THE TREASURY
Kaitohutohu Kaupapa Rawa

Half Year Economic and Fiscal Update 2018

13 December 2018

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An introduction to the *Half Year 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 *Half Year Economic and Fiscal Update (Half Year 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 wellbeing. Our framework builds on 30 years of New Zealand and international evidence on wellbeing, such as the OECD's wellbeing approach, and provides a high-level framework on intergenerational wellbeing.

We now provide a living standards perspective in many of the Treasury's core documents, including our *Annual Report, He Puna Hao Pātiki: 2018 Investment Statement* and *He Tirohanga Mokopuna: 2016 Statement on the Long-term Fiscal Position*.

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 that helps 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 *Half Year Update,* please go to our website at https://treasury.govt.nz/

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Other information

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

Additional *Half Year 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/budgets/forecasts

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 27 November 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 27 November 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

5 December 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 27 November 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

6 December 2018

Executive Summary

June years	2018 Actual	2019 Estimate	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Economic						
Real production GDP (annual average % change)	2.7	2.9	3.1	2.7	2.5	2.3
Real GDP per capita (annual average % change)	0.7	1.1	1.5	1.4	1.2	1.2
Unemployment rate (June quarter)	4.4	4.1	3.9	4.0	4.1	4.1
CPI inflation (annual % change, June quarter)	1.5	2.0	2.0	2.0	2.0	2.0
Current account balance (% of GDP)	(3.4)	(3.5)	(3.6)	(3.6)	(3.6)	(3.7)
Fiscal (% of GDP)						
Core Crown tax revenue	27.9	28.1	28.2	28.5	28.8	28.9
Core Crown expenses	28.0	29.5	28.7	28.8	28.4	28.3
Total Crown operating balance before gains and losses	1.9	0.6	1.3	1.5	2.2	2.3
Core Crown residual cash	0.5	(1.7)	(0.8)	(0.3)	0.3	0.8
Net core Crown debt	20.0	20.9	20.7	20.1	19.0	17.4
Net worth attributable to the Crown	45.1	44.5	44.5	45.0	46.3	48.0

Sources: Stats NZ, the Treasury

The New Zealand economy continues to expand steadily, with growth around trend. Supported by government spending, ongoing strength in the labour market, and solid growth abroad, real gross domestic product (GDP) growth is expected to increase to 3.0%, on average, over the next couple of years.

As in the *Budget Economic and Fiscal Update (Budget Update)*, the economy appears to be operating around full capacity following several years of strong growth. The unemployment rate has declined noticeably and wage growth is expected to increase, supported by ongoing labour market tightness and policies for low-paid workers. Rising incomes continue to support consumption, despite household consumption growth easing over the past year.

Looking beyond 2018/19, business and residential investment is forecast to pick up while solid growth in key trading partners supports net exports. However, over the latter half of the forecasts, tightening monetary conditions and easing net immigration contribute to real GDP growth slowing to 2.3% by 2022/23. Inflation is forecast to increase to 2.0% over 2019 owing to the impact of recent fuel price rises. It then remains around this level over the forecast period as wage and other pressures support core inflation.

Nominal GDP in recent quarters has been slightly lower than anticipated in the *Budget Update,* driven by a lower terms of trade. However, a broadly similar outlook for real GDP combined with higher inflation means that the nominal value of GDP in 2021/22 is now forecast to be slightly higher than in the *Budget Update*.

Following stronger than expected year-end results for 2017/18, the fiscal position is better than previously forecast and continues to improve across the forecast period. However, this improvement is now expected to be slower than in the *Budget Update* as higher core Crown tax revenue and new policy measures, such as increases in road user chargers and petrol excise rates, are offset by increased spending on transport and social assistance. As a result, the operating balance before gains and losses (OBEGAL) is forecast to be lower across most forecast years, reaching a surplus of $8.4 billion (2.3% of GDP) in 2022/23.

As in the *Budget Update*, capital spending is expected to exceed net operating cash flows over the first three years of the forecast period despite higher tax receipts. This leads to residual cash deficits in these years and an increasing value of net core Crown debt, peaking at $66.9 billion in 2020/21. However, the residual cash balance is then forecast to return to surplus and the value of net core Crown debt declines to $63.5 billion in 2022/23 (17.4% of GDP). Relative to the *Budget Update*, net core Crown debt is lower across all years of the forecast period due to the stronger 2017/18 starting position.

This outlook is subject to a range of assumptions, risks and uncertainties. For the economic forecasts, the international outlook presents a number of downside risks that, if they materialise, could affect New Zealand's export growth, terms of trade and exchange rate. These include rising trade tensions, political instability and uncertainty about the impacts of US monetary policy tightening. Meanwhile, on the domestic front, key uncertainties exist around how households will respond to rising interest rates, the impact of business confidence on investment and the extent to which capacity constraints may prove binding. Any changes to the economic outlook would flow through to changes in the fiscal position.

Finalisation dates for the update

Economic forecasts* – 23 November

Tax revenue forecasts – 27 November

Fiscal forecasts – 27 November

Specific fiscal risks – 27 November

Text finalised – 10 December

* The economic forecasts do not include annual national accounts data released on this date. See page 22 for further details.

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Economic Outlook

Overview

- The economy continues to expand at a pace that is close to trend, supported by population growth, government spending, accommodative monetary policy and solid trading partner growth. Real gross domestic product (GDP) growth is expected to increase to 3.0%, on average, over 2018/19 and 2019/20, as residential investment strengthens and net exports pick up. The unemployment rate has declined noticeably, falling to 3.9% in the September quarter. Higher global fuel prices and a decline in the New Zealand dollar have driven a sharp, but temporary, increase in headline inflation. Core inflation has increased more gradually. As growth picks up, continued labour market tightness, combined with a range of labour market policies, including fair pay agreements, pay equity settlements and minimum wage increases, is expected to underpin a rise in wage growth and contribute to a sustained increase in inflation.

- Beyond 2019/20, the outlook is for GDP growth to ease as monetary conditions tighten and net export growth returns to average. Net migration inflows are projected to subside, which also dampens demand.

- Nominal GDP continues to grow at a solid pace, although growth has eased in recent quarters and is a bit lower than anticipated in the *Budget Update.* Real GDP growth over the year ahead is slower than in the *Budget Update*, but is little changed thereafter. Inflation is a bit higher over the entire forecast horizon, reflecting recent outcomes and a later withdrawal of monetary stimulus. Overall, the nominal value of GDP in 2021/22 is $0.8 billion higher than in the Budget Update, at $350.6 billion.

- The global economic outlook remains positive. Output growth remains solid in most key trading partners, although growth has slowed over the year. Increases in trade protection are likely to be contributing to slower growth. Inflation pressures are gradually increasing and some countries are reducing monetary policy stimulus. Trading partner growth is expected to slow further but to remain above trend, leading to higher global inflation.

- The balance of risks has evolved. Domestically, weak business confidence may reduce real activity. However, capacity pressures may lead to higher wage growth and higher inflation, which would be positive for nominal GDP and tax revenue. The global outlook has become more uncertain and global growth could slow more sharply than expected, depressing commodity export prices and nominal GDP growth.

Table 1.1 – Economic forecasts

(Annual average % change, June years)	**2018 Actual**	**2019 Forecast**	**2020 Forecast**	**2021 Forecast**	**2022 Forecast**	**2023 Forecast**
Private consumption	3.5	2.9	2.9	2.7	2.5	2.5
Public consumption	5.2	3.2	1.5	0.9	1.2	1.4
Total consumption	**3.9**	**2.9**	**2.6**	**2.3**	**2.2**	**2.2**
Residential investment	1.8	2.0	5.4	6.1	4.0	1.9
Business investment[1]	5.4	4.5	4.1	4.2	3.3	2.7
Total investment	**4.4**	**3.9**	**4.5**	**4.7**	**3.5**	**2.5**
Stock change[2]	-0.1	-0.2	0.2	0.0	0.0	0.0
Gross national expenditure	**4.1**	**2.9**	**3.2**	**2.9**	**2.6**	**2.3**
Exports	3.6	4.4	3.2	2.3	2.2	2.3
Imports	8.0	3.8	3.5	3.1	2.7	2.3
GDP (expenditure measure)	**2.9**	**3.0**	**3.0**	**2.6**	**2.4**	**2.3**
GDP (production measure)	**2.7**	**2.9**	**3.1**	**2.7**	**2.5**	**2.3**
Real GDP per capita	0.7	1.1	1.5	1.4	1.2	1.2
Nominal GDP (expenditure measure)	5.5	4.3	5.6	5.1	4.7	4.5
GDP deflator	2.5	1.3	2.4	2.4	2.2	2.1
Potential GDP	3.0	2.9	2.8	2.7	2.6	2.5
Output gap (% of potential, June quarter)[3]	0.2	0.3	0.5	0.4	0.2	0.1
Employment	3.6	2.7	2.0	1.6	1.3	1.2
Unemployment rate[4]	4.4	4.1	3.9	4.0	4.1	4.1
Participation rate[5]	70.9	71.1	71.2	71.2	71.3	71.3
Hourly wages[6]	3.0	3.1	3.3	3.5	3.4	3.5
CPI inflation (annual % change)	1.5	2.0	2.0	2.0	2.0	2.0
Terms of trade (goods)[7]	4.7	-2.1	0.2	1.1	0.6	0.3
House prices[8]	5.2	4.2	3.7	5.1	5.0	4.4
Current account balance (annual)						
$billions	-9.8	-10.7	-11.6	-12.0	-12.7	-13.5
% of GDP	-3.4	-3.5	-3.6	-3.6	-3.6	-3.7
Net International Investment Position (% of GDP)	-54.6	-55.8	-56.5	-57.4	-58.4	-59.6
Household saving ratio (% of HHDI)[9]	-2.6	-1.4	-0.7	-0.4	-0.3	-0.2
Exchange rate (TWI)[10]	73.8	73.5	73.9	74.8	75.1	75.2
90-day bank bill rate[10]	2.0	2.0	2.3	2.9	3.1	3.2
10-year bond rate[10]	2.8	3.0	3.4	4.0	4.3	4.4

Sources: Reserve Bank of New Zealand, Stats NZ, QV Limited, 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 137.

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 System of National Accounts (SNA).
8 Quotable Value House Price Index, annual percentage change.
9 Percent of household disposable income (HHDI), March years.
10 Trade-weighted Index (TWI), average for the June quarter.

Key economic forecast judgements and assumptions

These forecasts cover the period through to June 2023, and include the following assumptions:

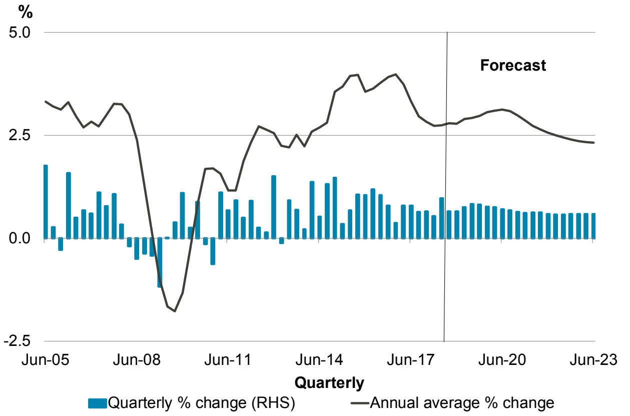
- The trade-weighted exchange rate index rises from 72.4 in the September 2018 quarter to 75.2 in 2022/23.
- Net permanent and long-term immigration declines from 63,000 persons in the year ended September 2018 to 25,000 in 2021/22 and is unchanged thereafter.
- Working-age population (15 years of age and over) growth averages 1.7% per year over the forecast period, including the contribution of net migration.
- The labour force participation rate rises from 71.1% in the September quarter 2018 to 71.3% in the 2021/22 year and is steady thereafter.
- Economy-wide multifactor productivity growth averages 0.5% per year over the forecast period.
- Economy-wide labour productivity growth averages 0.9% per year over the forecast period.
- Potential output growth averages 2.7% per year over the forecast period.
- The neutral nominal 90-day interest rate is 4.0% in June 2023.
- The long-run non-accelerating inflation rate of unemployment (NAIRU) is 4.25%.
- West Texas Intermediate (WTI) oil prices fall to US$60.0 per barrel in the March 2019 quarter and remain at this level throughout the forecast period.
- A number of public sector pay equity claims are settled, resulting in higher wages in some occupations, including in the private sector.

Economic Conditions and Outlook

The economy is growing broadly in line with trend…

Real GDP increased 1.0% in the June quarter, following growth of 0.5% in the March quarter, keeping growth over the year steady at 2.7%. Growth over the second half of 2018 has been underpinned by continued strength in the labour market, increases in government financial support to households and favourable weather conditions that have boosted primary production. Quarterly GDP growth of 0.7% is expected for both the September and December quarters, which would take growth in the year ended December to 2.8%, broadly in line with the Treasury's estimate of potential growth. These forces continue to drive growth over the first half of 2019, taking annual average growth to 2.9% in the year ending June 2019 (Figure 1.1).

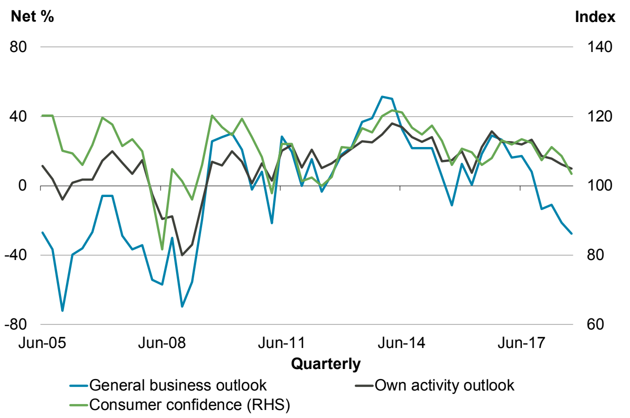
Figure 1.1 – Real GDP growth



Sources: Stats NZ, the Treasury

A key risk to growth over the 2018/19 fiscal year is the extent to which weaker business and consumer sentiment affect spending decisions (Figure 1.2). Business investment has shown signs of weakness over the first half of 2018, although the Treasury's business talks suggested that trends in activity had been broadly stable in recent months. These forecasts assume that weaker business confidence will have a further modest negative effect on business investment. Indicators of consumer spending show growth slowed in the September quarter. However, higher fuel prices, rather than lower consumer confidence, appears to be the main driver of the slowdown.

Figure 1.2 – Business and consumer confidence



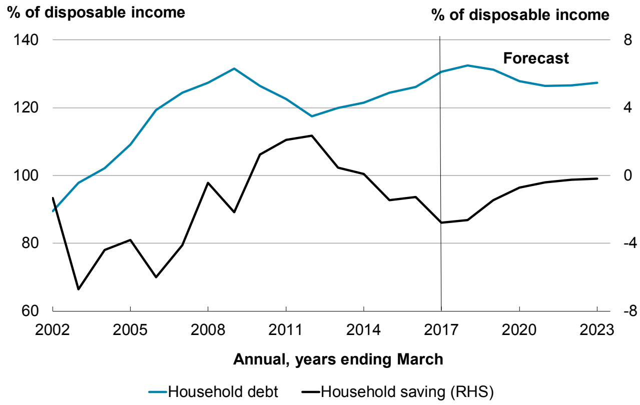
Sources: NZIER, Westpac McDermott-Miller

…but there are challenges in the medium-term

The outlook for growth beyond 2018/19 will depend on how businesses respond to increasing wage and capacity pressures and on the saving choices of households. Household debt metrics have deteriorated in recent years as increases in non-financial wealth, which is heavily weighted towards housing, and low interest rates have influenced household decisions to increase consumption and reduce saving.

Consumption growth has slowed over the past year, coinciding with slower house price growth, to be roughly in line with income growth. Nonetheless, estimates of household saving remain negative and household debt levels remain high, particularly among first-home buyers and property investors (Figure 1.3).

Figure 1.3 – Household debt and saving

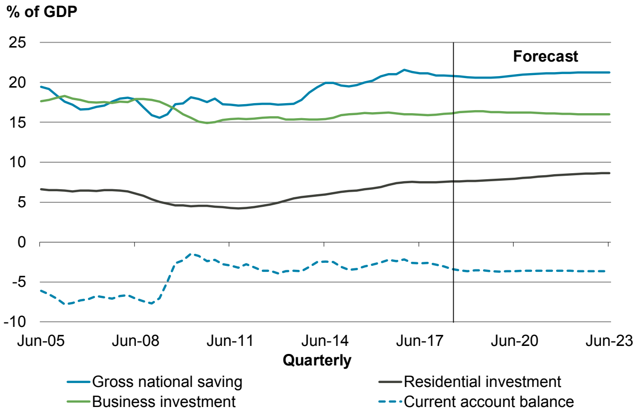


Sources: Stats NZ, the Treasury

High debt levels increase the sensitivity of household spending to changes in interest rates and financial circumstances. Household consumption could be weaker than forecast if households lower their expectations of gains in income or wealth. Such an outcome would be consistent with a slower pace of house price inflation or more modest wage growth than forecast.

Corporate profit margins have come under increased pressure from rising input costs and further cost increases, particularly wage costs, are expected. Firms have a range of choices about the way they respond. For example, they may increase investment by more than expected in order to boost labour productivity, or firms may seek to economise on labour inputs, which might be reflected in a slower pace of employment growth.

Figure 1.4 – Saving, investment and the current account balance



Sources: Stats NZ, the Treasury

Growth in residential investment is being hampered by capacity constraints. Progress in mitigating these constraints will be an important driver of growth. The Government's operating surplus is forecast to continue rising. The aggregate impact of these investment and saving decisions is reflected in a current account deficit that is projected to be broadly stable, at around 3.6% of GDP, over the forecast period (Figure 1.4).

Domestic Conditions

Household consumption is keeping pace with household income

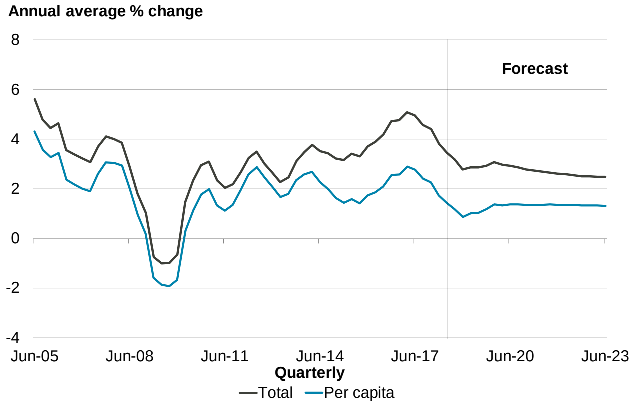
Strong growth in household consumption resumed in the June quarter with a 1.0% increase. However, growth may have slowed in the September quarter as sharply higher fuel prices weighed on other, more discretionary, spending. Household income growth in the September quarter was supported by the implementation of the Government's Families Package as well as continued strength in the labour market.

There are few indicators of December quarter consumer spending available, although the September quarter rise in fuel prices has been reversed, which will support spending. Overall, real household consumption is forecast to grow 2.8% over the year ended December 2018, down from 4.4% over the year ended December 2017. Meanwhile, real household income growth has increased to be a little above the pace of household consumption growth.

Rising incomes support consumption…

Over the first half of 2019, household consumption growth is expected to pick up a little as real income growth rises, supported by the tight labour market and administrative wage increases for low-paid workers. Further administrative wage increases, including including fair pay agreements, pay equity settlements and minimum wage increases, are assumed to occur across the forecast period, consistent with the Government's labour market policies. However, the impacts of the Government's policies are highly uncertain.

Figure 1.5 – Real private consumption expenditure growth



Sources: Stats NZ, the Treasury

Solid growth in real household incomes underpins household consumption growth of around 3.0% per year over 2019/20 and 2020/21 (Figure 1.5). Over the remainder of the forecast period, slowing population growth drives an easing in private consumption growth. Growth in per capita spending also increases over the year ahead and stabilises at 1.4% per year before slowing a little after 2021/22 as higher interest rates drag on disposable income and generate some easing in overall labour market conditions. The household saving rate is projected to move from -2.8% of disposable income towards zero a negative position to one that is slightly positive, although there is uncertainty around this judgement.[1]

[1] Indeed, annual National Accounts (NA) data up to year ended March 2018, which were released after these forecasts were finalised, show the household saving rate in 2017 to be close to zero, an upward revision from the previously published -2.8% rate. The initial NA estimate of the saving rate in the year ended March 2018 is -1.4%.

Developments in labour supply

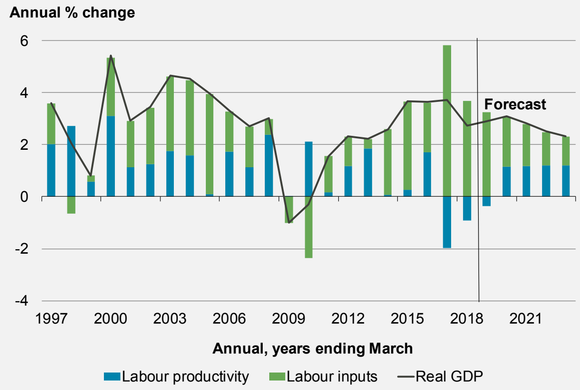
The major determinants of growth in aggregate supply are growth in labour inputs (aggregate hours worked) and growth in the productivity of those inputs, or output (GDP) per hour worked (Figure 1.6).

Labour inputs

In recent years, strong growth in economic activity has been matched by growth in labour inputs, driven by net immigration. The other components of labour supply have also increased (Figure 1.7). Labour market participation has been particularly strong, rising 2.0 percentage points since 2015, and labour force participation is now among the highest in the advanced economies.

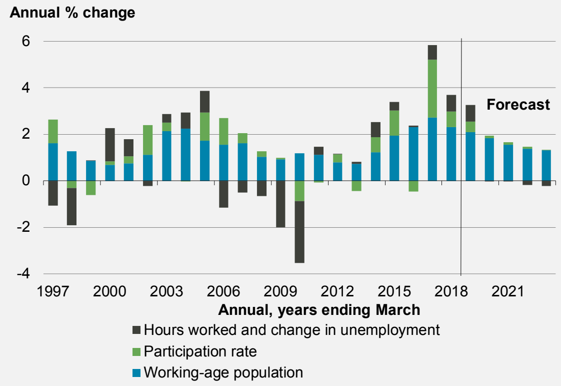
Net immigration has eased over the past year or so and is assumed to trend steadily lower over the forecast horizon, leading to slower labour input growth. It is uncertain whether the trend increase in labour market participation and average hours worked will continue. They are assumed to make a small contribution to labour supply over the forecast period. In sum, aggregate labour supply growth is projected to ease steadily from 3.8% in the year ending March 2018 to 1.1% in 2022/23.

Figure 1.6 – Contributions to real GDP growth



Sources: Stats NZ, the Treasury

Figure 1.7 – Labour input growth



Sources: Stats NZ, the Treasury

Productivity

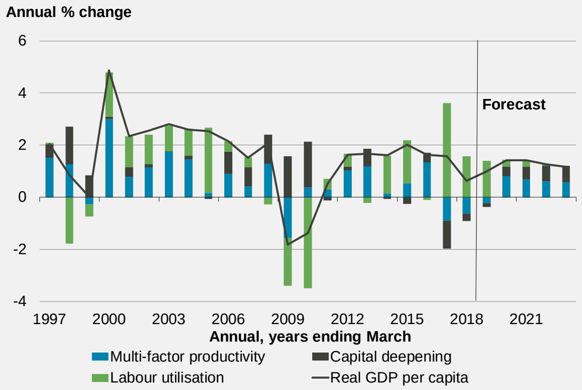
With growth in labour inputs expected to fade, developments in labour productivity assume increased importance as a driver of supply growth.

The headline measure of labour productivity growth, which is based on the Household Labour Force Survey (HLFS) measure of hours worked, has been weak following changes to the Survey in 2016. Alternative measures of productivity growth from the business-based Quarterly Employment Survey, Stats NZ's measured sector productivity, and data from Stats NZ that controls for the structural break in 2016, confirm that productivity growth has slowed from its pre-2009 trend, but not to the extent portrayed by the HLFS.

Growth in labour productivity reflects both the amount of capital employed (capital per hour worked) and how efficiently labour and capital are combined (multi-factor productivity) to produce output. Over the past few years, investment growth has not kept pace with growth in labour inputs and the ratio of capital per worker has fallen (an increase in the capital-to-labour ratio is called capital deepening). It would not be too surprising if firms take some time to fully adapt to the large increase in labour inputs. In the interim, multi-factor productivity growth might be expected to be weaker than usual.

Growth in output per person (GDP per capita), which combines changes in labour utilisation, multi-factor productivity and capital per hour worked, has also been a bit below its pre-2009 trend. As with aggregate GDP, increased labour utilisation has partially offset weak labour productivity growth (Figure 1.8).

