any future levy changes beyond 2018/19 are uncertain and not yet included in the fiscal forecasts.

Research, Science and Innovation

Research and Development Tax Incentive (New)

The Government has approved the implementation of a Research and Development (R&D) Tax Incentive. This incentive will require the Crown to repay eligible firms a percentage of expenditure on R&D. Budget 2018 provides funding averaging $256 million per year, but there is a risk costs may differ owing to limited data being available for forecasting purposes and because international experience shows that costs of R&D tax credits can be significantly higher than expected.

Revenue

Cash Held in Tax Pools (Unchanged)

Funds held in tax pools are recognised as a Crown asset. There is a risk that funds held in these pools, over and above a taxpayer's provisional tax liability, may be withdrawn by that taxpayer, resulting in a reduction in the Crown's available cash reserves.

Student Loans – Valuation (Unchanged)

The value of student loans is sensitive to assumptions such as the borrower's future income and general economic factors such as interest rates, unemployment levels, salary inflation and the consumer's price index (CPI). As new lending occurs, an initial write-down to fair value is made, and an expense is incurred, reflecting the cost the Crown incurs in making an interest-free loan and the risk that borrowers may not repay their loans. However, the assumptions made at the time of lending rely on volatile factors that are subject to change.

Transformation and Technology Renewal (Unchanged)

The Business Transformation programme agreed by the previous Government in 2015 is reflected in forecasts. There are risks that the expected implementation costs, revenue gains and operating costs savings may differ from forecasts. In addition, changes in government policies could materially affect the programme's costs and benefits.

Transport

Rail Network Valuation Approach (Unchanged)

KiwiRail operates both freight and passenger transport services. The valuation approach for the assets used for these different activities is outlined in Budget 2018 Additional Information – Accounting Policies. The freight business of KiwiRail is predominantly commercially focused and therefore for financial reporting purposes assets relating to the freight business are fair-valued on a net-realisable-value basis.

For the freight infrastructure to continue to be valued on this basis, KiwiRail needs to meet certain criteria set out in the Accounting Standards Framework. Consistent with prior years, there is a likelihood of continued Crown support and a risk that KiwiRail no longer meets the criteria for valuing freight infrastructure on a net-realisable-value basis and may need to change to a depreciated replacement cost basis. The impact of this change would increase the measured value of assets by up to $4.3 billion.

Support for KiwiRail (Changed)

Budgets 2010 to 2018 supported KiwiRail with investments of around $2.1 billion in the New Zealand freight rail system. Further Crown investment into KiwiRail is likely to be required from 2019/20 to support the rail network and potentially replace the Interislander ferries. A review of KiwiRail's structure and funding arrangements is due in 2018/19, which will inform future funding decisions.

Treaty Negotiations

Relativity Clause (Unchanged)

The Deeds of Settlement negotiated with Waikato-Tainui and Ngāi Tahu include a relativity mechanism. Now that the total redress amount for all historical Treaty settlements exceeds $1.0 billion in 1994 present-value terms, the mechanism provides that the Crown is liable to make payments to maintain the real value of Ngāi Tahu's and Waikato-Tainui's settlements as a proportion of all Treaty settlements. The agreed relativity proportions are 17% for Waikato-Tainui and approximately 16% for Ngāi Tahu. There is a risk that the timing and amount of the expense for the relativity payments may differ from that included in the fiscal forecasts. There is also uncertainty on how various disputes concerning the interpretation of the mechanism will be resolved.

Treaty Settlement Forecasts (Unchanged)

The fiscal forecasts include provision for the cost of future Treaty settlements. Given settlements are finalised through negotiations there is a risk that the timing and amount of the settlements could be different from the profile included in the fiscal forecasts.

Cross-portfolio Specific Fiscal Risks

Addressing the Gender Pay Gap in the State Sector (Unchanged)

The Government has made a commitment to addressing the gender pay gap in the core Public Service. Fulfilling this commitment will involve costs to the Crown.

Changes to Institutional Form of Government Agencies (Unchanged)

The Government has announced a number of policy commitments that involve changes to the machinery of government. These commitments are likely to involve changes to the composition and structure of existing government departments. Where the additional resourcing and other costs of these changes cannot be met through baseline expenditure, further Crown funding may be required.

Changes in Accounting Standard for Financial Instruments (Unchanged)

The External Reporting Board has recently issued changes to accounting standard Public Benefit Entities International Financial Reporting Standard (PBE IFRS 9) Financial Instruments and the Crown will adopt the amended accounting standard in the 2018/19 financial year. The resulting changes include new valuation methodology for some financial assets, a new impairment model for financial assets and revised hedge accounting requirements. The impact of these new requirements is uncertain, except for some initial impact analysis on the student loan asset (an estimated one-off increase of around $550 million).

Increasing the Minimum Wage (Unchanged)

Government policy decisions to increase the minimum wage to $20 per hour by April 2021 will mean increased costs to State sector employers. Funding may be sought where costs cannot be absorbed within baselines without resulting in unacceptable impacts on service delivery.

Other Capital Cost Pressures (Unchanged)

As in previous years, agencies are likely to face capital expenditure pressures related to replacing ageing infrastructure, information and communications technology (ICT) capability that is no longer fit for purpose, and other capital requirements driven by demand pressures. These pressures are risks to the fiscal forecasts to the extent they cannot be managed through agencies' existing balance sheets, new capital spending set aside in forecasts or other funding mechanisms (eg, Crown Infrastructure Partners). The Government's stated intention is that all pressures are managed through these mechanisms.

Other Operating Cost Pressures (Unchanged)

As in previous years, agencies are likely to face operating expenditure pressures in the future owing to changes in demand and price of services they provide. The majority of spending by agencies is not automatically adjusted for increases driven by demand or price pressures. These pressures are risks to the fiscal forecasts to the extent they cannot be managed through reprioritisation or new spending set aside in the forecasts. The Government's stated intention is that all pressures are managed through these mechanisms.

Outcomes from Government Inquiries and Reviews (New)

A number of inquiries and reviews are underway across government, and more have been signalled. These include inquiries into mental health, the Earthquake Commission (EQC) and a review of the National Certificate of Educational Achievement (NCEA). At this point it is uncertain what the fiscal impact from the outcomes of these reviews may be. At an aggregated level there is a risk they may meet the materiality thresholds for specific fiscal risks.

Pay Equity Claims Following the Care and Support Worker Settlement (Unchanged)

There are several funding claims, mainly from workers in the social sectors (including health, education and welfare), relating to the interpretation, and application, of the Equal Pay Act 1972. A pay equity claim for care and support workers in the aged care, disability support and home and community services sectors has already been resolved, including an extension of the same pay rates and conditions to equivalent workforces funded by the Ministry of Social Development and Oranga Tamariki. Negotiations towards a further extension are underway with mental health and addiction-support workers employed by non-government organisations.

There are a number of similar outstanding claims and a high likelihood of further claims being raised. Current claims include:

- social workers employed by Oranga Tamariki
- education support staff employed by the Ministry of Education
- school support staff employed by school boards of trustees
- support workers employed by the Ministry for Primary Industries
- nurses and midwives employed by District Health Boards.

The resolution of such claims within State-employed and State-funded sectors will likely result in costs to the Crown.

Remediation of Per- and Poly-Fluoroalkyl Substances Contamination (New)

Local and central government entities are investigating per- and poly-fluoroalkyl substances (PFAS) contamination at sites on, and in the vicinity of airports, NZDF bases, fuel storage facilities and other sites from the historic use of specialised firefighting foam. Various government agencies have been undertaking a programme to review, investigate and implement a comprehensive approach to manage the impact of PFAS at sites around New Zealand. There is a risk that the Crown will incur significant costs for the investigation, response and remediation to PFAS contamination.

Services Funded by Third Parties (Unchanged)

A wide range of government services are funded through third-party fees and charges. Demand for these services can vary, with a direct effect on revenue received. There is a risk the Government may need to provide additional funding if revenue collected is lower than the total costs of providing the service. There is also a risk that changes will be required to the way government services are delivered, which could result in costs to the Crown.

State Sector Employment Agreements (Unchanged)

A number of large collective agreements are due to be renegotiated over the forecast period. These include (but are not limited to) nurses and senior doctors, as well as primary and secondary school teachers. As well as direct fiscal implications for the employers of workforces covered by any changes to remuneration, the renegotiation of these agreements can have flow-on effects to remuneration in other sectors.

Unexpected Maintenance for Crown-owned Buildings (Unchanged)

There is a possibility that the Crown will incur costs when unexpected maintenance is required for the buildings it owns. Examples include earthquake strengthening some of the buildings that do not meet modern building standards and maintenance for buildings with weathertight issues. The likelihood, timing and fiscal impact of any repairs are uncertain.

Risks Removed Since the *Half Year Update*

Portfolio	Title	Reason for expiry
Children	Clothing Allowances	Budget 2018 provides funding for the Social Security (Clothing Allowances for Orphans and Unsupported Children) Amendment Act 2015, which takes effect on 1 July 2018.
Climate Change	Green Investment Fund	Funding has been set aside in a contingency in Budget 2018.
Conservation	Funding for Department of Conservation	This has been funded in Budget 2018.
Cross-portfolio Risk	Variance in Costs of 100-Day Plan Commitments	These costs have either been incorporated into the forecasts, or are disclosed as individual risks if applicable.
Economic Development	36th America's Cup	This was funded as an initiative in Budget 2018.
Greater Christchurch Regeneration	Christchurch Capital Acceleration Facility	This was funded as an initiative in Budget 2018.
Housing and Urban Development	Transitional Housing	This risk has been replaced by the Emergency Housing Special Needs Grants risk.
Police	Increase in the Number of Police Numbers	This was funded as an initiative in Budget 2018.
Transport	Auckland and Wellington Rail Priorities	This risk is now covered by the National Land Transport Fund risk.
Transport	Auckland Transport Alignment Plan	This risk is now covered by the National Land Transport Fund risk.
Transport	Reinstatement of South Island Transport Corridors	The remaining portion of this risk no longer meets the materiality threshold.

Contingent Liabilities and Contingent Assets

Contingent liabilities are possible costs that have arisen from past events, but the amount of the liability, or whether it will eventuate, will not be confirmed until a particular event occurs or present liabilities that are unable to be measured with sufficient reliability to be recorded in the fiscal forecasts.

Typically, contingent liabilities consist of guarantees and indemnities, uncalled capital and legal disputes and claims. The contingent liabilities facing the Crown are a mixture of operating and balance sheet risks, and they can vary greatly in magnitude and likelihood of realisation.

In general, if a contingent liability were realised, or the amount becomes sufficiently reliable to record as a liability, it would reduce the operating balance and net worth and increase net core Crown debt. In the case of some contingencies (eg, uncalled capital) the negative impact would be restricted to net core Crown debt because the cost would be offset by the acquisition of capital.

Where contingent liabilities have arisen as a consequence of legal action being taken against the Crown, the amount shown is the amount claimed and thus the maximum potential cost. It does not represent either an admission that the claim is valid or an estimation of the amount of any award against the Crown.

Contingent assets are possible assets that have arisen from past events but the amount of the asset, or whether it will eventuate, will not be confirmed until a particular event occurs.

Only contingent liabilities and contingent assets involving amounts of over $100 million are separately disclosed. Quantifiable contingencies less than $100 million are aggregated in the "other quantifiable" total.

Some contingencies of the Crown are not able to be quantified. We have disclosed all unquantifiable contingent liabilities and unquantifiable contingent assets that are not expected to be remote.[26]

The contingencies have been stated as at 31 March 2018, being the latest set of published contingencies.

[26] "Remote" is defined as being an item with less than a 10% chance of occurring.

Quantifiable Contingent Liabilities and Contingent Assets

Contingent liabilities

Uncalled capital	**Status[27]**	**31 March 2018 ($millions)**
Asian Development Bank	Unchanged	3,125
International Monetary Fund – promissory notes	Unchanged	2,250
International Bank for Reconstruction and Development	Unchanged	1,537
International Monetary Fund – arrangements to borrow	Unchanged	613
Asian Infrastructure Investment Bank	Unchanged	513
Other uncalled capital	Unchanged	19
		8,057
Guarantees and indemnities		
New Zealand Export Credit Office guarantees	Unchanged	116
Other guarantees and indemnities	Unchanged	93
		209
Legal proceedings and disputes		
Legal tax proceedings	Unchanged	137
Other legal proceedings and disputes	Unchanged	148
		285
Other quantifiable contingent liabilities		
Unclaimed monies	Unchanged	161
Christchurch Engine Centre Partnership Agreement	Unchanged	131
Other quantifiable contingent liabilities	Unchanged	57
		349
Total quantifiable contingent liabilities		**8,900**

Contingent assets

Legal proceedings and disputes	**Status[27]**	**31 March 2018 ($millions)**
Other contingent assets	Unchanged	130
Total quantifiable contingent assets		**130**

[27] Status of contingent liabilities or assets when compared to the *Half Year Update* published on 14 December 2017.

Unquantifiable Contingent Liabilities and Contingent Assets

Contingent liabilities

Indemnities	Status
Air New Zealand	Unchanged
Contact Energy Limited	Unchanged
Earthquake Commission (EQC)	Unchanged
Genesis Energy	Unchanged
Justices of the Peace, Community Magistrates and Disputes	Unchanged
Tribunal Referees	
Maui Partners	Unchanged
New Zealand Aluminium Smelter and Comalco	Unchanged
New Zealand Local Authorities	Unchanged
New Zealand Railways Corporation	Unchanged
Persons exercising investigating powers	Unchanged
Synfuels-Waitara Outfall Indemnity	Unchanged
Westpac New Zealand Limited	Unchanged
Legal claims and proceedings	
Accident Compensation Corporation (ACC) litigation	Unchanged
Ministry for Primary Industries – Biosecurity Act 1993 compensation	Unchanged
Kiwifruit vine PSA-V	Unchanged
Treaty of Waitangi claims	Unchanged
Other unquantifiable contingent liabilities	
Criminal Proceeds (Recovery) Act 2009	Unchanged
Environmental liabilities	Unchanged
Treaty of Waitangi claims – settlement relativity payments	Unchanged
Holidays Act 2003 and other relevant legislation	Unchanged

The following Indemnities were removed:

Housing Corporation New Zealand and New Zealand Railways Corporation (National Rail Network), as they are now considered to be remote.

Description of Contingent Liabilities

Quantifiable contingent liabilities over $100 million

Uncalled capital

As part of the Crown's commitment to a multilateral approach to ensure global financial and economic stability, New Zealand, as a member country of these organisations, contributes capital by subscribing to shares in certain institutions.

The capital (when called) is typically used to raise additional funding for loans to other member countries or, in the case of the quota contributions, to directly finance lending to members. For New Zealand and other donor countries, capital contributions comprise both 'paid in' capital and 'callable capital or promissory notes'.

The Crown's uncalled capital subscriptions over $100 million are as follows:

Uncalled capital	**31 March 2018 ($millions)**	**31 June 2017 ($millions)**
Asian Development Bank	3,125	2,941
International Monetary Fund – promissory notes	2,250	2,123
International Bank for Reconstruction and Development	1,537	1,512
International Monetary Fund – arrangements to borrow	613	540
Asian Infrastructure Investment Bank	513	504

In addition to the uncalled capital detailed above, the Crown has agreed to provide an uncalled capital facility of $230 million to Southern Response Earthquake Service Limited (SRES) to support the Christchurch earthquake recovery process. Of this amount $113 million has been called, leaving $117 million as a contingent liability. This capital support will increase core Crown net debt when called.

The Government has agreed to an uncalled capital facility of $300 million to support Kiwi Group Holdings Limited (which owns Kiwibank Limited) to help maintain Kiwibank Limited's external credit rating.

Guarantees and indemnities

Guarantees are legally binding promises made by the Crown to assume responsibility for a debt, or performance of an obligation of another party, should that party default.

Guarantees generally relate to the payment of money but may require the performance of obligations.

Indemnities are legally binding promises where the Crown undertakes to accept the risk of loss or damage that another party may suffer and to hold the other party harmless against loss caused by a specific stated event(s).

New Zealand Export Credit Office guarantees

The New Zealand Export Credit Office provides a range of guarantee products to assist New Zealand exporters manage risk and capitalise on trade opportunities around the globe. The obligations to third parties are guaranteed by the Crown and are intended to extend the capacity of facilities in the private sector.

$ 116 million at 31 March 2018 ($136 million at 30 June 2017)

Legal proceedings and disputes

Legal tax proceedings

When a taxpayer disagrees with an assessment issued following the dispute process, the taxpayer may challenge that decision by filing proceedings with the Taxation Review Authority or the High Court. This contingent liability represents the maximum liability Inland Revenue has in respect of these cases.

$137 million at 31 March 2018 ($145 million at 30 June 2017)

Other quantifiable contingent liabilities

Unclaimed monies

Under the Unclaimed Money Act 1971, entities (eg, financial institutions, insurance companies) hand over money not claimed after six years to Inland Revenue. The funds are repaid to the entitled owner on proof of identification.

$161 million at 31 March 2018 ($147 million at 30 June 2017)

Christchurch Engine Centre Partnership Agreement

The Air New Zealand Group has a partnership agreement with Pratt and Whitney in relation to the Christchurch Engine Centre (CEC), holding a 49% interest. By the nature of the agreement, joint and several liabilities exist between the two parties; the contingent liability represents Air New Zealand's share of CEC's liabilities.

$131 million at 31 March 2018 ($121 million at 30 June 2017)

Unquantifiable contingent liabilities

This part of the Statement provides details of those contingent liabilities of the Crown that are not quantified, excluding those that are considered remote, reported by indemnities, legal claims and proceedings, and other contingent liabilities.

The indemnities and claims that are disclosed individually, while they cannot be quantified, have the potential to exceed $20 million in costs and are not considered to be remote.

Indemnities

A number of these indemnities are provided to organisations within the Crown's control. If these indemnities were to crystallise, the Crown would compensate the individual entity for the loss and there would likely be an adverse impact on core Crown expenses and net core Crown debt.

Party indemnified	Instrument of indemnification	Actions indemnified
Air New Zealand	Deed of indemnity issued 24 September 2001	Claims arising from acts of war and terrorism that cannot be met from insurance, up to a limit of US$1 billion in respect of any one claim.
Contact Energy Limited	The Crown and Contact Energy signed a number of documents to settle in full Contact Energy's outstanding land rights and geothermal asset rights at Wairakei	The documents contained two reciprocal indemnities between the Crown and Contact to address the risk of certain losses to the respective parties' assets arising from the negligence or fault of the other party.
Earthquake Commission (EQC)	Section 16 of the Earthquake Commission Act 1993	As set out in the Earthquake Commission Act 1993, the Crown shall fund any deficiency in EQC's assets to cover its financial liabilities on such terms and conditions that the Minister of Finance determines.
Genesis Energy	Deed between Genesis and the Crown	The agreement sees the Crown compensate Genesis in the event that Genesis has less gas than it requires for the long-term supply of gas to cover Huntly Power station's minimum needs.
	Genesis acquisition of Tekapo A & B power stations	Indemnity against any damage to the beds of lakes and rivers subject to operating easements.
Justices of the Peace, Community Magistrates and Disputes Tribunal Referee	Section 50 of the District Courts Act 2016 and Section 4F of the Justices of the Peace Act 1957 Section 58 of the Disputes Tribunal Act 1988	Damages or costs awarded against them as a result of them exceeding their jurisdiction, provided a High Court Judge certifies that they have exceeded their jurisdiction in good faith and ought to be indemnified.
Maui Partners	Confidentiality agreements with the Maui Partners in relation to the provision of gas reserves information	Any losses arising from a breach of the deed.
New Zealand Aluminium Smelter and Comalco	The Minister of Finance signed indemnities in November 2003 and February 2004 in respect of aluminium dross currently stored at another site in Invercargill	Costs incurred in removing the dross and disposing of it at another site if required to do so by an appropriate authority.