Figure 1.8 – GDP per capita growth



Sources: Stats NZ, the Treasury

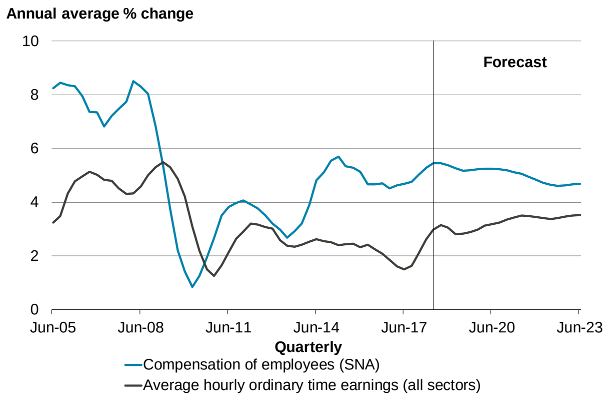
Looking forward, slower labour supply growth, combined with steady investment growth, helps to lift the capital-to-labour ratio. Multi-factor productivity is assumed to return to its 2010-16 average growth rate of around 0.6% per year, as the effects of the structural change in the HLFS drop out of the data. GDP per capita growth averages around 1.3% over the forecast period, similar to is its post-2009 average. There are, however, risks around these assumptions in both directions. Technological advances may increase productivity growth beyond the current assumption, although this would imply a faster pace of technological change than in the past, or that firms adapt more rapidly than in the past. On the other hand, growth in international trade, which tends to accompany productivity growth, may be disrupted by further increases in protectionist measures or other changes in trading arrangements such as those resulting from a disorderly Brexit.

…as wage growth picks up…

Wage growth picked up over the past year. The Quarterly Employment Survey shows average hourly wages rose 3.2% in the year ending September 2018, up from 1.6% in the previous year. Large contributions to the increase came from the pay equity settlement for care and support workers, mandated minimum wage increases and from settlements of collective employment agreements (CEAs).

Over the 2019/20 year, further public sector CEAs are expected to be settled and minimum wages are assumed to increase further, in line with the Government's commitment to increase the minimum wage to $20.00 per hour by April 2021. A number of public sector pay equity claims and other measures to address the gender pay gap in the public sector are also expected to be negotiated over the forecast period. Settlement of these negotiations may impact on the private sector and reinforce the effects of broader labour market tightness on aggregate hourly wage growth, which is projected to average around 3.5% per year (Figure 1.9).

Figure 1.9 – Labour income growth



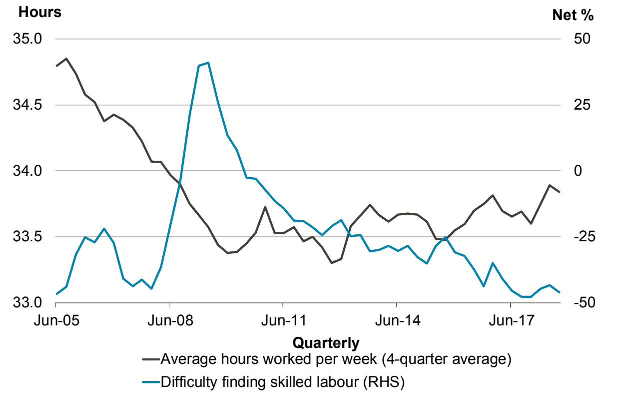
Sources: Stats NZ, the Treasury

In the national accounts, annual growth in compensation of employees, which captures growth in employment and wages (or total gross labour income), is expected to be stable at around 5.3% over the period to June 2021, before declining to 4.7% as employment growth slows.

…and employment growth remains solid

The unemployment rate declined noticeably to 3.9% in the September quarter 2018 and average hours worked per person employed rose 0.4% over the year ended September. Average hours worked are high by recent standards, although they remain well below pre-2008 levels, likely reflecting structural changes (eg, increased statutory leave) as well as survey changes. Other indicators of labour market capacity, including underutilisation and survey measures of firms' difficulty hiring labour, corroborate the picture of labour market tightness (Figure 1.10). The Treasury's business talks confirmed ongoing acute labour shortages in construction and IT.

Figure 1.10 – Labour market indicators



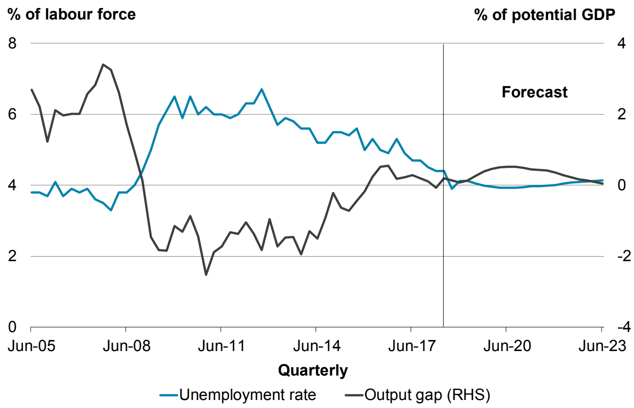
Sources: Stats NZ, NZIER

Note: Difficulty finding skilled labour is measured as the net percent of firms reporting it easier to find skilled staff.

Estimates of spare capacity from statistical models based on past observations of output, inflation and unemployment support the judgement that supply and demand in the economy are broadly in balance or, in technical terms, that the output gap is closed (Figure 1.11).

The outlook is for employment growth to ease from its rapid pace over recent years, but to remain solid, growing at a similar pace to the working-age population. The unemployment rate is projected to remain around 4.0% over the forecast horizon, below the Treasury's estimate of the medium-term sustainable rate, with is reflected as an excess of demand relative to supply (a positive output gap) over the forecast horizon.

Figure 1.11 – Unemployment and output gap



Sources: Stats NZ, the Treasury

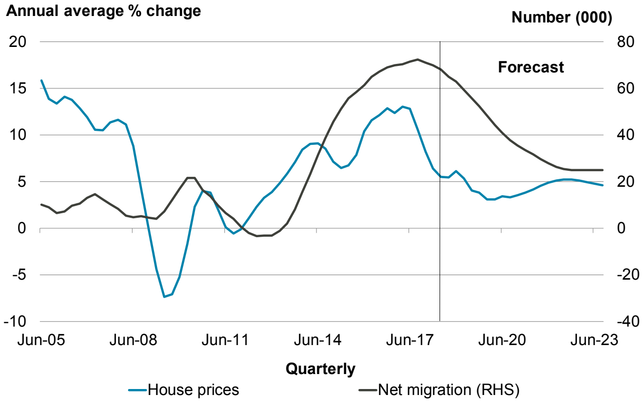
House price inflation has eased

Ongoing gains in household net wealth have supported household spending; net wealth increased at an average annual pace of 10.0% in the three years ending March 2017. However, over the past year net wealth grew around 4.0%, below the rate of income growth.

House prices, which are of particular importance for the net wealth positions of a large number of New Zealand households, increased a little over 5.0% over the past year, well below the rate of increase experienced over the past three years (Figure 1.12).

As discussed in previous *Updates*, much of the slowdown in house price inflation is concentrated in the Auckland region. Auckland house price inflation was particularly strong over 2015 and 2016 and well in excess of household income growth, reducing affordability. Since then, regulatory and tax changes and lower net immigration seem to have had a larger impact on house prices in Auckland than other regions. Outside Auckland, house price growth has slowed, but continues to exceed income growth.

Figure 1.12 – House prices and net migration



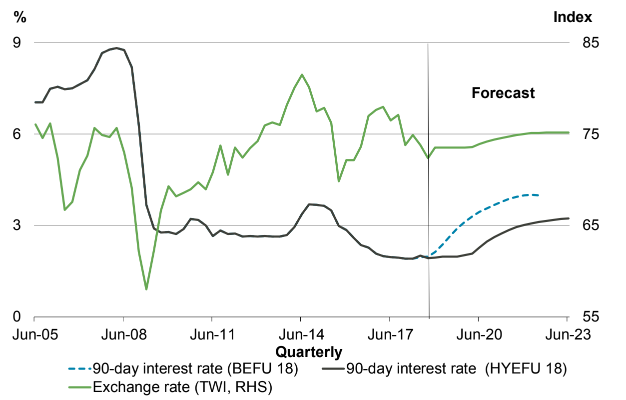
Sources: Stats NZ, the Treasury

House price inflation is assumed to ease a little over the year ahead, and to grow at a similar pace to household income thereafter. There are risks around this assumption. House prices may grow more slowly if supply expands more rapidly than projected or if demand is less supportive, which could be the case if households' desired saving rate is higher than assumed. On the other hand, demand and house prices could be stronger than assumed if net migration inflows are higher or income growth is stronger, which could be the case if wage pressures are stronger than expected.

Higher fuel prices are boosting headline inflation

Consumers Price Index (CPI) inflation of 0.9% was recorded in the September quarter, up from 0.4% in the June quarter, and annual inflation increased to 1.9% from 1.5% in June. Higher fuel prices contributed 0.3 percentage points to quarterly inflation and 0.7 percentage points to annual inflation. On an annual basis, measures of core inflation, which give little weight to irregular price movements such as fuel, have crept higher over the past year.

Figure 1.13 – Monetary conditions



Sources: Reserve Bank of New Zealand, the Treasury

The gradual rise of the core inflation measures is consistent with the emergence of mild capacity pressures over past quarters, as indicated by the positive output gap over 2016 and 2017. However, that gap has subsequently closed, suggesting that interest rates have been less stimulatory than previously assumed. The implication is that interest rates do not need to rise as much as previously assumed in order to slow economic activity. This is reflected in the outlook for interest rates, which increase later and by less than in the *Budget Update* (Figure 1.13). A modest increase in the exchange rate is assumed to accompany the rise in interest rates, which imparts downward pressure on tradable inflation. However, there is a high degree of uncertainty around these judgements.[2]

[2] See "Looking at the Stars" https://www.rbnz.govt.nz/research-and-publications/speeches/2017/speech-2017-07-26.

Annual CPI inflation is forecast to increase to 2.0% in the December 2018 quarter and to remain around 2.0% over the year to June 2019, although the sharp drop in petrol prices in recent weeks, if sustained, may result in weaker outturns. In the year ending June 2020, annual inflation is forecast to average 1.8%, as the impact of higher fuel prices in 2018 drops out of the annual calculation. Thereafter, wage and other cost pressures lift inflation to 2.0%, the mid-point of the RBNZ's 1% to 3% inflation target.

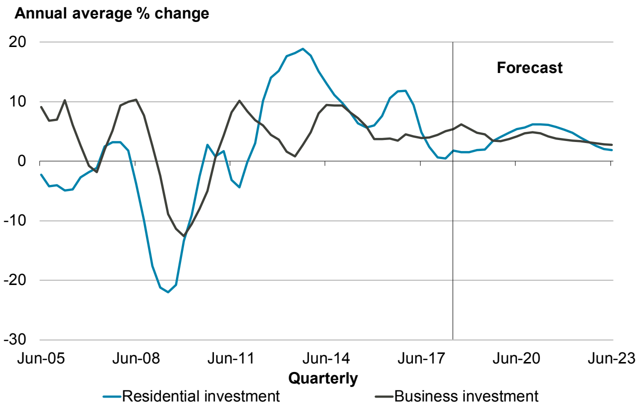
Residential investment is expected to pick up…

Developments in the housing market also impact on GDP directly through housing investment, which includes house sales, the construction of new dwellings and improvements to existing dwellings.

Growth in residential investment has been modest over the past two years or so, with skill shortages and regulatory barriers constraining activity. Dwelling consents rose sharply over the first half of the year, which is expected to underpin further growth in residential investment over the year ahead. House sales have been broadly flat, on average, over recent months according to the Real Estate Institute of New Zealand (REINZ), consistent with the sideways movement in house prices. House sales are expected to remain around current levels.

Assumptions on the scale and timing of the KiwiBuild programme are unchanged from the *Budget Update.* There is considerable uncertainty around the timing and impact of the KiwiBuild programme. Overall, residential investment growth is forecast to increase to 6.1% in the year ending June 2020 (Figure 1.14). Thereafter, growth eases as interest rates rise and population growth slows.

Figure 1.14 – Real residential and business investment



Sources: Stats NZ, the Treasury

…and business investment continues to grow steadily

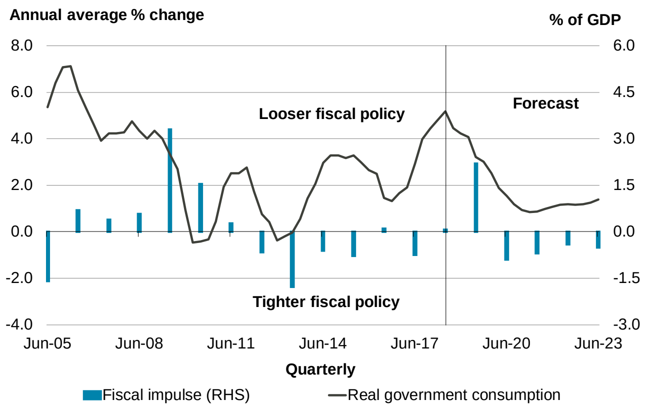
A range of forces, including the exchange rate, export commodity prices, financial market conditions, business confidence, and capacity utilisation affect business investment. On balance, these forces have changed little over the past year or so and business investment growth has been steady (Figure 1.14). However, business investment fell in the June quarter.

Business investment growth is expected to strengthen in the September quarter, driven by investment in the airline industry, which tends to be quite lumpy, but to be quite modest over the remainder of the 2018/19 fiscal year. Construction activity is expected to remain solid in coming years according to the National Construction Pipeline Report 2018[3]. The Government's net investment intentions, across all investment types, including construction, are similar to the *Budget Update* at $10.5 billion cumulatively over the next four years (refer to Table 2.7 page 33). In addition, the terms of trade are forecast to remain at a relatively high level, which supports business profitability and investment. Overall, the outlook is for business investment to grow steadily, averaging a bit over 4.0%, over the next two years before easing as interest rates rise and population growth slows.

Government spending supports demand over the year ahead

The outlook for the Government's tax and spending plans has been updated to incorporate decisions made since the *Budget Update*. The Government's Budget operating allowances are unchanged from the *Budget Update*, although timing delays to expenses in 2017/18 have increased expected expenses in 2018/19, as reported in the Government's 2018 *Financial Statements*. This is reflected in the large fiscal impulse for 2018/2019 (Figure 1.15).[4] In addition, the forecasts include an estimate of the potential impact of pay equity claim settlements within the forecast period. Assumptions around timing, scale and impact are subject to a wide band of uncertainty.

Figure 1.15 – Government consumption and fiscal impulse



Sources: Stats NZ, the Treasury

3 https://www.mbie.govt.nz/publications-research/research/construction-sector-productivity/national-construction-pipeline-report-2018.pdf

4 Refer to Summary fiscal indicators box on page 32 for further information.

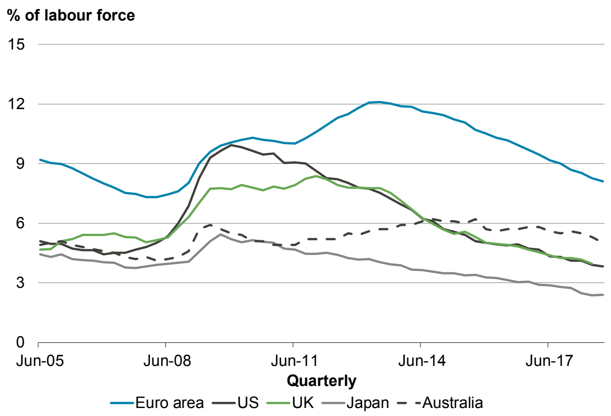
External Conditions

Global outlook remains solid, but risks of weaker growth have increased…

Recent reports by the OECD and IMF project global growth to be stable at a high level over 2018 and 2019. Trade protection has increased, although the direct impacts of tariff measures to date, which are included in forecasts from the IMF and OECD, appear to be modest. However, as trade tensions escalate, so too do the risks of significant adverse impacts on the real economy from uncertainty and reduced investment (the Risks and Scenarios chapter contains further discussion). In the medium term, growth faces structural challenges from population ageing and weak productivity growth.

Growth in New Zealand's major advanced economy trading partners remained above average over the first half of the year, reducing spare capacity. Unemployment rates have fallen to low levels, relative to the historical experience, in a number of economies (Figure 1.16). There are signs that wage growth and inflation are picking up, although less so in the euro area and Japan.

Figure 1.16 – Unemployment rates

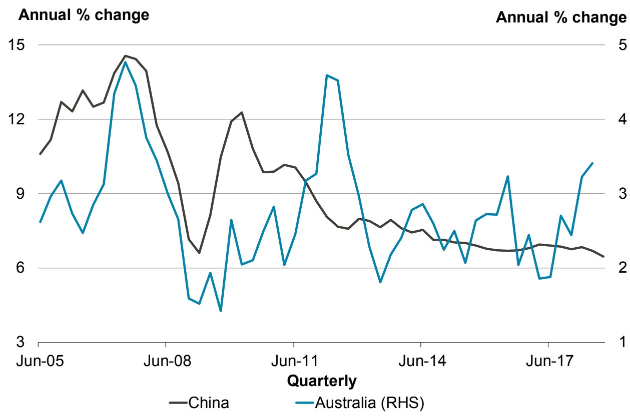


Source: Haver Analytics

Expansive fiscal policy is continuing to support strong growth in the US, but in other advanced trading-partner economies growth slowed in the September quarter. Indicators of growth in the current quarter suggest growth has continued at this slower pace. Uncertainty around trade prospects may be a common factor contributing to the slowdown in growth.

Growth in China, New Zealand's largest trading partner, was strong over the first half of the year, but slowed in the third quarter (Figure 1.17). Investor concerns around the impacts of the intensifying trade dispute with the US have contributed to lower equity prices and a depreciation of the yuan. The Chinese authorities have responded with measures to support financial markets and fiscal measures, including income tax reductions, to support demand.

Figure 1.17 – Growth in China and Australia



Source: Haver Analytics

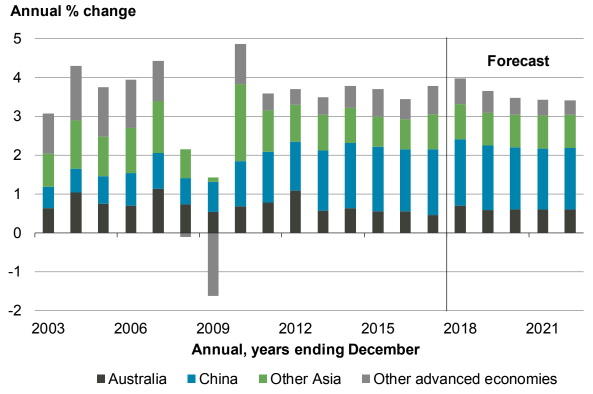
Conditions across Southeast Asia have generally remained solid, supported by accommodating monetary policies, although some central banks have increased policy rates in recent months. Trade tensions appear to be weighing on sentiment in the region and, combined with the prospect of further interest rate rises in the US, pressure on the region's exchange rates and financial markets is expected to continue.

In Australia, New Zealand's second largest trading partner, economic growth has gained momentum on the back of strong household spending (Figure 1.17). Business investment has picked up, supported by public sector infrastructure spending and buoyant confidence. The Australian labour market continues to tighten with employment growing strongly and the unemployment rate falling to 5.0%, although wage growth has yet to show convincing signs of a pick-up and inflation remains a bit below the mid-point of the central bank's target.

…and there are challenges in the medium-term

The outlook is for a general slowing of economic growth across New Zealand's major trading partners (Figure 1.18). In the US, the stimulus from fiscal policy will wane and eventually become a drag on growth, while in other advanced economies, reduced spare capacity and higher interest rates will slow growth. In addition to this cyclical slowing, ageing populations and weak past productivity growth point to weaker medium-term growth prospects than experienced in previous expansions.

Figure 1.18 – Contributions to trading partner growth



Sources: Haver Analytics, the Treasury

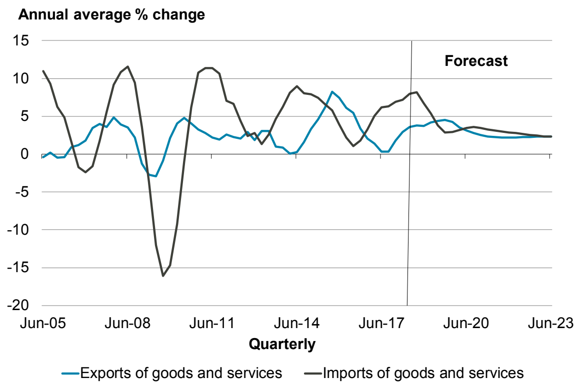
Other Asia: Hong Kong, Philippines, Indonesia, India, Malaysia, Singapore, Thailand, South Korea, Taiwan. Other advanced economies: Canada, US, UK, euro area, Japan.

In China, the economy continues to deleverage and transition to a more sustainable economic structure. Notably, China's transition will likely continue to increase the share of household consumption in GDP. With most of New Zealand's exports to China ultimately consumed by households, China's trade share is expected to continue to increase, which offsets much of the impact of slower headline growth on the outlook for China and New Zealand's major trading partners overall.

Export outlook strengthens as dairy production increases…

Export volumes grew solidly over the year ended June 2018, increasing 3.6%, despite a decline in dairy exports, which account for a quarter of total goods exports by value (Figure 1.19). Strong growth in meat, forestry, and other food, beverage and tobacco volumes, which includes infant milk formula, more than offset the decline in dairy exports. Services export volumes, which include international visitors, have continued to grow strongly.

Figure 1.19 – Export and import volumes



Sources: Stats NZ, the Treasury

Season-to-date dairy production has been exceptionally high, pointing to increased dairy exports over the year ahead. Growth in other goods categories in 2018/19 is expected to be a little slower, on the whole, than in 2017/18. Services export growth is projected to increase as the lower exchange rate contributes to higher visitor spending. Export volumes are expected to increase 4.4% in the year ending June 2019 and to increase around 2.3% per year thereafter as dairy export growth returns to normal and the recent fall in the exchange rate reverses and weighs on visitor spending.

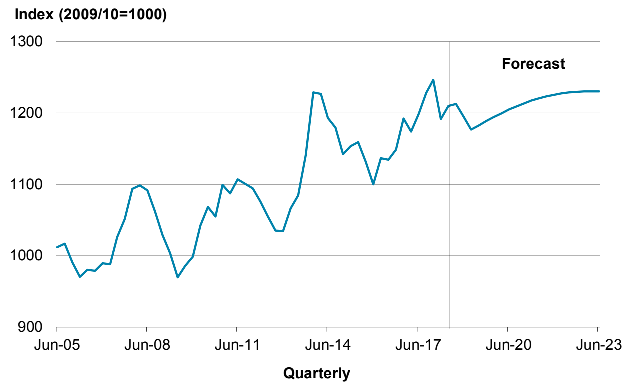
Goods imports volumes increased 9.2% over 2017/18, driven by strong growth in capital goods imports, including transport equipment, with the latter likely reflecting the strength of in-bound tourism. Services import volumes, which are about a fifth of total imports, have grown solidly over the past year, rising 4.7% in the year ended June 2018, driven by an increase in New Zealand residents travelling overseas. Total import volumes rose 8.0% in the year ended June 2018. Import volume growth is forecast to ease, in line with the outlook for domestic demand (Figure 1.19).

Overall, net exports are expected to be neutral for growth over the year ended June 2019, compared with their large negative contribution over the previous year. Beyond 2019, net exports are expected to make a small negative contribution to growth given the prospects for demand growth in New Zealand relative to our major trading partners.

…and solid export demand helps keep the terms of trade high

New Zealand's goods terms of trade have declined from their peak in the December quarter 2017 and a further softening is expected over the 2018/19 fiscal year (Figure 1.20). Dairy auction prices have weakened, consistent with strong domestic supply, and prices for other export commodities have eased in recent months. The lower New Zealand dollar has cushioned some of the impact of lower international prices on producers.

Figure 1.20 – Terms of trade



Sources: Stats NZ, the Treasury

New Zealand is a net importer of oil and petroleum products and falls in global oil prices over the past month or so will partially offset some of the income effects of lower export prices. Overall, the terms of trade are expected to fall a bit further before stabilising in mid-2019. Over the medium term, the terms of trade are projected to rise gradually as Chinese demand for food remains solid amid tighter supply, particularly in the meat and dairy industries.

In the external accounts, the small negative effect of net export volumes is more than offset by the positive effect of the gradual rise in the terms of trade and the deficit in the goods and services balance is projected to narrow a little. However, higher global interest rates widen the income deficit. The net result is a stable current account deficit. These deficits result in an increase in New Zealand's net external liability position from 54.6% of GDP as at June 2018 to a projected 59.6% as at 30 June 2023.

Nominal GDP

Growth in nominal GDP captures growth in real GDP and changes in prices. The national accounts measure of prices (the GDP deflator) is broader than the CPI. It includes import and export prices as well as prices of investment goods and prices of non-market goods and services, such as those the Government provides.

Growth in nominal GDP has eased over the past year, driven by the decline in the terms of trade. Nominal GDP growth is expected to continue to ease over the year ending June 2019, driven by the weaker terms of trade. Stronger real GDP growth and stabilisation of the terms of trade promote a recovery in nominal GDP growth to 5.6% over 2019/20. Thereafter, nominal GDP growth eases in line with real GDP growth. Over the forecast period, nominal GDP growth averages 4.9% per year.

Compared to the *Budget Update*, nominal GDP is around $2.8 billion lower over 2019/20, with $1.8 billion of this difference owing to lower GDP over the year ending June 2018, which is the starting point for these forecasts. By the end of the 2021/22 fiscal year, nominal GDP is $0.8 billion higher than previously forecast. Adjusting for the lower starting point, nominal GDP is cumulatively $4.8 billion higher than in the *Budget Update* over the period to June 2022, owing to stronger nominal growth after 2018/19. This is largely driven by higher compensation of employees, reflecting both higher wages and employment over the forecast period.