Party indemnified	Instrument of indemnification	Actions indemnified
New Zealand Local Authorities	Section 39 of the Civil Defence Emergency Management Act 2002 National Civil Defence Emergency Management Plan	The Guide to the National Civil Defence Emergency Management Plan ('the Guide') states that, with the approval of the Minister, the Government will reimburse local authorities, in whole or in part, for certain types of response and recovery costs incurred as a result of a local or national emergency. The Guide is approved and issued by the Director of Civil Defence Emergency Management.
New Zealand Railways Corporation	Section 10 of the Finance Act 1990	Guarantees all loan and swap obligations of the New Zealand Railways Corporation.
Persons exercising investigating powers	Section 63 of the Corporations (Investigation and Management) Act 1989	Indemnifies the Financial Markets Authority (formerly Securities Commission), the Registrar and Deputy Registrar of Companies, members of advising committees within the Act, every statutory manager of a corporation and persons appointed pursuant to sections 17 to 19 of the Act, in the exercise of investigating powers, unless the power has been exercised in bad faith.
Synfuels-Waitara Outfall Indemnity	1990 sale of the Synfuels plant and operations to New Zealand Liquid Fuels Investment Limited (NZLFI)	The Crown transferred to NZLFI the benefit and obligation of a Deed of Indemnity between the Crown and Borthwick-CWS Limited (and subsequent owners) in respect of the Waitara effluent transfer line which was laid across the Waitara meat processing plant site. The Crown has the benefit of a counter indemnity from NZLFI which has since been transferred to Methanex Motunui Limited.
Westpac New Zealand Limited	The Domestic Transaction Banking Services Master	The Crown Transactional Banking Services Agreement with Westpac New Zealand Limited dated 24 September 2015. The Crown has indemnified Westpac New Zealand Limited: • for all amounts paid by Westpac New Zealand under letters of credit issued on behalf of the Crown, and • against certain cost, damages and losses to third parties resulting from: - unauthorised, forged or fraudulent payment instructions - unauthorised or incorrect direct debit instructions, or - cheques mistakenly drawn in favour of a third party rather than drawn in favour of the Crown.

Legal claims and proceedings

There are numerous legal actions that have been brought against the Crown. However, in the majority of these actions it is considered a remote possibility that the Crown would lose the case. Based on these factors, not all legal actions are individually disclosed.

Accident Compensation Corporation (ACC) litigation

Litigation involving ACC arises almost exclusively from challenges to operational decisions made by ACC through the statutory review and appeal process. No accrual has been made for contingent liabilities which could arise, as these disputes are issue based and ACC's active management of litigation means that it will be either settling or defending, depending on the merits of the issue in dispute. ACC's Board believes the resolution of outstanding appeals will not have any material effect on the financial statements of ACC and therefore are not material for the Crown.

Ministry for Primary Industries – Biosecurity Act 1993 compensation

Under section 162A of the Biosecurity Act 1993 compensation may be payable as a result of the exercise of powers to manage or eradicate organisms. Compensation is payable where there are verifiable losses as a result of the damage or destruction of a person's property or restrictions on the movement of a person's goods. The Ministry has been notified compensation will be sought for incursions including fruit fly, pea weevil, bonamia ostreae, mycoplasma bovis and myrtle rust. Owing to the complexity and uncertainty of the amount of these claims the amounts are unquantified.

Kiwifruit vine PSA-V

Approximately 210 growers, represented by the first plaintiff, Strathboss Kiwifruit Limited, filed a claim against the Ministry for Primary Industries alleging it is legally liable for damages they have suffered from a biosecurity incursion of the kiwifruit vine disease, Psa-V, in New Zealand. The total losses have not been quantified. As Strathboss Kiwifruit Limited is required to prove the Ministry owes a duty of care to the growers before losses will be assessed, the Ministry is unable to quantify the first plaintiff's claim.

Treaty of Waitangi claims

Under the Treaty of Waitangi Act 1975, any Māori may lodge certain claims relating to land or actions counter to the principles of the Treaty with the Waitangi Tribunal. Where the Tribunal finds a claim is well founded, it may recommend to the Crown that action be taken to compensate those affected. The Tribunal can make recommendations that are binding on the Crown with respect to land that has been transferred by the Crown to a State-owed enterprise (SOE) or tertiary institution, or is subject to the Crown Forest Assets Act 1989.

On occasion, Māori claimants pursue the resolution of particular claims against the Crown through higher courts. Failure to successfully defend such actions may result in a liability for historical Treaty grievances in excess of that currently anticipated.

Other unquantifiable contingent liabilities

Criminal Proceeds (Recovery) Act 2009

The Ministry of Justice is responsible for administering the Criminal Proceeds (Recovery) Act 2009. The Act requires the Crown to give an undertaking as to damages or costs in relation to asset restraining orders. In the event that the Crown is found liable, payment may be required.

Environmental liabilities

Under common law and various statutes, the Crown may have responsibility to remedy adverse effects on the environment arising from Crown activities. Entities managing significant Crown properties have implemented systems to identify, monitor and assess potential contaminated sites.

In accordance with PBE IPSAS 19: Provisions, Contingent Liabilities and Contingent Assets any contaminated sites for which costs can be reliably measured have been included in the statement of financial position as provisions.

Treaty of Waitangi claims – Settlement Relativity Payments – See page 83

Holidays Act 2003 and other relevant legislation

A number of entities have commenced a review of payroll calculations over the past six years in order to ensure compliance with the Holidays Act 2003 and other relevant legislation. Where possible, provision has been made in these financial statements for obligations arising from that review. To the extent that an obligation cannot reasonably be quantified at 31 March 2018, a contingent liability exists.

Description of Contingent Assets

Quantifiable contingent assets over $100 million

There are no quantifiable contingent assets over $100 million at 31 March 2018.

Unquantifiable contingent assets

There are no unquantifiable contingent assets over $100 million at 31 March 2018.

5

Forecast Financial Statements

These forecasts have been prepared in accordance with the Public Finance Act 1989.

They are based on the accounting policies and assumptions that follow. As with all such assumptions, there is a degree of uncertainty surrounding them. This uncertainty increases as the forecast horizon extends. The Risks and Scenarios and Specific Fiscal Risks chapters discuss the risks to the fiscal forecast in more detail.

The forecasts have been prepared in accordance with the Statement of Responsibility and reflect the judgements and information known at the time they were prepared. They reflect all government decisions and circumstances communicated to 26 April 2018.

The finalisation dates and key assumptions that underpin the preparation of the Forecast Financial Statements are outlined in the Fiscal Outlook chapter (pages 23 to 45).

Statement of Accounting Policies

Significant Accounting Policies

The Forecast Financial Statements have been prepared in accordance with the accounting policies that are expected to be used in the comparable audited actual Financial Statements of the Government. They comply with generally accepted accounting practice (GAAP) as required by the Public Finance Act 1989 and have been prepared in accordance with *Public Benefit Entity Financial Reporting Standard 42: Prospective Financial Statements*.

All forecasts use the accrual basis of accounting. Forecasts have been prepared for the consolidated Financial Statements of the Government reporting entity, which includes all entities controlled by the Government (as defined by applicable financial reporting standards).

The Forecast Financial Statements reflect the accounting standards in place in the year that they are prepared. Adoption of new accounting standards in future financial years such as PBE IFRS 9: *Financial Instruments* in 2018/19 are consequently not reflected in these Financial Statements.

The specific accounting policies are included within the 2018 *Budget Economic and Fiscal Update Additional Information* document which can be found on the Treasury's website at https://treasury.govt.nz/publications/efu/budget-economic-and-fiscal-update-2018

Forecast Policies

The Forecast Financial Statements have been prepared on the basis of the Treasury's best professional judgement. Actual financial results for the periods covered are likely to vary from the information presented in these forecasts. Factors that may lead to a material difference between information in these Forecast Financial Statements and the actual reported results in future years are set out in the Specific Fiscal Risks chapter on pages 61 to 96.

Key forecast assumptions are set out on pages 25 to 26.

Reporting and Forecast Period

The reporting periods for these Forecast Financial Statements are the years ended 30 June 2018 to 30 June 2022. The "2017 Actual" figures reported in the statements are the audited results reported in the Financial Statements of the Government for the year ended 30 June 2017. The "2018 Previous Budget" figures are the original forecasts to 30 June 2018 as presented in the 2017 Budget Economic and Fiscal Update.

Government Reporting Entity as at 26 April 2018

These Forecast Financial Statements are for the government reporting entity as specified in Part 3 of the Public Finance Act 1989. This comprises Ministers of the Crown and the following entities (classified in the three institutional components used for segmental reporting):

Core Crown Segment

Departments

Crown Law Office
Department of Conservation
Department of Corrections
Department of Internal Affairs
Department of the Prime Minister and Cabinet
Education Review Office
Government Communications Security Bureau
Inland Revenue Department
Land Information New Zealand
Ministry for Culture and Heritage
Ministry for Pacific Peoples
Ministry for Primary Industries
Ministry for the Environment
Ministry for Women
Ministry of Business, Innovation, and Employment
Ministry of Defence
Ministry of Education
Ministry of Foreign Affairs and Trade
Ministry of Health
Ministry of Justice
Ministry of Māori Development
Ministry of Social Development
Ministry of Transport
New Zealand Customs Service
New Zealand Defence Force
New Zealand Police
New Zealand Security Intelligence Service
Office of the Clerk of the House of Representatives
Oranga Tamariki, Ministry for Children
(previously Ministry for Vulnerable Children, Oranga Tamariki)
Parliamentary Counsel Office
Parliamentary Service
Serious Fraud Office
State Services Commission
(Includes Social Investment Agency as a departmental agency)
Statistics New Zealand
Te Kāhui Whakamana Rua Tekau mā Iwa—Pike River Recovery Agency
The Treasury

Offices of Parliament

Controller and Auditor-General
Office of the Ombudsman
Parliamentary Commissioner for the Environment

Others

New Zealand Superannuation Fund
Reserve Bank of New Zealand

State-owned enterprises Segment

State-owned enterprises

Airways Corporation of New Zealand Limited

Animal Control Products Limited

AsureQuality Limited

Electricity Corporation of New Zealand Limited

KiwiRail Holdings Limited

Kordia Group Limited

Landcorp Farming Limited

Meteorological Service of New Zealand Limited

New Zealand Post Limited

New Zealand Railways Corporation

Quotable Value Limited

Solid Energy New Zealand Limited (in liquidation)

Transpower New Zealand Limited

Mixed ownership model companies (Public Finance Act Schedule 5)

Genesis Energy Limited

Mercury NZ Limited

Meridian Energy Limited

Other

Air New Zealand Limited

Kiwi Group Holdings Limited (including Kiwibank)

Crown Entities Segment

Crown entities

Accident Compensation Corporation
Accreditation Council
Arts Council of New Zealand Toi Aotearoa
Broadcasting Commission
Broadcasting Standards Authority
Callaghan Innovation
Children's Commissioner
Civil Aviation Authority of New Zealand
Commerce Commission
Crown Irrigation Investments Limited
Crown Research Institutes (7)
District Health Boards (20)
Drug Free Sport New Zealand
Earthquake Commission
Education New Zealand
Electoral Commission
Electricity Authority
Energy Efficiency and Conservation Authority
Environmental Protection Authority
External Reporting Board
Families Commission
Financial Markets Authority
Fire and Emergency New Zealand
Government Superannuation Fund Authority
Guardians of New Zealand Superannuation
Health and Disability Commissioner
Health Promotion Agency
Health Quality and Safety Commission
Health Research Council of New Zealand
Heritage New Zealand Pouhere Taonga
Housing New Zealand Corporation
Human Rights Commission
Independent Police Conduct Authority
Law Commission
Maritime New Zealand
Museum of New Zealand Te Papa Tongarewa Board
New Zealand Antarctic Institute
New Zealand Artificial Limb Service
New Zealand Blood Service
New Zealand Film Commission
New Zealand Lotteries Commission
New Zealand Productivity Commission
New Zealand Qualifications Authority
New Zealand Symphony Orchestra
New Zealand Tourism Board
New Zealand Trade and Enterprise
New Zealand Transport Agency
New Zealand Venture Investment Fund Limited
New Zealand Walking Access Commission
Office of Film and Literature Classification
Pharmaceutical Management Agency
Privacy Commissioner
Public Trust
Radio New Zealand Limited
Real Estate Authority
Retirement Commissioner
School Boards of Trustees (2,406)
Social Workers Registration Board
Sport and Recreation New Zealand
Takeovers Panel
Te Reo Whakapuaki Irirangi (Māori Broadcasting Funding Agency)
Te Taura Whiri i te Reo Māori (Māori Language Commission)
Television New Zealand Limited
Tertiary Education Commission
Transport Accident Investigation Commission
WorkSafe New Zealand

Crown entities Segment (continued)

Organisations listed in schedule 4 of the Public Finance Act 1989

Agricultural and Marketing Research and Development Trust

Asia New Zealand Foundation

Fish and Game Councils (12)

Game Animal Council

Leadership Development Centre Trust

Māori Trustee

National Pacific Radio Trust

New Zealand Fish and Game Council

New Zealand Game Bird Habitat Trust Board

New Zealand Government Property Corporation

New Zealand Lottery Grants Board

Ngāi Tahu Ancillary Claims Trust

Pacific Co-operation Foundation

Pacific Island Business Development Trust

Reserves Boards (20)

Te Ariki Trust

Non-listed companies in which the Crown is majority or sole shareholder (Public Finance Act Schedule 4A)

Crown Asset Management Limited

Crown Infrastructure Partners Limited (previously Crown Fibre Holdings)

Education Payroll Limited

Ōtākaro Limited

Predator Free 2050 Limited

Research and Education Advanced Network New Zealand Limited

Southern Response Earthquake Services Limited

Tāmaki Redevelopment Company Limited

The Network for Learning Limited

Legal entities created by Treaty of Waitangi settlement Acts (Public Finance Act Schedule 6)

Te Urewera

Others

Education Council of Aotearoa New Zealand

Regenerate Christchurch

Other entities

Crown entities

Tertiary Education Institutions (27)*

Non-listed companies in which the Crown is majority or sole shareholder (Public Finance Act Schedule 4A)

City Rail Link Limited*

*These entities are not fully consolidated into the forecast financial statements of the government with only the Crown's interest in them being included.

Subsidiaries of SOEs, Crown entities and other government entities are consolidated by their parents and not listed separately in this table.

Forecast Statement of Financial Performance

for the years ending 30 June

	Note	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
Revenue								
Taxation revenue	1	74,973	76,872	78,825	83,241	88,187	93,020	98,047
Other sovereign revenue	1	5,081	5,057	5,240	5,633	6,106	6,373	6,678
Total Revenue Levied through the Crown's Sovereign Power		**80,054**	**81,929**	**84,065**	**88,874**	**94,293**	**99,393**	**104,725**
Sales of goods and services		16,871	16,994	18,477	19,237	19,765	20,263	20,747
Interest revenue	2	2,727	2,807	2,740	2,966	3,010	3,200	3,152
Other revenue		4,575	4,617	4,806	5,088	5,502	5,689	5,804
Total revenue earned through the Crown's operations		**24,173**	**24,418**	**26,023**	**27,291**	**28,277**	**29,152**	**29,703**
Total revenue (excluding gains)		**104,227**	**106,347**	**110,088**	**116,165**	**122,570**	**128,545**	**134,428**
Expenses								
Transfer payments and subsidies	3	25,264	26,462	26,392	29,262	30,377	31,617	33,034
Personnel expenses		22,599	23,003	23,669	24,369	24,570	25,058	25,119
Depreciation		4,361	4,563	4,777	4,840	4,850	4,921	4,983
Other operating expenses	4	38,008	41,000	42,830	44,976	44,605	45,149	45,147
Finance costs	2	4,162	4,224	4,121	4,045	4,045	4,231	4,051
Insurance expenses	5	5,418	4,546	4,840	4,877	5,490	5,984	6,427
Forecast new operating spending	6	-	293	186	760	3,070	5,686	8,129
Top-down expense adjustment	6	-	(1,000)	(300)	(1,145)	(325)	(325)	(275)
Total expenses (excluding losses)		**99,812**	**103,091**	**106,515**	**111,984**	**116,682**	**122,321**	**126,615**
Minority interest share of operating balance before gains/(losses)		(346)	(398)	(432)	(444)	(468)	(503)	(501)
Operating balance before gains/(losses) (excluding minority interests)		**4,069**	**2,858**	**3,141**	**3,737**	**5,420**	**5,721**	**7,312**
Net gains/(losses) on financial instruments	2	6,330	2,538	5,251	2,887	3,215	3,627	4,117
Net gains/(losses) on non-financial instruments	7	1,321	(88)	(1,579)	(83)	(80)	(77)	(80)
Less minority interest share of net gains/losses		27	(26)	(17)	(17)	(1)	(2)	(4)
Total gains/(losses) (excluding minority interests)		**7,678**	**2,424**	**3,655**	**2,787**	**3,134**	**3,548**	**4,033**
Net surplus/(deficit) from associates and joint ventures		570	214	201	249	283	298	307
Operating balance (excluding minority interests)		**12,317**	**5,496**	**6,997**	**6,773**	**8,837**	**9,567**	**11,652**

The accompanying notes and accounting policies are an integral part of these Statements.

Forecast Analysis of Expenses by Functional Classification

for the years ending 30 June

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
Total Crown expenses							
By functional classification							
Social security and welfare	30,599	31,577	31,590	34,528	36,049	37,639	39,390
Health	15,645	16,389	16,786	17,507	17,542	17,412	17,501
Education	14,112	14,741	14,746	15,509	15,636	15,954	16,029
Core government services	3,762	4,572	4,935	4,755	4,565	4,648	4,396
Law and order	4,161	4,435	4,602	4,816	4,873	4,949	5,020
Transport and communications	9,360	9,637	10,167	10,938	11,003	11,659	11,655
Economic and industrial services	8,452	7,949	8,831	9,150	9,318	9,397	9,621
Defence	2,145	2,286	2,255	2,366	2,443	2,453	2,459
Heritage, culture and recreation	2,433	2,391	2,583	2,603	2,626	2,644	2,728
Primary services	1,886	1,986	2,180	2,090	2,075	2,037	1,958
Housing and community development	1,820	1,954	2,044	2,318	2,149	2,286	2,275
Environmental protection	863	1,012	1,286	1,057	1,100	1,109	1,108
GSF pension expenses	231	239	163	135	161	198	226
Other	181	406	340	552	352	344	344
Finance costs	4,162	4,224	4,121	4,045	4,045	4,231	4,051
Forecast new operating spending	-	293	186	760	3,070	5,686	8,129
Top-down expense adjustment	-	(1,000)	(300)	(1,145)	(325)	(325)	(275)
Total Crown expenses excluding losses	**99,812**	**103,091**	**106,515**	**111,984**	**116,682**	**122,321**	**126,615**

Below is an analysis of core Crown expenses by functional classification. Core Crown expenses include expenses incurred by Ministers, Departments, Offices of Parliament, the NZS Fund and the Reserve Bank, but not Crown entities and SOEs.

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
Core Crown expenses							
By functional classification[1]							
Social security and welfare	25,294	26,247	26,110	28,949	29,999	31,169	32,492
Health	16,223	17,096	17,185	18,071	18,081	17,988	18,092
Education	13,281	13,985	13,937	14,663	14,791	15,109	15,179
Core government services	3,957	4,843	5,086	5,046	4,735	4,831	4,666
Law and order	3,882	4,119	4,276	4,419	4,453	4,516	4,569
Transport and communications	2,176	2,329	2,452	2,622	2,520	2,883	2,594
Economic and industrial services	2,544	3,001	2,930	3,307	3,165	3,124	3,141
Defence	2,146	2,294	2,263	2,374	2,451	2,461	2,467
Heritage, culture and recreation	850	885	881	880	851	820	833
Primary services	644	730	851	756	723	682	620
Housing and community development	539	530	602	878	602	610	642
Environmental protection	871	1,015	1,287	1,058	1,101	1,110	1,108
GSF pension expenses	217	220	150	122	148	185	213
Other	181	406	340	552	352	344	344
Finance costs	3,534	3,493	3,484	3,408	3,358	3,522	3,294
Forecast new operating spending	-	293	186	760	3,070	5,686	8,129
Top-down expense adjustment	-	(1,000)	(300)	(1,145)	(325)	(325)	(275)
Total core Crown expenses excluding losses	**76,339**	**80,486**	**81,720**	**86,720**	**90,075**	**94,715**	**98,108**

1. The classifications of the functions of the Government reflect current approved baselines. Forecast new operating spending is shown as a separate line item in the above analysis and will be allocated to functions of the Government once decisions are made in future Budgets.

The accompanying notes and accounting policies are an integral part of these Statements.

Forecast Statement of Comprehensive Revenue and Expense

for the years ending 30 June

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
Operating Balance (including minority interest)	**12,636**	**5,920**	**7,446**	**7,234**	**9,306**	**10,072**	**12,157**
Other comprehensive revenue and expense							
Revaluation of physical assets	8,923	-	(22)	-	-	-	-
Transfers to/(from) reserves	47	28	305	69	40	40	83
(Gains)/losses transferred to the statement of financial performance	62	(1)	5	-	1	4	5
Other movements	39	4	(97)	(50)	(30)	4	3
Total other comprehensive revenue and expense	**9,071**	**31**	**191**	**19**	**11**	**48**	**91**
Total comprehensive revenue and expense	**21,707**	**5,951**	**7,637**	**7,253**	**9,317**	**10,120**	**12,248**
Attributable to:							
- minority interest	541	429	520	445	461	506	506
- the Crown	21,166	5,522	7,117	6,808	8,856	9,614	11,742
Total comprehensive revenue and expense	**21,707**	**5,951**	**7,637**	**7,253**	**9,317**	**10,120**	**12,248**

Forecast Statement of Changes in Net Worth

for the years ending 30 June

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
Opening net worth	95,521	105,923	116,472	123,567	130,317	139,046	148,599
Operating balance (including minority interest)	12,636	5,920	7,446	7,234	9,306	10,072	12,157
Net revaluations	8,923	-	(22)	-	-	-	-
Transfers to/(from) reserves	47	28	305	69	40	40	83
(Gains)/losses transferred to the Statement of Financial Performance	62	(1)	5	-	1	4	5
Other movements	39	4	(97)	(50)	(30)	4	3
Comprehensive income	**21,707**	**5,951**	**7,637**	**7,253**	**9,317**	**10,120**	**12,248**
Transactions with minority interest	(756)	(432)	(542)	(503)	(588)	(567)	(570)
Closing net worth	**116,472**	**111,442**	**123,567**	**130,317**	**139,046**	**148,599**	**160,277**

The accompanying notes and accounting policies are an integral part of these Statements.

Forecast Statement of Cash Flows

for the years ending 30 June

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
Cash Flows from Operations							
Cash was provided from							
Taxation receipts	73,099	75,563	77,945	81,963	86,983	91,720	96,740
Other sovereign receipts	4,515	4,484	4,535	4,710	5,156	5,389	5,687
Sales of goods and services	16,948	17,473	18,616	19,260	19,824	20,351	20,863
Interest receipts	2,431	2,395	2,373	2,462	2,509	2,754	2,763
Other operating receipts	4,882	4,062	4,869	4,909	5,380	5,554	5,692
Total cash provided from operations	**101,875**	**103,977**	**108,338**	**113,304**	**119,852**	**125,768**	**131,745**
Cash was disbursed to							
Transfer payments and subsidies	25,293	26,512	26,404	29,308	30,443	31,709	33,101
Personnel and operating payments	62,836	66,838	69,050	71,438	71,552	72,149	72,980
Interest payments	4,179	4,813	4,080	4,052	3,887	4,119	3,760
Forecast new operating spending	-	293	186	760	3,070	5,686	8,129
Top-down expense adjustment	-	(1,000)	(300)	(1,145)	(325)	(325)	(275)
Total cash disbursed to operations	**92,308**	**97,456**	**99,420**	**104,413**	**108,627**	**113,338**	**117,695**
Net cash flows from operations	**9,567**	**6,521**	**8,918**	**8,891**	**11,225**	**12,430**	**14,050**
Cash Flows from Investing Activities							
Cash was provided from/(disbursed to)							
Net (purchase)/sale of physical assets	(6,209)	(8,429)	(9,218)	(10,191)	(8,309)	(8,087)	(6,747)
Net (purchase)/sale of shares and other securities	889	5,389	(3,540)	6,117	(4,179)	(1,592)	(10,385)
Net (purchase)/sale of intangible assets	(748)	(814)	(859)	(723)	(626)	(613)	(465)
Net (issue)/repayment of advances	(989)	(1,196)	(214)	(203)	(233)	(253)	(259)
Net acquisition of investments in associates	(148)	(15)	(243)	(420)	(229)	(142)	(294)
Forecast new capital spending	-	(446)	(185)	(1,267)	(1,542)	(2,357)	(2,709)
Top-down capital adjustment	-	840	485	600	150	250	-
Net cash flows from investing activities	**(7,205)**	**(4,671)**	**(13,774)**	**(6,087)**	**(14,968)**	**(12,794)**	**(20,859)**
Net cash flows from operating and investing activities	**2,362**	**1,850**	**(4,856)**	**2,804**	**(3,743)**	**(364)**	**(6,809)**
Cash Flows from Financing Activities							
Cash was provided from/(disbursed to)							
Issues of circulating currency	265	170	460	196	202	208	214
Net issue/(repayment) of government bonds[2]	1,328	(4,729)	(229)	(3,378)	2,180	(3,128)	7,027
Net issue/(repayment) of foreign-currency borrowings	2,048	(940)	(5,249)	458	42	(2)	(8)
Net issue/(repayment) of other New Zealand dollar borrowings	(1,810)	2,627	9,249	(642)	1,776	3,966	(116)
Dividends paid to minority interests[1]	(656)	(492)	(560)	(532)	(567)	(578)	(579)
Net cash flows from financing activities	**1,175**	**(3,364)**	**3,671**	**(3,898)**	**3,633**	**466**	**6,538**
Net movement in cash	**3,537**	**(1,514)**	**(1,185)**	**(1,094)**	**(110)**	**102**	**(271)**
Opening cash balance	15,617	17,495	18,732	18,068	16,976	16,870	16,974
Foreign-exchange gains/(losses) on opening cash	(422)	3	521	2	4	2	2
Closing cash balance	**18,732**	**15,984**	**18,068**	**16,976**	**16,870**	**16,974**	**16,705**

1. Excludes transactions with ACC and NZS Fund.

2. Further information on the proceeds and repayments of government bonds is available in note 16.

The accompanying notes and accounting policies are an integral part of these Statements.

Forecast Statement of Cash Flows (continued)

for the years ending 30 June

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
Reconciliation Between the Net Cash Flows from Operations and the Operating Balance							
Net Cash Flows from Operations	**9,567**	**6,521**	**8,918**	**8,891**	**11,225**	**12,430**	**14,050**
Items included in the operating balance but not in net cash flows from operations							
Gains/(losses)							
Net gains/(losses) on financial instruments	6,330	2,538	5,251	2,887	3,215	3,627	4,117
Net gains/(losses) on non-financial instruments	1,321	(88)	(1,579)	(83)	(80)	(77)	(80)
Minority interest share of net gains/(losses)	27	(26)	(17)	(17)	(1)	(2)	(4)
Total gains/(losses)	**7,678**	**2,424**	**3,655**	**2,787**	**3,134**	**3,548**	**4,033**
Other Non-cash Items in Operating Balance							
Depreciation	(4,361)	(4,563)	(4,777)	(4,840)	(4,850)	(4,921)	(4,983)
Amortisation	(814)	(743)	(720)	(729)	(725)	(731)	(751)
Cost of concessionary lending	(753)	(801)	(1,049)	(762)	(776)	(778)	(731)
Impairment on financial assets (excluding receivables)	50	(126)	99	(16)	(16)	(18)	(18)
Decrease/(increase) in defined benefit retirement plan liabilities	472	548	576	592	572	540	514
Decrease/(increase) in insurance liabilities	(1,047)	145	(440)	(623)	(1,538)	(1,926)	(2,038)
Other	258	(184)	215	264	286	296	311
Total other non-cash Items	**(6,195)**	**(5,724)**	**(6,096)**	**(6,114)**	**(7,047)**	**(7,538)**	**(7,696)**
Movements in Working Capital							
Increase/(decrease) in receivables	1,170	496	848	1,270	1,180	1,831	1,594
Increase/(decrease) in accrued interest	312	1,028	289	485	306	305	72
Increase/(decrease) in inventories	57	(11)	(107)	(23)	(27)	27	23
Increase/(decrease) in prepayments	151	(7)	(30)	(7)	(12)	5	14
Decrease/(increase) in deferred revenue	(46)	(20)	(83)	(108)	(23)	(58)	(51)
Decrease/(increase) in payables/provisions	(377)	789	(397)	(408)	101	(983)	(387)
Total movements in working capital	**1,267**	**2,275**	**520**	**1,209**	**1,525**	**1,127**	**1,265**
Operating balance (excluding minority interests)	**12,317**	**5,496**	**6,997**	**6,773**	**8,837**	**9,567**	**11,652**

The accompanying notes and accounting policies are an integral part of these Statements.

Forecast Statement of Financial Position

as at 30 June

	Note	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
Assets								
Cash and cash equivalents	8	18,732	15,984	18,068	16,976	16,870	16,974	16,705
Receivables	8	18,529	17,452	19,317	20,770	21,844	23,480	24,757
Marketable securities, deposits and derivatives in gain	8	50,506	45,514	50,236	42,630	45,034	44,480	52,945
Share investments	8	30,700	30,140	36,440	39,344	42,978	47,367	52,270
Advances	8	28,583	29,805	28,985	29,942	31,042	31,917	32,843
Inventory		1,167	970	1,059	1,036	1,009	1,036	1,058
Other assets		3,079	2,352	2,648	2,637	2,654	2,681	2,766
Property, plant and equipment	10	144,550	142,577	149,823	155,867	159,425	162,443	163,946
Equity accounted investments[1]		14,210	14,618	14,808	15,384	15,821	16,356	16,858
Intangible assets and goodwill		3,553	3,713	3,808	3,980	4,076	4,157	4,075
Forecast for new capital spending	6	-	616	185	1,452	2,994	5,351	8,060
Top-down capital adjustment		-	(965)	(485)	(1,085)	(1,235)	(1,485)	(1,485)
Total assets		**313,609**	**302,776**	**324,892**	**328,933**	**342,512**	**354,757**	**374,798**
Liabilities								
Issued currency		5,980	5,932	6,440	6,636	6,838	7,046	7,260
Payables	12	14,794	12,479	13,007	13,484	13,275	13,417	13,651
Deferred revenue		2,224	2,086	2,307	2,414	2,438	2,496	2,547
Borrowings		111,806	111,500	115,978	112,890	117,176	118,173	125,399
Insurance liabilities	5	42,786	41,219	44,109	44,732	46,270	48,196	50,234
Retirement plan liabilities	13	11,006	9,917	10,579	9,987	9,415	8,875	8,361
Provisions	14	8,541	8,201	8,905	8,473	8,054	7,955	7,069
Total liabilities		**197,137**	**191,334**	**201,325**	**198,616**	**203,466**	**206,158**	**214,521**
Total assets less total liabilities		**116,472**	**111,442**	**123,567**	**130,317**	**139,046**	**148,599**	**160,277**
Net Worth								
Taxpayers' funds		26,456	29,141	33,477	40,293	49,359	59,174	71,057
Property, plant and equipment revaluation reserve		84,164	76,526	84,097	84,089	83,871	83,664	83,514
Other reserves		(88)	(101)	75	75	83	89	98
Total net worth attributable to the Crown		**110,532**	**105,566**	**117,649**	**124,457**	**133,313**	**142,927**	**154,669**
Net worth attributable to minority interest		5,940	5,876	5,918	5,860	5,733	5,672	5,608
Total net worth	15	**116,472**	**111,442**	**123,567**	**130,317**	**139,046**	**148,599**	**160,277**

1. Equity accounted investments include tertiary education institutions and City Rail Link.

The accompanying notes and accounting policies are an integral part of these Statements.

Forecast Statement of Borrowings

as at 30 June

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
Borrowings							
Government bonds	64,349	59,591	63,187	59,505	61,436	57,994	64,885
Treasury bills	4,071	4,096	3,997	1,937	1,862	3,867	1,786
Government retail stock	190	205	183	183	183	183	183
Settlement deposits with Reserve Bank	6,471	7,183	7,063	7,063	7,063	7,063	7,063
Derivatives in loss	3,113	2,800	3,206	2,694	2,484	2,303	2,296
Finance lease liabilities	1,412	2,559	2,524	2,351	2,382	2,075	1,965
Other borrowings	32,200	35,066	35,818	39,157	41,766	44,688	47,221
Total borrowings	**111,806**	**111,500**	**115,978**	**112,890**	**117,176**	**118,173**	**125,399**
Sovereign-guaranteed debt	81,395	78,805	83,425	77,510	79,340	78,062	83,091
Non sovereign-guaranteed debt	30,411	32,695	32,553	35,380	37,836	40,111	42,308
Total borrowings	**111,806**	**111,500**	**115,978**	**112,890**	**117,176**	**118,173**	**125,399**
Net Debt:							
Core Crown borrowings[1]	94,107	92,565	97,248	91,655	93,869	92,788	97,885
Add back NZS Fund holdings of sovereign-issued debt and NZS Fund borrowings	(1,487)	(1,908)	(2,263)	(2,284)	(2,296)	(2,298)	(2,301)
Gross sovereign-issued debt[2]	**92,620**	**90,657**	**94,985**	**89,371**	**91,573**	**90,490**	**95,584**
Less core Crown financial assets[3]	81,015	74,344	85,569	79,453	84,509	87,222	99,129
Net core Crown debt (incl. NZS Fund)[4]	**11,605**	**16,313**	**9,416**	**9,918**	**7,064**	**3,268**	**(3,545)**
Add back NZS Fund holdings of core Crown financial assets and NZS Fund financial assets[5]	35,861	35,486	39,050	42,302	46,850	52,528	58,936
Net core Crown debt (excl. NZS Fund)	**47,466**	**51,799**	**48,466**	**52,220**	**53,914**	**55,796**	**55,391**
Add back core Crown advances	12,014	12,312	11,943	11,984	11,951	11,811	11,566
Net core Crown debt (excl. NZS Fund and advances)[6]	**59,480**	**64,111**	**60,409**	**64,204**	**65,865**	**67,607**	**66,957**
Gross Debt:							
Gross sovereign-issued debt[2]	92,620	90,657	94,985	89,371	91,573	90,490	95,584
Less Reserve Bank settlement cash and Reserve Bank bills	(7,079)	(8,179)	(9,118)	(9,118)	(9,118)	(9,118)	(9,118)
Add back changes to DMO borrowing owing to settlement cash[7]	1,600	1,600	1,600	1,600	1,600	1,600	1,600
Gross sovereign-issued debt excluding Reserve Bank settlement cash and Reserve Bank bills[4]	**87,141**	**84,078**	**87,467**	**81,853**	**84,055**	**82,972**	**88,066**

Notes on borrowings

Total borrowings can be split into sovereign-guaranteed and non-sovereign-guaranteed debt. This split reflects the fact that borrowings by SOEs and Crown entities are not explicitly guaranteed by the Crown. No debt of SOEs and Crown entities is currently guaranteed by the Crown.

1. Core Crown borrowings in this instance include unsettled purchases of securities (classified as accounts payable in the Statement of Financial Position).
2. Gross sovereign-issued debt (GSID) represents debt issued by the sovereign (the core Crown) and includes any government stock held by the other Crown reporting entities.
3. Core Crown financial assets exclude receivables.
4. Net core Crown debt represents GSID less financial assets. This can provide information about the sustainability of the Government's accounts, and is used by some international agencies when determining the creditworthiness of a country.
5. Adding back the NZS Fund assets provides the financial liabilities less financial assets of the core Crown, excluding those assets set aside to meet part of the future cost of New Zealand Superannuation.
6. Net core Crown debt (excluding NZS Fund and advances) excludes financial assets which are held for public policy rather than treasury management purposes.
7. The Reserve Bank has used $1.6 billion of settlement cash to purchase reserves that were to have been funded by the NZDMO borrowing. Therefore, the impact of settlement cash on GSID is adjusted by this amount.

The accompanying notes and accounting policies are an integral part of these Statements.

Statement of Actual Commitments

	As at 31 March 2018 $m	As at 30 June 2017 $m
Capital Commitments		
State highways	6,963	6,130
Specialist military equipment	414	366
Land and buildings	3,112	2,735
Other property, plant and equipment	2,102	2,108
Other capital commitments	218	227
Tertiary education institutions	673	673
Total capital commitments	**13,482**	**12,239**
Operating Commitments		
Non-cancellable accommodation leases	3,230	3,398
Other non-cancellable leases	2,500	2,468
Tertiary education institutions	499	499
Total operating commitments	**6,229**	**6,365**
Total commitments	**19,711**	**18,604**
Total Commitments by Segment		
Core Crown	6,089	5,945
Crown entities	10,046	9,032
State-owned Enterprises	4,504	4,492
Inter-segment eliminations	(928)	(865)
Total commitments	**19,711**	**18,604**

Statement of Actual Contingent Liabilities and Assets

	As at 31 March 2018 $m	As at 30 June 2017 $m
Quantifiable Contingent Liabilities		
Uncalled capital	8,057	7,638
Guarantees and indemnities	209	690
Legal proceedings and disputes	285	333
Other contingent liabilities	349	327
Total quantifiable contingent liabilities	**8,900**	**8,988**
Total Quantifiable Contingent Liabilities by Segment		
Core Crown	9,142	8,769
Crown entities	22	16
State-owned Enterprises	153	203
Inter-segment eliminations	(417)	-
Total quantifiable contingent liabilities	**8,900**	**8,988**
Quantifiable Contingent Assets by Segment		
Core Crown	114	58
Crown entities	6	4
State-owned Enterprises	10	40
Total quantifiable contingent assets	**130**	**102**

More information on contingent liabilities (quantified and unquantified) is outlined in the Specific Fiscal Risks chapter.

The accompanying notes and accounting policies are an integral part of these Statements.