2

Fiscal Outlook

Overview

- The year-end results for 30 June 2018 were stronger than expected and, as a result, this flows into a stronger starting base for the fiscal forecast.
- Overall, the fiscal outlook is expected to improve across the forecast period. However, some of the strong starting point, owing to timing, is expected to unwind by the end of the forecast period (in particular in the 2018/19 fiscal year).
- Core Crown tax revenue increases by $25.1 billion reaching $105.3 billion in 2022/23 (28.9% of gross domestic product (GDP)). This increase in tax revenue reflects the continued growth in economic activity as discussed earlier in the Economic Outlook chapter.
- Core Crown expenditure increases by $22.6 billion reaching $103.2 billion in 2022/23 (28.3% of GDP). This increase in expenditure largely reflects previous Budget decisions, future Budget allowances and increases in benefit expenditure.
- The operating balance before gains and losses (OBEGAL) is expected to decrease in the current year to $1.7 billion followed by steady growth in the remaining years of the forecasts, reaching a surplus of $8.4 billion (2.3% of GDP) in 2022/23.
- 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 three 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 last two years of the forecast.
- To fund the forecast residual cash deficits, net core Crown debt is forecast to increase in nominal terms before tracking down in the last two years 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 17.4% in 2022/23.
- The Crown’s balance sheet continues to grow, with net worth attributable to the Crown reaching $174.7 billion (48.0% of GDP) in 2022/23. This growth is largely the result of continued forecast surpluses across the forecast period.

- OBEGAL is expected to be lower than what was forecast in the *Budget Update* in the near term before exceeding the *Budget Update* forecast in 2021/22. Core Crown tax revenue is expected to be higher than the *Budget Update* across all years as are core Crown expenses, with the increase in tax revenue exceeding the increased expenditure in 2021/22.
- Net core Crown debt is lower than the *Budget Update* across all years of the forecast, initially owing to a lower starting position. Additional tax receipts are expected to reduce net core Crown debt by $3.6 billion. However, these are more than offset by increased operating and capital expenditure across the forecast period.
- Comparisons against the *Budget Update* can be found on page 40.
- The Forecast Financial Statements and Core Crown Expense tables can be found on pages 125 to 129, 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	**2018 Actual**	**2019 Forecast**	**2020 Forecast**	**2021 Forecast**	**2022 Forecast**	**2023 Forecast**
$billions						
Core Crown tax revenue	80.2	84.3	89.2	95.0	100.4	105.3
Core Crown expenses	80.6	88.7	90.9	95.9	98.9	103.2
Total Crown OBEGAL[1]	5.5	1.7	4.1	5.1	7.6	8.4
Core Crown residual cash	1.3	(5.0)	(2.5)	(0.9)	0.9	3.0
Net core Crown debt[2]	57.5	62.7	65.6	66.9	66.3	63.5
Total borrowings	115.7	111.4	116.2	116.9	123.3	122.8
Net worth attributable to the Crown	129.6	133.5	140.9	149.8	161.6	174.7
% of GDP[3]						
Core Crown tax revenue	27.9	28.1	28.2	28.5	28.8	28.9
Core Crown expenses	28.0	29.5	28.7	28.8	28.4	28.3
Total Crown OBEGAL[1]	1.9	0.6	1.3	1.5	2.2	2.3
Core Crown residual cash	0.5	(1.7)	(0.8)	(0.3)	0.3	0.8
Net core Crown debt[2]	20.0	20.9	20.7	20.1	19.0	17.4
Total borrowings	40.2	37.1	36.7	35.1	35.4	33.7
Net worth attributable to the Crown	45.1	44.5	44.5	45.0	46.3	48.0

Notes: 1 Operating balance before gains and losses.

2 Net core Crown debt, excluding the New Zealand Superannuation Fund (NZS Fund) and advances.

3 Percentage of GDP: In line with best practice, nominal GDP has been adjusted to incorporate changes to the national accounts data published after the economic forecasts were finalised. These annual national accounts resulted in nominal GDP for the March 2018 year being revised lower by $1.5 billion (0.5%) relative to the latest quarterly GDP release. The smaller denominator has the effect of increasing the fiscal ratios, with an impact on net core Crown debt of 0.1 percentage points of GDP in the year ended June 2018.

Source: The Treasury

Fiscal indicators and the fiscal strategy

The Public Finance Act requires the Government to set a fiscal strategy in accordance with the principles of responsible fiscal management. Fiscal indicators can help the Government monitor progress against their fiscal strategy. This box outlines how these fiscal indicators relate to each other and the Government's fiscal strategy.

The Government's fiscal strategy is currently framed by five Budget Responsibility Rules (BRRs). Progress against three of the five BRRs can be measured against three specific fiscal indicators, as outlined in Table 2.2.

Table 2.2 – Budget Responsibility Rules and the fiscal indicators

Budget Responsibility Rules[5]	Fiscal Indicator
Take a prudent approach to ensure expenditure is phased, controlled, and directed to maximise its benefits. The Government will maintain its expenditure to within the recent historical range of spending to GDP ratio.	**Core Crown expenses** – represents the expenses of the Crown, departments, Office of Parliament, the NZS Fund and the Reserve Bank of New Zealand.
Deliver a sustainable operating surplus across an economic cycle.	**Operating balance before gains and losses (OBEGAL) –** represents the difference between total revenue and total expenses. In addition, to core Crown, it includes the operations of State-owned Enterprises (SOEs) and Crown entities (CEs).
Reduce the level of net core Crown debt to 20% of GDP within five years of taking office.	**Net core Crown debt** – represents the difference between gross debt and liquid financial assets. What will impact net debt in any given year is the OBEGAL and any capital payments.

The fiscal indicators provide a useful link to the different aspects of the Government's fiscal strategy and also help tell an integrated narrative around the Government's fiscal plans.

For example, when revenue exceed expenses the Government will record an operating surplus (measured by OBEGAL). The portion of the OBEGAL surplus that relates to SOEs and CEs are kept by these agencies and some of the items that make up OBEGAL are non-cash (eg, depreciation). Adjusting for these items gets to the operating cash flows generated by the core Crown, which is then available to fund capital investments. Depending on the level of capital investments in any given year, this will influence whether there is a residual cash surplus or deficit and the change in net core Crown debt. When there is a residual cash deficit the Government will need to fund this by either reducing financial assets held or increasing borrowings, this would result in an increase in net core Crown debt. Table 2.3 explains the calculation and relationship between the key fiscal indicators.

5 In addition, the Government has two other Budget Responsibility Rules, which are:

- to ensure a progressive taxation system that is fair, balanced, and promotes the long-term sustainability and productivity of the economy, and
- to prioritise investments to address the long-term financial and sustainability challenges facing New Zealand.

Table 2.3 – Fiscal indicators and the financial forecasts

Financial Results	**Actual 30 June 2018 $millions**	**Forecast 30 June 2019 $millions**	**30 June 2020 $millions**	**30 June 2021 $millions**	**30 June 2022 $millions**	**30 June 2023 $millions**
Core Crown taxation revenue ...	80,224	84,325	89,246	95,003	100,368	105,347
... combined with other core Crown revenue ...	6,554	6,998	6,987	7,182	7,251	7,657
... fund core Crown expenses...	(80,576)	(88,669)	(90,903)	(95,853)	(98,912)	(103,224)
... and with SOE and CE[1] results	(668)	(930)	(1,217)	(1,248)	(1,145)	(1,342)
... result in an operating balance before gains and losses **(OBEGAL)**...	5,534	1,724	4,113	5,084	7,562	8,438
... with gains/losses, SOEs, CEs and NZS Fund results and non-cash items	1,746	1,244	2,114	2,369	2,127	2,333
... this leads to a operating residual cash surplus((deficit)...	**7,280**	**2,968**	**6,227**	**7,453**	**9,689**	**10,771**
... and to use for capital expenditure...	(5,934)	(7,961)	(8,733)	(8,385)	(8,815)	(7,723)
results in a **residual cash surplus/(deficit)...**	**1,346**	**(4,993)**	**(2,506)**	**(932)**	**874**	**3,048**
... when combined with opening net core Crown debt ...	59,480	57,495	62,677	65,581	66,853	66,331
... and other fair value movements in financial assets and financial liabilities ...	(639)	189	398	340	352	208
... results in a closing **net core Crown debt** ...	**57,495**	**62,677**	**65,581**	**66,853**	**66,331**	**63,491**
... which is % of GDP	**20.0%**	**20.9%**	**20.7%**	**20.1%**	**19.0%**	**17.4%**

1 State-owned Enterprises (SOEs) and Crown Entities (CEs)

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 27 November 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 to 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, City Rail Link, Housing Infrastructure Fund, P-8A Poseidon Aircraft, Prison capacity 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 to *Specific Fiscal Risks* chapter for risks to the valuation methodology).

Key judgements and assumptions (continued)

- Contributions to the NZS Fund have resumed and are forecast to continue across the period. Table 2.4 sets out the assumption used in the forecast and the estimated contribution to the NZS Fund, if contributions were 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 2.4 – NZS Fund contributions

Year ending 30 June $billions	**2019 Forecast**	**2020 Forecast**	**2021 Forecast**	**2022 Forecast**	**2023 Forecast**
Estimated contribution[1]	2.2	2.3	2.4	2.4	2.4
Forecast contribution	1.0	1.5	2.2	2.5	2.5

Note: 1 Calculations of annual contributions using the NZS Fund model.

Further information on the underlying economic assumptions used in these fiscal forecasts can be found on page 44.

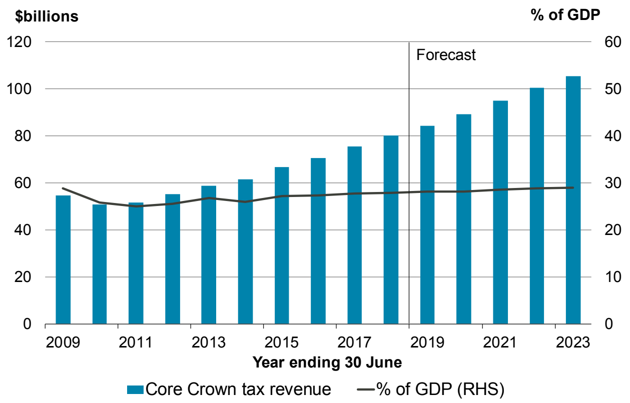
Core Crown Tax Revenue

Tax revenue is forecast to grow over the forecast period...

Core Crown tax revenue is forecast to rise in each year of the forecast period, in both nominal terms and as a percentage of GDP. By 2022/23, core Crown tax revenue is expected to reach $105.3 billion, $25.1 billion higher than in 2017/18.

Recent strength in tax outturns has been included in the current year of this forecast. Table 2.5 shows the largest tax types leading the way in nominal growth (Figure 2.1).

Figure 2.1 – Core Crown tax revenue



Source: The Treasury

Table 2.5 – Increase in core Crown tax revenue over the forecast period, by major tax type

Year ending 30 June $billions	**2019 Forecast**	**2020 Forecast**	**2021 Forecast**	**2022 Forecast**	**2023 Forecast**	**Total Change**
Source deductions	2.0	2.1	2.2	2.2	2.3	10.8
GST	0.7	1.5	1.1	1.3	0.9	5.5
Corporate tax	1.5	(0.1)	0.9	0.9	0.8	4.0
Resident withholding tax (on interest)	0.1	-	0.5	0.6	0.4	1.6
Net other persons tax	(0.4)	1.0	0.6	0.2	0.3	1.7
Other taxes	0.2	0.4	0.5	0.2	0.2	1.5
Total increase in core Crown tax revenue	**4.1**	**4.9**	**5.8**	**5.4**	**4.9**	**25.1**
Plus previous year	80.2	84.3	89.2	95.0	100.4	
Core Crown tax revenue	**84.3**	**89.2**	**95.0**	**100.4**	**105.3**	

Source: The Treasury

Of the major tax types, source deductions, which is mainly PAYE on wages and salaries, is forecast to grow the most ($10.8 billion) over the forecast period. Growth in PAYE comes from a combination of growth in employment, wage and salary rates and average hours worked. It is expected that just under half of the source deduction revenue growth is forecast to come from growth in wage rates. This is mainly owing to tighter labour market conditions and a range of labour market policies including fair pay agreements, pay equity policy and minimum wage policy. The robust forecast wage growth also means that fiscal drag[6] makes a significant contribution (about 1% each year) to forecast PAYE growth.

Goods and services tax (GST) is forecast to increase by a total of $5.5 billion over the forecast period, mainly owing to forecast growth in private consumption, and to a lesser

[6] Fiscal drag is the additional personal income tax generated as an individual's average tax rate increases as their income increases.

extent, growth in residential investment. Around 20% of the growth in GST is forecast to come from residential investment.

Corporate tax is forecast to grow by $4.0 billion over the forecast period, almost entirely owing to forecast growth in the economy leading to higher profits.

A forecast gradual rise in deposit interest rates from the 2020/21 year onwards leads to forecast growth of $1.6 billion in resident withholding tax (RWT) on interest over the forecast period.

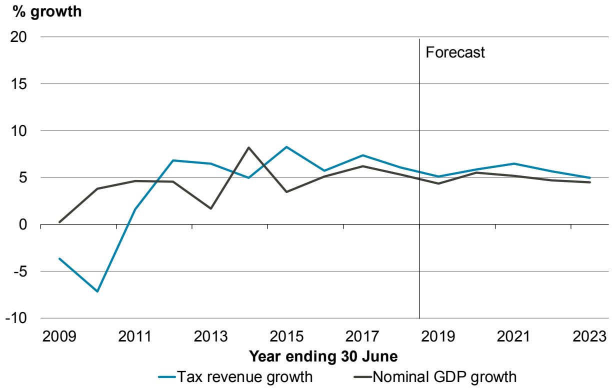
Net other persons' tax is forecast to grow by $1.7 billion over the forecast period, mainly owing to forecast growth in entrepreneurial income, but with a significant contribution from policy changes (eg, ring-fencing of residential property investment losses).

New policy measures such as increases in road user charges and petrol excise rates have been included in our forecasts. We have also updated policy costings for previously announced policies such as residential property investment loss ring-fencing and GST on low-value imports, as these policy details have been firmed up since the *Budget Update*. Together with existing policy measures, such as successive 10% increases to tobacco excise rates, these policy measures are expected to add 0.6% to the tax-to-GDP percentage over the forecast period.

…in line with a growing economy

Average annual nominal GDP growth over the five years to 2022/23 is forecast to be 4.8%. Over the same period, core Crown tax revenue is forecast to grow at a rate of 5.6% per year on average. This is slightly higher than the growth in nominal GDP, owing to the effects of fiscal drag and policy changes (Figure 2.2).

Figure 2.2 – Core Crown tax revenue and nominal GDP growth



Source: The Treasury

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 corporate tax, GST and road user charges.

This comparison is included in the Additional Information on the Treasury website at https://treasury.govt.nz/publications/efu/half-year-economic-and-fiscal-update-2018

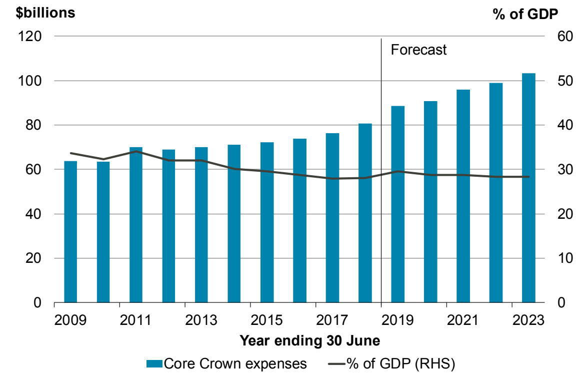
Core Crown Expenses

Core Crown expenses are expected to remain relatively stable compared to the size of the economy…

Core Crown expenses (as a percentage of GDP), while remaining relatively stable, are expected to peak at 29.5% in 2018/19 before declining to 28.3% at the end of the forecast period (Figure 2.3).

Nominally, core Crown expenses are expected to increase by $22.6 billion from $80.6 billion in 2017/18 to $103.2 billion in 2022/23, an increase of around $4.5 billion each year.

Figure 2.3 – Core Crown expenses



Source: The Treasury

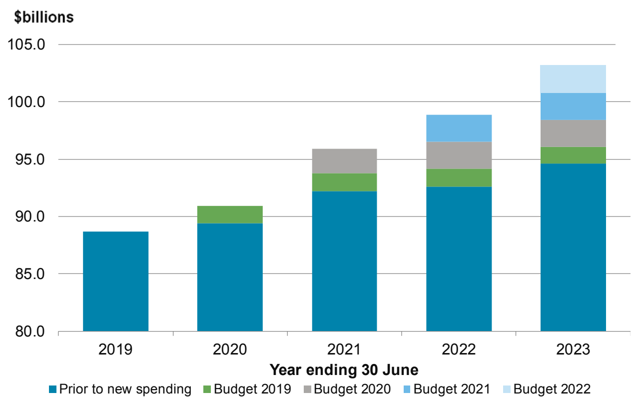
The large growth from 2017/18 to 2018/19 is primarily owing to the lower-than-forecast spending in the 2017/18 year, which has now been transferred to 2018/19, as well as some spending being brought forward into the current year.

Over the forecast period, the nominal growth on core Crown expenses is largely attributable to Budget decisions and new spending set aside for future Budgets. In addition, social assistance spending is forecast to increase by $8.2 billion across the forecast period, largely as a result of the forecast increase in recipient numbers of New Zealand superannuation (refer to page 30).

…with nominal growth primarily owing to operating allowances providing for future decision-making…

Operating allowances for Budget 2019 to Budget 2022 have been set by the Government at $2.4 billion. There have been some pre-commitments made against Budget 2019 and Budget 2020 leaving an average of $1.6 billion and $2.2 billion respectively of spending yet to be allocated. Overall, forecast new spending from future Budgets are forecast to increase expenses by $9.6 billion by 2022/23 (refer to Figure 2.4).

Figure 2.4 – Core Crown expenses with allowance break down



Source: The Treasury

For forecasting purposes, Budget allowances are assumed to be all operating expenditure. However, these allowances can be used for a combination of revenue and expense initiatives when allocated. New operating spending will be allocated to departments' baselines when Budget decisions are made.

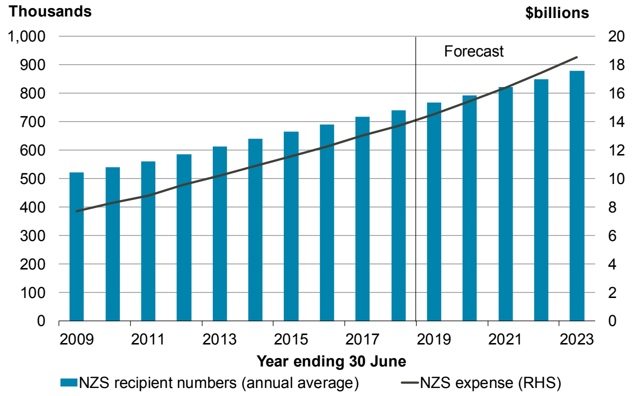
These forecasts assume that any additional costs in relation to government commitments and future cost pressures (whether they be from increased demand for government services, inflation or additional services) will be met from operating allowances.

...and increases in the cost of New Zealand superannuation also contribute to expenditure growth...

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

NZS payments account for $4.9 billion of the increase in core Crown expenses over the forecast period. This increase reflects the growth in the number of recipients, the increase in payment rates and other factors. By the end of the forecast period, NZS equals around 55% of core Crown social assistance spending and 18% of core Crown expenditure (compared with 54% and 17% respectively in 2017/18).

Figure 2.5 – Growth of NZS recipients and expenses



Source: The Treasury

Recipient numbers are forecast to increase from almost 741,300 in 2017/18 to over 878,300 by the end of the forecast horizon (an increase of 18.5%). The remaining increase is largely owing to indexation of entitlements to wage growth (Figure 2.5).

...alongside growth in other expenditure...

Transport expenditure is expected to be higher across the forecast period reflecting the approval of the Government's Policy Statement on Land Transport. In addition, expenditure previously forecast in 2017/18 is now expected to be incurred in the current year, as well as increases in expenditure relating to labour market policies including fair pay agreements, pay equity policy and minimum wage policy.

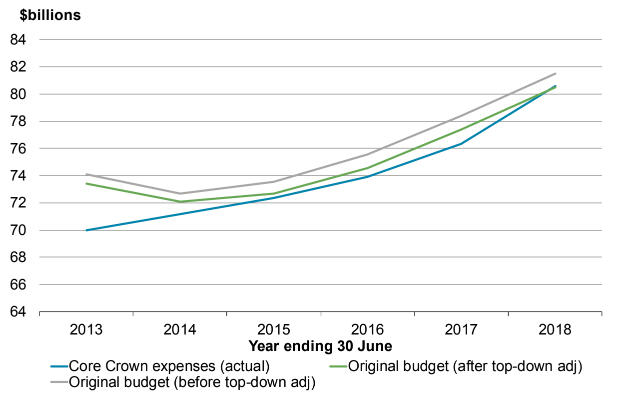
...while judgements continue to be made regarding the level of spending

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

History suggests that the actual level of spending is usually below what entities forecast 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 2019 is Budget 2018).

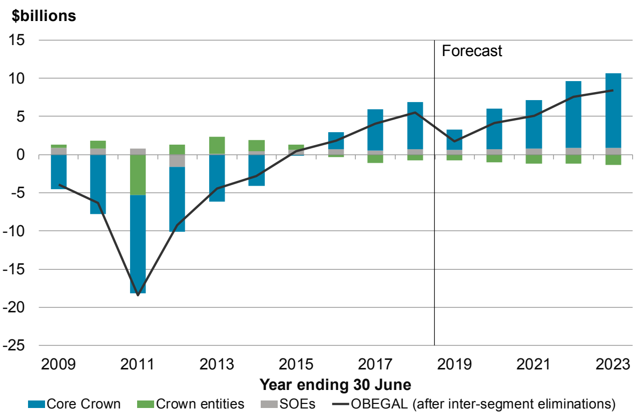
Source: The Treasury

Operating Balance

OBEGAL is expected to decrease initially then grow over the rest of the forecast period…

OBEGAL is expected to decrease in the current year followed by steady growth in the remaining years of the forecasts, as revenue grows at a faster pace than expenditure. OBEGAL reached a surplus of $5.5 billion in 2017/18 but is expected to decrease to a surplus of $1.7 billion in the current year. This surplus is then forecast to rise to $8.4 billion by 2022/23.

Figure 2.7 – Components of OBEGAL by segment



Source: The Treasury

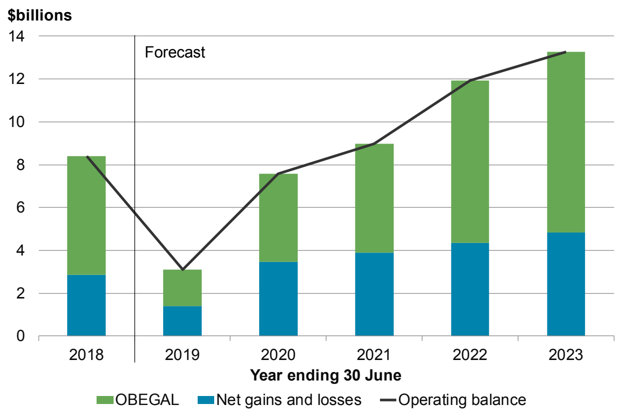
The forecast decreases in OBEGAL in the current forecast year largely reflect the higher-than-expected outturn for 2017/18 impacting 2018/19 as the lower-than-forecast expenditure in 2017/18 is now expected to be spent in the current year and the impact of spending decisions made in Budget 2018.

Crown entities (CEs) and State-owned Enterprises' (SOEs) contribution to OBEGAL remains fairly stable. Figure 2.7 shows the composition of OBEGAL from the different segments of the Government.

…while investment returns contribute to the growth in the operating balance and net worth

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 $13.3 billion in 2022/23 (Figure 2.8).

Figure 2.8 – Components of operating balance



Source: The Treasury

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

Partially offsetting these investment gains are expected net losses on non-financial liabilities of $2.8 billion in 2018/19. This is primarily driven by changes to discount rates used to calculate the ACC outstanding claims liability and the GSF long-term liabilities (resulting in losses of $1.9 billion and $0.4 billion respectively) and losses on the Emissions Trading Scheme of $0.5 billion. As future actuarial gains or losses are not forecast, they do not impact the operating balance beyond 2018/19.

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.

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 section of the *Half Year Update*, at https://treasury.govt.nz/publications/efu/half-year-economic-and-fiscal-update-2018

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

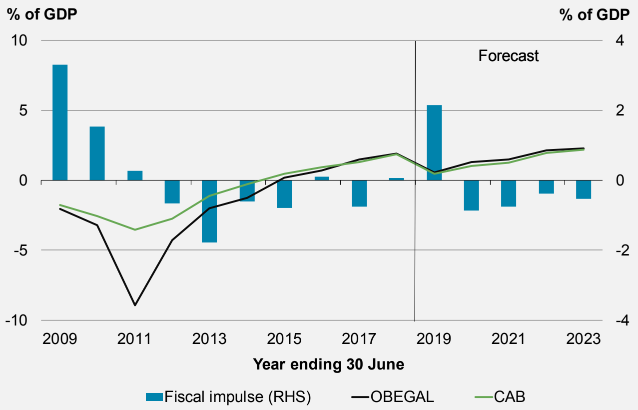
Table 2.6 – Operating balance indicators and fiscal impulse

Year ending 30 June % of GDP	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
OBEGAL	1.9	0.6	1.3	1.5	2.2	2.3
Cyclically-adjusted balance	1.9	0.5	1.0	1.3	2.0	2.2
Fiscal impulse[7]	0.1	2.2	(0.9)	(0.7)	(0.4)	(0.5)

Source: The Treasury

Cyclically-adjusted balance

Figure 2.9 – Operating balance indicators and fiscal impulse



Source: The Treasury

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 that surpluses are structural – that is, 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 0.5% of GDP in 2018/19 to 2.2% of GDP by the end of the forecast period and are, on average, similar to those forecast at the *Budget Update*.