Notes to the Forecast Financial Statements

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
NOTE 1: Sovereign Revenue (Accrual)							
Taxation Revenue (accrual)							
Individuals							
Source deductions	28,641	29,498	30,380	32,248	34,232	36,299	38,459
Other persons	6,382	6,497	6,661	6,968	7,334	7,634	7,979
Refunds	(1,638)	(1,686)	(1,777)	(1,764)	(1,749)	(1,645)	(1,572)
Fringe benefit tax	525	554	555	572	599	629	659
Total individuals	**33,910**	**34,863**	**35,819**	**38,024**	**40,416**	**42,917**	**45,525**
Corporate Tax							
Gross companies tax	12,228	12,110	12,622	13,301	13,942	14,520	15,199
Refunds	(188)	(206)	(187)	(207)	(210)	(215)	(200)
Non-resident withholding tax	599	589	638	669	768	837	882
Foreign-source dividend w/holding payments	(10)	-	3	-	-	-	-
Total corporate tax	**12,629**	**12,493**	**13,076**	**13,763**	**14,500**	**15,142**	**15,881**
Other Direct Income Tax							
Resident w/holding tax on interest income	1,472	1,519	1,545	1,737	2,316	2,722	3,150
Resident w/holding tax on dividend income	743	685	762	769	809	843	881
Total other direct income tax	**2,215**	**2,204**	**2,307**	**2,506**	**3,125**	**3,565**	**4,031**
Total direct income tax	**48,754**	**49,560**	**51,202**	**54,293**	**58,041**	**61,624**	**65,437**
Goods and Services Tax							
Gross goods and services tax	31,259	32,354	33,448	35,339	37,363	39,188	40,972
Refunds	(11,751)	(11,774)	(12,757)	(13,370)	(14,350)	(15,085)	(15,747)
Total goods and services tax	**19,508**	**20,580**	**20,691**	**21,969**	**23,013**	**24,103**	**25,225**
Other Indirect Taxation							
Road user charges	1,469	1,437	1,505	1,500	1,520	1,559	1,609
Petroleum fuels excise – domestic production	1,137	1,215	1,113	1,259	1,276	1,289	1,294
Alcohol excise – domestic production	684	712	699	737	758	779	801
Tobacco excise – domestic production	352	366	396	356	369	381	381
Petroleum fuels excise – imports[1]	771	685	798	710	720	727	730
Alcohol excise – imports[1]	301	291	329	316	325	334	343
Tobacco excise – imports[1]	1,325	1,349	1,357	1,385	1,434	1,485	1,483
Other customs duty	152	148	172	172	172	172	172
Gaming duties	229	231	245	239	242	246	247
Motor vehicle fees	223	235	237	225	228	231	234
Approved issuer levy and cheque duty	44	33	51	50	59	60	61
Energy resources levies	24	30	30	30	30	30	30
Total other indirect taxation	**6,711**	**6,732**	**6,932**	**6,979**	**7,133**	**7,293**	**7,385**
Total indirect taxation	**26,219**	**27,312**	**27,623**	**28,948**	**30,146**	**31,396**	**32,610**
Total taxation revenue	**74,973**	**76,872**	**78,825**	**83,241**	**88,187**	**93,020**	**98,047**
Other Sovereign Revenue (accrual)							
ACC levies	2,882	2,689	2,721	2,874	3,262	3,456	3,694
Fire Service levies	392	518	562	581	596	600	600
EQC levies	283	329	309	384	393	397	401
Child support and working for families penalties	262	261	229	227	226	227	229
Court fines	105	96	96	96	96	96	96
Other miscellaneous items	1,157	1,164	1,323	1,471	1,533	1,597	1,658
Total other sovereign revenue	**5,081**	**5,057**	**5,240**	**5,633**	**6,106**	**6,373**	**6,678**
Total sovereign revenue	**80,054**	**81,929**	**84,065**	**88,874**	**94,293**	**99,393**	**104,725**

1. Customs excise-equivalent duty.

Notes to the Forecast Financial Statements

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
NOTE 1 (continued): Sovereign Receipts (Cash)							
Taxation Receipts (cash)							
Individuals							
Source deductions	28,443	29,485	30,223	32,079	34,051	36,107	38,255
Other persons	6,683	6,868	7,050	7,257	7,655	7,948	8,309
Refunds	(2,540)	(2,526)	(2,543)	(2,577)	(2,557)	(2,511)	(2,427)
Fringe benefit tax	526	554	555	572	599	629	659
Total individuals	**33,112**	**34,381**	**35,285**	**37,331**	**39,748**	**42,173**	**44,796**
Corporate Tax							
Gross companies tax	12,139	11,989	12,887	13,509	14,170	14,776	15,436
Refunds	(586)	(676)	(608)	(638)	(663)	(700)	(712)
Non-resident withholding tax	583	589	614	669	768	837	882
Foreign-source dividend w/holding payments	3	-	-	-	-	-	-
Total corporate tax	**12,139**	**11,902**	**12,893**	**13,540**	**14,275**	**14,913**	**15,606**
Other Direct Income Tax							
Resident w/holding tax on interest income	1,446	1,519	1,545	1,737	2,316	2,722	3,150
Resident w/holding tax on dividend income	729	685	742	769	809	843	881
Total other direct income tax	**2,175**	**2,204**	**2,287**	**2,506**	**3,125**	**3,565**	**4,031**
Total direct income tax	**47,426**	**48,487**	**50,465**	**53,377**	**57,148**	**60,651**	**64,433**
Goods and Services Tax							
Gross goods and services tax	30,611	31,974	33,029	34,844	36,897	38,706	40,510
Refunds	(11,584)	(11,614)	(12,493)	(13,210)	(14,190)	(14,925)	(15,587)
Total goods and services tax	**19,027**	**20,360**	**20,536**	**21,634**	**22,707**	**23,781**	**24,923**
Other Indirect Taxation							
Road user charges	1,469	1,437	1,505	1,500	1,520	1,559	1,609
Petroleum fuels excise – domestic production	1,135	1,215	1,113	1,259	1,276	1,289	1,294
Alcohol excise – domestic production	678	712	699	737	758	779	801
Tobacco excise – domestic production	330	366	396	356	369	381	381
Customs duty	2,525	2,457	2,687	2,556	2,646	2,713	2,727
Gaming duties	228	231	235	239	242	246	247
Motor vehicle fees	217	235	237	225	228	231	234
Approved issuer levy and cheque duty	40	33	42	50	59	60	61
Energy resources levies	24	30	30	30	30	30	30
Total other indirect taxation	**6,646**	**6,716**	**6,944**	**6,952**	**7,128**	**7,288**	**7,384**
Total indirect taxation	**25,673**	**27,076**	**27,480**	**28,586**	**29,835**	**31,069**	**32,307**
Total taxation receipts	**73,099**	**75,563**	**77,945**	**81,963**	**86,983**	**91,720**	**96,740**
Other Sovereign Receipts (cash)							
ACC levies	2,820	2,679	2,733	2,731	3,255	3,400	3,666
Fire Service levies	388	486	512	581	530	601	601
EQC levies	285	355	290	386	389	396	400
Child support and working for families penalties	204	212	210	209	209	210	212
Court fines	125	119	119	119	118	118	118
Other miscellaneous items	693	633	671	684	655	664	690
Total other sovereign receipts	**4,515**	**4,484**	**4,535**	**4,710**	**5,156**	**5,389**	**5,687**
Total sovereign receipts	**77,614**	**80,047**	**82,480**	**86,673**	**92,139**	**97,109**	**102,427**

Notes to the Forecast Financial Statements

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
NOTE 2: Investment Revenue / (Expenditure)							
Interest revenue	**2,727**	**2,807**	**2,740**	**2,966**	**3,010**	**3,200**	**3,152**
Interest Expenses							
Interest on financial liabilities	4,130	4,185	4,090	4,009	4,007	4,180	3,989
Interest unwind on provisions	32	39	31	36	38	51	62
Total interest expenses	**4,162**	**4,224**	**4,121**	**4,045**	**4,045**	**4,231**	**4,051**
Net interest revenue/(expense)	**(1,435)**	**(1,417)**	**(1,381)**	**(1,079)**	**(1,035)**	**(1,031)**	**(899)**
Dividend revenue	871	917	833	951	1,020	1,090	1,177
Gains and losses on financial instruments	6,330	2,538	5,251	2,887	3,215	3,627	4,117
Total investment revenue/(expenditure)	**5,766**	**2,038**	**4,703**	**2,759**	**3,201**	**3,687**	**4,395**
NOTE 3: Transfer Payments and Subsidies							
New Zealand superannuation	13,043	13,671	13,703	14,539	15,439	16,333	17,353
Family tax credit	1,723	1,823	1,696	2,628	2,552	2,523	2,528
Jobseeker support and emergency benefit	1,697	1,663	1,693	1,712	1,660	1,599	1,594
Supported living payment	1,533	1,531	1,540	1,555	1,569	1,578	1,592
Accommodation assistance	1,127	1,218	1,208	1,508	1,508	1,506	1,518
Sole parent support	1,159	1,117	1,109	1,084	1,095	1,114	1,139
Income related rents	815	900	889	978	1,085	1,186	1,292
KiwiSaver subsidies	743	810	920	966	1,007	1,049	1,088
Other working for families tax credits	596	603	575	560	551	546	546
Official development assistance	520	644	647	693	730	764	798
Student allowances	465	505	509	581	590	608	626
Winter energy payment	-	-	-	443	448	455	465
Best start	-	-	-	80	231	373	451
Disability assistance	377	379	379	379	373	373	376
Other social assistance benefits	1,466	1,598	1,524	1,556	1,539	1,610	1,668
Total transfer payments and subsidies	**25,264**	**26,462**	**26,392**	**29,262**	**30,377**	**31,617**	**33,034**
NOTE 4: Other Operating Expenses							
Grants and subsidies	4,906	5,611	5,574	6,137	6,304	6,486	6,548
Rental and leasing costs	1,289	1,272	1,371	1,378	1,389	1,387	1,423
Amortisation and impairment of intangible assets	814	743	720	729	725	731	751
Impairment of financial assets	607	1,047	646	800	801	803	803
Cost of concessionary lending	753	801	1,049	762	776	778	731
Lottery prize payments	652	541	699	710	726	751	787
Inventory expenses	278	371	358	370	366	283	264
Other operating expenses	28,709	30,614	32,413	34,090	33,518	33,930	33,840
Total other operating expenses	**38,008**	**41,000**	**42,830**	**44,976**	**44,605**	**45,149**	**45,147**

Notes to the Forecast Financial Statements

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
NOTE 5: Insurance							
Insurance expense by entity							
ACC	4,587	4,613	4,758	4,837	5,303	5,758	6,194
EQC	332	(28)	76	76	177	216	223
Southern Response	325	(49)	(54)	(46)	-	-	-
Other (incl. inter-segment eliminations)	174	10	60	10	10	10	10
Total insurance expenses	**5,418**	**4,546**	**4,840**	**4,877**	**5,490**	**5,984**	**6,427**
Insurance liability by entity							
ACC	40,288	40,707	42,725	44,285	45,959	47,902	49,941
EQC	1,853	295	925	411	274	257	257
Southern Response	668	166	358	-	-	-	-
Other (incl. inter-segment eliminations)	(23)	51	101	36	37	37	36
Total insurance liabilities	**42,786**	**41,219**	**44,109**	**44,732**	**46,270**	**48,196**	**50,234**

ACC liability

Calculation information

PwC NZ has prepared an independent actuarial estimate of the ACC outstanding claims liability as at 31 December 2017. This estimate includes the expected future payments relating to accidents that occurred prior to balance date (whether or not the associated claims have been reported to, or accepted by, ACC) and also the expected future administrative expenses of managing these claims.
The assumptions underpinning this valuation form the basis of the five-year forecast of the outstanding claims liability.

The key economic variables that impact on changes to the valuation are the long-term Labour Cost Index (LCI), average weekly earnings and the discount rate. Discount rates were derived from the yield curve for New Zealand Government bonds. For these forecast statements, the claims liability has been updated for the latest discount rates as at 28 February 2018. The equivalent single effective discount rate, taking into account ACC's projected future cash flow patterns, is 3.78% and allows for a long-term discount rate of 4.75% from 2050.

Other key variables in each valuation are the forecast increases in claim costs over and above the economic variables above, and the assumed rate at which long-term claimants will leave the scheme over the period. This assessment is largely based on scheme history.

Presentation approach

ACC has available to it a portfolio of assets that offset the claims liability. The assets below (less cross-holdings of NZ Government stock) are included as assets in the Statement of Financial Position.

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
Gross ACC Liability							
Opening gross liability	39,106	39,379	40,288	42,725	44,285	45,959	47,902
Net change	1,182	1,328	2,437	1,560	1,674	1,943	2,039
Closing gross liability	**40,288**	**40,707**	**42,725**	**44,285**	**45,959**	**47,902**	**49,941**
Less Net Assets Available to ACC							
Opening net asset value	37,241	38,312	39,030	41,053	42,227	43,477	44,778
Net change	1,789	836	2,023	1,174	1,250	1,301	1,206
Closing net asset value	**39,030**	**39,148**	**41,053**	**42,227**	**43,477**	**44,778**	**45,984**
Net ACC Reserves (Net Liability)							
Opening reserves position	(1,865)	(1,067)	(1,258)	(1,672)	(2,058)	(2,482)	(3,124)
Net change	607	(492)	(414)	(386)	(424)	(642)	(833)
Closing reserves position (net liability)/net asset	**(1,258)**	**(1,559)**	**(1,672)**	**(2,058)**	**(2,482)**	**(3,124)**	**(3,957)**

Notes to the Forecast Financial Statements

NOTE 5: Insurance (continued)

EQC liability

Calculation information
Melville Jessup Weaver prepared an independent actuarial estimate of the EQC outstanding claims liability at 31 December 2017 by estimating the projected ultimate claims costs then deducting the payments made in relation to those claims on or before that date. Each component of the claims liability was split into separate groups depending upon the Canterbury earthquake event grouping, Kaikōura earthquake or other "business as usual" claims. These event groups were further split into sub-claim valuation groups being land claims, building claims or contents claims. The assumptions underpinning the 31 December 2017 valuation form the basis of the five-year forecast of the outstanding claims liability.

There is a high level of uncertainty associated with the valuation of the outstanding claims liability, reinsurance recoveries and unexpired risk liability. Some of the key uncertainties are: the potential outcome of complex land litigation and the financial impact of confirming final liabilities with insurance and reinsurers.

The actual claims outcome may differ from the one currently forecast.

Presentation approach
EQC reinsurance recoveries are included in receivables in the Statement of Financial Position.

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
EQC Liability							
Opening gross liability	2,485	1,644	1,853	925	411	274	257
Net change	(632)	(1,349)	(928)	(514)	(137)	(17)	-
Closing gross liability	**1,853**	**295**	**925**	**411**	**274**	**257**	**257**
Less Reinsurance Receivable							
Opening reinsurance receivable	515	185	193	125	41	3	-
Net change	(322)	(175)	(68)	(84)	(38)	(3)	-
Closing reinsurance receivable	**193**	**10**	**125**	**41**	**3**	**-**	**-**
Net EQC Liability							
Opening net position	(1,970)	(1,459)	(1,660)	(800)	(370)	(271)	(257)
Net change	310	1,174	860	430	99	14	-
Closing net position (net liability)	**(1,660)**	**(285)**	**(800)**	**(370)**	**(271)**	**(257)**	**(257)**

Notes to the Forecast Financial Statements

NOTE 6: Forecast New Spending and Top-down Expense Adjustment

	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
Forecast New Operating Spending					
Unallocated contingencies	186	760	721	939	984
Forecast new spending for Budget 2019	-	-	2,349	2,347	2,345
Forecast new spending for Budget 2020	-	-	-	2,400	2,400
Forecast new spending for Budget 2021	-	-	-	-	2,400
Total forecast new operating spending	**186**	**760**	**3,070**	**5,686**	**8,129**
Operating top-down adjustment	**(300)**	**(1,145)**	**(325)**	**(325)**	**(275)**

Unallocated contingencies represent expenses included in Budget 2018 and previous Budgets that have yet to be allocated to departments. Forecast new spending indicates the expected spending increases from future Budgets.

The forecast for new operating spending for Budget 2019 is $2.4 billion. Some of this allowance has been assumed to be pre-committed as at the forecast finalisation date of 26 April 2018, with only the unallocated portion of the allowance included in this note.

	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	Post-2022 Forecast $m	Total Forecast $m
Forecast New Capital Spending (annual)							
Unallocated contingencies	185	1,148	442	275	32	-	2,082
Forecast new spending for Budget 2019	-	119	981	981	595	297	2,973
Forecast new spending for Budget 2020	-	-	119	981	981	892	2,973
Forecast new spending for Budget 2021	-	-	-	120	990	1,890	3,000
Forecast new spending for Budget 2022	-	-	-	-	111	2,889	3,000
Total forecast new capital spending	**185**	**1,267**	**1,542**	**2,357**	**2,709**	**5,968**	**14,028**
Forecast new capital spending (cumulative)	**185**	**1,452**	**2,994**	**5,351**	**8,060**		
Capital top-down adjustment (cumulative)	**(485)**	**(1,085)**	**(1,235)**	**(1,485)**	**(1,485)**		

Unallocated contingencies represent capital spending from Budget 2018 and previous Budgets that has yet to be allocated to departments. Forecast new spending indicates the expected capital spending increases from future Budgets.

The forecast for new capital spending for Budget 2019 is $3.7 billion. Budgets 2020 and 2021 are $3.4 billion and $3.0 billion respectively. Some of the allowance has been pre-committed as at the forecast finalisation date of 26 April 2018, with only the unallocated portion of the allowance included in this note.

Notes to the Forecast Financial Statements

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
NOTE 7: Net Gains and Losses on Non-Financial Instruments							
By type							
Actuarial gains/(losses) on ACC outstanding claims	387	-	(883)	-	-	-	-
Actuarial gains/(losses) on GSF liability	964	-	(149)	-	-	-	-
Gains/(losses) on the Emissions Trading Scheme	73	-	(448)	-	-	-	-
Other	(103)	(88)	(99)	(83)	(80)	(77)	(80)
Net gains/(losses) on non-financial instruments	**1,321**	**(88)**	**(1,579)**	**(83)**	**(80)**	**(77)**	**(80)**
NOTE 8: Financial Assets (including receivables)							
Cash and cash equivalents	18,732	15,984	18,068	16,976	16,870	16,974	16,705
Tax receivables	10,313	10,098	10,507	11,148	11,704	12,392	13,062
Trade and other receivables	8,216	7,354	8,810	9,622	10,140	11,088	11,695
Student loans (refer note 9)	9,197	9,210	9,317	9,217	9,039	8,789	8,449
Kiwibank mortgages	17,795	18,902	18,402	19,502	20,602	21,702	22,802
Long-term deposits	4,730	3,257	4,197	4,184	4,208	4,075	4,108
IMF financial assets	1,837	1,806	1,891	1,891	1,891	1,891	1,891
Other advances	1,591	1,693	1,266	1,223	1,401	1,426	1,592
Share investments	30,700	30,140	36,440	39,344	42,978	47,367	52,270
Derivatives in gain	4,381	4,313	3,529	2,922	2,698	2,575	2,507
Other marketable securities	39,558	36,138	40,619	33,633	36,237	35,939	44,439
Total financial assets (including receivables)	**147,050**	**138,895**	**153,046**	**149,662**	**157,768**	**164,218**	**179,520**
Financial Assets by Entity							
NZDMO	22,554	14,701	20,889	11,682	12,134	8,884	14,756
Reserve Bank of New Zealand	18,985	19,755	21,948	21,858	22,090	22,302	22,553
NZS Fund	37,345	36,557	40,541	43,953	48,385	53,863	59,954
Other core Crown	25,600	24,451	25,463	25,740	26,233	26,231	26,762
Intra-segment eliminations	(9,643)	(8,096)	(9,394)	(9,033)	(9,076)	(8,251)	(8,662)
Total core Crown segment	**94,841**	**87,368**	**99,447**	**94,200**	**99,766**	**103,029**	**115,363**
ACC portfolio	39,514	40,072	42,449	43,480	44,711	46,016	47,232
EQC portfolio	1,089	-	345	176	188	289	408
Other Crown entities	10,597	9,366	10,010	9,474	9,878	10,487	11,117
Intra-segment eliminations	(3,025)	(2,561)	(2,635)	(2,238)	(2,127)	(2,042)	(1,962)
Total Crown entities segment	**48,175**	**46,877**	**50,169**	**50,892**	**52,650**	**54,750**	**56,795**
Total state-owned enterprises segment	**24,876**	**25,964**	**25,209**	**26,405**	**27,670**	**29,188**	**30,479**
Inter-segment eliminations	(20,842)	(21,314)	(21,779)	(21,835)	(22,318)	(22,749)	(23,117)
Total financial assets (including receivables)	**147,050**	**138,895**	**153,046**	**149,662**	**157,768**	**164,218**	**179,520**

Notes to the Forecast Financial Statements

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
NOTE 9: Student Loans[1]							
Nominal value (including accrued interest)	15,735	15,963	15,774	15,745	15,661	15,540	15,372
Opening book value	8,982	9,178	9,197	9,317	9,217	9,039	8,789
Net new lending (excluding fees)	1,475	1,533	1,376	1,366	1,401	1,452	1,490
New lending - establishment fee	10	10	9	9	8	10	10
Less initial write-down to fair value	(662)	(676)	(615)	(610)	(626)	(649)	(666)
Repayments made during the year	(1,272)	(1,336)	(1,353)	(1,449)	(1,535)	(1,621)	(1,711)
Interest unwind	602	601	590	584	574	558	537
Impairment	62	(100)	113	-	-	-	-
Other movements	-	-	-	-	-	-	-
Closing book value	**9,197**	**9,210**	**9,317**	**9,217**	**9,039**	**8,789**	**8,449**
NOTE 10: Property, Plant and Equipment							
Net Carrying Value[2]							
By class of asset							
Land	49,640	45,330	50,337	51,208	51,648	52,470	52,233
Buildings	34,655	33,771	35,295	36,805	36,901	37,364	37,790
State highways	23,829	26,056	26,111	28,137	29,762	30,841	31,825
Electricity generation assets	15,866	15,232	15,798	15,601	15,348	15,122	14,957
Electricity distribution network (cost)	4,080	4,226	3,986	3,936	3,822	3,699	3,577
Aircraft (excluding military)	4,112	5,092	4,585	5,069	5,379	5,419	5,636
Specialist military equipment	3,119	3,357	3,160	3,316	3,622	3,609	3,463
Specified cultural and heritage assets	3,097	3,033	3,126	3,128	3,136	3,143	3,153
Rail network	939	1,136	1,066	1,260	1,455	1,605	1,766
Other plant and equipment (cost)	5,213	5,344	6,359	7,407	8,352	9,171	9,546
Total property, plant and equipment	**144,550**	**142,577**	**149,823**	**155,867**	**159,425**	**162,443**	**163,946**
Land breakdown by usage							
Housing	17,845	15,751	18,129	18,367	18,192	18,094	17,992
State highway corridor land	10,892	9,782	10,868	10,842	10,792	10,742	10,692
Conservation land	5,718	5,700	5,711	5,712	5,712	5,713	5,714
Rail network	3,520	3,311	3,487	3,468	3,453	3,451	3,449
Schools	5,683	4,833	5,731	5,766	5,802	5,849	5,898
Commercial (SOEs) excluding Rail	1,237	1,259	1,264	1,332	1,339	1,370	1,439
Other	4,745	4,694	5,147	5,721	6,358	7,251	7,049
Total land	**49,640**	**45,330**	**50,337**	**51,208**	**51,648**	**52,470**	**52,233**

1. From 1 July 2018, the valuation of the Student Loans Scheme will move from an amortised cost approach to a fair value approach due to PBE IFRS 9 being adopted in 2018/19 financial year. The new valuation approach under PBE IFRS 9 is forecast to result in a one-off increase of approximately $537 million to the value of the student loan asset. This one-off change has not been included in the current forecasts.
2. Using a revaluation methodology unless otherwise stated.

Notes to the Forecast Financial Statements

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
NOTE 10: Property, Plant and Equipment (continued)							
Schedule of Movements							
Cost or Valuation							
Opening balance	149,806	156,678	160,631	169,614	180,371	188,620	196,426
Additions[2]	7,781	9,573	10,223	11,333	9,295	8,915	7,364
Disposals	(1,533)	(594)	(1,543)	(581)	(907)	(1,014)	(920)
Net revaluations	5,260	-	(52)	-	-	-	-
Other[1]	(683)	(178)	355	5	(139)	(95)	(72)
Total cost or valuation	**160,631**	**165,479**	**169,614**	**180,371**	**188,620**	**196,426**	**202,798**
Accumulated Depreciation and Impairment							
Opening balance	15,307	18,506	16,081	19,791	24,504	29,195	33,983
Eliminated on disposal	(859)	(128)	(1,023)	(125)	(152)	(126)	(107)
Eliminated on revaluation	(2,504)	(46)	-	-	-	-	-
Impairment losses charged to operating balance	325	-	-	-	-	-	-
Depreciation expense	4,073	4,563	4,777	4,840	4,850	4,921	4,983
Other[1]	(261)	7	(44)	(2)	(7)	(7)	(7)
Total accumulated depreciation and impairment	**16,081**	**22,902**	**19,791**	**24,504**	**29,195**	**33,983**	**38,852**
Total property, plant and equipment	**144,550**	**142,577**	**149,823**	**155,867**	**159,425**	**162,443**	**163,946**

1. Other mainly includes transfers to/from other asset categories.
2. These additions do not include any purchases which may result from the allocation of the forecast for new capital spending (separately disclosed in the Statement of Financial Position).

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
NOTE 11: NZ Superannuation Fund							
Revenue	833	858	804	937	1,019	1,117	1,236
Less current tax expense	1,139	708	642	807	887	983	1,101
Less other expenses	227	184	242	205	218	232	247
Add gains/(losses)	5,512	2,280	3,896	2,641	2,897	3,209	3,593
Operating balance	**4,979**	**2,246**	**3,816**	**2,566**	**2,811**	**3,111**	**3,481**
Opening net worth	29,527	33,090	34,506	38,865	42,458	46,800	52,146
Gross contribution from the Crown	-	-	500	1,000	1,500	2,200	2,500
Operating balance	4,979	2,246	3,816	2,566	2,811	3,111	3,481
Other movements in reserves	-	29	43	27	31	35	40
Closing net worth	**34,506**	**35,365**	**38,865**	**42,458**	**46,800**	**52,146**	**58,167**
Comprising:							
Financial assets	37,345	36,557	40,541	43,953	48,385	53,863	59,954
Financial liabilities	(4,656)	(2,970)	(3,530)	(3,465)	(3,618)	(3,816)	(3,955)
Net other assets	1,817	1,778	1,854	1,970	2,033	2,099	2,168
Closing net worth	**34,506**	**35,365**	**38,865**	**42,458**	**46,800**	**52,146**	**58,167**
NOTE 12: Payables							
Accounts payable	10,517	7,905	8,679	9,147	8,918	9,041	9,258
Taxes repayable	4,277	4,574	4,328	4,337	4,357	4,376	4,393
Total payables	**14,794**	**12,479**	**13,007**	**13,484**	**13,275**	**13,417**	**13,651**

Notes to the Forecast Financial Statements

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
NOTE 13: Retirement Plan Liabilities							
Government Superannuation Fund	11,004	9,916	10,577	9,985	9,413	8,873	8,359
Other funds	2	1	2	2	2	2	2
Total retirement plan liabilities	**11,006**	**9,917**	**10,579**	**9,987**	**9,415**	**8,875**	**8,361**

The net liability of the Government Superannuation Fund (GSF) was calculated by GSF's actuary as at 31 January 2018. The liability arises from closed schemes for past and present public sector employees as set out in the Government Superannuation Fund Act 1956. A Projected Unit Credit method was used to calculate the liability as at 31 January 2018, based on membership data as at 30 June 2017 with adjustments for cash flows to 31 January 2018. The funding method requires the benefits payable from GSF in respect of past service to be calculated and then discounted back to the valuation date.

For these Forecast Financial Statements, the net GSF liability was updated for the latest discount rates derived from the market yield curve for New Zealand Government bonds as at 31 January 2018.

Other principal long-term financial assumptions were an inflation rate, as measured by the Consumers Price Index (CPI), of 1.77% for the 20 years to 30 June 2037, then increasing gradually each year to 2.0% in the year ended 30 June 2049 and remaining at 2.0% p.a. for all years after that. In addition an annual salary growth rate, before any promotional effects, of 2.5% (2.5% at 30 June 2017).

The 2017/18 projected decrease in the net GSF liability is $427 million, reflecting a decrease in the GSF liability of $82 million and an increase in the GSF net assets of $345 million.

The overall decrease in the GSF liability of $82 million includes an actuarial loss (which increases the liability) between 1 July 2017 and 31 January 2018, of $452 million, owing to movements in the discount and CPI rates. The remaining $534 million reduction is owing to the current service cost and interest unwind (increases the liability) which is more than offset by benefits to members (reducing the liability).

The increase in the value of the net assets of GSF of $345 million includes a gain of $303 million reflecting the updated market value of assets at 31 January 2018. The balance of $42 million is the total of the expected investment returns and contributions received, offset by the benefits paid to members.

The changes in the projected net GSF liability from 2017/18 onwards reflect the net of the expected current service cost, interest cost, investment returns and contributions.

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
GSF Liability							
Opening GSF liability	16,406	14,562	15,272	15,190	14,616	14,057	13,528
Net projected change	(1,134)	(526)	(82)	(574)	(559)	(529)	(504)
Closing GSF liability	**15,272**	**14,036**	**15,190**	**14,616**	**14,057**	**13,528**	**13,024**
Less Net Assets Available to GSF							
Opening net asset value	3,965	4,098	4,268	4,613	4,631	4,644	4,655
Investment valuation changes	483	200	512	225	226	227	227
Contribution and other income less pension payments	(180)	(178)	(167)	(207)	(213)	(216)	(217)
Closing net asset value	**4,268**	**4,120**	**4,613**	**4,631**	**4,644**	**4,655**	**4,665**
Net GSF Liability							
Opening unfunded liability	12,441	10,464	11,004	10,577	9,985	9,413	8,873
Net projected change	(1,437)	(548)	(427)	(592)	(572)	(540)	(514)
Closing unfunded liability	**11,004**	**9,916**	**10,577**	**9,985**	**9,413**	**8,873**	**8,359**

Notes to the Forecast Financial Statements

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
NOTE 14: Provisions							
Provision for employee entitlements	3,582	3,551	3,508	3,510	3,489	3,591	3,573
Provision for ETS credits	2,028	2,023	2,620	2,357	2,028	1,646	1,229
Provision for National Provident Fund guarantee	856	816	806	751	700	650	601
Other provisions	2,075	1,811	1,971	1,855	1,837	2,068	1,666
Total provisions	**8,541**	**8,201**	**8,905**	**8,473**	**8,054**	**7,955**	**7,069**

Provision for ETS credits

The Emissions Trading Scheme (ETS) was established to assist New Zealand in meeting its international climate change obligations and to reduce New Zealand's net emissions of greenhouse gases to below business-as-usual levels. The ETS creates a limited number of tradable New Zealand Units (NZUs) which the Government can allocate.

The allocation of NZUs creates a provision if allocated for free; the provision is reduced, and revenue recognised, as NZUs are surrendered to the Crown by emitters.

The prices for NZUs used to calculate the ETS provision are assumed to remain constant over the forecast period and are based on market prices during the last week of March 2018.

The ETS impact on the fiscal forecast is as follows:

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
Revenue	444	529	642	784	874	930	964
Expenses	(295)	(470)	(786)	(521)	(545)	(548)	(547)
Gains/(losses)	73	-	(448)	-	-	-	-
Operating balance	**222**	**59**	**(592)**	**263**	**329**	**382**	**417**

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
NOTE 15: Changes in Net Worth							
Taxpayers' funds	26,456	29,141	33,477	40,293	49,359	59,174	71,057
Property, plant and equipment revaluation reserve	84,164	76,526	84,097	84,089	83,871	83,664	83,514
Investment revaluation reserve	85	97	95	99	105	110	117
Intangible asset reserve	2	8	2	2	2	2	2
Cash flow hedge reserve	(106)	(129)	21	24	26	27	29
Foreign currency translation reserve	(69)	(77)	(43)	(50)	(50)	(50)	(50)
Net worth attributable to minority interests	5,940	5,876	5,918	5,860	5,733	5,672	5,608
Total net worth	**116,472**	**111,442**	**123,567**	**130,317**	**139,046**	**148,599**	**160,277**
Taxpayers' funds							
Opening taxpayers' funds	13,932	23,527	26,456	33,477	40,293	49,359	59,174
Operating balance excluding minority interests	12,317	5,496	6,997	6,773	8,837	9,567	11,652
Transfers from/(to) other reserves	207	119	45	71	250	244	232
Other movements	-	(1)	(21)	(28)	(21)	4	(1)
Closing taxpayers' funds	**26,456**	**29,141**	**33,477**	**40,293**	**49,359**	**59,174**	**71,057**
Property, Plant and Equipment Revaluation Reserve							
Opening revaluation reserve	75,626	76,627	84,164	84,097	84,089	83,871	83,664
Net revaluations	8,745	-	(22)	-	-	-	-
Transfers from/(to) other reserves	(207)	(101)	(45)	(8)	(218)	(207)	(150)
Closing property, plant and equipment revaluation reserve	**84,164**	**76,526**	**84,097**	**84,089**	**83,871**	**83,664**	**83,514**

Notes to the Forecast Financial Statements

	2017 Actual $m	2018 Previous Budget $m	2018 Forecast $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m
NOTE 16: Core Crown Residual Cash							
Core Crown Cash Flows from Operations							
Tax receipts	74,729	77,133	79,445	83,525	88,677	93,592	98,764
Other sovereign receipts	955	892	944	952	921	919	932
Interest receipts	688	630	670	692	646	815	770
Sale of goods and services and other receipts	3,340	3,307	3,194	3,324	3,326	3,132	3,070
Transfer payments and subsidies	(25,293)	(26,512)	(26,404)	(29,308)	(30,443)	(31,709)	(33,101)
Personnel and operating costs	(44,581)	(48,424)	(48,985)	(51,171)	(50,460)	(50,595)	(50,375)
Interest payments	(3,530)	(3,507)	(3,488)	(3,442)	(3,199)	(3,434)	(3,013)
Forecast for future new operating spending	-	(293)	(186)	(760)	(3,070)	(5,686)	(8,129)
Top-down expense adjustment	-	1,000	300	1,145	325	325	275
Net core Crown operating cash flows	**6,308**	**4,226**	**5,490**	**4,957**	**6,723**	**7,359**	**9,193**
Core Crown Capital Cash Flows							
Net purchase of physical assets	(2,153)	(3,196)	(3,217)	(3,229)	(3,048)	(2,982)	(1,814)
Net increase in advances	111	(325)	(127)	(54)	(11)	47	109
Net purchase of investments	(1,692)	(2,888)	(3,201)	(3,882)	(2,499)	(2,010)	(1,627)
Contribution to NZS Fund	-	-	(500)	(1,000)	(1,500)	(2,200)	(2,500)
Forecast for future new capital spending	-	(446)	(185)	(1,267)	(1,542)	(2,357)	(2,709)
Top-down capital adjustment	-	840	485	600	150	250	-
Net core Crown capital cash flows	**(3,734)**	**(6,015)**	**(6,745)**	**(8,832)**	**(8,450)**	**(9,252)**	**(8,541)**
Residual cash (deficit)/surplus	**2,574**	**(1,789)**	**(1,255)**	**(3,875)**	**(1,727)**	**(1,893)**	**652**
The residual cash (deficit)/surplus is funded or invested as follows:							
Debt Programme Cash Flows							
Market:							
Issue of government bonds	7,847	6,874	7,034	7,862	7,979	7,931	7,027
Repayment of government bonds	(6,080)	(11,602)	(7,263)	(11,240)	(5,799)	(11,059)	-
Net issue/(repayment) of short-term borrowing[1]	160	200	-	(2,000)	-	2,100	(2,100)
Total market debt cash flows	1,927	(4,528)	(229)	(5,378)	2,180	(1,028)	4,927
Non-market:							
Repayment of government bonds	(830)	-	-	-	-	-	-
Total non-market debt cash flows	(830)	-	-	-	-	-	-
Total debt programme cash flows	**1,097**	**(4,528)**	**(229)**	**(5,378)**	**2,180**	**(1,028)**	**4,927**
Other Borrowing Cash Flows							
Net (repayment)/issue of other New Zealand dollar borrowing	(2,352)	1,034	7,874	(451)	(57)	(31)	(33)
Net (repayment)/issue of foreign currency borrowing	2,425	(971)	(5,333)	425	39	-	-
Total other borrowing cash flows	**73**	**63**	**2,541**	**(26)**	**(18)**	**(31)**	**(33)**
Investing Cash Flows							
Net sale/(purchase) of marketable securities and deposits	(194)	6,087	(1,370)	9,082	(638)	2,743	(5,760)
Issues of circulating currency	265	170	460	196	202	208	214
Decrease/(increase) in cash	(3,815)	(3)	(147)	1	1	1	-
Total investing cash flows	**(3,744)**	**6,254**	**(1,057)**	**9,279**	**(435)**	**2,952**	**(5,546)**
Residual cash deficit/(surplus) funding/(investing)	**(2,574)**	**1,789**	**1,255**	**3,875**	**1,727**	**1,893**	**(652)**

1. Short-term borrowing consists of Treasury Bills and may include Euro-Commercial Paper.

Forecast Statement of Segments

	Core Crown 2017 Actual $m	Crown entities 2017 Actual $m	State-owned Enterprises 2017 Actual $m	Inter-segment eliminations 2017 Actual $m	Total Crown 2017 Actual $m
Statement of Financial Performance for the year ended 30 June 2017					
Revenue					
Taxation revenue	75,644	-	-	(671)	74,973
Other sovereign revenue	1,458	4,919	-	(1,296)	5,081
Revenue from core Crown funding	-	27,252	106	(27,358)	-
Sales of goods and services	1,607	2,194	13,675	(605)	16,871
Interest revenue	1,119	998	918	(308)	2,727
Other revenue	1,954	2,980	772	(1,131)	4,575
Total revenue (excluding gains)	**81,782**	**38,343**	**15,471**	**(31,369)**	**104,227**
Expenses					
Social assistance and official development assistance	25,264	-	-	-	25,264
Personnel expenses	6,890	12,878	2,869	(38)	22,599
Other operating expenses	40,643	21,180	10,706	(30,160)	42,369
Interest expenses	3,534	158	1,060	(590)	4,162
Insurance expenses	8	5,248	8	154	5,418
Forecast for future new spending and top-down adjustment	-	-	-	-	-
Total expenses (excluding losses)	**76,339**	**39,464**	**14,643**	**(30,634)**	**99,812**
Minority interest share of operating balance before gains/(losses)	-	10	(347)	(9)	(346)
Operating balance before gains/(losses)	**5,443**	**(1,111)**	**481**	**(744)**	**4,069**
Total gains/(losses)	6,314	1,291	93	(20)	7,678
Net surplus/(deficit) from associates and joint ventures	307	239	31	(7)	570
Operating balance	**12,064**	**419**	**605**	**(771)**	**12,317**
Expenses by functional classification					
Social security and welfare	*25,294*	*5,852*	-	*(547)*	*30,599*
Health	*16,223*	*13,955*	-	*(14,533)*	*15,645*
Education	*13,281*	*10,432*	-	*(9,601)*	*14,112*
Transport and communications	*2,176*	*2,625*	*6,962*	*(2,403)*	*9,360*
Other	*15,831*	*6,442*	*6,621*	*(2,960)*	*25,934*
Finance costs	*3,534*	*158*	*1,060*	*(590)*	*4,162*
Forecast for future new spending and top-down adjustment	-	-	-	-	-
Total expenses (excluding losses)	***76,339***	***39,464***	***14,643***	***(30,634)***	***99,812***
Statement of Financial Position as at 30 June 2017					
Assets					
Cash and cash equivalents	15,757	2,447	991	(463)	18,732
Receivables	13,860	5,409	1,892	(2,632)	18,529
Other financial assets	65,224	40,319	21,993	(17,747)	109,789
Property, plant and equipment	39,221	72,599	32,730	-	144,550
Equity accounted investments	43,001	12,143	219	(41,153)	14,210
Intangible assets and goodwill	1,478	572	1,523	(20)	3,553
Inventory and other assets	1,835	1,298	1,207	(94)	4,246
Forecast for new capital spending and top-down adjustment	-	-	-	-	-
Total assets	**180,376**	**134,787**	**60,555**	**(62,109)**	**313,609**
Liabilities					
Borrowings	93,730	4,082	30,222	(16,228)	111,806
Other liabilities	34,898	50,804	8,326	(8,697)	85,331
Total liabilities	**128,628**	**54,886**	**38,548**	**(24,925)**	**197,137**
Total assets less total liabilities	**51,748**	**79,901**	**22,007**	**(37,184)**	**116,472**
Net worth					
Taxpayers' funds	28,084	35,740	4,302	(41,670)	26,456
Reserves	23,664	44,140	11,454	4,818	84,076
Net worth attributable to minority interest	-	21	6,251	(332)	5,940
Total net worth	**51,748**	**79,901**	**22,007**	**(37,184)**	**116,472**

Forecast Statement of Segments (continued)