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 2018/19. This reflects strong growth in capital and operating spending including infrastructure investment and other expenditure on public services. In addition, lower-than-forecast expenditure in 2017/18 has resulted in expenditure now in 2018/19 that was previously expected in 2017/18 driving up the impulse in this year. For the remainder of the forecast period, fiscal policy is estimated to have a relatively contractionary impact on aggregate demand. This is driven by declining capital spending, declining operating spending and rising tax receipts as a per cent of GDP. Compared with the *Budget Update*, the most significant changes are in 2017/18 and 2018/19. The 2017/18 impulse is now estimated to be broadly neutral (0.1% of GDP) compared with a 1.0% of GDP impulse forecast at the *Budget Update*. The 2018/19 impulse is forecast to be 2.2% of GDP, compared with 0.9% of GDP at the *Budget Update*. This is driven primarily by changes in the expected timing of operating spending. For the remainder of the forecast period the fiscal impulse is estimated to be similar to the *Budget Update* estimates, on average.

7 The fiscal impulse measure shown is the core Crown fiscal impulse plus Crown entities excluding Earthquake Commission (EQC) and Southern Response payments and receipts.

Core Crown Capital Spending

The Government is forecast to spend $41.6 billion cumulatively on net capital spending over the next five years. Net capital spending is expected to increase significantly in 2018/19 and persist at that level across the forecast. This capital spending includes $15.2 billion on building and acquiring physical assets (eg, school buildings), purchasing four Boeing P-8A Poseidon maritime patrol aircraft, $10.5 billion on providing capital to CEs (eg, the New Zealand Transport Agency (NZTA) for state highways and district health boards (DHBs) to build or develop hospitals) and $9.7 billion in contributions to the NZS Fund over the forecast periods.

Similar to operating expenses, a top-down adjustment has been applied to capital spending to account for the possibility that expenses will be pushed out.

Table 2.7 – Net capital expenditure activity[8]

Year ending 30 June $billions	**2018 Actual**	**2019 Forecast**	**2020 Forecast**	**2021 Forecast**	**2022 Forecast**	**2023 Forecast**	**5-year Total**
Education	0.8	0.9	1.0	0.9	0.8	0.7	**4.3**
Defence	0.5	0.9	1.3	1.2	0.9	0.5	**4.8**
Corrections	0.2	0.6	0.2	0.1	0.1	0.1	**1.1**
Health	0.3	0.2	0.1	-	-	-	**0.3**
Provincial Growth Fund (PGF)	-	0.2	0.5	0.2	-	-	**0.9**
Inland Revenue	0.1	0.1	0.1	0.1	0.1	0.1	**0.5**
Other	0.6	1.0	0.7	0.6	0.5	0.5	**3.3**
Net purchase of physical assets	**2.5**	**3.9**	**3.9**	**3.1**	**2.4**	**1.9**	**15.2**
Housing Infrastructure Fund	-	0.1	0.2	0.2	0.2	0.1	**0.8**
Student loans	-	(0.1)	(0.1)	(0.1)	(0.1)	-	**(0.4)**
Other	0.1	-	-	-	-	(0.1)	**(0.1)**
Net advances	**0.1**	**-**	**0.1**	**0.1**	**0.1**	**-**	**0.3**
NZTA	1.6	1.3	1.2	0.5	0.8	0.8	**4.6**
City Rail Link	0.3	0.3	0.3	0.4	0.3	0.2	**1.5**
District health boards	0.1	0.6	0.4	0.3	0.1	-	**1.4**
Crown Infrastructure Partners	0.1	0.3	0.2	0.2	0.2	0.2	**1.1**
KiwiRail	0.4	0.4	0.3	-	-	-	**0.7**
Southern Response	0.2	0.2	0.1	-	-	-	**0.3**
Ōtākaro	-	0.2	0.1	0.1	-	-	**0.4**
Other	0.1	0.3	0.1	(0.1)	0.2	-	**0.5**
Net investments	**2.8**	**3.6**	**2.7**	**1.4**	**1.6**	**1.2**	**10.5**
Future new capital spending	-	0.9	1.0	1.9	2.3	2.2	**8.3**
Top-down capital adjustment	-	(1.4)	(0.5)	(0.3)	(0.1)	(0.1)	**(2.4)**
Contribution to NZS Fund	0.5	1.0	1.5	2.2	2.5	2.5	**9.7**
Net capital spending	**5.9**	**8.0**	**8.7**	**8.4**	**8.8**	**7.7**	**41.6**

Source: The Treasury

8 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.

Table 2.7 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).

Future new capital spending represents funding set aside in contingencies for projects agreed in Budgets and amounts to be allocated in future Budgets. The Government is moving to a multi-year capital envelope for managing capital investment (refer to the box below) and has set aside funding of $13.1 billion for the next four Budgets. There have already been some decisions that have been funded from the multi-year envelope, leaving $9.0 billion. Of the amount left in the multi-year capital envelope it is expected around $7.0 billion will be invested over the forecast period with the remaining investment expected to occur after 2022/23.

Multi-year capital envelope

As indicated in the *2019 Budget Policy Statement,* the Government is taking a new approach to managing capital investments for Budget purposes.

In summary, the Government is moving away from a single-year capital allowance to a multi-year capital envelope in order to better align to the Government's fiscal strategy, support a more long-term view for new capital investments and improve the transparency of capital commitments. The new approach will mean the Government has greater flexibility when making investment decisions, particularly when considering large and infrequent investments (eg, redeveloping hospitals). The *2019 Budget Policy Statement* provides further information on the multi-year capital envelope.

Impact on the funding available for new capital investments

The change to a multi-year capital envelope does not affect the total funding available for new capital investments signalled at Budget 2018 over the next four Budgets (refer to Table 2.8). The Government will, however, have more flexibility over how much is invested in each Budget. For example, the Government could decide to allocate $6 billion of the envelope in Budget 2019, leaving $7.1 billion of funding available to allocate over the next three Budgets.

Table 2.8 – Funding available compared to Budget 2018

$billions	2019	2020	2021	2022	Total
Previous single-year capital allowance	3.7	3.4	3.0	3.0	**13.1**
New multi-year capital envelope	←	13.1	→		**13.1**

Although the overall impact on net core Crown debt remains unchanged since Budget 2018, the impact on an annual basis may be different, depending on how much of the envelope is allocated in a given Budget and the cash profile of these investments. For example, if a significant amount of the multi-year capital envelope was allocated at Budget 2019, this could result in a larger impact on net core Crown debt in the near-term.

What has been included in the fiscal forecasts?

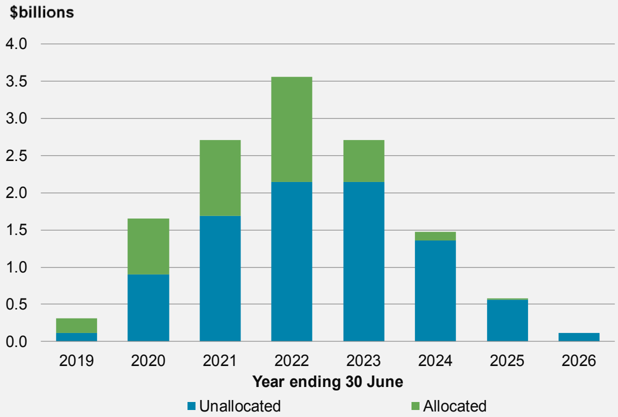
There are already a number of decisions that have been charged against the multi-year capital envelope (refer to Table 2.9 below). These decisions have been included in the fiscal forecasts and have resulted in a reduction in the funding available in the multi-year capital envelope.

Table 2.9 – Capital investments charged against the multi-year capital envelope

	$billion
Multi-year capital envelope - Total	**13.1**
City Rail Link	1.0
P-8A Poseidon Aircraft	1.7
Provincial Growth Fund	0.9
Crown Infrastructure Partners	0.3
Other investments	0.2
Multi-year capital envelope - Balance	9.0

To determine the annual amounts of forecast new capital investments for inclusion in the fiscal forecasts, the Treasury has assumed the balance that remains in the multi-year capital envelope (refer to Table 2.8) will be allocated equally across the next four Budgets and then phased by fiscal year (over a five-year period) based on previous historical trends of new capital investments. Figure 2.10 shows the annual profile of the forecast spending from the multi-year envelope for the next four Budgets.

Figure 2.10 – Forecast profile of capital investment from the multi-year capital envelope



Source: The Treasury

Roll forward and revisions of the multi-year capital envelope

The multi-year capital envelope will roll forward each year rather than being for a fixed period. The Government will need to decide on the amount to roll forward each year and whether the overall amount of funding in the envelope needs to be revised. Any revisions to the envelope will take into consideration the amount of funding already committed, an updated view of fiscal headroom and emerging capital pressures.

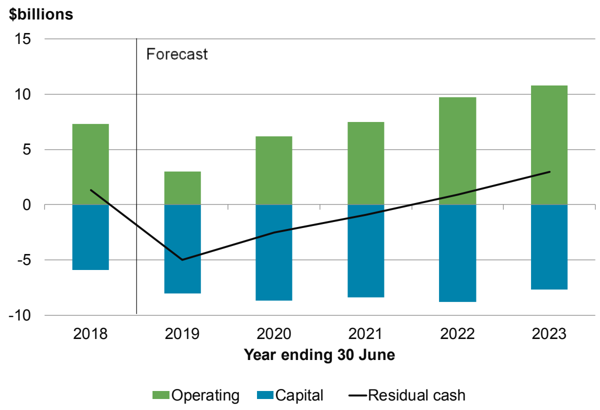
To ensure transparency, the Government intends to disclose information in its *Budget Policy* Statement and Fiscal Strategy Report explaining any changes in the amount of funding in the multi-year capital envelope.

Residual Cash and Net Core Crown Debt[9]

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. Net operating cash flows are forecast to be in surplus across the forecast period, rising in a similar trend to the OBEGAL forecast. Over the forecast period, the Government is expected to generate cash flows from core Crown operating activities of $37.1 billion.

Figure 2.11 – Core Crown residual cash



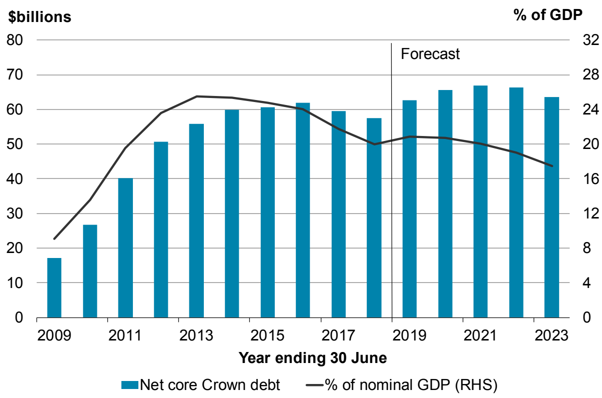
Source: The Treasury

However, capital spending is forecast to exceed operating cash flows in the first three years of the forecast, resulting in a forecast residual cash deficit in these years. As forecast tax receipts continue to grow at a faster pace than operating payments and capital spending, a residual cash surplus is forecast in the final two years of the forecast (Figure 2.11).

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

Net core Crown debt as a percentage of GDP is expected to decline from 20.0% in 2017/18 to 17.4% at the end of the forecast period (Figure 2.12).

Figure 2.12 **–** Net core Crown debt



Source: The Treasury

However, in dollar terms, net core Crown debt is forecast to increase for the next three years, before starting to decline once residual cash returns to surplus from 2021/22. Net debt is forecast to be $63.5 billion in 2022/23.

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 additional funds raised through debt.

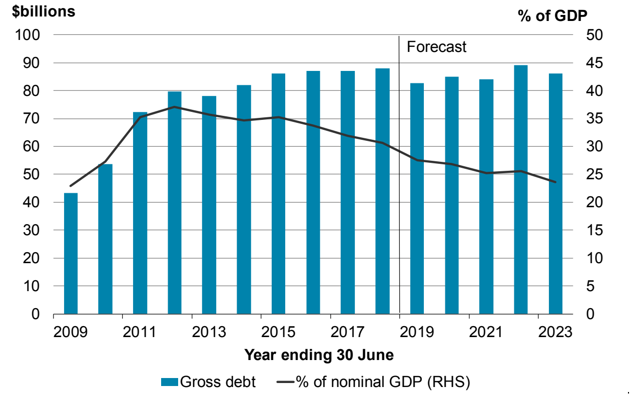
9 Net core Crown debt and residual cash indicators are measured on a core Crown basis. Residual cash includes both operating and capital activity. This differs from OBEGAL, which is measured at a total Crown level and includes operating activity only.

…gross debt as a percentage of GDP also continues to decline

There is no significant change in the nominal level of gross debt (of which the core Crown borrowing programme is the major component) over the forecast period. A slight rise in the nominal value of debt in 2021/22 is the result of steady bond issuance in a year with no forecast bond maturities.

Gross debt as a percentage of GDP is expected to decline across the forecast period. By 2022/23 gross debt is expected to decrease to 23.6% of GDP, from 30.6% at the end of 2017/18 (Figure 2.13).

Figure 2.13 – Gross debt



Source: The Treasury

By 2022/23, New Zealand Government Bonds (NZGBs) on issue, as a percentage of GDP, are forecast to decline to 20.2%, from 25.7% at the end of 2017/18. This forecast level is consistent with the Government's stated commitment to maintain levels of NZGBs on issue at not less than 20% of GDP over time. This is seen as necessary to:

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

The core Crown borrowing programme has been designed largely to meet maturities over the forecast period

The core Crown borrowing programme includes forecast issuance for both government bonds and short-term borrowing (eg, Treasury bills). The bond programme is expected to raise funds of $37.4 billion over the forecast period. However, bond maturities will result in $37.3 billion of existing debt being repaid. In addition, short-term borrowing is expected to be $2.1 billion lower at the end of the forecast period. Therefore, the total borrowing programme will provide net repayments of $2.0 billion over the period (Table 2.10).

Table 2.10 – Net issuance of government bonds and short-term borrowing

Year ending 30 June $billions	**2019 Forecast**	**2020 Forecast**	**2021 Forecast**	**2022 Forecast**	**2023 Forecast**	**5-year Total**
Face value of government bonds issued (market)	8.0	8.0	8.0	7.0	6.0	37.0
Debt programme cash flows						
Cash proceeds from issue of market bonds	8.3	8.2	8.0	6.9	6.0	37.4
Repayment of market bonds	(11.5)	(5.8)	(11.1)	-	(8.9)	(37.3)
Net issue/(repayment) of short-term borrowing	(1.6)	(0.5)	2.1	(2.1)	-	(2.1)
Net debt programme cash flows	**(4.8)**	**1.9**	**(1.0)**	**4.8**	**(2.9)**	**(2.0)**

Source: The Treasury

Total Crown Balance Sheet

Increasing operating balance surpluses result in a stronger balance sheet

Figure 2.14 shows that in nominal terms, net worth attributable to the Crown has recovered from the decline that ended in 2012 and is expected to grow across the forecast period reaching $174.7 billion by 2022/23. As a percentage of GDP, net worth attributable to the Crown is forecast to reach 48.0% by 2022/23, albeit still below the peak of 52.3% in 2008/09.

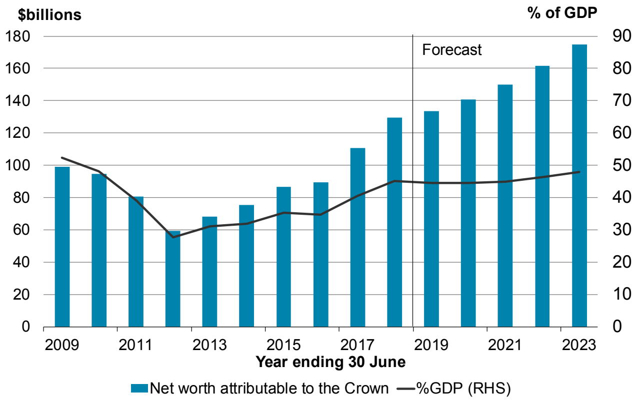
…with assets increasing by $57.4 billion while liabilities are expected to grow at a slower rate over the forecast period…

Total assets are forecast to grow by $57.4 billion over the forecast period to $397.3 billion in 2022/23, made up of additional investments in assets, both physical and financial. At the same time, the Crown's liabilities are also forecast to increase slightly by $12.6 billion and are estimated to be $216.9 billion in 2022/23. As a result, net worth is expected to increase across the forecast period (Figure 2.15).

The largest asset growth over the forecast period is in the social assets portfolio (just over 50% of the total Crown balance sheet). Social assets (eg, schools, defence force, public housing and infrastructure) are expected to increase by $27.9 billion to be $207.7 billion in 2022/23. This increase largely reflects the capital spending discussed earlier (refer to page 33).

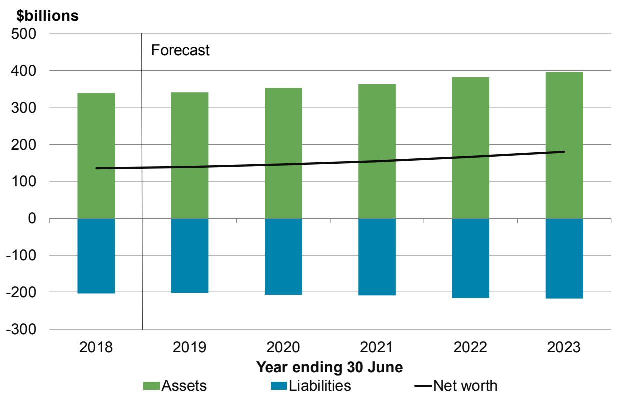
Liabilities in relation to the social segment (eg, tax refunds, GSF and provisions in relation to social assets noted above) remain fairly static. As a result, social net worth is expected to increase (Figure 2.16).

Figure 2.14 – Net worth attributable to the Crown



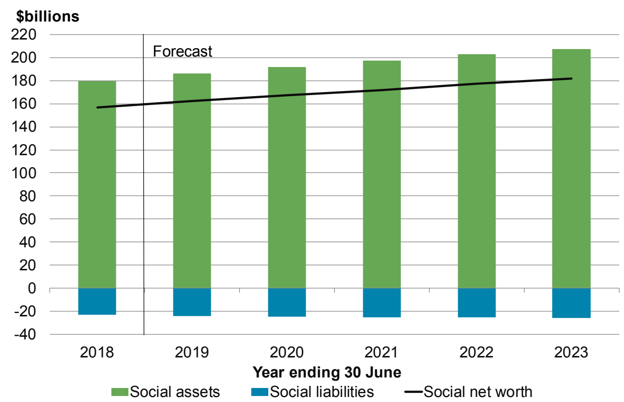
Source: The Treasury

Figure 2.15 – Total Crown assets



Source: The Treasury

Figure 2.16 – Social balance sheet



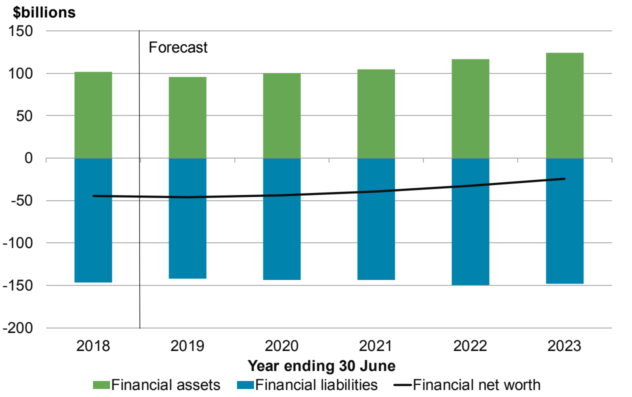
Source: The Treasury

The financial asset portfolio (around 30% of the total Crown balance sheet) is expected to increase by $22.0 billion to be $124.0 billion in 2022/23. This increase is primarily reflecting investment growth in the large investment portfolios (NZS Fund and ACC).

On the liability side, the financial segment is forecast to remain fairly static remaining under $150.0 billion.

Overall net worth in the financial sector increased by $20.8 billion across the forecast period, reflecting the increase in financial asset segment (as discussed above) (Figure 2.17).

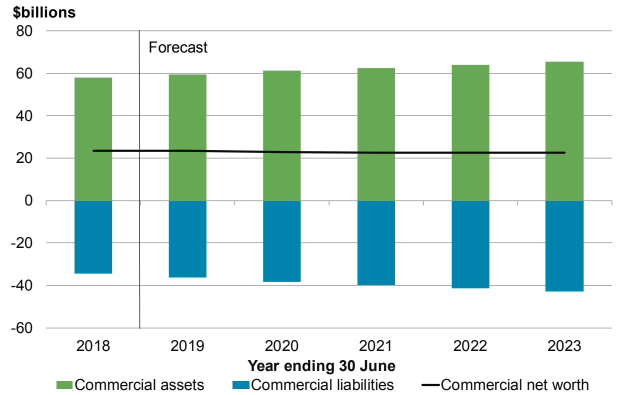
Figure 2.17 – Financial balance sheet



Source: The Treasury

The commercial asset portfolio (representing nearly 20% of the Crown balance sheet) is expected to increase by $7.5 billion over the forecast period to be $65.6 billion in 2022/23. This growth is primarily owing to the Kiwibank loan book. The commercial liabilities increase by $8.4 billion over the forecast period to be $42.9 billion in 2022/23. This primarily relates an increase in the liabilities of Kiwibank (eg, deposits held and other borrowings). Commercial net worth decreases by $1.0 billion over the forecast period (Figure 2.18).

Figure 2.18 – Commercial balance sheet



Source: The Treasury

…however, 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 *Budget Update*

The *Budget Update* was published on 17 May 2018. Since then, there have been a number of changes that have impacted the fiscal outlook. Table 2.11 summarises the changes in the key fiscal indicators since the *Budget Update*.

Table 2.11 – Key fiscal indicators compared to the *Budget Update*

Year ending 30 June $billions	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Core Crown tax revenue					
Half Year Update	-	84.3	89.2	95.0	100.4
Budget Update	79.5	83.9	89.0	93.9	99.0
Actual	80.2	-	-	-	-
Change	**0.7**	**0.4**	**0.2**	**1.1**	**1.4**
Core Crown expenses					
Half Year Update	-	88.7	90.9	95.9	98.9
Budget Update	81.7	86.7	90.1	94.7	98.1
Actual	80.6	-	-	-	-
Change	**(1.1)**	**2.0**	**0.8**	**1.2**	**0.8**
OBEGAL[10]					
Half Year Update	-	1.7	4.1	5.1	7.6
Budget Update	3.1	3.7	5.4	5.7	7.3
Actual	5.5	-	-	-	-
Change	**2.4**	**(2.0)**	**(1.3)**	**(0.6)**	**0.3**
Core Crown residual cash					
Half Year Update	-	(5.0)	(2.5)	(0.9)	0.9
Budget Update	(1.3)	(3.9)	(1.7)	(1.9)	0.7
Actual	1.3	-	-	-	-
Change	**2.6**	**(1.1)**	**(0.8)**	**1.0**	**0.2**
Net core Crown debt					
Half Year Update	-	62.7	65.6	66.9	66.3
Budget Update	60.4	64.2	65.9	67.6	67.0
Actual	57.5	-	-	-	-
Change	**(2.9)**	**(1.5)**	**(0.3)**	**(0.7)**	**(0.7)**
Net worth attributable to the Crown					
Half Year Update	-	133.5	140.9	149.8	161.6
Budget Update	117.6	124.5	133.3	142.9	154.7
Actual	129.6	-	-	-	-
Change	**12.0**	**9.0**	**7.6**	**6.9**	**6.9**

Source: The Treasury

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

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

Core Crown tax revenue is forecast to be $3.1 billion higher than in the *Budget Update* over the four-year period up to 2021/22. Forecasts for revenue from source deductions and corporate tax have increased while revenue from other persons' tax, and resident withholding tax on interest have all been reduced. Table 2.12 summarises the movements by tax type since the *Budget Update*.

Most of the change in tax revenue forecasts has come from:

- Source deduction revenue forecasts increased by $2.5 billion in total over the forecast period, mainly owing to a higher track for forecast employment and wage rates, plus the associated increase in forecast fiscal drag.
- Corporate tax revenue forecasts increased by $2.1 billion in total over the forecast period, mainly owing to planned system and administrative changes as part of Inland Revenue's Business Transformation project, that are expected to have a one-off effect on the calculation of tax revenue, adding $1.1 billion in the 2018/19 year.
- Motor vehicle fees and road user charges revenue forecasts increased by $1.1 billion in total over the forecast period, mainly owing to the road user charges rate increases and duties forecast increased by $0.8 billion in total over the forecast period, both mainly owing to the increases from the updated Government Policy Statement on Land Transport.

These increases in tax revenue are offset somewhat by:

- Resident withholding tax revenue forecasts decreased by $1.8 billion over the forecast period, owing to a decrease in forecast deposit rates across the forecast period.
- Net other persons' tax forecasts decreased by $1.5 billion mainly owing to the administrative and system changes mentioned above.