	Core Crown 2018 Forecast $m	Crown entities 2018 Forecast $m	State-owned Enterprises 2018 Forecast $m	Inter-segment eliminations 2018 Forecast $m	Total Crown 2018 Forecast $m
Statement of Financial Performance for the year ended 30 June 2018					
Revenue					
Taxation revenue	79,537	-	-	(712)	78,825
Other sovereign revenue	1,586	5,074	-	(1,420)	5,240
Revenue from core Crown funding	-	28,820	124	(28,944)	-
Sales of goods and services	1,684	2,259	15,094	(560)	18,477
Interest revenue	1,143	1,037	957	(397)	2,740
Other revenue	2,009	3,037	940	(1,180)	4,806
Total revenue (excluding gains)	**85,959**	**40,227**	**17,115**	**(33,213)**	**110,088**
Expenses					
Social assistance and official development assistance	26,392	-	-	-	26,392
Personnel expenses	7,241	13,538	2,925	(35)	23,669
Other operating expenses	44,667	22,530	12,280	(31,870)	47,607
Interest expenses	3,484	52	1,070	(485)	4,121
Insurance expenses	50	4,783	6	1	4,840
Forecast for future new spending	186	-	-	-	186
Top-down adjustment	(300)	-	-	-	(300)
Total expenses (excluding losses)	**81,720**	**40,903**	**16,281**	**(32,389)**	**106,515**
Minority interest share of operating balance before gains/(losses)	-	(4)	(440)	12	(432)
Operating balance before gains/(losses)	**4,239**	**(680)**	**394**	**(812)**	**3,141**
Total gains/(losses)	3,717	241	26	(329)	3,655
Net surplus/(deficit) from associates and joint ventures	113	94	(14)	8	201
Operating balance	**8,069**	**(345)**	**406**	**(1,133)**	**6,997**
Expenses by functional classification					
Social security and welfare	*26,110*	*6,039*	*-*	*(559)*	*31,590*
Health	*17,185*	*14,637*	*-*	*(15,036)*	*16,786*
Education	*13,937*	*10,970*	*-*	*(10,161)*	*14,746*
Transport and communications	*2,452*	*2,801*	*7,604*	*(2,690)*	*10,167*
Other	*18,852*	*6,404*	*7,607*	*(3,458)*	*29,405*
Finance costs	*3,484*	*52*	*1,070*	*(485)*	*4,121*
Forecast for future new spending and top-down adjustment	*(300)*	*-*	*-*	*-*	*(300)*
Total expenses (excluding losses)	***81,720***	***40,903***	***16,281***	***(32,389)***	***106,515***
Statement of Financial Position as at 30 June 2018					
Assets					
Cash and cash equivalents	15,188	2,134	1,241	(495)	18,068
Receivables	13,878	5,872	1,868	(2,301)	19,317
Other financial assets	70,381	42,163	22,100	(18,983)	115,661
Property, plant and equipment	40,686	76,078	33,059	-	149,823
Equity accounted investments	45,983	12,338	280	(43,793)	14,808
Intangible assets and goodwill	1,692	565	1,572	(21)	3,808
Inventory and other assets	1,756	935	1,043	(27)	3,707
Forecast for new capital spending and top-down adjustment	(300)	-	-	-	(300)
Total assets	**189,264**	**140,085**	**61,163**	**(65,620)**	**324,892**
Liabilities					
Borrowings	97,249	5,240	30,796	(17,307)	115,978
Other liabilities	32,168	52,943	8,265	(8,029)	85,347
Total liabilities	**129,417**	**58,183**	**39,061**	**(25,336)**	**201,325**
Total assets less total liabilities	**59,847**	**81,902**	**22,102**	**(40,284)**	**123,567**
Net worth					
Taxpayers' funds	36,141	37,805	4,301	(44,770)	33,477
Reserves	23,706	44,097	11,559	4,810	84,172
Net worth attributable to minority interest	-	-	6,242	(324)	5,918
Total net worth	**59,847**	**81,902**	**22,102**	**(40,284)**	**123,567**

Forecast Statement of Segments (continued)

	Core Crown 2019 Forecast $m	Crown entities 2019 Forecast $m	State-owned Enterprises 2019 Forecast $m	Inter-segment eliminations 2019 Forecast $m	Total Crown 2019 Forecast $m
Statement of Financial Performance for the year ended 30 June 2019					
Revenue					
Taxation revenue	83,901	-	-	(660)	83,241
Other sovereign revenue	1,731	5,419	-	(1,517)	5,633
Revenue from core Crown funding	-	29,864	142	(30,006)	-
Sales of goods and services	1,976	2,351	15,488	(578)	19,237
Interest revenue	1,327	1,059	1,008	(428)	2,966
Other revenue	2,030	3,377	983	(1,302)	5,088
Total revenue (excluding gains)	**90,965**	**42,070**	**17,621**	**(34,491)**	**116,165**
Expenses					
Social assistance and official development assistance	29,262	-	-	-	29,262
Personnel expenses	7,540	13,856	3,008	(35)	24,369
Other operating expenses	46,894	23,556	12,509	(33,143)	49,816
Interest expenses	3,408	88	1,066	(517)	4,045
Insurance expenses	1	4,871	5	-	4,877
Forecast for future new spending	760	-	-	-	760
Top-down adjustment	(1,145)	-	-	-	(1,145)
Total expenses (excluding losses)	**86,720**	**42,371**	**16,588**	**(33,695)**	**111,984**
Minority interest share of operating balance before gains/(losses)	-	-	(451)	7	(444)
Operating balance before gains/(losses)	**4,245**	**(301)**	**582**	**(789)**	**3,737**
Total gains/(losses)	2,744	111	51	(119)	2,787
Net surplus/(deficit) from associates and joint ventures	125	128	(14)	10	249
Operating balance	**7,114**	**(62)**	**619**	**(898)**	**6,773**
Expenses by functional classification					
Social security and welfare	*28,949*	*6,160*	-	*(581)*	*34,528*
Health	*18,071*	*15,158*	-	*(15,722)*	*17,507*
Education	*14,663*	*11,371*	-	*(10,525)*	*15,509*
Transport and communications	*2,622*	*3,054*	*8,091*	*(2,829)*	*10,938*
Other	*20,152*	*6,540*	*7,431*	*(3,521)*	*30,602*
Finance costs	*3,408*	*88*	*1,066*	*(517)*	*4,045*
Forecast for future new spending and top-down adjustment	*(1,145)*	-	-	-	*(1,145)*
Total expenses (excluding losses)	***86,720***	***42,371***	***16,588***	***(33,695)***	***111,984***
Statement of Financial Position as at 30 June 2019					
Assets					
Cash and cash equivalents	14,591	1,799	1,023	(437)	16,976
Receivables	14,748	5,999	2,030	(2,007)	20,770
Other financial assets	64,861	43,094	23,352	(19,391)	111,916
Property, plant and equipment	41,689	80,824	33,354	-	155,867
Equity accounted investments	50,098	12,581	260	(47,555)	15,384
Intangible assets and goodwill	1,815	602	1,583	(20)	3,980
Inventory and other assets	1,744	891	1,063	(25)	3,673
Forecast for new capital spending and top-down adjustment	367	-	-	-	367
Total assets	**189,913**	**145,790**	**62,665**	**(69,435)**	**328,933**
Liabilities					
Borrowings	91,654	6,853	32,007	(17,624)	112,890
Other liabilities	31,267	53,751	8,392	(7,684)	85,726
Total liabilities	**122,921**	**60,604**	**40,399**	**(25,308)**	**198,616**
Total assets less total liabilities	**66,992**	**85,186**	**22,266**	**(44,127)**	**130,317**
Net worth					
Taxpayers' funds	43,255	41,162	4,497	(48,621)	40,293
Reserves	23,737	44,024	11,588	4,815	84,164
Net worth attributable to minority interest	-	-	6,181	(321)	5,860
Total net worth	**66,992**	**85,186**	**22,266**	**(44,127)**	**130,317**

Forecast Statement of Segments (continued)

	Core Crown 2020 Forecast $m	Crown entities 2020 Forecast $m	State-owned Enterprises 2020 Forecast $m	Inter-segment eliminations 2020 Forecast $m	Total Crown 2020 Forecast $m
Statement of Financial Performance for the year ended 30 June 2020					
Revenue					
Taxation revenue	89,033	-	-	(846)	88,187
Other sovereign revenue	1,792	5,828	-	(1,514)	6,106
Revenue from core Crown funding	-	29,811	126	(29,937)	-
Sales of goods and services	1,784	2,331	16,240	(590)	19,765
Interest revenue	1,293	1,079	1,071	(433)	3,010
Other revenue	2,319	3,425	979	(1,221)	5,502
Total revenue (excluding gains)	**96,221**	**42,474**	**18,416**	**(34,541)**	**122,570**
Expenses					
Social assistance and official development assistance	30,377	-	-	-	30,377
Personnel expenses	7,412	14,040	3,154	(36)	24,570
Other operating expenses	46,182	23,407	12,926	(33,060)	49,455
Interest expenses	3,358	134	1,088	(535)	4,045
Insurance expenses	1	5,484	5	-	5,490
Forecast for future new spending	3,070	-	-	-	3,070
Top-down adjustment	(325)	-	-	-	(325)
Total expenses (excluding losses)	**90,075**	**43,065**	**17,173**	**(33,631)**	**116,682**
Minority interest share of operating balance before gains/(losses)	-	-	(492)	24	(468)
Operating balance before gains/(losses)	**6,146**	**(591)**	**751**	**(886)**	**5,420**
Total gains/(losses)	3,038	201	34	(139)	3,134
Net surplus/(deficit) from associates and joint ventures	123	162	1	(3)	283
Operating balance	**9,307**	**(228)**	**786**	**(1,028)**	**8,837**
Expenses by functional classification					
Social security and welfare	*29,999*	*6,651*	*-*	*(601)*	*36,049*
Health	*18,081*	*15,186*	*-*	*(15,725)*	*17,542*
Education	*14,791*	*11,407*	*-*	*(10,562)*	*15,636*
Transport and communications	*2,520*	*2,948*	*8,307*	*(2,772)*	*11,003*
Other	*21,651*	*6,739*	*7,778*	*(3,436)*	*32,732*
Finance costs	*3,358*	*134*	*1,088*	*(535)*	*4,045*
Forecast for future new spending and top-down adjustment	*(325)*	*-*	*-*	*-*	*(325)*
Total expenses (excluding losses)	***90,075***	***43,065***	***17,173***	***(33,631)***	***116,682***
Statement of Financial Position as at 30 June 2020					
Assets					
Cash and cash equivalents	14,380	1,821	1,108	(439)	16,870
Receivables	15,258	6,470	2,131	(2,015)	21,844
Other financial assets	70,128	44,359	24,431	(19,864)	119,054
Property, plant and equipment	42,784	83,265	33,376	-	159,425
Equity accounted investments	52,554	12,782	232	(49,747)	15,821
Intangible assets and goodwill	1,888	616	1,592	(20)	4,076
Inventory and other assets	1,756	865	1,067	(25)	3,663
Forecast for new capital spending and top-down adjustment	1,759	-	-	-	1,759
Total assets	**200,507**	**150,178**	**63,937**	**(72,110)**	**342,512**
Liabilities					
Borrowings	93,870	8,054	33,307	(18,055)	117,176
Other liabilities	30,302	55,175	8,362	(7,549)	86,290
Total liabilities	**124,172**	**63,229**	**41,669**	**(25,604)**	**203,466**
Total assets less total liabilities	**76,335**	**86,949**	**22,268**	**(46,506)**	**139,046**
Net worth					
Taxpayers' funds	52,562	43,172	4,632	(51,007)	49,359
Reserves	23,773	43,777	11,588	4,816	83,954
Net worth attributable to minority interest	-	-	6,048	(315)	5,733
Total net worth	**76,335**	**86,949**	**22,268**	**(46,506)**	**139,046**

Forecast Statement of Segments (continued)

	Core Crown 2021 Forecast $m	Crown entities 2021 Forecast $m	State-owned Enterprises 2021 Forecast $m	Inter-segment eliminations 2021 Forecast $m	Total Crown 2021 Forecast $m
Statement of Financial Performance for the year ended 30 June 2021					
Revenue					
Taxation revenue	93,929	-	-	(909)	93,020
Other sovereign revenue	1,845	6,043	-	(1,515)	6,373
Revenue from core Crown funding	-	30,355	101	(30,456)	-
Sales of goods and services	1,777	2,361	16,736	(611)	20,263
Interest revenue	1,423	1,083	1,125	(431)	3,200
Other revenue	2,204	3,679	1,034	(1,228)	5,689
Total revenue (excluding gains)	**101,178**	**43,521**	**18,996**	**(35,150)**	**128,545**
Expenses					
Social assistance and official development assistance	31,617	-	-	-	31,617
Personnel expenses	7,422	14,392	3,281	(37)	25,058
Other operating expenses	46,792	23,759	13,244	(33,725)	50,070
Interest expenses	3,522	182	1,068	(541)	4,231
Insurance expenses	1	5,978	5	-	5,984
Forecast for future new spending	5,686	-	-	-	5,686
Top-down adjustment	(325)	-	-	-	(325)
Total expenses (excluding losses)	**94,715**	**44,311**	**17,598**	**(34,303)**	**122,321**
Minority interest share of operating balance before gains/(losses)	-	4	(528)	21	(503)
Operating balance before gains/(losses)	**6,463**	**(786)**	**870**	**(826)**	**5,721**
Total gains/(losses)	3,408	262	30	(152)	3,548
Net surplus/(deficit) from associates and joint ventures	122	174	3	(1)	298
Operating balance	**9,993**	**(350)**	**903**	**(979)**	**9,567**
Expenses by functional classification					
Social security and welfare	*31,169*	*7,090*	*-*	*(620)*	*37,639*
Health	*17,988*	*15,101*	*-*	*(15,677)*	*17,412*
Education	*15,109*	*11,600*	*-*	*(10,755)*	*15,954*
Transport and communications	*2,883*	*3,298*	*8,654*	*(3,176)*	*11,659*
Other	*24,369*	*7,040*	*7,876*	*(3,534)*	*35,751*
Finance costs	*3,522*	*182*	*1,068*	*(541)*	*4,231*
Forecast for future new spending and top-down adjustment	*(325)*	*-*	*-*	*-*	*(325)*
Total expenses (excluding losses)	***94,715***	***44,311***	***17,598***	***(34,303)***	***122,321***
Statement of Financial Position as at 30 June 2021					
Assets					
Cash and cash equivalents	14,155	2,010	1,247	(438)	16,974
Receivables	15,809	7,430	2,244	(2,003)	23,480
Other financial assets	73,065	45,310	25,697	(20,308)	123,764
Property, plant and equipment	44,066	85,246	33,131	-	162,443
Equity accounted investments	54,573	12,975	203	(51,395)	16,356
Intangible assets and goodwill	1,958	596	1,623	(20)	4,157
Inventory and other assets	1,760	877	1,106	(26)	3,717
Forecast for new capital spending and top-down adjustment	3,866	-	-	-	3,866
Total assets	**209,252**	**154,444**	**65,251**	**(74,190)**	**354,757**
Liabilities					
Borrowings	92,788	9,287	34,552	(18,454)	118,173
Other liabilities	30,091	56,927	8,428	(7,461)	87,985
Total liabilities	**122,879**	**66,214**	**42,980**	**(25,915)**	**206,158**
Total assets less total liabilities	**86,373**	**88,230**	**22,271**	**(48,275)**	**148,599**
Net worth					
Taxpayers' funds	62,555	44,699	4,699	(52,779)	59,174
Reserves	23,818	43,531	11,590	4,814	83,753
Net worth attributable to minority interest	-	-	5,982	(310)	5,672
Total net worth	**86,373**	**88,230**	**22,271**	**(48,275)**	**148,599**

Forecast Statement of Segments (continued)

	Core Crown 2022 Forecast $m	Crown entities 2022 Forecast $m	State-owned Enterprises 2022 Forecast $m	Inter-segment eliminations 2022 Forecast $m	Total Crown 2022 Forecast $m
Statement of Financial Performance for the year ended 30 June 2022					
Revenue					
Taxation revenue	99,018	-	-	(971)	98,047
Other sovereign revenue	1,893	6,301	-	(1,516)	6,678
Revenue from core Crown funding	-	30,009	96	(30,105)	-
Sales of goods and services	1,718	2,402	17,260	(633)	20,747
Interest revenue	1,340	1,082	1,159	(429)	3,152
Other revenue	2,290	3,645	1,087	(1,218)	5,804
Total revenue (excluding gains)	**106,259**	**43,439**	**19,602**	**(34,872)**	**134,428**
Expenses					
Social assistance and official development assistance	33,034	-	-	-	33,034
Personnel expenses	7,444	14,316	3,395	(36)	25,119
Other operating expenses	46,481	23,379	13,687	(33,417)	50,130
Interest expenses	3,294	229	1,075	(547)	4,051
Insurance expenses	1	6,421	5	-	6,427
Forecast for future new spending	8,129	-	-	-	8,129
Top-down adjustment	(275)	-	-	-	(275)
Total expenses (excluding losses)	**98,108**	**44,345**	**18,162**	**(34,000)**	**126,615**
Minority interest share of operating balance before gains/(losses)	-	-	(524)	23	(501)
Operating balance before gains/(losses)	**8,151**	**(906)**	**916**	**(849)**	**7,312**
Total gains/(losses)	3,856	311	27	(161)	4,033
Net surplus/(deficit) from associates and joint ventures	121	185	-	1	307
Operating balance	**12,128**	**(410)**	**943**	**(1,009)**	**11,652**
Expenses by functional classification					
Social security and welfare	*32,492*	*7,537*	-	*(639)*	*39,390*
Health	*18,092*	*15,156*	-	*(15,747)*	*17,501*
Education	*15,179*	*11,544*	-	*(10,694)*	*16,029*
Transport and communications	*2,594*	*2,942*	*9,024*	*(2,905)*	*11,655*
Other	*26,732*	*6,937*	*8,063*	*(3,468)*	*38,264*
Finance costs	*3,294*	*229*	*1,075*	*(547)*	*4,051*
Forecast for future new spending and top-down adjustment	*(275)*	-	-	-	*(275)*
Total expenses (excluding losses)	***98,108***	***44,345***	***18,162***	***(34,000)***	***126,615***
Statement of Financial Position as at 30 June 2022					
Assets					
Cash and cash equivalents	13,911	1,918	1,313	(437)	16,705
Receivables	16,236	8,260	2,306	(2,045)	24,757
Other financial assets	85,217	46,617	26,860	(20,636)	138,058
Property, plant and equipment	44,117	86,669	33,160	-	163,946
Equity accounted investments	56,155	13,161	175	(52,633)	16,858
Intangible assets and goodwill	1,876	581	1,638	(20)	4,075
Inventory and other assets	1,806	898	1,146	(26)	3,824
Forecast for new capital spending and top-down adjustment	6,575	-	-	-	6,575
Total assets	**225,893**	**158,104**	**66,598**	**(75,797)**	**374,798**
Liabilities					
Borrowings	97,887	10,463	35,785	(18,736)	125,399
Other liabilities	29,455	58,574	8,463	(7,370)	89,122
Total liabilities	**127,342**	**69,037**	**44,248**	**(26,106)**	**214,521**
Total assets less total liabilities	**98,551**	**89,067**	**22,350**	**(49,691)**	**160,277**
Net worth					
Taxpayers' funds	74,683	45,764	4,807	(54,197)	71,057
Reserves	23,868	43,303	11,629	4,812	83,612
Net worth attributable to minority interest	-	-	5,914	(306)	5,608
Total net worth	**98,551**	**89,067**	**22,350**	**(49,691)**	**160,277**

6

Core Crown Expense Tables

($millions)	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Social security and welfare	22,459	23,026	23,523	24,081	25,294	26,110	28,949	29,999	31,169	32,492
Health	14,498	14,898	15,058	15,626	16,223	17,185	18,071	18,081	17,988	18,092
Education	12,504	12,300	12,879	13,158	13,281	13,937	14,663	14,791	15,109	15,179
Core government services	4,294	4,502	4,134	4,102	3,957	5,086	5,046	4,735	4,831	4,666
Law and order	3,394	3,463	3,515	3,648	3,882	4,276	4,419	4,453	4,516	4,569
Transport and communications	2,255	2,237	2,291	2,178	2,176	2,452	2,622	2,520	2,883	2,594
Economic and industrial services	1,978	2,058	2,228	2,107	2,544	2,930	3,307	3,165	3,124	3,141
Defence	1,804	1,811	1,961	2,026	2,146	2,263	2,374	2,451	2,461	2,467
Heritage, culture and recreation	804	842	778	787	850	881	880	851	820	833
Primary services	659	676	667	749	644	851	756	723	682	620
Housing and community development	283	347	320	558	539	602	878	602	610	642
Environmental protection	530	533	723	587	871	1,287	1,058	1,101	1,110	1,108
GSF pension expenses	278	282	358	271	217	150	122	148	185	213
Other	603	579	145	461	181	340	552	352	344	344
Finance costs	3,619	3,620	3,783	3,590	3,534	3,484	3,408	3,358	3,522	3,294
Forecast new operating spending	..	..	..	..	..	186	760	3,070	5,686	8,129
Top-down expense adjustment	..	..	..	..	..	(300)	(1,145)	(325)	(325)	(275)
Core Crown expenses	**69,962**	**71,174**	**72,363**	**73,929**	**76,339**	**81,720**	**86,720**	**90,075**	**94,715**	**98,108**

1. The classifications of the functions of the Government reflect current approved baselines. Forecast new operating spending is shown as a separate line item in the above analysis and will be allocated to functions of the Government once decisions are made in future Budgets.

Source: The Treasury

Table 6.1 – Social security and welfare expenses

($millions)	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Welfare benefits (see below)	20,789	21,187	21,680	22,441	23,339	24,067	26,774	27,859	29,022	30,336
Social rehabilitation and compensation	107	173	142	151	220	241	249	260	279	279
Departmental expenses	1,168	1,204	1,319	1,339	1,417	1,617	1,730	1,676	1,672	1,673
Child support impairment	..	..	..	..	..	..	..	..	..	..
Other non-departmental expenses[1]	395	462	382	150	318	185	196	204	196	204
Social security and welfare expenses	**22,459**	**23,026**	**23,523**	**24,081**	**25,294**	**26,110**	**28,949**	**29,999**	**31,169**	**32,492**

1. From 2016 some non-departmental expenses spending has been reclassified to community services in housing and community development expenses.