Table 2.12 – Reconciliation of the change in core Crown tax revenue

Year ending 30 June $billions	**2019 Forecast**	**2020 Forecast**	**2021 Forecast**	**2022 Forecast**	**Total Change**
Movement in core Crown tax owing to:					
Source deductions	0.5	0.6	0.7	0.7	**2.5**
Good and services tax (GST)	(0.4)	-	0.1	0.2	**(0.1)**
Other persons tax	(0.9)	(0.3)	-	(0.3)	**(1.5)**
Corporate tax	1.2	0.1	0.4	0.4	**2.1**
Resident withholding tax (RWT) on interest	(0.1)	(0.7)	(0.6)	(0.4)	**(1.8)**
Other taxes	0.1	0.5	0.5	0.8	**1.9**
Total movement in core Crown tax revenue	**0.4**	**0.2**	**1.1**	**1.4**	**3.1**
Plus: *Budget Update's* tax base	83.9	89.0	93.9	99.0	
Core Crown tax revenue at *Half Year Update*	**84.3**	**89.2**	**95.0**	**100.4**	
As a % of GDP	**28.1%**	**28.2%**	**28.5%**	**28.8%**	
Core Crown tax movements consist of:					
Policy and administrative changes	0.6	0.3	0.6	0.4	**1.9**
Forecast changes	(0.2)	(0.1)	0.5	1.0	**1.2**

Source: The Treasury

…while OBEGAL grows at a slower pace, as additional spending takes effect…

Overall, OBEGAL is expected to be lower in each year of the forecasts with the exception of 2021/22 where OBEGAL exceeds that forecast at the *Budget Update* (Table 2.13).

Table 2.13 – Changes in OBEGAL since the *Budget Update*

Year ending 30 June $billions	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	Total Change
OBEGAL – *Budget Update*	**3.7**	**5.4**	**5.7**	**7.3**	
Changes in forecasts:					
Economic factors					
Core Crown Tax revenue – forecast change	(0.2)	(0.1)	0.5	1.0	1.2
Social assistance forecasting changes	-	(0.3)	(0.4)	(0.5)	(1.2)
Other factors					
Core Crown Tax revenue – policy and administration change	0.6	0.3	0.6	0.4	1.9
Transport spending	(0.4)	(0.5)	(0.8)	(0.8)	(2.5)
Expense transfers from previous year	(0.6)	-	-	-	(0.6)
Loan asset write down	(0.5)	-	-	-	(0.5)
Budget 2019 pre-commitments impacting on 2018/19	(0.6)	0.1	0.1	0.1	(0.3)
Budget 2020 pre-commitments impacting on 2019/20	-	(0.4)	0.1	0.1	(0.2)
SOE/CE results	(0.4)	(0.5)	(0.5)	(0.3)	(1.7)
Other changes	0.1	0.1	(0.2)	0.3	0.3
Total changes since the Budget Update	**(2.0)**	**(1.3)**	**(0.6)**	**0.3**	**(3.6)**
OBEGAL – 2018 *Half Year Update*	**1.7**	**4.1**	**5.1**	**7.6**	

Source: The Treasury

Social assistance spending has increased since the *Budget Update* with forecasting increases of $1.2 billion from 2019/20 onwards. This is largely owing to increases in Jobseeker Support and Emergency Benefit recipient numbers based on the latest actual data on recipient numbers being higher than expected. In addition, a higher inflation track has resulted in an increase in benefit expenses owing to the indexation of most benefit types. Partially offsetting these increases is a reduction in the Working for Families benefit expense based on recent year-to-date spending being lower, likely reflecting stronger income growth of recipients.

Transport operating spending has increased by $2.5 billion, with significant capital expenditure forecast at the *Budget Update* shifting to operating spending as well as additional spending owing to the additional tax revenue (road user charges and fuel excise duties) collected from the implementation of the Government's Policy Statement for Transport mentioned above.

Expenses relating to the write-down of loans provided at a subsidised interest rate has resulted in a reduction of $0.5 billion in OBEGAL for the 2018/19 fiscal year, compared to the Budget Update. A large part of this relates to the write-down on loans from Housing Infrastructure Fund, which were previously expected to be recognised in the 2017/18 fiscal year.

Additional spending of around $0.6 billion in now expected in 2018/19, owing to lower than forecast actual spending in 2017/18.

There have been some decisions the Government have made against future Budget allowances which have directly impacted OBEGAL in 2018/19 and 2019/20 due to the spending profile of these initiatives (eg, Provincial Growth Fund and Mycoplasma bovis). Overall the impact on OBEGAL from these decisions is neutral as there will be less funding available to allocate on new initiatives in the remaining fiscal years of the forecast period.

Updated forecasts for State-owned Enterprises and Crown entities show a weaker outlook than previously forecast across the forecast period. This weaker forecast result was across a number of agencies with DHBs and ACC forecasting the most significant changes from the *Budget Update* ($0.7 billion and $0.4 billion lower respectively).

...and net core Crown debt is lower across the forecast period compared with the Budget Update

Overall, residual cash is forecast to be $0.7 billion weaker than the *Budget Update* over the period to 2021/22. The changes in core Crown revenue and expenditure mentioned above (excluding the non-cash asset impairments and capital to operating changes) flow through and impact on the changes to residual cash. In addition to these operating receipts and payments, changes to capital spending also impact on residual cash.

Compared to the *Budget Update*, core Crown tax receipts (largely relating to the additional excise and road user charges) were $3.6 billion higher.

Operating payments are forecast to be higher by $7.2 billion while capital investments are forecast to be $1.2 billion lower than the *Budget Update*. The operating payments changes largely reflect the changes to the OBEGAL results as discussed earlier while the reduction in capital payments is primarily owing to the switch to operating payments for transport spending discussed earlier. In addition, a larger portion of the houses to be delivered under the KiwiBuild programme during the forecast period are expected to be funded from the sale proceeds of houses rather than contributions from the Crown. This has resulted in an increase in both operating receipts and payments, but a reduction in capital payments. Overall the impact of this change has improved residual cash by around $1 billion, compared to the *Budget Update*. Combined, this results in residual cash being lower in the near term before improving as core Crown receipts outpace cash payments in the later years of the forecast.

Net core Crown debt is forecast to be $66.3 billion in 2021/22, $0.7 billion lower than forecast at the *Budget Update*. The improved starting position arising from the 30 June 2018 actual results has contributed to this reduction in the forecast for net core Crown debt. As a percentage of GDP, net debt is forecast to be 19.0% in 2021/22, close to what was forecast at the *Budget Update*. This small change is largely driven by the expected residual cash results.

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	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Real GDP[1] (annual average, % change)	2.7	2.9	3.1	2.7	2.5	2.3
Nominal GDP[2] ($millions)	287,705	300,168	316,827	333,118	348,736	364,287
CPI (annual average, % change)	1.5	2.0	1.8	2.0	2.0	2.0
Govt 10-year bonds (annual average, %)	2.9	2.8	3.2	3.8	4.2	4.4
5-year bonds (annual average, %)	2.4	2.2	2.5	3.3	3.8	4.0
90-day bill rate (annual average, %)	1.9	2.0	2.1	2.7	3.0	3.2
Unemployment rate (annual average, %)	4.5	4.1	4.0	4.0	4.0	4.1
Employment (annual average' % change)	3.6	2.7	2.0	1.6	1.3	1.2

Notes: 1 Production measure.

2 Expenditure measure.

Source: The Treasury, Stats NZ

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.
- The risks to the international outlook are skewed to the downside and include: rising trade tensions; political uncertainty in different parts of the world; uncertainty about the impacts of tightening US monetary policy; and the uncertainty about global commodity prices. Should these risks materialise, global growth will deviate from that presented in the main forecasts and, with it, export growth, the terms of trade and the exchange rate.
- The risks to the domestic outlook are more balanced and include: the uncertainty around the impact of business confidence on investment; the sensitivity of households to changes in interest rates; the extent to which capacity constraints bind, particularly in the construction sector; house price uncertainty; and the level of net migration inflows.
- Scenario One explores the impacts of further escalation in global trade tensions. Declining trade volumes weigh directly on global growth, lowering the demand for New Zealand exports, while weaker sentiment lowers business investment, consumption, and global commodity prices. The overall impact of the scenario sees GDP growth falling in nominal and real terms, affecting tax revenue and the fiscal position.
- Scenario Two illustrates the impacts of higher household consumption, investment and export prices. Higher household consumption in this scenario is supported by households continuing to spend instead of saving or paying down mortgage debt, lower retail prices and a stronger-than-forecast impact of low interest rates on consumption. Investment is stronger than in our main forecast, which may overstate the negative impact of weaker business confidence. Investment might also be stronger than currently forecast owing to higher export prices. Higher nominal GDP and tax revenue generate larger fiscal surpluses and lower net debt.
- 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 also through the potential impact of the Crown's fiscal obligations that arise from policy choices.

Risks to the Economic Outlook

Economic forecasts necessarily involve judgements about the current and forecast levels of individual economic variables and the workings of the economy as a whole. Some judgements are less likely to be correct than others. This section outlines the risks around some of our judgements that would have a significant impact on the economy if they were to materialise. Risks to the economic outlook have flow-on implications for the Government's fiscal position as tax revenue and public spending vary with the performance of the economy.

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.

Rising trade tensions might hamper global growth

Trade tensions, particularly between the US and China, have escalated since early 2018. Currently, US tariff rates on Chinese products are 25% on US$50 billion worth of imports from China and 10% on an additional US$200 billion. The latter set of tariffs could rise to 25% in early 2019 unless an agreement is reached. China retaliated with tariffs on imports from the US. The rise in protectionism was not limited to restricting imports and has extended to supporting domestic industries affected by the protectionist measures, as in the case of US agricultural sector. On a positive note, trade negotiations between the US, Mexico and Canada have concluded successfully and are currently awaiting legislative approval.

New Zealand is not well integrated into the global value chains that might be disrupted by the recent tariff measures. In addition, direct US-China trade in the goods that New Zealand exports is not large, suggesting limited trade diversion benefits. Therefore, the direct impacts of tariff measures to date on New Zealand exports appear to be limited.

The risk lies in what may follow if trade tensions continue to escalate. IMF estimates suggest that US tariffs of 25% on US$250 billion of Chinese imports could reduce Chinese growth by around 0.7 percentage points over the next 12 months. Spill-overs are especially likely for Southeast Asian economies given their role in global value chains that often include China, which are increasingly important export destinations for New Zealand. The impacts of continued trade tensions on sentiment may have a stronger negative impact on global growth as compared to the direct impacts of restricting the flow of trade.

This chapter explores the possible impacts of further escalation in trade tensions on the domestic economy (refer to Scenario One below).

Political uncertainty increases the ambiguity about the global growth outlook

Political developments in Italy and ongoing negotiations between the UK and the EU on the terms of the UK withdrawal from the European Union result in uncertainty surrounding Europe's economic outlook. In Australia, a federal election is due in May 2019, which may change fiscal policy. Political uncertainty is also extended to the Middle-East with US sanctions on Iran recently coming into effect.

Political uncertainty typically leads to a stronger appetite for safe-haven currencies such as the US dollar. The US dollar has been on an appreciating trend since April 2018 relative to other major currencies, and might continue appreciating if the political uncertainty continues.

Political uncertainty partly explains the recent divergence in the pace of growth among New Zealand's trading partners. Where markets expect rising interest rates in the US, Canada, and the UK next year, interest rates in the euro area and Australia are likely to remain low for a longer period of time. Further divergence in trading partner growth affects New Zealand's exports as some trading partners import more of certain goods. For example, China, where the economic outlook is particularly uncertain, is the most significant importer of New Zealand dairy products, exposing this sector to higher risks.

Tighter US monetary conditions might lead to further appreciation in the US dollar

After a sustained period of low inflation and lower interest rates, the Federal Reserve projections indicate that interest rates may be increased six more times by the end of 2020 to around 3.5%. A faster than necessary tightening of monetary conditions in the US could curb real economic growth and limit the impacts of the ongoing fiscal stimulus.

Higher US interest rates while New Zealand's rates remain on hold puts pressure on the bilateral exchange rate. The US dollar has been appreciating relative to the New Zealand dollar since early October. Rising interest rates in the US while other major economies remain largely on hold is increasing the attractiveness of holding US-dominated bonds, leading to the appreciation of the US dollar. Further appreciation in the US dollar poses more risk to the ability of emerging economies, such as Turkey and Argentina, to service their debt.

Heightened volatility in financial markets will follow developments elsewhere

Globally, financial sector vulnerabilities persist in the wake of the global financial crisis. The key risk to the outlook for global financial markets is the limited ability of central banks in most developed countries to stimulate the economy in the event of an economic slowdown as interest rates are already low relative to their pre- global financial crisis levels. Investor concerns around the impacts of the intensifying trade disputes have contributed to lower and more volatile equity prices internationally. China appears to be affected the most from recent trade tensions, with equity prices falling and the yuan depreciating. To offset the negative impacts of trade tensions, the People's Bank of China has increased liquidity alongside other stimulatory fiscal measures, including income tax reductions. The success of these measures largely depends on how the trade tensions with the US unfold.

The outlook for commodity prices is, as usual, uncertain…

New Zealand is particularly susceptible to changes in global commodity prices as most of its merchandise exports are agricultural. All commodities have their own supply and demand dynamics and are affected by different idiosyncrasies. The risks discussed above might affect commodity prices in either direction. The degree of realignment in the New Zealand dollar will also play a significant role in determining the profitability of New Zealand export industries.

… and oil prices might be lower than assumed in the main forecasts

We see some downside risk to our oil price assumption in the medium to long term as the breakeven costs for shale oil producers in the US keep declining owing to technological advancements, pushing supply higher. Oil supply from non-OPEC members in response to price changes also remains uncertain.

The effects of business confidence are hard to gauge

The impacts of sentiments are hard to gauge. The recent falls in business confidence might be explained by several factors such as uncertainty about signalled changes in government policies, labour market pressures, and profit margins.[11] Entirely ignoring the recent declines in business confidence means that business investment might be slightly higher than assumed in the main forecasts. A key risk to growth over the 2018/19 fiscal year is the extent to which weaker sentiment affects business investment and household spending decisions. Scenario Two explores the potential impacts of a smaller-than-forecast impact of business confidence on investment.

The sensitivity of households to changes in interest rates is uncertain

Household consumption could be higher than forecast if household expectations of future income growth or wealth increases, leading to higher debt. Such an outcome would be consistent with higher house price inflation or more wage growth than forecast. As the sensitivity of households to changes in interest rates is uncertain, the impact of rising debt on household consumption is also uncertain.

Several factors can explain why house price growth might be different from forecasts

Stronger-than-forecast capacity pressures in the construction sector will constrain residential investment, limiting housing supply. Additionally, the RBNZ eased loan-to-value restrictions after our forecasts were finalised, easing households' access to credit and raising housing demand. Offsetting the upside risks above depends on the success of new policies such as restricting foreign buyers and loss ring fencing.

The extent to which capacity constraints bind…

Measures of capacity pressures are uncertain, and sometimes contradictory. While many sectors in the economy report tight capacity pressures, this is particularly true for the construction sector, limiting growth in residential investment. Policies aimed at alleviating the capacity constraints in the sector can affect residential investment, house prices, and productivity. However, their impacts are yet to be known.

… particularly in the labour market

Indicators of labour market capacity, including unemployment, underutilisation, and survey measures of firms' difficulty hiring labour, portray a tight labour market. The Treasury's business talks confirmed ongoing labour shortages in several sectors, such as construction and IT. Unemployment is currently near our estimate of the long-term non-

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11 Source: www.nzier.org.nz/media/

accelerating inflation rate of unemployment (NAIRU).[12] However, estimates of the NAIRU, as in the case of the potential output, are inexact.

In addition to capacity constraints, there are several labour market policies that may see wages grow faster than forecast. The policies include fair pay agreements, minimum wage increases and pay equity.

Changes in weather conditions affect agricultural output and electricity generation

The Southern Oscillation Index suggests a weak El Niño over this summer, although the impact is highly uncertain. Regardless, agricultural growing conditions and hydroelectric power generation in New Zealand remain sensitive to climate conditions.

Net migration will depend on developments domestically and internationally

Net migration outflows to Australia tend to increase when Australia's labour market strengthens relative to New Zealand's. The prospect of faster wage growth in New Zealand may lead less people to depart for Australia than assumed in the main forecasts. Equally, tight domestic labour markets may encourage employers to look offshore for temporary or permanent workers. On the other hand, institutional changes to residency requirements or visa conditions, or uncertainty around prospective changes, may deter some potential migrants, widening the uncertainty around the outlook for net migration.

[12] NAIRU is the rate of unemployment below which inflation tends to increase.

Alternative Scenarios

The following scenarios show how the economy might evolve if some of the key judgements in the main forecasts were altered. This section aims to show how changes in certain assumptions have flow-on impacts on the economy as a whole. The scenarios illustrate two of the many ways that the economy may deviate from the main forecasts.

Scenario One explores the impacts of further escalation in global trade tensions. Declining trade volumes weigh directly on global growth, lowering the demand for New Zealand exports, while weaker sentiment lowers business investment, consumption, and global commodity prices. The New Zealand dollar depreciates as the US dollar is viewed as a safe haven currency and owing to declining commodity prices. The overall impact of the scenario sees GDP growth falling in nominal and real terms, affecting tax revenue and the fiscal position.

Scenario Two illustrates the impacts of higher household consumption, investment, and export prices. Higher household consumption in this scenario is supported by households continuing to spend instead of saving or paying down mortgage debt, lower retail prices, and a stronger-than-forecast impact of low interest rates on consumption. Investment in this scenario is stronger than in our main forecast as the main forecasts may overstate the negative impact of weaker business confidence. Investment might also be stronger than currently forecast owing to higher export prices. Higher nominal GDP and tax revenue generate larger fiscal surpluses and lower net debt. Table 3.1 summarises key economic variables under each scenario compared with the main forecasts.

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

June years	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Real GDP [a]					
Main forecast	**2.9**	**3.1**	**2.7**	**2.5**	**2.3**
Scenario One: Escalating trade tensions	2.6	2.3	2.8	2.7	2.5
Scenario Two: Stronger domestic demand and higher export prices	3.0	3.5	2.9	2.4	2.2
Nominal GDP [a]					
Main forecast	**4.3**	**5.6**	**5.1**	**4.7**	**4.5**
Scenario One: Escalating trade tensions	3.6	3.4	6.1	5.4	5.0
Scenario Two: Stronger domestic demand and higher export prices	4.5	6.4	5.2	4.6	4.3
Operating balance before gains and losses (% of GDP)					
Main forecast	**0.6**	**1.3**	**1.5**	**2.2**	**2.3**
Scenario One: Escalating trade tensions	0.5	0.7	0.9	1.7	2.0
Scenario Two: Stronger domestic demand and higher export prices	0.6	1.5	1.9	2.6	2.7
Net core Crown debt (% of GDP)					
Main forecast	**20.9**	**20.7**	**20.1**	**19.0**	**17.4**
Scenario One: Escalating trade tensions	21.1	22.0	21.7	20.9	19.5
Scenario Two: Stronger domestic demand and higher export prices	20.8	20.2	19.3	17.8	15.9

[a] annual average % change.

Source: The Treasury

Scenario One – Global Trade Tensions Escalate Further

This scenario explores the impacts of further escalation in global trade tensions on the domestic economy. The scenario assumes that trade tensions hamper growth domestically and globally through direct and indirect channels.

Demand for New Zealand exports declines…

Rising tariffs on global trade weigh directly on export volumes domestically and globally, resulting in lower global commodity prices. Lower domestic exports slow GDP growth.

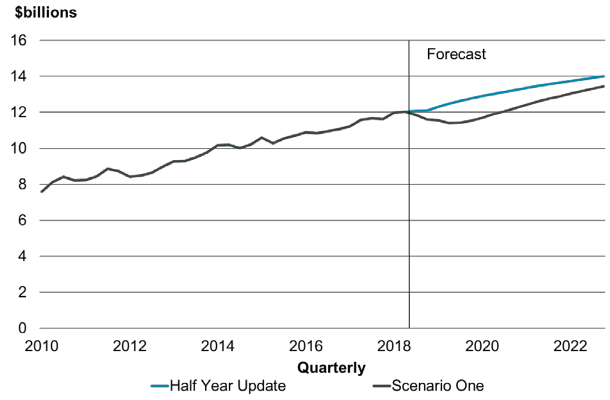
…and weaker sentiment lowers business investment and consumption

Most economic variables tend to underperform under uncertainty and heightened tensions. Negative sentiments lower consumption and investment, slowing GDP growth domestically and internationally. Under this scenario, domestic business investment and consumption recover to their pre-escalation levels two years after the escalation in trade tensions (Figure 3.1).

The New Zealand dollar depreciates

The New Zealand dollar depreciates as the US dollar is viewed as a safe-haven currency and as commodity prices decline. The lower New Zealand dollar makes domestic exports more competitive. However, the benefits in the form of higher domestic export volumes are limited owing to capacity constraints. To stimulate the economy, interest rates fall to nearly 1.0% a year after the escalation in tensions, keeping inflation relatively stable around RBNZ's 2.0% mid-point target.

Figure 3.1 – Lower business investment



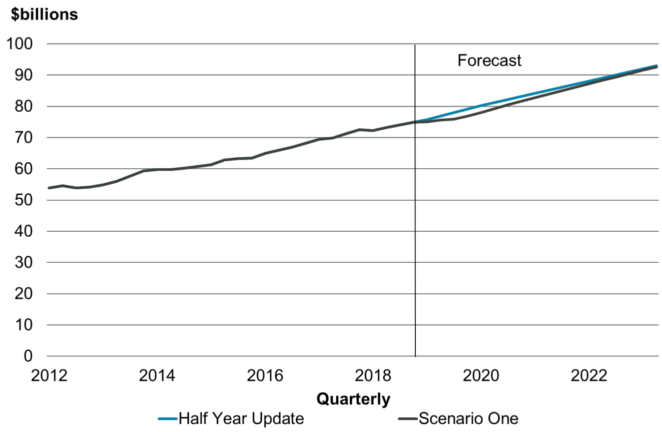
Sources: Stats NZ, the Treasury

Nominal GDP is cumulatively $23 billion lower relative to the main forecasts

Declining export prices, trading partner growth, domestic consumption and investment more than offset the positive contributions from more stimulatory interest rates, leading to lower GDP (Figure 3.2). Cumulative nominal GDP over the five years to June 2023 is $23 billion lower than in the main forecasts.

Slower growth feeds into lower tax revenue and weakens the Government's fiscal position. Core Crown tax revenue falls $6.5 billion relative to the main forecasts by

Figure 3.2 – Lower nominal GDP



Sources: Stats NZ, the Treasury

mid-2023, with source deductions and goods and services tax (GST) $1.2 billion and $0.1 billion lower respectively.

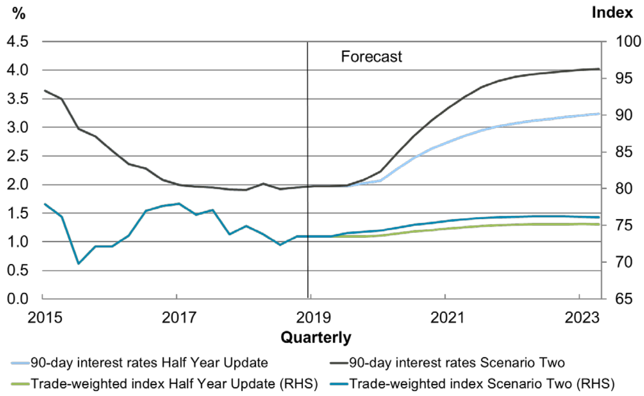
This scenario assumes that the Government's operating and capital allowances are unchanged from those in the main forecast (see Economic Outlook chapter for details). Under these assumptions, the operating balance before gains and losses (OBEGAL) surpluses are smaller in each year, reaching $7.1 billion (2.0% of GDP) in 2023 (Table 3.1). This is $1.3 billion below that in the main forecast. The Government's debt levels are also higher, with the level of net core Crown debt $7.1 billion higher by June 2023, raising debt to GDP to 19.5% compared with 17.4% in the main forecasts (Table 3.1).

Scenario Two – Stronger Domestic Demand and Higher Export Prices

This Scenario investigates the impacts of stronger-than-forecast export commodity prices and more positive business investment and household consumption.

Stronger consumption and investment intensify capacity constraints across the economy, resulting in higher inflation. In response, interest rates rise, curbing the pace of real growth. The New Zealand dollar appreciates as the prices of New Zealand exports increase, resulting in a small decline in the volume of exports (Figure 3.3).

Figure 3.3 – Higher interest rates and TWI



Sources: Reserve Bank of New Zealand, the Treasury

Nominal GDP is cumulatively $14 billion higher relative to the main forecasts…

On balance, stronger consumption, investment, and commodity prices more than offset the impacts of rising interest rates. Relative to the main forecasts, nominal GDP is cumulatively $14 billion higher by mid-2023 while real GDP is almost $6.0 billion higher.

…raising tax revenue and improving the Government's operating balance…

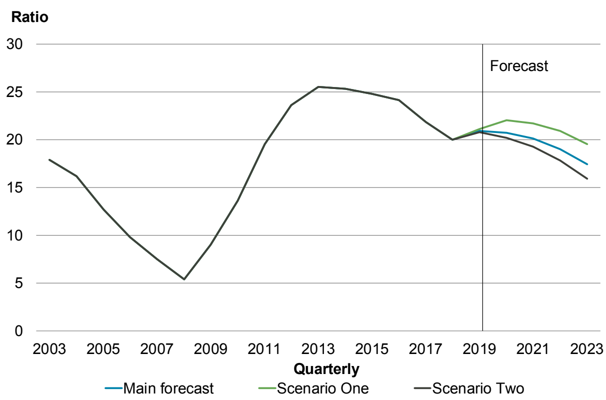
Stronger growth feeds into higher tax revenue and strengthens the Government's fiscal position. Core Crown tax revenue is cumulatively $4.9 billion higher relative to the main forecasts by mid-2023, with source deductions and GST $1.3 billion and $0.5 billion higher respectively.

This scenario assumes that the Government's operating and capital allowances are unchanged from those in the main forecast. Under these assumptions, OBEGAL surpluses are larger in each year, reaching $10.0 billion (2.7% of GDP) in 2023 (Table 3.1), $1.6 billion above that in the main forecast.

…and lowering debt

Higher tax revenue from enhanced growth more than offsets the increased cost of servicing public debt, bringing net core Crown debt $5.1 billion lower by June 2023. Debt to GDP ratio falls to 15.9% compared with 17.4% in the main forecasts (Table 3.1). The changes in debt to GDP ratio among the different scenarios are shown in Figure 3.4.

Figure 3.4 – Net core Crown debt to GDP ratio



Sources: Stats NZ, the Treasury

Fiscal Sensitivities

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 2023, tax revenue would be around $5.5 billion higher than forecast in the June 2023 year as a result. The sensitivities are broadly symmetric and if nominal GDP growth is one percentage point lower than expected each year, tax revenue would be around $5.2 billion lower than forecast in the June 2023 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. For example, at 30 June 2018, a 1.0% increase in New Zealand interest rates would have reduced the total Crown operating balance by around $1,550 million while a 1.0% decrease would have increased the total Crown operating balance by $1,697 million. The majority of the Government's borrowings and a large number of financial assets are managed by the Treasury. To illustrate the interest rate sensitivities on the Treasury's portfolio, Table 3.2 provides the estimated impact of lower interest rates on those assets and liabilities. A one percentage point fall in the interest rate would result in interest income on funds managed by the Treasury being $113 million lower in the June 2023 year. This would be more than offset by interest expenses $344 million lower in the June 2023 year. As above, the sensitivities are broadly symmetric.

Table 3.2 – Fiscal sensitivity analysis

Years ended 30 June ($millions)	**2019 Forecast**	**2020 Forecast**	**2021 Forecast**	**2022 Forecast**	**2023 Forecast**
Impact on tax revenue of a one percentage point increase in growth of					
Nominal GDP	860	1,820	2,915	4,125	5,450
Wages and salaries	370	790	1,265	1,795	2,390
Taxable business profits	185	415	680	965	1,275
Impact of 1% lower interest rates on					
Interest income[1]	-72	-65	-92	-65	-113
Interest expenses[1]	-38	-130	-225	-291	-344
Net impact on operating balance	-34	65	133	226	231

Note: 1 Funds managed by the Treasury. 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 is likely to differ from the forecasts. For example, foreign currency-denominated financial assets and liabilities are converted into New Zealand dollars at the reporting date, the Government's listed share investments are reported on market prices and property owned by the Crown is valued using market information. Changes in these variables can also have flow-on effects on the Crown's operating balance. 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 debt management function 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, 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, and
- 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, 27 November 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 in the table 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 prioritisation 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 2018 were $80.6 billion, while capital spending for the same period totalled $5.9 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 *Budget Policy Statement* (BPS) and included in the Treasury's fiscal forecasts (Fiscal Outlook chapter).

$billions	Budget 2019	Budget 2020	Budget 2021	Budget 2022
Operating allowances (per year)	2.4	2.4	2.4	2.4
Multi-year capital envelope (total)	←	13.1		→

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[13] 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[14] (but not probable) that the matter will be approved or the situation will occur, or • it is reasonably probable or possible 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.

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.
- Business risks and volatility in the returns from, and valuation of, the Government's investments relating to the broader economic and commercial environment.

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[13] 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).

[14] 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).

- Biosecurity incursions, as their occurrence, nature and timing cannot be predicted. Once an incursion 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.

- The costs of future individual natural disasters 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.

Contingent 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 *Budget Economic and Fiscal Update 2018*.

Statement of Specific Fiscal Risks as at 27 November 2018

Policy changes by portfolio	Status[15]	Type of risk
ACC		
Impacts of Changes to Accident Compensation Policy Settings	Unchanged	Expenses
Work-related Gradual Process Disease and Infection	Unchanged	Expenses
Biosecurity		
Mycoplasma Bovis Biosecurity Response	Changed	Expenses and Revenue
Broadcasting, Communications and Digital Media		
Increased Public Broadcasting Funding	Unchanged	Expenses
Children		
Oranga Tamariki Future Operating Model	Changed	Expenses
Climate Change		
Emissions Trading Scheme – Fixed Price Option	New	Expenses
Customs		
Joint Border Management System Further Development	Changed	Expenses and Capital
Defence		
Defence Funding Requirements to Deliver New Zealand's Defence Strategy	Changed	Expenses and Capital
Disposal of New Zealand Defence Force Assets	Changed	Expenses

[15] *Unchanged* – risks where the nature and/or scale of the risk has not changed substantively since the *Budget Update*.

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

Policy changes by portfolio	Status[16]	Type of risk
Education		
Additional Funding for Schools in Lieu of Parental Donations	Unchanged	Expenses
Early Learning Strategic Plan	Changed	Expenses
Extension of the Fees-free Tertiary Education Policy	Unchanged	Expenses
Institutes of Technology and Polytechnics – Support and Reform	New	Expenses and Capital
School and Early Childhood Education Funding Review	Changed	Expenses
Teacher Supply	New	Expenses
Foreign Affairs		
Hosting the Asia Pacific Economic Cooperation Forum 2021	Unchanged	Expenses
Official Development Assistance	Unchanged	Expenses
Greater Christchurch Regeneration		
Canterbury Earthquake Recovery Residential Red Zone	Unchanged	Expenses and Capital
Christchurch Central Recovery Plan – Anchor Projects	Changed	Expenses and Capital
Health		
Dunedin Hospital	Unchanged	Expenses and Capital
Primary Care Services	Changed	Expenses
Housing and Urban Development		
KiwiBuild	Changed	Expenses and Capital
Public Housing	Unchanged	Expenses
Internal Affairs		
Archives New Zealand Storage Capacity	Unchanged	Expenses and Capital
Justice		
Access to Justice	Changed	Expenses
Reducing Family Violence – Increased Investment	Unchanged	Expenses
Police		
Next Generation Critical Communications	New	Expenses and Capital
Regional Economic Development		
Provincial Growth Fund	Changed	Expenses and Capital
Research, Science and Innovation		
Research and Development Spending Target	New	Expenses
Revenue		
Potential Tax Policy Changes	Unchanged	Revenue

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

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

Policy changes by portfolio	Status[16]	Type of risk
Social Development		
Changes to the Welfare System	Changed	Expenses
Funding Current Demand for the Resolution of Historical Claims	New	Expenses
Removing Compulsory Deductions to Sole Parent Benefits	Unchanged	Expenses
Transport		
Auckland City Rail Link	Unchanged	Expenses and Capital
Wellington Transport Investment Programme	New	Expenses and Capital
Treaty of Waitangi Negotiations		
Government Response to WAI262	Unchanged	Expenses

Cost pressures by portfolio	Status[16]	Type of risk
ACC		
ACC Levies	Unchanged	Expenses and Revenue
Non-earners' Account	Unchanged	Expenses
Economic Development		
New Zealand Screen Production Grant	Unchanged	Expenses
Education		
Education Operating Cost Pressures	Unchanged	Expenses
Learning Support	Unchanged	Expenses
Finance		
Earthquake Commission	Unchanged	Expenses
Goodwill on Acquisition	Unchanged	Expenses
Foreign Affairs		
Antarctica NZ – Redevelopment of Scott Base	Changed	Expenses and Capital
Greater Christchurch Regeneration		
Southern Response Earthquake Services Support	Unchanged	Expenses and Capital
Health		
Caregiver Employment Conditions	Changed	Expenses
Health Capital Pressure	Changed	Capital
Health Operating Pressure	Changed	Expenses

Cost pressures by portfolio	Status[17]	Type of risk
Housing and Urban Development		
Business-as-Usual Divestment and Development of Housing New Zealand Corporation Housing	Unchanged	Expenses
Emergency Housing Special Needs Grants	Unchanged	Expenses
Tāmaki Regeneration Project	Unchanged	Expenses
Research, Science and Innovation		
Research and Development Tax Incentive	Unchanged	Expenses
Revenue		
Cash Held in Tax Pools	Unchanged	Revenue
Student Loans – Valuation	Unchanged	Expenses
Transformation and Technology Renewal	Unchanged	Expenses
Statistics		
Census Costs	New	Expenses and Capital
Transport		
Rail Network Valuation Approach	Unchanged	Expenses
Support for KiwiRail	Unchanged	Capital
Treaty of Waitangi Negotiations		
Relativity Clause	Unchanged	Expenses
Treaty Settlement Forecasts	Unchanged	Expenses

Cross-portfolio specific fiscal risks	Status[17]	Type of risk
Addressing the Gender Pay Gap in the State Sector	Unchanged	Expenses
Changes to Institutional Form of Government Agencies	Unchanged	Expenses
Increasing the Minimum Wage	Changed	Expenses
Other Capital Cost Pressures	Unchanged	Capital
Other Operating Cost Pressures	Unchanged	Expenses
Outcomes from Other Government Inquiries and Reviews	Changed	Expenses
Pay Equity Claims Following the Care and Support Worker Settlement	Changed	Expenses
Services Funded by Third Parties	Unchanged	Expenses
State Sector Employment Agreements	Changed	Expenses
Unexpected Maintenance for Crown-owned Buildings	Unchanged	Capital

[17] *Unchanged* – risks where the nature and/or scale of the risk has not changed substantively since the *Budget Update*.

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

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.

ACC

Impacts of Changes to Accident Compensation Policy Settings (Unchanged)

The Government has signalled it will review a number of Accident Compensation scheme policy settings. These changes 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 (Changed)*

The Government and the farming sector have agreed to attempt to eradicate *Mycoplasma bovis*. Funding has been allocated by the Government for response activities in 2018/19 and 2019/20, and the need for further funding and type of response over the rest of the forecast period will be considered depending on progress in eradicating the cattle disease. The rate and timing of industry contributions are not finalised and therefore are not included in the fiscal forecasts.

Broadcasting, Communications and Digital Media

Increased Public Broadcasting Funding (Unchanged)

Ministers are considering transforming Radio New Zealand into a multi-platform provider and considering establishment of a new Media Commission to provide independent advice to Parliament on public media. A Ministerial Advisory Group on public media has been established to assist the Minister with advice on public media funding and the capacity for more effective collaboration between public media agencies. Budget 2018 provided $15 million for Radio New Zealand to further its audio/visual strategy and for New Zealand on Air to provide more diverse local content. Further funding may be required in the future to address the need for long-term sustainability of New Zealand's public media system.

Children

Oranga Tamariki Future Operating Model (Changed)

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. There may also be flow on costs to other agencies as a result of the changed model.

Climate Change

Emissions Trading Scheme – Fixed Price Option (New)

The Emissions Trading Scheme earns revenue and incurs expenses for the Crown, both of which are uncertain, particularly due to the market price of New Zealand Units (NZU). Both revenue and expenses are valued based on the market price of NZU, which for the fiscal forecasts is assumed to be $25. Under the Fixed Price Option (FPO), emitters have an option to meet their obligation by purchasing units directly from the Crown at a fixed price of $25. If the market price of NZU continue to be higher than the fixed price of $25 it is likely emitters would use the FPO. As a result the Crown would recognise a loss from selling units at below market price and receive cash that would reduce net core Crown debt. The overall fiscal impact of these risks is uncertain, and depends on future NZU market prices, unit volumes and extent to which participants elect to use the $25 FPO.

Customs

Joint Border Management System Further Development (Changed)

Customs and the Ministry for Primary Industries will now implement Tranche 2 of the Joint Border Management Systems (JBMS) through a series of smaller projects that will either enhance or replace elements of the current systems with the aim of realising the full benefits to the Crown and industry of the JBMS programme. Funding for these projects may be required. In addition, changes in project timeframes have moved expected delivery from 2019/20 to 2020/21.

Defence

Defence Funding Requirements to Deliver New Zealand's Defence Policy (Changed)

The Government is reviewing the Defence capability procurement programme within the context of the existing indicative funding for the Defence White Paper. It is expected that changes to New Zealand Defence Force operating and capital funding will be made over the forecast period in line with any updated capability plan. However, the precise quantum and timing of these changes will be dependent on a range of business cases and Budget initiatives that will be subject to future decisions.

Disposal of New Zealand Defence Force Assets (Changed)

The Government is considering the potential to dispose of a number of New Zealand Defence Force assets. Depending on market conditions, the timing of disposal and sale price received could have either a positive or negative impact on the Government's overall financial position.

Education

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

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.

Early Learning Strategic Plan (Changed)

The Ministerial Advisory Group has, with the support of the Ministry of Education, drafted a new 10-year Strategic Plan for Early Learning (the draft Plan) for the Minister of Education. The draft Plan ties in strongly with the Minister's objectives of raising quality, improving equity and enabling choice in early learning. The Government has also indicated it will reinstate higher hourly funding rates for early childhood education (ECE) services with 100% qualified teachers. The draft Plan will be consulted on between November 2018 and January 2019, and is likely to require additional Crown funding.

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.

Institutes of Technology and Polytechnics – Support and Reform (New)

In recent years, institutes of technology and polytechnics (ITPs) have experienced significant declines in demand, which has reduced their revenue and affected some providers' sustainability. Governance and management issues have also been identified at a number of ITPs, resulting in Councils being replaced by commissioners. To improve the financial viability of the sector and ensure the delivery of quality vocational education and training, the Government has signalled a commitment to significantly reform the structure and functions of the system. This reform will require additional Crown funding. The timeframe for implementing change will influence the scale of funding needed to ensure the viability of at-risk ITPs in 2019 and 2020.

School and Early Childhood Education Funding Review (Changed)

The Government has expanded work on replacing deciles to look more broadly at how wider system settings should address equity in the school funding system. Decile funding will not be replaced in 2019 or 2020; however, this decision will be revisited at a future date and may have expenditure implications.

Teacher Supply (New)

The Government is currently moving to address a shortage of teachers in the New Zealand school system. There is a risk that further government intervention will be required to ensure adequate numbers of teachers. Some of these interventions will have associated costs.

Foreign Affairs

Hosting the Asia Pacific Economic Cooperation Forum 2021 (Unchanged)

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 was allocated through Budget 2018. However, funding has not yet been allocated for the associated security responsibilities and remaining hosting costs. Funding will also depend on the assessment of threat and risk levels in the lead up to APEC.

Official Development Assistance (Unchanged)

Each year, New Zealand's Official Development Assistance (ODA) expenditure is measured as a proportion of Gross National Income (GNI). The Government sets the overall budget for the New Zealand Aid Programme on a triennial basis. Therefore there remains a fiscal risk that a decision to provide additional funding will be made prior to the following triennium.

Greater Christchurch Regeneration

Canterbury Earthquake Recovery Residential Red Zone (Unchanged)

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 (Changed)

The Crown has funded, and is partially funding, the construction of Anchor Projects as part of the Christchurch Central Recovery Plan. The funding for the construction of Anchor Projects varies across projects, depending on scope, ownership decisions, implementation and project costs, and may to some extent eventually be recovered. Some projects have been completed, while others are under construction or progressing through the decision-making process. Construction costs for projects have, and will continue to, become clearer during the procurement and construction phases, but costs to the Crown may still vary from current estimates. The quantum and timing of Crown contributions may differ from that included in the fiscal forecasts.

Health

Dunedin Hospital (Unchanged)

The Government has signalled its intention to redevelop Dunedin Hospital. Funding was 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.

Primary Care Services (Changed)

The Government has signalled the intention to further increase funding for Primary Care services. The implementation details and funding arrangements are yet to be finalised.

Housing and Urban Development

KiwiBuild (Changed)

Changes in the housing market and economy may have an impact on the costs of delivering 100,000 homes and associated revenue recycling. If house prices fall, Crown underwrites may be called, and the value of land and buildings held by the Crown might fall. To achieve programme goals, there may be a need to change policy parameters or provide support to developers and/or homebuyers, especially if house prices increase. The Crown also faces general commercial risks associated with development and with implementing a large and evolving programme.

Public Housing (Unchanged)

The Government has committed to ending 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 places 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.

Internal Affairs

Archives New Zealand Storage Capacity (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

Access to Justice (Changed)

The Government has committed to providing safe and effective justice, and increasing access to justice for New Zealanders. This includes a commitment to increase Community Law Centre funding and establish a Criminal Cases Review Commission. The potential cost and timing of these initiatives is uncertain and will be subject to final Cabinet decisions.

Reducing Family Violence – Increased Investment (Unchanged)

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.

Police

Next Generation Critical Communications (New)

The Next Generation Critical Communications programme seeks to replace Emergency Services' (New Zealand Police, Fire and Emergency New Zealand, St John New Zealand and Wellington Free Ambulance) critical communications networks with a modern digital communications capability providing mission critical voice, video, data and messaging. A business case is currently being developed to explore the options available. To the extent that the programme cannot be managed within baselines, there may be costs associated.

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. Budget 2018 provided $1.0 billion to the Fund, and another $2.0 billion has been committed from Budget 2019 and Budget 2020 operating allowances, and the multi-year capital envelope. The capital and operating split of this funding is likely to change, so final amounts may vary from what is included in the fiscal forecasts.

Research, Science and Innovation

Research and Development Spending Target (New)

The Government has announced a target to increase economy-wide Research and Development (R&D) expenditure to 2% of GDP over the next 10 years. To reach this target, economy-wide R&D expenditure would need to increase by approximately $4.0 billion (from a projected $3.7 billion in 2018 to around $7.7 billion by 2028). To achieve this the majority of growth will need to come from the private sector with the balance to come from public investment. Depending on private expenditure increases, this would require average annual increases of approximately $150 million in public research and development spending each year over 10 years.

Revenue

Potential Tax Policy Changes (Unchanged)

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 and Welfare Expert Advisory Group are yet to be determined. The Tax Working Group released its interim report in September 2018. The Government has indicated that it will not be making any decisions about the Group's recommendations until it has received the final report, due in February 2019. The Government has also indicated that any resulting significant tax policy changes will not take effect until after the next general election.

Social Development

Changes to the Welfare System (Changed)

The Government has committed to overhaul the welfare system. Part of this work has involved the establishment of the Welfare Expert Advisory Group (WEAG), which has been tasked with advising on how to improve the welfare system to achieve the Government's vision (ie, deliver adequate income and standard of living, support participation, and promote dignity of clients). WEAG's advice is due in February 2019, and the Government is expected to make decisions on its response in March 2019.

Funding Current Demand for the Resolution of Historical Claims (New)

The Ministry of Social Development is forecasting to spend in 2018/19 on the resolution of historical claims all funding remaining in a multi-year appropriation that was intended to last until June 2021. Further funding will be required to enable assessment of claims to continue beyond this date. The impending Royal Commission of Inquiry is likely to have an impact on awareness of the claims process resulting in an increase in the number of claims received.

Removing Compulsory Deductions to Sole Parent Benefits (Title changed, risk unchanged)

Section 192 (previously section 70A) of the Social Security Act 2018 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.

Transport

Auckland City Rail Link (Unchanged)

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.

Wellington Transport Investment Programme (New)

Development of the Let's Get Wellington Moving programme is currently underway. The programme includes state highway, public transport, walking and cycling improvements to reduce congestion in the Wellington City area and is expected to cost $4.0 billion to $6.0 billion, split between local government and the National Land Transport Fund over 20 years. The scope of the project and appropriate funding sources are still being worked through.

Treaty of Waitangi Negotiations

Government Response to WAI262 (Unchanged)

The Waitangi Tribunal’s report on the WAI262 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 85.

ACC

ACC 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. ACC has recently consulted the public on potential levy rates for 2019/20 and 2020/21, and Cabinet will make a decision on these in December this year. Levy rates will be reviewed again in two years' time.

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, 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.

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 (Unchanged)

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)

The Government is currently consulting on the draft Disability and Learning Support Action Plan which proposes a number of significant new Learning Support initiatives. There are also 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 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 (Unchanged)

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 still remains some risk that EQC's remaining settlement expenditure relating to the Canterbury and Kaikoura 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 2018, 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 (Changed)

The infrastructure at Scott Base is approaching the end of its functional life. The cost of redevelopment of Scott Base, including the replacement of wind-farm assets, ranges from $200 million to $290 million over a 10- to 13-year period. The precise cost has yet to be determined 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 (Changed)

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 Equal Pay Act 1972. There is also a risk of costs to the Crown for possible claims under Part B of the Settlement Agreement where a provider can seek recompense if they consider that they have suffered financial disadvantage as a direct result of implementing obligations under the Home and Community Support (Payment for Travel Between Clients) Settlement Act 2016 or as per the agreed provisions under Part B.

Health Capital Pressure (Changed)

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. In addition, deficit support may be required to support DHBs' working capital requirements.

Health Operating Pressure (Changed)

The health sector is likely to face significant operating pressures against existing 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. This includes pressure on national disability support services like equipment and housing modifications for disabled people choosing to remain in their home (and this includes the over-65 population).

Housing and Urban Development

Business-as-Usual Divestment and Development of Housing New Zealand Corporation 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 (Unchanged)

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.

Research, Science and Innovation

Research and Development Tax Incentive (Unchanged)

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 provided funding averaging $256 million per year, but there is a risk that 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 Consumers 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.

Statistics

Census Costs (New)

It is a legislative requirement to hold a census every five years, with the next Census due in 2023. Statistics New Zealand has estimated the quantum for the 2023 Census as being around $150 million over the life of the Census.

Further, owing to the lower-than-optimal response rate for Census 2018, there is some financial uncertainty around the costs for completing this Census.

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 the Half Year Economic and Fiscal Update 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 (Unchanged)

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 late 2018/19, which will inform future funding decisions.

Treaty of Waitangi 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 17.0% for Waikato-Tainui and 16.1% 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.

Increasing the Minimum Wage (Unchanged)

Government policy decisions to increase the minimum wage to $20 by April 2021 will mean increased costs to State sector employers to the extent their employees receive a direct increase in wages. These costs may be reflected in Budget bids for increased appropriations where costs cannot be absorbed within baselines without compromising service delivery.

Other Capital Cost Pressures (Unchanged)

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 from the multi-year capital allowance 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 Other Government Inquiries and Reviews (Unchanged)

A number of inquiries and reviews are underway across government. At this point it is uncertain what the fiscal impact from the outcomes of these reviews may be.

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

The Government has introduced legislation that proposes to change the Equal Pay Act 1972 to provide a clearer process for raising and resolving pay equity claims through employment relations bargaining. The proposed legislation reflects the recommendations of the tripartite joint working group on pay equity principles.

The forecasts include an estimate of the cost of pay equity claim settlements within the forecast period; however, there is a risk that the cost may differ from that estimated.

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)

All collective agreements in the State sector are due to be renegotiated over the forecast period. As well as direct fiscal implications for the employers of workforces covered by any changes to remuneration, the renegotiation of agreements can have flow-on effects to remuneration in other employers across the sector.

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 *Budget Update*

Portfolio	Title	Reason for expiry
Corrections	Prison Capacity	Cabinet decisions to expand capacity at Waikeria Prison and build modular units at multiple sites, alongside a recent reduction to the prison population, means this risk is now unlikely to occur.
Corrections	Prisoner-related Costs	Cabinet decisions to expand capacity at Waikeria Prison and build modular units at multiple sites, alongside a recent reduction to the prison population, means this risk is now unlikely to occur.
Cross-portfolio	Changes in Accounting Standard for Financial Instruments	The impact from adopting the changes in the Accounting Standards for Financial Instruments has been reflected in the fiscal forecasts.
Cross-portfolio	Remediation of Per- and Poly-Fluoroalkyl Substances Contamination	This is now disclosed in the contingent liabilities and contingent assets section of this chapter.
Defence	Replacement of the P3 Orion Air Fleet	In July 2018, the Government agreed to purchase four Boeing P-8A Poseidon maritime patrol aircraft to replace the P3 Orion Air Fleet.
Education	Addressing School Property Condition	This risk has been merged with the 'Other Capital Cost Pressures' risk.
Education	Possible School of Rural Medicine	Cabinet has agreed to rescind the previous government's decision to establish a School of Rural Medicine, and establish a rural health strategy instead.
Housing and Urban Development	Housing Infrastructure Fund	This risk is expired because all business cases have now been approved and are provided for in the fiscal forecasts.
Housing and Urban Development	Healthy Homes	Housing New Zealand Corporation has planned for retrofitting costs in its long-term strategy and is managing any resultant costs of the legislation through its balance sheet.
Housing and Urban Development	Crown Infrastructure Partners	Funding for Crown Infrastructure Partners has now been appropriated and included in the fiscal forecasts.
Immigration	Increasing the Refugee Quota	Cabinet agreed to the policy in September 2018, and funding has been set aside in contingency and included in the fiscal forecasts.
Internal Affairs	NZ Fire Service Levy	Fire and Emergency New Zealand is now well established and the risk of the entity having insufficient funding has been re-assessed as low.
Māori Development	Proposed Māori Land Services	A decision has been made to scale down the preferred option for the Whenua Reform work programme. The preferred option now targets four specific regions to trial the provision of services, rather than providing them across New Zealand. This has resulted in a reduction in total cost of the programme.
Land Information	Upgrading Landonline	Cabinet has approved a drawdown of a contingency set aside in Budget 2018 for the Landonline upgrade. This is included in the fiscal forecasts.
Tourism	Queenstown Tourism Infrastructure	Ministers are no longer pursuing this initiative.
Transport	National Land Transport Fund	The Government has approved a new General Policy Statement and additional funding sources.