Source: The Treasury

Table 6.2 *– Welfare benefit expenses*

($millions)	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
New Zealand Superannuation	10,235	10,913	11,591	12,267	13,043	13,703	14,539	15,439	16,333	17,353
Jobseeker Support and Emergency Benefit[1]	..	1,691	1,684	1,671	1,697	1,693	1,712	1,660	1,599	1,594
Supported living payment[1]	..	1,422	1,515	1,523	1,533	1,540	1,555	1,569	1,578	1,592
Sole parent support[1]	..	1,222	1,186	1,153	1,159	1,109	1,084	1,095	1,114	1,139
Domestic Purposes Benefit[1]	1,738	63	..	..	..	..	..	..	..	..
Invalid's Benefit[1]	1,330	52	..	..	..	..	..	..	..	..
Sickness Benefit[1]	782	29	..	..	..	..	..	..	..	..
Unemployment Benefit[1]	812	29	..	..	..	..	..	..	..	..
Family Tax Credit	2,018	1,965	1,854	1,793	1,723	1,696	2,628	2,552	2,523	2,528
Other working for families tax credits	575	567	549	559	596	575	560	551	546	546
Accommodation Assistance	1,177	1,146	1,129	1,164	1,127	1,208	1,508	1,508	1,506	1,518
Income-Related Rents	611	660	703	755	815	889	978	1,085	1,186	1,292
Disability Assistance	384	379	377	377	377	379	379	373	373	376
Benefits paid in Australia	22	19	15	40	..	..	..	..	..	..
Winter energy	..	..	..	..	..	..	443	448	455	465
Best start	..	..	..	..	..	..	80	231	373	451
Paid Parental Leave	165	165	180	217	274	287	360	375	451	472
Childcare Assistance	186	186	183	182	199	198	198	203	207	212
Veterans Support Entitlement[2]	123	119	115	107	98	90	86	80	74	69
Veteran's Pension	171	165	178	186	175	163	154	145	136	127
Other benefits	460	395	421	447	523	537	510	545	568	602
Benefit expenses	**20,789**	**21,187**	**21,680**	**22,441**	**23,339**	**24,067**	**26,774**	**27,859**	**29,022**	**30,336**

Source: The Treasury

Beneficiary numbers (Thousands)	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
New Zealand Superannuation	612	640	665	691	717	741	768	795	823	851
Jobseeker Support and Emergency Benefit[1]	..	138	133	130	131	129	129	123	117	114
Supported living payment[1]	..	96	98	98	97	96	95	95	95	94
Sole parent support[1]	..	78	72	67	64	60	58	58	58	58
Domestic Purposes Benefit[1]	109	..	..	..	..	..	..	..	..	..
Invalid's Benefit[1]	87	..	..	..	..	..	..	..	..	..
Sickness Benefit[1]	60	..	..	..	..	..	..	..	..	..
Unemployment Benefit[1]	67	..	..	..	..	..	..	..	..	..
Accommodation Supplement	305	297	292	292	290	288	296	291	288	286

1. From July 2013, changes to the benefit system and existing benefit categories took place. Three new categories of benefit; Supported living payment, Sole parent support and Jobseeker support; have replaced the following existing categories: Domestic Purposes Benefit, Invalid's Benefit, Unemployment Benefit, Sickness Benefit and Widow's Benefit. Owing to the changes, there is no historical data for the new benefit categories and no forecast data for the previous categories beyond July 2013.
2. From 2015, War Disablement Pensions have been renamed Veterans Support Entitlements.

Source: Ministry of Social Development

Table 6.3 – Health expenses

($millions)	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Departmental outputs	171	183	190	188	192	202	206	203	195	195
Health services purchasing (see below)	13,348	13,648	13,937	14,361	14,855	15,436	16,180	16,186	16,138	16,136
Other non-departmental outputs	234	330	312	356	365	825	854	886	865	985
Health payments to ACC	715	694	587	694	697	699	803	778	761	748
Other expenses	30	43	32	27	114	23	28	28	29	28
Health expenses	**14,498**	**14,898**	**15,058**	**15,626**	**16,223**	**17,185**	**18,071**	**18,081**	**17,988**	**18,092**

Source: The Treasury

Table 6.4 – Health services purchasing

($millions)	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Payments to District Health Boards	11,946	12,165	12,414	12,822	13,281	13,833	14,488	14,523	14,487	14,488
National disability support services	1,028	1,087	1,126	1,167	1,188	1,238	1,269	1,264	1,251	1,247
Public health services purchasing	374	396	397	372	386	365	423	399	400	401
Health services purchasing	**13,348**	**13,648**	**13,937**	**14,361**	**14,855**	**15,436**	**16,180**	**16,186**	**16,138**	**16,136**

Source: The Treasury

Table 6.5 – Education expenses

($millions)	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Early childhood education	1,436	1,545	1,644	1,735	1,805	1,881	1,996	2,123	2,200	2,292
Primary and secondary schools (see below)	5,590	5,550	5,773	6,044	6,116	6,418	6,635	6,639	6,793	6,715
Tertiary funding (see below)[1]	4,370	4,027	4,272	4,235	4,051	4,251	4,603	4,666	4,750	4,810
Departmental expenses	1,039	1,107	1,129	1,112	1,190	1,314	1,349	1,307	1,314	1,320
Other education expenses	69	71	61	32	119	73	80	56	52	42
Education expenses	**12,504**	**12,300**	**12,879**	**13,158**	**13,281**	**13,937**	**14,663**	**14,791**	**15,109**	**15,179**

1. From 2018, tertiary funding includes the tertiary education package.

Source: The Treasury

Number of places provided[1]	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Early childhood education	174,853	185,336	195,817	205,714	208,060	217,503	228,898	242,003	251,312	262,260

1. Full-time equivalent based on 1,000 funded child hours per calendar year. Note that historical place numbers have been revised so may differ from previous published *Economic and Fiscal Update* numbers.

Source: The Ministry of Education

Table 6.6 – Primary and secondary schools

($millions)	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Primary	2,845	2,812	2,920	3,033	3,091	3,260	3,362	3,353	3,431	3,376
Secondary	2,148	2,146	2,229	2,329	2,336	2,441	2,527	2,532	2,600	2,583
School transport	175	177	186	185	186	198	190	190	190	190
Special needs support	332	322	336	396	410	430	449	457	470	470
Professional development	84	87	98	96	88	84	100	99	95	90
Schooling improvement	6	6	4	5	5	5	7	8	7	6
Primary and secondary education expenses	**5,590**	**5,550**	**5,773**	**6,044**	**6,116**	**6,418**	**6,635**	**6,639**	**6,793**	**6,715**

Source: The Treasury

Number of places provided[1]	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Primary	493,025	497,835	507,096	517,782	526,408	535,497	540,854	541,366	539,210	536,837
Secondary	267,627	266,734	265,548	264,189	265,780	272,278	275,028	278,658	285,685	290,761

1. These are snapshots based as at 1 July for primary year levels (years 1 to 8) and 1 March for secondary year levels (years 9 to 13). These numbers exclude school rolls, health camps, hospital schools and home schooling (prior published tables included special school rolls).
These estimates include a new entrant adjustment to make provision for the number of new entrants likely to be enrolled between 1 March and 10 October. Actual numbers have been restated to include this adjustment so may differ from previous published *Economic and Fiscal Update* numbers.

Source: The Ministry of Education

Table 6.7 – Tertiary funding

($millions)	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Tuition[1]	2,322	2,383	2,406	2,463	2,466	2,671	2,830	2,871	2,916	2,941
Other tertiary funding	432	463	484	487	520	569	582	579	577	577
Student allowances[1]	596	539	511	486	465	509	581	590	608	626
Student loans[1]	1,020	642	871	799	600	502	610	626	649	666
Tertiary education expenses	**4,370**	**4,027**	**4,272**	**4,235**	**4,051**	**4,251**	**4,603**	**4,666**	**4,750**	**4,810**

1. From 2018, tertiary funding includes the tertiary education package.

Source: The Treasury

Number of places provided[1]	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Actual delivered and estimated funded places	241,796	239,086	233,132	231,413	225,776	229,500	228,600	230,600	233,800	233,800

1. Tertiary places are the number of equivalent full time students (EFTS) in: student achievement component; adult and community education; and youth guarantee programmes. Note that historical place numbers have been revised so may differ from previous published *Economic and Fiscal Update* numbers. Place numbers are based on calendar years rather than fiscal years.

Source: Tertiary Education Commission

Table 6.8 – Core government services expenses

($millions)	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Official development assistance	437	533	513	534	520	647	693	730	764	798
Indemnity and guarantee expenses	27	29	38	30	22	18	16	16	16	16
Departmental expenses[5]	1,576	1,635	1,740	1,845	1,835	2,155	2,323	2,111	2,135	2,007
Non-departmental expenses[1,2,3,4]	330	689	481	379	511	904	659	731	777	713
Tax receivable write-down and impairments	925	1,069	873	680	493	640	680	680	680	680
Science expenses	115	118	121	118	91	94	105	113	113	113
Other expenses[1]	884	429	368	516	485	628	570	354	346	339
Core government service expenses	**4,294**	**4,502**	**4,134**	**4,102**	**3,957**	**5,086**	**5,046**	**4,735**	**4,831**	**4,666**

1. Non-departmental expenses and other expenses include costs associated with the Canterbury earthquakes.
2. From 2017 onwards, biological research has been reclassified from Primary services to non-departmental expenses within core government services.
3. From 2017 onwards, some investment and research expenditure has been reclassified from core government service to economic and industrial services.
4. The 2018 forecast includes the concessionary element of the Housing Infrastructure Fund loans.
5. Departmental expenses includes costs relating to the Inland Revenue Business Transformation project.

Source: The Treasury

Table 6.9 – Law and order expenses

($millions)	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Police	1,408	1,416	1,456	1,498	1,539	1,637	1,715	1,736	1,788	1,828
Ministry of Justice	404	433	451	468	479	514	528	521	532	535
Department of Corrections	972	1,001	1,024	1,068	1,145	1,320	1,385	1,386	1,381	1,394
NZ Customs Service	140	150	161	153	171	179	185	193	200	203
Other departments	98	86	100	83	121	126	126	128	121	112
Departmental expenses	**3,022**	**3,086**	**3,192**	**3,270**	**3,455**	**3,776**	**3,939**	**3,964**	**4,022**	**4,072**
Non-departmental outputs	317	327	320	359	397	478	455	465	471	473
Other expenses	55	50	3	19	30	22	25	24	23	24
Law and order expenses	**3,394**	**3,463**	**3,515**	**3,648**	**3,882**	**4,276**	**4,419**	**4,453**	**4,516**	**4,569**

Source: The Treasury

Table 6.10 – Transport and communication expenses

($millions)	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
New Zealand Transport Agency	1,819	1,880	1,992	1,982	1,888	2,158	2,332	2,274	2,671	2,417
Departmental outputs	40	45	43	45	52	57	60	61	61	61
Other non-departmental expenses	213	227	114	106	168	194	176	148	115	80
Rail funding	153	56	93	3	3	3	3	3	3	3
Other expenses	30	29	49	42	65	40	51	34	33	33
Transport and communication expenses	**2,255**	**2,237**	**2,291**	**2,178**	**2,176**	**2,452**	**2,622**	**2,520**	**2,883**	**2,594**

Source: The Treasury

Table 6.11 – Economic and industrial services expenses

($millions)	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Departmental outputs	350	372	391	389	465	451	460	436	424	427
Employment initiatives[1]	192	141	75	3	3	6	12	4	4	4
Non-departmental outputs[2,4]	618	660	742	798	1,085	1,193	1,540	1,280	1,223	1,148
KiwiSaver (includes HomeStart grant)[3]	740	828	888	763	743	920	966	1,007	1,049	1,088
Research and development tax credits	..	..	..	..	..	..	70	280	320	350
Other expenses	78	57	132	154	248	360	259	158	104	124
Economic and industrial services expenses	**1,978**	**2,058**	**2,228**	**2,107**	**2,544**	**2,930**	**3,307**	**3,165**	**3,124**	**3,141**

1. From 2016 some of the employment initiatives spending has been reclassified to other non-departmental expenses in housing and community development expenses.
2. From 2017 onwards, spending on new investment and research fund initiatives is included in non-departmental outputs, this has been reclassified from core government services.
3. From 2018 spending includes KiwiSaver HomeStart grant initiative.
4. From 2019 spending includes Provincial Growth Fund expenses.

Source: The Treasury

Table 6.12 – Defence expenses

($millions)	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
NZDF core expenses	1,747	1,768	1,879	1,986	2,084	2,184	2,270	2,337	2,355	2,354
Other expenses	57	43	82	40	62	79	104	114	106	113
Defence expenses	**1,804**	**1,811**	**1,961**	**2,026**	**2,146**	**2,263**	**2,374**	**2,451**	**2,461**	**2,467**

Source: The Treasury

Table 6.13 – Heritage, culture and recreation expenses

($millions)	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Departmental outputs	270	286	280	274	282	314	303	309	291	292
Non-departmental outputs	442	471	468	477	512	504	508	502	502	515
Other expenses	92	85	30	36	56	63	69	40	27	26
Heritage, culture and recreation expenses	**804**	**842**	**778**	**787**	**850**	**881**	**880**	**851**	**820**	**833**

Source: The Treasury

Table 6.14 – Primary service expenses

($millions)	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Departmental expenses	347	365	384	424	458	556	536	528	500	499
Non-departmental outputs	137	135	114	100	92	186	116	117	111	64
Biological research[1]	105	92	91	95	..	..	..	..	..	..
Other expenses	70	84	78	130	94	109	104	78	71	57
Primary service expenses	**659**	**676**	**667**	**749**	**644**	**851**	**756**	**723**	**682**	**620**

1. From 2017 onwards, biological research has been reclassified from Primary services to non-departmental expenses within core government services.

Source: The Treasury

Table 6.15 – Housing and community development expenses

($millions)	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Financial assistance package[1]	(60)	..	..	..	..	..	..	..	..	..
Housing subsidies	5	5	5	5	5	5	5	5	5	5
Community Services[2]	..	..	..	189	189	183	185	197	198	197
Departmental outputs	89	100	113	171	187	160	174	154	153	150
Other non-departmental expenses	117	138	117	114	127	229	488	219	230	268
Warm up New Zealand	76	49	37	22	..	..	..	..	..	..
Other expenses	56	55	48	57	31	25	26	27	23	22
Housing and community development expenses	**283**	**347**	**320**	**558**	**539**	**602**	**878**	**602**	**609**	**642**

1. Financial assistance package for 2013 actual includes the impact of a revised estimate of the weathertight homes financial assistance package provision.
2. For 2016 onwards, community services have been reclassified from non-departmental expenses in Social Security and Welfare expenses and employment initiatives in economic expenses.

Source: The Treasury

Table 6.16 – Environmental protection expenses

($millions)	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Emissions Trading Scheme	55	46	133	163	295	786	521	545	548	547
Departmental outputs	335	362	360	383	404	421	409	433	429	428
Non-departmental outputs	88	48	41	1	64	44	68	66	76	77
Other expenses	52	77	189	40	108	36	60	57	57	56
Environmental protection expenses	**530**	**533**	**723**	**587**	**871**	**1,287**	**1,058**	**1,101**	**1,110**	**1,108**

Source: The Treasury

Glossary of Terms

Accruals basis of accounting

An accounting basis where revenue is recognised when earned and expenses when the obligations they relate to are incurred. This contrasts to cash accounting, where income is recognised when the cash is received and expenses when cash to settle an obligation is paid out.

Appropriations

Appropriations are legal authorities granted by Parliament to the Crown or an Office of Parliament to use public resources. Most appropriations are set out in Appropriation Acts.

Baselines

The level of funding approved for any given area of spending (eg, Vote Education).

Commercial portfolio

Consists of assets and liabilities held by companies with commercial objectives, predominantly State-owned Enterprises.

Consumers Price Index (CPI)

Statistics New Zealand's official index to measure the rate of change in prices of goods and services purchased by households.

Contingent assets

Income that the Crown will realise if a particular uncertain event occurs, or a present asset is unable to be measured with sufficient reliability to be recorded in the financial statements (unquantified contingent assets). Contingent assets typically comprise loans with specific events that trigger repayment and IRD pending assessments (where there is a proposed adjustment to a tax assessment).

Contingent liabilities

Costs that the Crown will have to face if a particular uncertain event occurs, or present liabilities that are unable to be measured with sufficient reliability to be recorded in the financial statements (unquantified contingent liabilities). Contingent liabilities typically comprise guarantees and indemnities, legal disputes and claims, and uncalled capital.

Core Crown

A reporting segment consisting of the Crown, departments, Offices of Parliament, the NZS Fund and the Reserve Bank. For a list of all entities included in this segment, refer to the Government Reporting Entity (pages 99 to 102).

Core Crown expenses

The day-to-day spending (eg, public servants' salaries, welfare benefit payments, finance costs and maintaining national defence etc) that does not build or purchase physical assets by the core Crown. This is an accrual measure of expenses and includes non-cash items such as depreciation on physical assets.

Core Crown revenue

Consists primarily of tax revenue collected by the Government but also includes investment income, sales of goods and services and other revenue of the core Crown.

Corporate tax

The sum of net company tax, non-resident withholding tax (NRWT) and foreign-source dividend withholding payments (FDWP).

Current account (Balance of Payments)

The current account records the value of New Zealand's transactions with the rest of the world in goods, services, income and transfers. The current account balance is the sum of all current account credits less all current account debits. When the sum of debits is greater than the sum of credits there is a current account deficit. The current account balance is commonly expressed as a percentage of nominal GDP.

Cyclically-adjusted balance (CAB) or structural balance

An estimate of the fiscal balance (operating balance before gains and losses) adjusted for fluctuations of actual GDP around trend GDP. CAB provides a picture of the underlying fiscal position and the effects of policy decisions.

Demographic changes

Changes to the structure of the population such as the age, gender or ethnic composition.

Domestic bond programme

The amount and timing of government bonds expected to be issued or redeemed.

Excise duties

A tax levied on the domestic production of alcohol, tobacco and light petroleum products (CNG, LPG and petrol).

Financial assets

Any asset that is cash, an equity instrument of another entity (shares), a contractual right to receive cash or shares (taxes receivable and ACC levies) or a right to exchange a financial asset or liability on favourable terms (derivatives in gain).

Financial liabilities

Any liability that is a contractual obligation to pay cash (government stock, accounts payable) or a right to exchange a financial asset or liability on unfavourable terms (derivatives in loss).

Financial portfolio

Consists of the assets and liabilities held by the Crown to finance or pre-fund government expenditure.

Fiscal drag

The additional personal income tax generated as an individual's average tax rate increases as their income increases.

Fiscal impulse

A summary measure of how changes in the fiscal position affect aggregate demand in the economy. To isolate discretionary changes, the fiscal impulse is calculated on a cyclically-adjusted basis and excludes net interest payments. To better capture the role of capital spending, the indicator is derived from cash flow information.

Fiscal intentions (short-term)

Indications of the Government's intentions for operating expenses, operating revenues and the impact of its intentions on the operating balance, debt and net worth over (at least) the next three years. These intentions are required under the Public Finance Act 1989 (PFA).

Fiscal objectives (long-term)

The Government's long-term goals for operating expenses, operating revenue, the operating balance, debt and net worth, as required by the PFA. The objectives must be consistent with the defined principles of responsible fiscal management as outlined in the PFA and must cover a period of (at least) 10 years.

Forecast new capital spending (Capital allowance)

An amount provided in the forecasts to represent the balance sheet impact of capital initiatives expected to be introduced over the forecast period.

Forecast new operating spending (Operating allowance)

An amount included in the forecasts to provide for the operating balance (revenue and expenditure) impact of policy initiatives, changes to demographics and other forecasting changes expected to occur over the forecast period.

Gains and losses

Gains and losses typically arise from the revaluation of assets and liabilities, such as investments in financial assets and long-term liabilities for ACC and GSF. These valuation changes are reported directly as a movement in net worth (eg, asset revaluation reserves) or indirectly through the Statement of Financial Performance.