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.[18]

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

[18] “Remote” is defined as being an item with less than a 10% chance of occurring.

Quantifiable Contingent Liabilities and Contingent Assets

Contingent liabilities

	Status[19]	31 October 2018 ($millions)
Uncalled capital		
Asian Development Bank	Unchanged	3,267
International Monetary Fund – promissory notes	Unchanged	2,255
International Bank for Reconstruction and Development	Unchanged	1,690
International Monetary Fund – arrangements to borrow	Unchanged	645
Asian Infrastructure Investment Bank	Unchanged	564
Other uncalled capital	Unchanged	19
		8,440
Guarantees and indemnities		
New Zealand Export Credit Office guarantees	Unchanged	123
Other guarantees and indemnities	Unchanged	86
		209
Legal proceedings and disputes		
Legal tax proceedings	Unchanged	147
Other legal proceedings and disputes	Unchanged	178
		325
Other quantifiable contingent liabilities		
Unclaimed monies	Unchanged	163
Christchurch Engine Centre Partnership Agreement	Unchanged	264
Other quantifiable contingent liabilities	Unchanged	263
		690
Total quantifiable contingent liabilities		**9,664**

Contingent assets

	Status[19]	31 October 2018 ($millions)
Legal proceedings and disputes		
Other contingent assets	Unchanged	132
Total quantifiable contingent assets		**132**

[19] Status of contingent liabilities or assets when compared to the Financial Statements of the Government published on 9 October 2018.

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
Housing New Zealand Corporation	Unchanged
Justices of the Peace, Community Magistrates and Disputes Tribunal Referees	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	
Canterbury Insurance Disputes	New
Criminal Proceeds (Recovery) Act 2009	Unchanged
Environmental liabilities	Unchanged
Holidays Act 2003 and other relevant legislation	Unchanged
Remediation of Per- and Poly- Fluoroalkyl Substances Contamination	New
Treaty of Waitangi claims – settlement relativity payments	Unchanged

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 the organisations listed below, contributes capital by subscribing to shares in certain institutions. The capital (when called) is typically used to raise additional funding for loans to 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 October 2018 $millions**	**30 June 2018 $millions**
Asian Development Bank	3,267	3,231
International Monetary Fund – promissory notes	2,255	2,255
International Bank for Reconstruction and Development	1,690	1,643
International Monetary Fund – arrangements to borrow	645	634
Asian Infrastructure Investment Bank	564	548

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.

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 services.

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.

$123 million at 31 October 2018 ($137 million at 30 June 2018)

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.

$147 million at 31 October 2018 ($146 million at 30 June 2018)

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.

$163 million at 31 October 2018 ($161 million at 30 June 2018)

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.

$264 million at 31 October 2018 ($158 million at 30 June 2018)

Unquantifiable contingent liabilities

This part of the statement provides details of those contingent liabilities of the Crown which the following categories are not quantified, excluding those that are considered remote, reported by indemnities, legal disputes, 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 core Crown net 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 Referees	Section 50 of the District Courts Act 2016 and Section 4F of the Justices of the Peace Act 1957 and 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.

Party indemnified	Instrument of indemnification	Actions indemnified
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.
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.

Party indemnified	Instrument of indemnification	Actions indemnified
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, or if the Crown were to lose it would be unlikely to have greater than a $20 million impact. Based on these factors, not all legal actions are individually disclosed. The claims that are disclosed individually, while they cannot be quantified, have the potential to exceed $20 million in costs.

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 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. Due to the complexity and uncertainty of the amount of these claims the amounts are unquantified.

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 which has been transferred by the Crown to a State-owned 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.

Kiwifruit vine disease Psa-V

Approximately 210 growers have filed a claim against the Ministry for Primary Industries alleging it is liable for damages they suffered from the kiwifruit vine disease, Psa-V. The plaintiffs have not quantified their losses, but have publicly claimed it is in the vicinity of $380 million, citing total industry losses of $885 million, the Ministry defended the claim. On 27 June 2018 the High Court found that MPI owed a duty of care to Strathboss and claimants; that it breached its duty of care at the import permit stage, and that the breach caused the Psa-V incursion. An appeal was filed by the Crown on 24 July 2018.

Other unquantifiable contingent liabilities

Canterbury insurance disputes

Southern Response Earthquake Services Limited (SRESL) from time to time receives notification of legal claims and disputes in relation to claim settlements as a commercial outcome of conducting its business.

A representative action proceeding was filed against SRESL on 29 May 2018. The financial statements make no allowance for the outcome of these proceedings, as the range of possible outcomes cannot be reliably quantified at this time. These claims are being defended.

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 a 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. Where costs cannot be reliably measured, they are disclosed as an unquantified contingent liability.

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, a provision has been made in these financial statements for obligations arising from those reviews. Further work continues to be undertaken by a number of entities including the Ministry of Education, District Health Boards, the Department of Corrections and KiwiRail Holdings Limited. These entities have complexities that are taking longer to resolve. To the extent that an obligation cannot reasonably be quantified at 31 October 2018, there is an unquantified contingency.

Remediation of Per- and Poly- Fluoroalkyl Substances Contamination

Local and central government entities are investigating per- and poly-fluoroalkyl substances (PFAS) contamination from the historic use of specialised firefighting foam at sites on, and in the vicinity of, airports, New Zealand Defence Force bases, fuel storage facilities and other sites. Various government agencies have been undertaking a programme to review, investigate and develop a comprehensive approach to manage the impact of PFAS at sites around New Zealand. Once a response is agreed, it is possible the Crown may incur costs for the response to PFAS contamination, however these costs cannot be estimated without the agreed response being finalised, so an unquantified contingent liability has been disclosed.

Treaty of Waitangi claims – Settlement Relativity Payments – see page 78

Description of Contingent Assets

There are no material quantifiable or unquantifiable contingent assets at 31 October 2018.

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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 27 November 2018.

The finalisation dates and key assumptions that underpin the preparation of the Forecast Financial Statements are outlined in the Fiscal Outlook chapter (pages 21 to 44).

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 are consequently not reflected in these Financial Statements.

We have adopted PBE IFRS 9: *Financial Instruments* in these financial statements replacing the existing standard PBE IPSAS 29: *Financial instruments: Recognition and Measurement* and NZ IAS 39: *Financial instruments: Recognition and Measurement*. The Crown has exercised the option under PBE IFRS 9 to continue to apply the hedge accounting requirements of PBE IPSAS 29.

The main changes under PBE IFRS 9 for non-hedge financial instruments are:

- New financial asset classification requirements for determining whether an asset is measured at fair value or amortised cost.
- A new impairment model for financial assets based on expected losses, which may result in the earlier recognition of impairment losses.

The specific accounting policies are included within the 2018 *Half Year Economic and Fiscal Update Additional Information* document which can be found on the Treasury's website at https://treasury.govt.nz/publications/efu/half-year-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 57 to 91. 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 2019 to 30 June 2023. The "2018 Actual" figures reported in the statements are the audited results reported in the Financial Statements of the Government for the year ended 30 June 2018. The "2019 Previous Budget" figures are the original forecasts to 30 June 2019 as presented in the 2018 Budget Update.

Government Reporting Entity as at 27 November 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 Housing and Urban Development
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
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 Agents Authority
Retirement Commissioner
School Boards of Trustees (2,405)
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

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

Ngai Tahu Ancillary Claims Trust

Pacific Co-operation Foundation

Pacific Island Business Development Trust

Reserves Boards (21)

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 Limited)

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

Teaching Council of Aotearoa New Zealand

Regenerate Christchurch

Christ Church Cathedral Reinstatement Trust

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	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
Revenue								
Taxation revenue	1	79,596	83,241	83,646	88,527	94,211	99,511	104,478
Other sovereign revenue	1	5,223	5,633	5,807	6,098	6,352	6,587	6,740
Total Revenue Levied through the Crown's Sovereign Power		**84,819**	**88,874**	**89,453**	**94,625**	**100,563**	**106,098**	**111,218**
Sales of goods and services		18,228	19,237	18,554	19,626	20,083	20,495	20,741
Interest revenue	2	2,798	2,966	2,747	2,788	3,075	3,171	3,517
Other revenue[1]		4,128	4,220	4,427	4,457	4,907	4,943	5,042
Total revenue earned through the Crown's operations		**25,154**	**26,423**	**25,728**	**26,871**	**28,065**	**28,609**	**29,300**
Total revenue (excluding gains)		**109,973**	**115,297**	**115,181**	**121,496**	**128,628**	**134,707**	**140,518**
Expenses								
Transfer payments and subsidies[1]	3	25,366	28,394	28,339	29,649	30,976	32,412	33,658
Personnel expenses		23,690	24,369	24,974	25,229	25,770	26,126	26,352
Depreciation		4,275	4,840	4,926	5,143	5,213	5,264	5,323
Other operating expenses	4	41,614	44,976	46,729	45,774	46,250	45,149	45,689
Finance costs	2	4,151	4,045	4,048	3,979	4,322	4,133	4,388
Insurance expenses	5	4,918	4,877	4,907	5,438	5,757	6,180	6,523
Forecast new operating spending	6	-	760	653	2,599	5,311	7,896	10,166
Top-down expense adjustment	6	-	(1,145)	(1,475)	(825)	(500)	(500)	(500)
Total expenses (excluding losses)		**104,014**	**111,116**	**113,101**	**116,986**	**123,099**	**126,660**	**131,599**
Minority interest share of operating balance before gains/(losses)		(425)	(444)	(356)	(397)	(445)	(485)	(481)
Operating balance before gains/(losses) (excluding minority interests)		**5,534**	**3,737**	**1,724**	**4,113**	**5,084**	**7,562**	**8,438**
Net gains/(losses) on financial instruments	2	5,331	2,887	4,044	3,326	3,716	4,156	4,617
Net gains/(losses) on non-financial instruments	7	(2,802)	(83)	(2,792)	(74)	(66)	(64)	(64)
Less minority interest share of net gains/(losses)		(87)	(17)	(38)	3	-	(1)	(1)
Total gains/(losses) (excluding minority interests)		**2,442**	**2,787**	**1,214**	**3,255**	**3,650**	**4,091**	**4,552**
Net surplus/(deficit) from associates and joint ventures		420	249	174	212	252	275	290
Operating balance (excluding minority interests)		**8,396**	**6,773**	**3,112**	**7,580**	**8,986**	**11,928**	**13,280**

1. The 2019 Previous Budget comparator for other revenue and transfer payments and subsidies has been restated to eliminate Income Related Rent Subsidy transactions between government reporting entities.

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

	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
Total Crown expenses							
By functional classification[1]							
Social security and welfare[2]	30,195	33,660	33,751	35,567	36,915	38,589	40,106
Health	16,746	17,507	17,846	17,811	17,690	17,756	17,706
Education	14,607	15,509	15,684	15,719	16,045	16,143	16,308
Core government services	4,495	4,755	5,343	4,547	4,540	4,330	4,244
Law and order	4,494	4,816	5,011	5,004	5,068	5,163	5,276
Transport and communications	9,940	10,938	11,276	11,679	12,654	12,602	13,046
Economic and industrial services	8,928	9,150	9,122	9,852	9,672	9,489	9,471
Defence	2,239	2,366	2,443	2,487	2,502	2,475	2,439
Heritage, culture and recreation	2,518	2,603	2,647	2,643	2,640	2,728	2,757
Primary services	2,134	2,090	2,403	2,187	2,030	1,970	2,014
Housing and community development	1,878	2,318	2,608	2,055	2,343	2,283	2,194
Environmental protection	1,227	1,057	1,132	1,122	1,095	1,087	1,440
GSF pension expenses	163	135	176	168	175	199	227
Other	299	552	433	392	597	317	317
Finance costs	4,151	4,045	4,048	3,979	4,322	4,133	4,388
Forecast new operating spending	-	760	653	2,599	5,311	7,896	10,166
Top-down expense adjustment	-	(1,145)	(1,475)	(825)	(500)	(500)	(500)
Total Crown expenses excluding losses	**104,014**	**111,116**	**113,101**	**116,986**	**123,099**	**126,660**	**131,599**

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.

	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
Core Crown expenses							
By functional classification[1]							
Social security and welfare	25,999	28,949	29,020	30,365	31,680	33,072	34,234
Health	17,159	18,071	18,261	18,230	18,120	18,222	18,211
Education	13,629	14,663	14,750	14,739	15,062	15,152	15,350
Core government services	4,670	5,046	5,450	4,789	4,677	4,570	4,483
Law and order	4,184	4,419	4,575	4,539	4,604	4,663	4,786
Transport and communications	2,559	2,622	3,066	3,035	3,703	3,408	3,496
Economic and industrial services	2,732	3,307	3,564	3,710	3,360	3,191	3,227
Defence	2,251	2,374	2,452	2,495	2,511	2,483	2,448
Heritage, culture and recreation	850	880	910	847	800	812	812
Primary services	807	756	1,076	838	685	623	665
Housing and community development	552	878	1,163	618	612	639	643
Environmental protection	1,238	1,058	1,134	1,124	1,097	1,089	1,442
GSF pension expenses	150	122	163	155	162	185	213
Other	299	552	433	392	597	317	317
Finance costs	3,497	3,408	3,474	3,253	3,372	3,090	3,231
Forecast new operating spending	-	760	653	2,599	5,311	7,896	10,166
Top-down expense adjustment	-	(1,145)	(1,475)	(825)	(500)	(500)	(500)
Total core Crown expenses excluding losses	**80,576**	**86,720**	**88,669**	**90,903**	**95,853**	**98,912**	**103,224**

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.

2. The 2019 Previous Budget comparator for social security and welfare expenses has been restated to eliminate Income Related Rent Subsidy transactions between government reporting entities.

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

	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
Operating Balance (including minority interest)	**8,908**	**7,234**	**3,506**	**7,974**	**9,431**	**12,414**	**13,762**
Other comprehensive revenue and expense							
Revaluation of physical assets	10,668	-	-	-	-	-	-
Transfers to/(from) reserves	59	69	97	(138)	(159)	(152)	(149)
(Gains)/losses transferred to the statement of financial performance	(25)	-	(4)	(2)	(1)	2	(1)
Other movements	88	(50)	12	11	22	24	32
Total other comprehensive revenue and expense	**10,790**	**19**	**105**	**(129)**	**(138)**	**(126)**	**(118)**
Total comprehensive revenue and expense	**19,698**	**7,253**	**3,611**	**7,845**	**9,293**	**12,288**	**13,644**
Attributable to:							
- minority interest	586	445	403	396	446	486	482
- the Crown	19,112	6,808	3,208	7,449	8,847	11,802	13,162
Total comprehensive revenue and expense	**19,698**	**7,253**	**3,611**	**7,845**	**9,293**	**12,288**	**13,644**

Forecast Statement of Changes in Net Worth

for the years ending 30 June

	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
Opening net worth	116,472	123,567	135,637	139,409	146,740	155,519	167,284
Impacts of adoption of NZ PBE IFRS 9[1]	-	537	628	-	-	-	-
Adjusted opening net worth	116,472	124,104	136,265	139,409	146,740	155,519	167,284
Operating balance (including minority interest)	8,908	7,234	3,506	7,974	9,431	12,414	13,762
Net revaluations	10,668	-	-	-	-	-	-
Transfers to/(from) reserves	59	69	97	(138)	(159)	(152)	(149)
(Gains)/losses transferred to the Statement of Financial Performance	(25)	-	(4)	(2)	(1)	2	(1)
Other movements	88	(50)	12	11	22	24	32
Comprehensive income	**19,698**	**7,253**	**3,611**	**7,845**	**9,293**	**12,288**	**13,644**
Transactions with minority interest	(533)	(503)	(467)	(514)	(514)	(523)	(528)
Closing net worth	**135,637**	**130,854**	**139,409**	**146,740**	**155,519**	**167,284**	**180,400**

1. Refer to note 9 for details of the impacts of adoption of NZ PBE IFRS 9: *Financial Instruments* on these forecast financial statements.

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

Forecast Statement of Cash Flows

for the years ending 30 June

	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
Cash Flows from Operations							
Cash was provided from							
Taxation receipts	78,566	81,963	82,703	87,490	93,115	98,385	103,377
Other sovereign receipts	4,594	4,710	4,784	4,930	5,252	5,554	5,654
Sales of goods and services	18,387	19,260	18,795	20,133	20,913	21,257	21,469
Interest receipts	2,466	2,462	2,414	2,547	2,831	2,903	3,219
Other operating receipts	4,038	4,909	4,949	5,299	5,782	5,932	6,048
Total cash provided from operations	**108,051**	**113,304**	**113,645**	**120,399**	**127,893**	**134,031**	**139,767**
Cash was disbursed to							
Transfer payments and subsidies	25,382	29,308	28,309	29,863	31,088	32,493	33,756
Personnel and operating payments	67,687	71,438	74,417	74,639	75,048	75,567	76,474
Interest payments	4,098	4,052	4,034	3,861	4,272	3,928	4,265
Forecast new operating spending	-	760	653	2,599	5,311	7,896	10,166
Top-down expense adjustment	-	(1,145)	(1,475)	(825)	(500)	(500)	(500)
Total cash disbursed to operations	**97,167**	**104,413**	**105,938**	**110,137**	**115,219**	**119,384**	**124,161**
Net cash flows from operations	**10,884**	**8,891**	**7,707**	**10,262**	**12,674**	**14,647**	**15,606**
Cash Flows from Investing Activities							
Cash was provided from/(disbursed to)							
Net (purchase)/sale of physical assets	(7,672)	(10,191)	(10,670)	(9,767)	(7,661)	(6,884)	(6,669)
Net (purchase)/sale of shares and other securities	(4,792)	6,117	8,981	(2,171)	(1,343)	(9,284)	(4,102)
Net (purchase)/sale of intangible assets	(817)	(723)	(891)	(898)	(739)	(600)	(560)
Net (issue)/repayment of advances	(499)	(203)	(1,273)	(1,296)	(1,131)	(1,176)	(1,262)
Net acquisition of investments in associates	(378)	(420)	(403)	(225)	(322)	(292)	(128)
Forecast new capital spending	-	(1,267)	(857)	(997)	(1,862)	(2,292)	(2,225)
Top-down capital adjustment	-	600	1,350	450	250	100	50
Net cash flows from investing activities	**(14,158)**	**(6,087)**	**(3,763)**	**(14,904)**	**(12,808)**	**(20,428)**	**(14,896)**
Net cash flows from operating and investing activities	**(3,274)**	**2,804**	**3,944**	**(4,642)**	**(134)**	**(5,781)**	**710**
Cash Flows from Financing Activities							
Cash was provided from/(disbursed to)							
Issues of circulating currency	395	196	233	198	204	210	217
Net issue/(repayment) of government bonds[1]	215	(3,378)	(3,189)	2,388	(3,084)	6,937	(2,955)
Net issue/(repayment) of foreign-currency borrowings	(670)	458	(2,550)	110	1	2	9
Net issue/(repayment) of other New Zealand dollar borrowings	3,055	(642)	2,020	1,841	3,522	(701)	2,581
Dividends paid to minority interests[2]	(541)	(532)	(512)	(521)	(521)	(524)	(528)
Net cash flows from financing activities	**2,454**	**(3,898)**	**(3,998)**	**4,016**	**122**	**5,924**	**(676)**
Net movement in cash	**(820)**	**(1,094)**	**(54)**	**(626)**	**(12)**	**143**	**34**
Opening cash balance	18,732	18,068	19,340	19,521	18,897	18,890	19,035
Foreign-exchange gains/(losses) on opening cash	1,428	2	235	2	5	2	2
Closing cash balance	**19,340**	**16,976**	**19,521**	**18,897**	**18,890**	**19,035**	**19,071**

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

2. Excludes transactions with ACC and NZS Fund.

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

	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
Reconciliation Between the Net Cash Flows from Operations and the Operating Balance							
Net Cash Flows from Operations	**10,884**	**8,891**	**7,707**	**10,262**	**12,674**	**14,647**	**15,606**
Items included in the operating balance but not in net cash flows from operations							
Gains/(losses)							
Net gains/(losses) on financial instruments	5,331	2,887	4,044	3,326	3,716	4,156	4,617
Net gains/(losses) on non-financial instruments	(2,802)	(83)	(2,792)	(74)	(66)	(64)	(64)
Minority interest share of net gains/(losses)	(87)	(17)	(38)	3	-	(1)	(1)
Total gains/(losses)	**2,442**	**2,787**	**1,214**	**3,255**	**3,650**	**4,091**	**4,552**
Other Non-cash Items in Operating Balance							
Depreciation	(4,275)	(4,840)	(4,926)	(5,143)	(5,213)	(5,264)	(5,323)
Amortisation	(906)	(729)	(752)	(783)	(816)	(833)	(829)
Cost of concessionary lending	(704)	(762)	(924)	(698)	(698)	(680)	(683)
Impairment of financial assets (excluding receivables)	105	(16)	(10)	(14)	(17)	(18)	(19)
Decrease/(increase) in defined benefit retirement plan liabilities	568	592	607	596	593	572	544
Decrease/(increase) in insurance liabilities	(628)	(623)	(594)	(955)	(1,510)	(1,715)	(1,940)
Other	529	264	(576)	(668)	(704)	(751)	(424)
Total other non-cash Items	**(5,311)**	**(6,114)**	**(7,175)**	**(7,665)**	**(8,365)**	**(8,689)**	**(8,674)**
Movements in Working Capital							
Increase/(decrease) in receivables	1,614	1,270	815	954	1,126	1,169	1,409
Increase/(decrease) in accrued interest	265	485	249	59	148	19	134
Increase/(decrease) in inventories	177	(23)	225	65	146	26	11
Increase/(decrease) in prepayments	(8)	(7)	(8)	7	4	17	1
Decrease/(increase) in deferred revenue	(200)	(108)	(82)	(112)	(119)	(7)	(42)
Decrease/(increase) in payables/provisions	(1,467)	(408)	167	755	(278)	655	283
Total movements in working capital	**381**	**1,209**	**1,366**	**1,728**	**1,027**	**1,879**	**1,796**
Operating balance (excluding minority interests)	**8,396**	**6,773**	**3,112**	**7,580**	**8,986**	**11,928**	**13,280**

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

Forecast Statement of Financial Position

as at 30 June

	Note	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
Assets								
Cash and cash equivalents	8	19,340	16,976	19,521	18,897	18,890	19,035	19,071
Receivables	8	21,385	20,770	22,014	22,787	23,711	24,586	25,656
Marketable securities, deposits and derivatives in gain	8	51,117	42,630	38,066	39,047	39,093	47,003	49,627
Share investments	8	36,256	39,344	41,186	44,652	49,025	53,908	59,190
Advances[1]	8	29,422	30,479	31,411	32,498	33,392	34,341	35,363
Inventory		1,344	1,036	1,569	1,633	1,779	1,805	1,816
Other assets		2,817	2,637	2,802	2,845	2,828	2,900	2,981
Property, plant and equipment	10	159,018	155,867	165,213	170,047	172,328	174,096	175,218
Equity accounted investments[2]		15,416	15,384	16,065	16,481	16,990	17,487	17,832
Intangible assets and goodwill		3,817	3,980	4,046	4,401	4,539	4,512	4,463
Forecast for new capital spending	6	-	1,452	857	1,854	3,716	6,008	8,233
Top-down capital adjustment		-	(1,085)	(1,350)	(1,800)	(2,050)	(2,150)	(2,200)
Total assets		**339,932**	**329,470**	**341,400**	**353,342**	**364,241**	**383,531**	**397,250**
Liabilities								
Issued currency		6,375	6,636	6,609	6,807	7,011	7,222	7,438
Payables	12	14,422	13,484	14,021	13,605	14,201	14,370	14,374
Deferred revenue		2,424	2,414	2,507	2,617	2,741	2,746	2,790
Borrowings		115,652	112,890	111,369	116,185	116,865	123,315	122,779
Insurance liabilities	5	45,294	44,732	47,766	48,721	50,231	51,946	53,886
Retirement plan liabilities	13	10,991	9,987	10,774	10,178	9,585	9,013	8,469
Provisions	14	9,137	8,473	8,945	8,489	8,088	7,635	7,114
Total liabilities		**204,295**	**198,616**	**201,991**	**206,602**	**208,722**	**216,247**	**216,850**
Total assets less total liabilities		**135,637**	**130,854**	**139,409**	**146,740**	**155,519**	**167,284**	**180,400**
Net Worth								
Taxpayers' funds[1]		34,841	40,830	38,644	46,101	55,030	66,886	80,097
Property, plant and equipment revaluation reserve		94,750	84,089	94,707	94,642	94,528	94,438	94,356
Other reserves		53	75	129	186	218	254	287
Total net worth attributable to the Crown		**129,644**	**124,994**	**133,480**	**140,929**	**149,776**	**161,578**	**174,740**
Net worth attributable to minority interest		5,993	5,860	5,929	5,811	5,743	5,706	5,660
Total net worth	15	**135,637**	**130,854**	**139,409**	**146,740**	**155,519**	**167,284**	**180,400**

1. Refer to page 94 for the impacts of the adoption of NZ PBE IFRS 9: *Financial Instruments*.
2. Equity accounted investments include tertiary education institutions and City Rail Link Limited.