GDP deflator

An index of changes in the general price level in the economy. It is calculated as the ratio of nominal GDP to real GDP.

Generally accepted accounting practice (GAAP)

GAAP refers to the rules and concepts used to prepare and present financial statements. GAAP is an independent set of rules and frameworks that govern the recognition, measurement and disclosure of financial elements, such as assets, liabilities, revenues and expenses.

Government Finance Statistics (GFS)

A statistical framework for government reporting developed by IMF to aid comparability of results between countries. This differs from the GAAP framework that is used for reporting by the Government in New Zealand.

Gross debt

GSID (refer below) excluding settlement cash and bank bills.

Gross domestic product (GDP)

A measure of the value-added of all goods and services produced in New Zealand. Changes in GDP measure growth or contraction in economic activity or output. GDP can be measured on either an expenditure or production basis and in either real or nominal terms. (See following definitions.)

Gross domestic product (expenditure)

The sum of total expenditure on final goods and services in the economy, including exports but minus imports. Expenditure GDP is calculated in both real and nominal terms.

Gross domestic product (nominal)

The value-added of goods and services produced in the economy expressed in current prices.

Gross domestic product (production)

The value-added of goods and services produced in New Zealand, after deducting the cost of goods and services used in the production process. Production GDP is calculated only in real terms.

Gross domestic product (real)

The value-added of goods and services produced in the economy expressed in the prices of a base period. The current base period is 2009/10.

Gross national expenditure (GNE)

A measure of total expenditure on final goods and services by New Zealand residents.

Gross sovereign-issued debt (GSID)

Represents debt issued by the sovereign (the core Crown) and includes government stock held by the NZS Fund, ACC and EQC.

Insurance liabilities

The gross obligation for the future cost of claims incurred prior to balance date represented in today's dollars (present value). The net liability is the gross liability less the asset reserves held to meet those claims.

Inter-segment eliminations

The amounts of transactions between different segments (core Crown, Crown entities and SOEs) that are eliminated to determine total Crown results.

Labour force participation rate

The percentage of the working-age population in work or actively looking for and available for work.

Labour productivity

Output per unit of labour input (where labour inputs might be measured as hours worked or the number of people employed).

Line-by-line consolidation

A term used to refer to the general approach to the presentation of the Financial Statements of the Government. It means that the individual line items for revenues, expenses, assets and liabilities in the

Financial Statements of the Government include all departments, Offices of Parliament, the Reserve Bank, SOEs, Crown entities and other entities controlled by the Government.

Loan-to-value ratio (LVR)

A measure of how much a bank lends against residential property, compared to the value of that property. The Reserve Bank introduced LVR restrictions in October 2013 and revised them in November 2015 and October 2016. Investor loans with a LVR of more than 60% can make up no more than 5% of a bank's total new lending within this category. Non-investor loans with an LVR of more than 80% can make up no more than 10% of a bank's total lending in that category. LVR restrictions apply to new loans, and not retrospectively to existing loans (except new 'top-up' lending on existing loans).

Marketable securities

Assets held with financial institutions. These assets are held for both cash flow and investment purposes. Examples are bonds, commercial papers and debentures.

Minority interest

Minority interest refers to shareholders of Government reporting entities outside the Crown. Current examples include those who hold shares in the mixed ownership companies.

Monetary conditions

Aggregate monetary conditions measure the degree to which short-term interest rates and the exchange rate either support or restrict economic growth.

Monetary policy

The policies that the Reserve Bank uses to regulate the supply of money in New Zealand. The Reserve Bank implements its monetary policy decisions by adjusting its Official Cash Rate (OCR) in an effort to maintain stability in the rate of CPI inflation within a defined target range.

Tightening monetary policy means raising the OCR in order to moderate aggregate demand pressures and reduce inflationary pressures. Easing monetary policy has the reverse effect.

Multi-factor productivity

Multi-factor productivity (MFP) relates a change in output to several types of inputs, typically capital and labour. MFP is often measured residually, as the change in output that cannot be accounted for by the change in combined inputs.

National saving

National disposable income less private and public consumption spending. Income excludes gains and losses on capital. Gross saving includes depreciation.

Net core Crown cash flow from operations

The cash impact of core Crown operating results. It is represented by the operating balance (before gains and losses) less retained items (eg, net surplus of SOEs, Crown entities and NZS Fund net revenue) less non-cash items (eg, depreciation).

Net core Crown debt

Net core Crown debt provides information about the sustainability of the Government's accounts, and is used by some international rating agencies when determining the creditworthiness of a country. It represents gross debt less core Crown financial assets (excluding advances and financial assets held by the NZS Fund). Advances and financial assets held by the NZS Fund are excluded as these assets are less liquid and/or they are made for public policy reasons rather than for the purposes associated with government financing.

Net international investment position (NIIP)

The net value of New Zealand's international assets and liabilities at a point in time.

Net worth

Total assets less total liabilities of all Government reporting entities. The change in net worth in any given forecast year is largely driven by the operating balance and property, plant and equipment revaluations.

Net worth attributable to the Crown

Represents the Crown's share of total assets and liabilities and excludes minority interests' share of those assets and liabilities.

Operating balance

Represents OBEGAL (refer below) plus gains and less losses. The operating balance includes gains and losses not reported directly as a movement against net worth. The impact of gains and losses on the operating balance can be subject to short-term market volatility and revaluations of long-term liabilities.

Operating balance before gains and losses (OBEGAL)

Represents total Crown revenue less total Crown expenses excluding minority interest share. OBEGAL can provide a more useful measure of underlying stewardship than the operating balance as short-term market fluctuations are not included in the calculation.

Output gap

The difference between actual and potential GDP. (See Potential output.)

Outputs

Outputs are the goods and services commissioned by Ministers from public, non-governmental and private sector producers. Outputs may include the supply of policy advice, enforcement of regulations (such as speed limits in transport), provision of a range of services (in health, education, etc), negotiation and management of contracts and administration of benefits.

Potential output

The level of output an economy can sustain without an acceleration of inflation.

Productivity

The amount of output (eg, GDP) per unit of input.

Projections

Projections relate to the period beyond the five-year forecast period and are based on long-run economic and fiscal assumptions. For example, the projections assume no economic cycle and constant long-run interest, inflation and unemployment rates.

Real unit labour costs

Real unit labour costs show how much output an economy receives relative to real wages (wages adjusted for inflation), or labour cost per unit of output. ULCs can be calculated as the ratio of real labour compensation to real GDP. It is also the equivalent of the ratio between labour compensation per labour input (per hour or per employee) worked and labour productivity.

Residual cash

The level of money the Government has available to repay debt or, alternatively, needs to borrow in any given year. Residual cash is alternatively termed "Cash available/(shortfall to be funded)".

Residual cash is equal to net core Crown cash flow from operations excluding NZS Fund activity less core Crown capital payments (eg, purchase of assets, loans to others).

Settlement cash

This is the amount of money deposited with the Reserve Bank by registered banks. It is a liquidity mechanism used to settle wholesale obligations between registered banks and provides the basis for settling most of the retail banking transactions that occur every working day between businesses and individuals.

Social portfolio

Consists of the assets and liabilities held primarily to provide public services or to protect assets for future generations.

Specific fiscal risks

All government decisions or other circumstances known to the Government which may have a material impact on the fiscal and economic outlook, but are not certain enough in timing or amount to include in the fiscal forecasts.

System of National Accounts (SNA)

A set of macroeconomic accounts for government reporting, developed by the international community, to facilitate international comparisons of national economic statistics. This differs from the GAAP framework that is used for reporting by the Government in New Zealand.

Tax revenue

The accrual, rather than the cash ("tax receipts") measure of taxation. It is a measure of tax due at a given point in time, regardless of whether or not it has actually been paid.

Terms of trade

The terms of trade measure the volume of imports that can be funded by a fixed volume of exports, and are calculated as the ratio of the total export price index to the total import price index. New Zealand's headline terms of trade series is derived from export and import price indices from Statistics New Zealand's quarterly Overseas Trade Indices. The Treasury forecasts the terms of trade on an SNA basis, using implicit export and import price indices derived from quarterly national accounts data.

Top-down adjustment

An adjustment to expenditure forecasts to reflect the extent to which departments use appropriations (upper spending limits) when preparing their forecasts. As appropriations apply to the core Crown only, no adjustment is required to SOE or Crown entity forecasts.

Total borrowings

Represents the Government's total debt obligations to external parties and can be split into sovereign-guaranteed debt and non-sovereign-guaranteed debt. Non-sovereign-guaranteed debt represents the debt obligations of SOEs and Crown entities that are not guaranteed by the Crown.

Total Crown

Includes the core Crown (defined above) plus Crown entities and SOEs as defined by the Government Reporting Entity on pages 99 to 102.

Tradable/non-tradable output

The tradable sector is the part of the economy particularly exposed to foreign competition either through exports or import substitution. It includes agriculture, forestry and fishing, mining, and manufacturing industries. Non-tradable output includes the construction industry, rental, hiring and real estate services, public administration and safety, and health care and social assistance. Other industries may be classified as either tradable or non-tradable depending on whether their direct or indirect outputs are exposed to foreign competition.

Trade-weighted index (TWI)

A measure of movements in the NZ dollar against the currencies of our major trading partners. Since December 2014, the TWI has been based on 17 currencies, weighted according to each country's direct bilateral trade in goods and services with New Zealand. Together these countries account for more than 80% of New Zealand's foreign trade.

Votes

When Parliament considers legislation relating to appropriations, the appropriations are grouped within "Votes". Generally, a Vote groups similar or related appropriations together (eg, Vote Health includes all health-related appropriations administered by the Ministry of Health).

Year ended

Graphs and tables within this document use different expressions of the timeframe. While some tables may refer to the end of the tax year (31 March), others will refer to the end of the Government's financial year (30 June). For example, unless otherwise stated references to 2016/17 or 2017 will mean the end of the financial year.

Time Series of Fiscal and Economic Indicators

Fiscal Indicators

June years	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Forecast	Forecast	Forecast	Forecast	Forecast
$millions															
Revenue and expenses															
Core Crown tax revenue	56,747	54,681	50,744	51,557	55,081	58,651	61,563	66,636	70,445	75,644	79,537	83,901	89,033	93,929	99,018
Core Crown revenue	61,575	59,191	55,757	57,199	60,428	63,805	67,093	72,213	76,121	81,782	85,959	90,965	96,221	101,178	106,259
Core Crown expenses	56,753	63,711	63,554	70,099	68,939	69,962	71,174	72,363	73,929	76,339	81,720	86,720	90,075	94,715	98,108
Surpluses															
Total Crown OBEGAL	5,637	(3,893)	(6,315)	(18,396)	(9,240)	(4,414)	(2,802)	414	1,831	4,069	3,141	3,737	5,420	5,721	7,312
Total Crown operating balance	2,384	(10,505)	(4,509)	(13,360)	(14,897)	6,925	2,939	5,771	(5,369)	12,317	6,997	6,773	8,837	9,567	11,652
Cash position															
Core Crown residual cash	2,057	(8,639)	(9,000)	(13,343)	(10,644)	(5,742)	(4,109)	(1,827)	(1,322)	2,574	(1,255)	(3,875)	(1,727)	(1,893)	652
Debt															
Gross debt[1]	31,390	43,356	53,591	72,420	79,635	77,984	81,956	86,125	86,928	87,141	87,467	81,853	84,055	82,972	88,066
Gross debt incl RB settlement cash and bank bills	37,745	50,973	58,891	77,290	84,168	84,286	88,468	93,156	93,283	92,620	94,985	89,371	91,573	90,490	95,584
Net core Crown debt (incl NZS Fund)[2]	(2,676)	5,633	12,549	23,969	33,475	34,428	34,174	30,862	32,102	23,619	21,359	21,902	19,015	15,079	8,021
Net core Crown debt[2]	10,258	17,119	26,738	40,128	50,671	55,835	59,931	60,631	61,880	59,480	60,409	64,204	65,865	67,607	66,957
Total borrowings	46,110	61,953	69,733	90,245	100,534	100,087	103,419	112,580	113,956	111,806	115,978	112,890	117,176	118,173	125,399
Net worth															
Total Crown net worth	105,514	99,515	94,988	80,887	59,780	70,011	80,697	98,236	95,521	116,472	123,567	130,317	139,046	148,599	160,277
Total net worth attributable to the Crown	105,132	99,068	94,586	80,579	59,348	68,071	75,486	86,454	89,366	110,532	117,649	124,457	133,313	142,927	154,669
Nominal expenditure GDP (revised actuals)	189,011	189,505	196,727	205,804	215,122	218,757	236,650	245,019	257,736	274,220	291,020	304,591	319,971	334,721	349,792
% GDP															
Revenue and expenses															
Core Crown tax revenue	30.0	28.9	25.8	25.1	25.6	26.8	26.0	27.2	27.3	27.6	27.3	27.5	27.8	28.1	28.3
Core Crown revenue	32.6	31.2	28.3	27.8	28.1	29.2	28.4	29.5	29.5	29.8	29.5	29.9	30.1	30.2	30.4
Core Crown expenses	30.0	33.6	32.3	34.1	32.0	32.0	30.1	29.5	28.7	27.8	28.1	28.5	28.2	28.3	28.0
Surpluses															
Total Crown OBEGAL	3.0	(2.1)	(3.2)	(8.9)	(4.3)	(2.0)	(1.2)	0.2	0.7	1.5	1.1	1.2	1.7	1.7	2.1
Total Crown operating balance	1.3	(5.5)	(2.3)	(6.5)	(6.9)	3.2	1.2	2.4	(2.1)	4.5	2.4	2.2	2.8	2.9	3.3
Cash position															
Core Crown residual cash	1.1	(4.6)	(4.6)	(6.5)	(4.9)	(2.6)	(1.7)	(0.7)	(0.5)	0.9	(0.4)	(1.3)	(0.5)	(0.6)	0.2
Debt															
Gross debt[1]	16.6	22.9	27.2	35.2	37.0	35.6	34.6	35.2	33.7	31.8	30.1	26.9	26.3	24.8	25.2
Gross debt incl RB settlement cash and bank bills	20.0	26.9	29.9	37.6	39.1	38.5	37.4	38.0	36.2	33.8	32.6	29.3	28.6	27.0	27.3
Net core Crown debt (incl NZS Fund)[2]	(1.4)	3.0	6.4	11.6	15.6	15.7	14.4	12.6	12.5	8.6	7.3	7.2	5.9	4.5	2.3
Net core Crown debt[2]	5.4	9.0	13.6	19.5	23.6	25.5	25.3	24.7	24.0	21.7	20.8	21.1	20.6	20.2	19.1
Total borrowings	24.4	32.7	35.4	43.8	46.7	45.8	43.7	45.9	44.2	40.8	39.9	37.1	36.6	35.3	35.8
Net worth															
Total Crown net worth	55.8	52.5	48.3	39.3	27.8	32.0	34.1	40.1	37.1	42.5	42.5	42.8	43.5	44.4	45.8
Total net worth attributable to the Crown	55.6	52.3	48.1	39.2	27.6	31.1	31.9	35.3	34.7	40.3	40.4	40.9	41.7	42.7	44.2

1 Excludes Reserve Bank settlement cash and bank bills.
2 Excludes advances.

Economic Indicators

June Years	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Annual average % change	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Forecast	Forecast	Forecast	Forecast	Forecast
Private consumption	2.9	-1.0	2.3	2.0	3.5	2.4	3.5	3.4	4.3	5.2	4.0	3.2	2.5	2.3	2.3
Public consumption	4.4	3.3	-0.4	2.5	0.8	0.0	2.9	3.3	1.5	3.2	4.4	1.7	1.7	1.8	1.7
TOTAL CONSUMPTION	3.2	0.1	1.6	2.2	2.8	1.8	3.4	3.4	3.6	4.7	4.1	2.9	2.3	2.2	2.2
Residential investment	-3.8	-22.0	-2.5	-3.1	10.2	18.1	13.1	6.4	10.6	4.9	2.3	1.4	5.0	5.5	3.9
Business investment	10.4	-8.9	-8.0	8.2	6.0	0.8	9.5	7.3	3.8	3.9	4.5	5.3	6.8	4.1	3.2
TOTAL INVESTMENT	6.5	-12.1	-6.8	5.6	6.9	4.6	10.4	7.1	5.5	4.1	3.9	4.3	6.3	4.4	3.3
Stock change (contribution to growth)	0.9	-1.4	0.9	-0.1	0.1	-0.3	0.4	0.0	-0.4	0.3	-0.3	0.2	0.0	0.0	0.0
GROSS NATIONAL EXPENDITURE	4.9	-4.2	0.7	2.7	4.0	2.2	4.8	4.0	3.6	4.7	3.5	3.6	3.3	2.7	2.5
Exports	3.5	-2.9	4.8	2.2	2.1	3.0	0.1	5.8	5.0	0.1	4.2	2.0	3.8	2.8	2.5
Imports	11.6	-12.0	-1.0	11.4	4.4	2.6	9.0	6.6	1.0	6.0	6.4	3.2	3.8	2.9	2.5
EXPENDITURE ON GDP	2.4	-1.3	2.6	0.2	3.3	2.3	2.3	3.8	4.6	3.1	3.2	3.1	3.2	2.7	2.5
GDP (production measure)	2.4	-1.7	0.8	1.2	2.7	2.2	2.7	3.9	3.8	3.3	2.8	3.3	3.4	2.7	2.5
- annual % change	0.7	-2.0	2.6	1.0	2.6	2.4	2.8	3.8	4.4	2.8	2.6	3.8	3.0	2.7	2.3
Real GDP per capita	1.5	-2.5	-0.3	0.2	2.1	1.6	1.5	2.1	1.7	1.2	0.7	1.3	1.7	1.3	1.3
Nominal GDP (expenditure basis)	7.7	0.3	3.8	4.6	4.5	1.7	8.2	3.5	5.2	6.4	6.1	4.7	5.0	4.6	4.5
GDP deflator	5.2	1.6	1.1	4.4	1.2	-0.6	5.8	-0.3	0.6	3.1	2.8	1.5	1.8	1.9	2.0
Output gap (% deviation, June year average)	2.7	-0.6	-1.3	-1.9	-1.3	-1.5	-1.6	-0.7	0.0	0.2	0.0	0.3	0.8	0.8	0.5
Employment	1.3	-0.2	-1.3	1.5	0.9	0.2	3.2	3.2	2.3	5.2	3.8	2.1	1.9	1.5	1.3
Unemployment (% June quarter s.a.)	3.8	5.7	6.5	6.0	6.3	5.9	5.2	5.5	5.0	4.8	4.5	4.2	4.1	4.1	4.2
Wages (average ordinary-time hourly, ann % change)	5.4	4.7	1.1	3.0	2.9	2.1	2.5	2.7	2.1	1.6	3.2	2.7	3.1	3.3	3.4
CPI inflation (ann % change)	4.0	1.9	1.7	5.3	1.0	0.7	1.6	0.4	0.4	1.7	1.4	1.5	1.8	1.9	2.0
Merchandise terms of trade (SNA basis)	10.0	-4.3	-3.0	9.7	-1.7	-3.8	16.4	-4.7	-2.7	4.8	5.1	-0.5	0.8	0.2	0.0
House prices (ann % change)	-4.4	-3.2	3.4	0.4	4.2	9.1	6.9	11.2	14.0	5.5	7.0	2.8	2.0	3.4	3.7
Current account balance - $billion	-13.4	-9.4	-3.5	-6.0	-7.8	-7.9	-6.0	-8.7	-6.2	-7.4	-7.6	-9.4	-9.5	-10.1	-11.0
Current account balance - % of GDP	-7.1	-4.9	-1.8	-2.9	-3.6	-3.6	-2.5	-3.6	-2.4	-2.7	-2.6	-3.1	-3.0	-3.0	-3.1
TWI (June quarter)	73.0	62.3	68.6	70.8	72.4	76.3	81.5	76.2	73.6	76.5	74.9	75.8	75.5	75.4	75.0
90-day bank bill rate (June quarter)	8.8	2.9	2.9	2.7	2.6	2.6	3.4	3.5	2.4	2.0	2.0	2.6	3.4	3.9	4.0
10-year bond rate (June quarter)	6.4	5.6	5.7	5.3	3.7	3.5	4.4	3.6	2.7	2.9	2.8	3.4	3.9	4.2	4.3

Data for 2018 and subsequently are forecasts. Data for 2017 and prior years are those that were available when the forecasts were finalised.