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

Forecast Statement of Borrowings

as at 30 June

	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
Borrowings							
Government bonds	62,393	59,505	58,614	60,797	57,411	64,170	60,982
Treasury bills	4,114	1,937	2,495	2,011	4,092	2,006	2,004
Government retail stock	182	183	180	181	181	181	181
Settlement deposits with Reserve Bank	7,603	7,063	7,164	7,164	7,164	7,164	7,164
Derivatives in loss	5,067	2,694	3,515	3,219	2,991	2,862	2,752
Finance lease liabilities	1,318	2,351	2,490	2,552	2,255	2,150	2,396
Other borrowings	34,975	39,157	36,911	40,261	42,771	44,782	47,300
Total borrowings	**115,652**	**112,890**	**111,369**	**116,185**	**116,865**	**123,315**	**122,779**
Sovereign-guaranteed debt	83,230	77,510	76,335	78,229	77,289	82,295	79,357
Non sovereign-guaranteed debt	32,422	35,380	35,034	37,956	39,576	41,020	43,422
Total borrowings	**115,652**	**112,890**	**111,369**	**116,185**	**116,865**	**123,315**	**122,779**
Net Debt:							
Core Crown borrowings[1]	98,295	91,655	91,739	93,840	92,994	98,080	95,097
Add back NZS Fund holdings of sovereign-issued debt and NZS Fund borrowings	(2,858)	(2,284)	(2,457)	(2,469)	(2,482)	(2,490)	(2,495)
Gross sovereign-issued debt[2]	**95,437**	**89,371**	**89,282**	**91,371**	**90,512**	**95,590**	**92,602**
Less core Crown financial assets[3]	88,226	79,453	81,892	85,090	88,470	100,301	106,893
Net core Crown debt (incl. NZS Fund)[4]	**7,211**	**9,918**	**7,390**	**6,281**	**2,042**	**(4,711)**	**(14,291)**
Add back NZS Fund holdings of core Crown financial assets and NZS Fund financial assets[5]	38,035	42,302	42,556	46,632	52,276	58,653	65,618
Net core Crown debt (excl. NZS Fund)	**45,246**	**52,220**	**49,946**	**52,913**	**54,318**	**53,942**	**51,327**
Add back core Crown advances	12,249	11,984	12,731	12,668	12,535	12,389	12,164
Net core Crown debt (excl. NZS Fund and advances)[6]	**57,495**	**64,204**	**62,677**	**65,581**	**66,853**	**66,331**	**63,491**
Gross Debt:							
Gross sovereign-issued debt[2]	95,437	89,371	89,282	91,371	90,512	95,590	92,602
Less Reserve Bank settlement cash and Reserve Bank bills	(8,984)	(9,118)	(8,115)	(8,115)	(8,115)	(8,115)	(8,115)
Add back changes to government 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]	**88,053**	**81,853**	**82,767**	**84,856**	**83,997**	**89,075**	**86,087**

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 government borrowing programme. 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 October 2018 $m	As at 30 June 2018 $m
Capital Commitments		
State highways	4,411	4,410
Specialist military equipment	2,032	377
Land and buildings	4,137	3,016
Other property, plant and equipment	2,036	2,028
Other capital commitments	395	398
Tertiary education institutions	752	752
Total capital commitments	**13,763**	**10,981**
Operating Commitments		
Non-cancellable accommodation leases	3,625	3,708
Other non-cancellable leases	2,787	2,879
Tertiary education institutions	649	649
Total operating commitments	**7,061**	**7,236**
Total commitments	**20,824**	**18,217**
Total Commitments by Segment[1]		
Core Crown	8,527	5,885
Crown entities	7,954	7,980
State-owned Enterprises	4,518	4,526
Inter-segment eliminations	(175)	(174)
Total commitments	**20,824**	**18,217**

Statement of Actual Contingent Liabilities and Assets

	As at 31 October 2018 $m	As at 30 June 2018 $m
Quantifiable Contingent Liabilities		
Uncalled capital	8,440	8,330
Guarantees and indemnities	209	224
Legal proceedings and disputes	325	332
Other contingent liabilities	690	514
Total quantifiable contingent liabilities	**9,664**	**9,400**
Total Quantifiable Contingent Liabilities by Segment[1]		
Core Crown	9,392	9,297
Crown entities	80	17
State-owned Enterprises	309	203
Inter-segment eliminations	(117)	(117)
Total quantifiable contingent liabilities	**9,664**	**9,400**
Quantifiable Contingent Assets by Segment		
Core Crown	132	133
Crown entities	-	-
State-owned Enterprises	-	-
Total quantifiable contingent assets	**132**	**133**

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

1. 30 June 2018 splits by segment have been restated to correctly show inter-segment eliminations.

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

Notes to the Forecast Financial Statements

	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
NOTE 1: Sovereign Revenue (Accrual)							
Taxation Revenue (accrual)							
Individuals							
Source deductions	30,721	32,248	32,721	34,809	37,000	39,197	41,525
Other persons	6,819	6,968	6,789	7,237	7,612	8,034	8,422
Refunds	(2,102)	(1,764)	(2,499)	(1,920)	(1,669)	(1,905)	(1,979)
Fringe benefit tax	559	572	559	587	617	647	678
Total individuals	**35,997**	**38,024**	**37,570**	**40,713**	**43,560**	**45,973**	**48,646**
Corporate Tax							
Gross companies tax	13,022	13,301	14,424	14,255	15,072	15,827	16,602
Refunds	(157)	(207)	(196)	(194)	(199)	(188)	(193)
Non-resident withholding tax	627	669	677	705	747	797	836
Foreign-source dividend w/holding payments	3	-	-	-	-	-	-
Total corporate tax	**13,495**	**13,763**	**14,905**	**14,766**	**15,620**	**16,436**	**17,245**
Other Direct Income Tax							
Resident w/holding tax on interest income	1,531	1,737	1,646	1,627	2,108	2,713	3,136
Resident w/holding tax on dividend income	753	769	748	794	840	879	916
Total other direct income tax	**2,284**	**2,506**	**2,394**	**2,421**	**2,948**	**3,592**	**4,052**
Total direct income tax	**51,776**	**54,293**	**54,869**	**57,900**	**62,128**	**66,001**	**69,943**
Goods and Services Tax							
Gross goods and services tax	33,899	35,339	35,573	37,728	39,384	41,272	42,868
Refunds	(13,086)	(13,370)	(14,028)	(14,669)	(15,223)	(15,800)	(16,466)
Total goods and services tax	**20,813**	**21,969**	**21,545**	**23,059**	**24,161**	**25,472**	**26,402**
Other Indirect Taxation							
Road user charges	1,551	1,500	1,667	1,777	1,914	1,971	2,018
Petroleum fuels excise – domestic production	1,057	1,259	1,206	1,335	1,406	1,416	1,426
Alcohol excise – domestic production	699	737	747	772	795	819	843
Tobacco excise – domestic production	400	356	367	380	393	393	392
Petroleum fuels excise – imports[1]	841	710	761	755	795	800	806
Alcohol excise – imports[1]	318	316	320	331	341	351	361
Tobacco excise – imports[1]	1,407	1,385	1,423	1,478	1,530	1,529	1,526
Other customs duty	172	172	182	182	182	182	182
Gaming duties	246	239	240	244	248	251	255
Motor vehicle fees	227	225	233	223	227	231	234
Approved issuer levy and cheque duty	63	50	59	66	66	70	66
Energy resources levies	26	30	27	25	25	25	24
Total other indirect taxation	**7,007**	**6,979**	**7,232**	**7,568**	**7,922**	**8,038**	**8,133**
Total indirect taxation	**27,820**	**28,948**	**28,777**	**30,627**	**32,083**	**33,510**	**34,535**
Total taxation revenue	**79,596**	**83,241**	**83,646**	**88,527**	**94,211**	**99,511**	**104,478**
Other Sovereign Revenue (accrual)							
ACC levies	2,643	2,874	2,860	3,041	3,171	3,352	3,493
Fire and Emergency levies	568	581	573	588	630	642	605
EQC levies	309	384	385	439	488	493	498
Child support and working for families penalties	231	227	223	223	226	229	233
Court fines	118	96	107	104	103	111	103
Other miscellaneous items	1,354	1,471	1,659	1,703	1,734	1,760	1,808
Total other sovereign revenue	**5,223**	**5,633**	**5,807**	**6,098**	**6,352**	**6,587**	**6,740**
Total sovereign revenue	**84,819**	**88,874**	**89,453**	**94,625**	**100,563**	**106,098**	**111,218**

1. Customs excise-equivalent duty.

Notes to the Forecast Financial Statements

	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
NOTE 1 (continued): Sovereign Receipts (Cash)							
Taxation Receipts (cash)							
Individuals							
Source deductions	30,477	32,079	32,524	34,599	36,779	38,962	41,278
Other persons	7,206	7,257	7,243	7,235	7,652	8,117	8,523
Refunds	(2,532)	(2,577)	(2,519)	(2,285)	(2,230)	(2,349)	(2,459)
Fringe benefit tax	542	572	559	587	617	647	678
Total individuals	**35,693**	**37,331**	**37,807**	**40,136**	**42,818**	**45,377**	**48,020**
Corporate Tax							
Gross companies tax	12,979	13,509	14,110	14,667	15,514	16,247	17,045
Refunds	(549)	(638)	(684)	(697)	(737)	(760)	(795)
Non-resident withholding tax	591	669	661	705	747	797	836
Foreign-source dividend w/holding payments	-	-	-	-	-	-	-
Total corporate tax	**13,021**	**13,540**	**14,087**	**14,675**	**15,524**	**16,284**	**17,086**
Other Direct Income Tax							
Resident w/holding tax on interest income	1,576	1,737	1,646	1,627	2,108	2,713	3,136
Resident w/holding tax on dividend income	731	769	748	794	840	879	916
Total other direct income tax	**2,307**	**2,506**	**2,394**	**2,421**	**2,948**	**3,592**	**4,052**
Total direct income tax	**51,021**	**53,377**	**54,288**	**57,232**	**61,290**	**65,253**	**69,158**
Goods and Services Tax							
Gross goods and services tax	33,145	34,844	35,048	37,209	38,975	40,735	42,393
Refunds	(12,633)	(13,210)	(13,868)	(14,509)	(15,063)	(15,640)	(16,306)
Total goods and services tax	**20,512**	**21,634**	**21,180**	**22,700**	**23,912**	**25,095**	**26,087**
Other Indirect Taxation							
Road user charges	1,550	1,500	1,667	1,777	1,914	1,971	2,018
Petroleum fuels excise – domestic production	1,075	1,259	1,206	1,335	1,406	1,416	1,426
Alcohol excise – domestic production	694	737	747	772	795	819	843
Tobacco excise – domestic production	411	356	367	380	393	393	392
Customs duty	2,764	2,556	2,689	2,736	2,839	2,861	2,874
Gaming duties	232	239	240	244	248	251	255
Motor vehicle fees	227	225	233	223	227	231	234
Approved issuer levy and cheque duty	54	50	59	66	66	70	66
Energy resources levies	26	30	27	25	25	25	24
Total other indirect taxation	**7,033**	**6,952**	**7,235**	**7,558**	**7,913**	**8,037**	**8,132**
Total indirect taxation	**27,545**	**28,586**	**28,415**	**30,258**	**31,825**	**33,132**	**34,219**
Total taxation receipts	**78,566**	**81,963**	**82,703**	**87,490**	**93,115**	**98,385**	**103,377**
Other Sovereign Receipts (cash)							
ACC levies	2,844	2,731	2,896	2,985	3,287	3,490	3,610
Fire and Emergency levies	527	581	570	585	563	638	617
EQC levies	337	386	385	438	487	492	497
Child support and working for families penalties	203	209	209	210	213	216	220
Court fines	127	119	107	118	95	103	95
Other miscellaneous items	556	684	617	594	607	615	615
Total other sovereign receipts	**4,594**	**4,710**	**4,784**	**4,930**	**5,252**	**5,554**	**5,654**
Total sovereign receipts	**83,160**	**86,673**	**87,487**	**92,420**	**98,367**	**103,939**	**109,031**

Notes to the Forecast Financial Statements

	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
NOTE 2: Investment Revenue/(Expenditure)							
Interest revenue	**2,798**	**2,966**	**2,747**	**2,788**	**3,075**	**3,171**	**3,517**
Interest Expenses							
Interest on financial liabilities	4,112	4,009	3,986	3,955	4,296	4,106	4,359
Interest unwind on provisions	39	36	62	24	26	27	29
Total interest expenses	**4,151**	**4,045**	**4,048**	**3,979**	**4,322**	**4,133**	**4,388**
Net interest revenue/(expense)	**(1,353)**	**(1,079)**	**(1,301)**	**(1,191)**	**(1,247)**	**(962)**	**(871)**
Dividend revenue	877	951	1,040	1,039	1,110	1,198	1,297
Gains and losses on financial instruments	5,331	2,887	4,044	3,326	3,716	4,156	4,617
Total investment revenue/(expenditure)	**4,855**	**2,759**	**3,783**	**3,174**	**3,579**	**4,392**	**5,043**
NOTE 3: Transfer Payments and Subsidies							
New Zealand superannuation	13,699	14,539	14,535	15,446	16,383	17,463	18,554
Family tax credit	1,639	2,628	2,417	2,341	2,312	2,321	2,276
Jobseeker support and emergency benefit	1,697	1,712	1,837	1,869	1,856	1,864	1,880
Supported living payment	1,541	1,555	1,551	1,568	1,573	1,584	1,595
Accommodation assistance	1,204	1,508	1,587	1,643	1,675	1,699	1,718
Sole parent support	1,117	1,084	1,121	1,159	1,179	1,202	1,227
Income related rent subsidy[1]	19	110	41	75	120	172	170
KiwiSaver subsidies	897	966	976	1,021	1,065	1,103	1,139
Other working for families tax credits	556	560	543	536	531	532	523
Official development assistance	643	693	697	730	764	798	798
Student allowances	511	581	597	602	610	626	645
Winter energy payment	-	443	442	453	461	470	479
Best start	-	80	40	231	373	451	474
Disability assistance	379	379	383	378	379	381	384
Other social assistance benefits	1,464	1,556	1,572	1,597	1,695	1,746	1,796
Total transfer payments and subsidies	**25,366**	**28,394**	**28,339**	**29,649**	**30,976**	**32,412**	**33,658**
NOTE 4: Other Operating Expenses							
Grants and subsidies	5,436	6,137	6,626	6,673	6,967	6,932	7,229
Rental and leasing costs	1,363	1,378	1,475	1,457	1,450	1,464	1,453
Amortisation and impairment of intangible assets	906	729	752	783	816	833	829
Impairment of financial assets	590	800	789	792	795	796	797
Cost of concessionary lending	704	762	924	698	698	680	683
Lottery prize payments	686	710	710	726	751	787	794
Inventory expenses[2]	1,568	1,664	1,707	1,722	1,728	1,740	1,676
Other operating expenses[2]	30,361	32,796	33,746	32,923	33,045	31,917	32,228
Total other operating expenses	**41,614**	**44,976**	**46,729**	**45,774**	**46,250**	**45,149**	**45,689**

1. The 2019 Previous Budget comparator for the income related rent subsidy has been restated to eliminate the transactions between government reporting entities.
2. Clinical supplies has now been reclassified from other operating expenses to inventory expenses resulting in a restatement of the 2019 Previous Budget comparator for these two lines.

Notes to the Forecast Financial Statements

	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
NOTE 5: Insurance							
Insurance expense by entity							
ACC	4,363	4,837	4,890	5,316	5,519	5,912	6,241
EQC	514	76	69	114	226	256	269
Southern Response	(28)	(46)	(63)	(2)	-	-	-
Other (incl. inter-segment eliminations)	69	10	11	10	12	12	13
Total insurance expenses	**4,918**	**4,877**	**4,907**	**5,438**	**5,757**	**6,180**	**6,523**
Insurance liability by entity							
ACC	43,314	44,285	46,621	48,207	49,856	51,609	53,547
EQC	1,453	411	887	461	322	284	287
Southern Response	401	-	139	-	-	-	-
Other (incl. inter-segment eliminations)	126	36	119	53	53	53	52
Total insurance liabilities	**45,294**	**44,732**	**47,766**	**48,721**	**50,231**	**51,946**	**53,886**

ACC liability

Calculation information

PwC NZ has prepared an independent actuarial estimate of the ACC outstanding claims liability as at 30 June 2018. 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 30 September 2018. The equivalent single effective discount rate, taking into account ACC's projected future cash flow patterns, is 3.26% and allows for a long-term discount rate of 4.75% from 2063.

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.

	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
Gross ACC Liability							
Opening gross liability	40,288	42,725	43,314	46,621	48,207	49,856	51,609
Net change	3,026	1,560	3,307	1,586	1,649	1,753	1,938
Closing gross liability	**43,314**	**44,285**	**46,621**	**48,207**	**49,856**	**51,609**	**53,547**
Less Net Assets Available to ACC							
Opening net asset value	39,071	41,053	41,958	43,672	44,652	45,650	46,547
Net change	2,887	1,174	1,714	980	998	897	859
Closing net asset value	**41,958**	**42,227**	**43,672**	**44,652**	**45,650**	**46,547**	**47,406**
Net ACC Reserves (Net Liability)							
Opening reserves position	(1,217)	(1,672)	(1,356)	(2,949)	(3,555)	(4,206)	(5,062)
Net change	(139)	(386)	(1,593)	(606)	(651)	(856)	(1,079)
Closing reserves position (net liability)/net asset	**(1,356)**	**(2,058)**	**(2,949)**	**(3,555)**	**(4,206)**	**(5,062)**	**(6,141)**

Notes to the Forecast Financial Statements

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

	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
Forecast New Operating Spending					
Unallocated contingencies	653	1,077	1,533	1,550	1,573
Forecast new spending for Budget 2019	-	1,522	1,643	1,649	1,496
Forecast new spending for Budget 2020	-	-	2,135	2,297	2,297
Forecast new spending for Budget 2021	-	-	-	2,400	2,400
Forecast new spending for Budget 2022	-	-	-	-	2,400
Total forecast new operating spending	**653**	**2,599**	**5,311**	**7,896**	**10,166**
Operating top-down adjustment	**(1,475)**	**(825)**	**(500)**	**(500)**	**(500)**

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 pre-committed as at the forecast finalisation date of 27 November 2018, with only the unallocated portion of the allowance included in this note.

	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m	Post-2023 Forecast $m	Total Forecast $m
Forecast New Capital Spending (annual)							
Unallocated contingencies	744	95	170	149	82	-	1,240
Forecast new spending for Budgets 2019 - 2022	113	902	1,692	2,143	2,143	2,032	9,025
Total forecast new capital spending	**857**	**997**	**1,862**	**2,292**	**2,225**	**2,032**	**10,265**
Forecast new capital spending (cumulative)	**857**	**1,854**	**3,716**	**6,008**	**8,233**		
Capital top-down adjustment (cumulative)	**(1,350)**	**(1,800)**	**(2,050)**	**(2,150)**	**(2,200)**		

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 to 2022 is $13.1 billion. Some of the allowance has been pre-committed as at the forecast finalisation date of 27 November 2018, with only the unallocated portion of the allowance included in this note.

Notes to the Forecast Financial Statements

	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
NOTE 7: Net Gains and Losses on Non-Financial Instruments							
Actuarial gains/(losses) on ACC outstanding claims	(1,881)	-	(1,877)	-	-	-	-
Actuarial gains/(losses) on GSF liability	(553)	-	(390)	-	-	-	-
Gains/(losses) on the Emissions Trading Scheme	(462)	-	(480)	-	-	-	-
Other	94	(83)	(45)	(74)	(66)	(64)	(64)
Net gains/(losses) on non-financial instruments	**(2,802)**	**(83)**	**(2,792)**	**(74)**	**(66)**	**(64)**	**(64)**
NOTE 8: Financial Assets (including receivables)							
Cash and cash equivalents	19,340	16,976	19,521	18,897	18,890	19,035	19,071
Tax receivables	11,559	11,148	11,863	12,158	12,586	13,021	13,447
Trade and other receivables	9,826	9,622	10,151	10,629	11,125	11,565	12,209
Student loans (refer note 9)	9,301	9,754	9,929	9,686	9,442	9,210	8,989
Kiwibank mortgages	18,284	19,502	19,446	20,599	21,762	22,862	24,062
Long-term deposits	5,379	4,184	4,835	4,924	4,822	4,672	4,955
IMF financial assets	2,053	1,891	2,482	2,482	2,482	2,482	2,482
Other advances	1,837	1,223	2,036	2,213	2,188	2,269	2,312
Share investments	36,256	39,344	41,186	44,652	49,025	53,908	59,190
Derivatives in gain	3,153	2,922	2,422	1,867	1,824	1,779	1,720
Other marketable securities	40,532	33,633	28,327	29,774	29,965	38,070	40,470
Total financial assets (including receivables)	**157,520**	**150,199**	**152,198**	**157,881**	**164,111**	**178,873**	**188,907**
Financial Assets by Entity							
The Treasury	23,998	11,682	15,056	15,359	13,361	19,345	18,267
Reserve Bank of New Zealand	22,040	21,858	20,177	20,150	20,073	20,062	20,082
NZS Fund	40,700	43,953	45,281	49,274	54,774	60,886	67,552
Other core Crown	26,738	25,740	27,745	27,757	28,059	28,140	27,886
Intra-segment eliminations	(9,222)	(9,033)	(9,947)	(10,673)	(10,649)	(10,729)	(9,238)
Total core Crown segment	**104,254**	**94,200**	**98,312**	**101,867**	**105,618**	**117,704**	**124,549**
ACC portfolio	42,679	43,480	44,208	45,076	46,077	46,984	47,862
EQC portfolio	484	176	134	(34)	16	150	320
Other Crown entities	11,195	9,474	9,914	10,192	10,330	10,645	11,677
Intra-segment eliminations	(3,056)	(2,238)	(2,524)	(2,576)	(2,428)	(2,297)	(2,309)
Total Crown entities segment	**51,302**	**50,892**	**51,732**	**52,658**	**53,995**	**55,482**	**57,550**
Total state-owned enterprises segment	**25,287**	**26,405**	**26,262**	**27,673**	**29,149**	**30,724**	**32,176**
Inter-segment eliminations	(23,323)	(21,298)	(24,108)	(24,317)	(24,651)	(25,037)	(25,368)
Total financial assets (including receivables)	**157,520**	**150,199**	**152,198**	**157,881**	**164,111**	**178,873**	**188,907**

Notes to the Forecast Financial Statements

	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
NOTE 9: Student Loans							
Nominal value (including accrued interest)	15,869	15,745	15,869	15,828	15,779	15,744	15,731
Opening book value	9,197	9,317	9,301	9,929	9,686	9,442	9,210
Impacts of adoption of NZ PBE IFRS 9[1]	-	537	628	-	-	-	-
Adjusted opening book value	**9,197**	**9,854**	**9,929**	**9,929**	**9,686**	**9,442**	**9,210**
Net new lending (excluding fees)	1,300	1,366	1,364	1,376	1,409	1,445	1,476
New lending - establishment fee	36	9	46	43	41	40	39
Less initial write-down to fair value	(594)	(610)	(569)	(576)	(596)	(619)	(639)
Repayments made during the year	(1,348)	(1,449)	(1,445)	(1,463)	(1,479)	(1,495)	(1,516)
Interest unwind	604	584	380	377	381	397	419
Gains/(losses) on student loans	-	-	224	-	-	-	-
Impairment	106	-	-	-	-	-	-
Closing book value	**9,301**	**9,754**	**9,929**	**9,686**	**9,442**	**9,210**	**8,989**
NOTE 10: Property, Plant and Equipment							
Net Carrying Value[2]							
By class of asset							
Land	52,693	51,208	53,176	53,337	53,761	54,126	54,226
Buildings	37,179	36,805	39,782	40,690	41,177	41,424	41,743
State highways	31,702	28,137	33,584	35,278	35,841	36,606	37,293
Electricity generation assets	15,878	15,601	15,667	15,431	15,153	14,868	14,605
Electricity distribution network (cost)	4,097	3,936	4,027	4,065	4,105	4,189	4,270
Aircraft (excluding military)	4,686	5,069	5,352	5,747	5,840	6,016	6,745
Specialist military equipment	3,184	3,316	3,489	4,282	4,924	5,225	5,222
Specified cultural and heritage assets	3,138	3,128	3,151	3,155	3,161	3,168	3,175
Rail network	1,188	1,260	1,480	1,779	1,975	2,110	2,211
Other plant and equipment (cost)	5,273	7,407	5,505	6,283	6,391	6,364	5,728
Total property, plant and equipment	**159,018**	**155,867**	**165,213**	**170,047**	**172,328**	**174,096**	**175,218**
Land breakdown by usage							
Housing	18,301	18,367	18,578	18,788	18,954	19,138	19,348
State highway corridor land	12,351	10,842	12,291	12,241	12,211	12,186	12,161
Conservation land	6,063	5,712	6,242	6,244	6,246	6,247	6,249
Rail network	3,522	3,468	3,479	3,464	3,461	3,459	3,457
Schools	5,709	5,766	5,773	5,866	5,947	6,036	6,118
Commercial (SOEs) excluding Rail	1,252	1,332	1,320	1,351	1,382	1,417	1,452
Other	5,495	5,721	5,493	5,383	5,560	5,643	5,441
Total land	**52,693**	**51,208**	**53,176**	**53,337**	**53,761**	**54,126**	**54,226**

1. From 1 July 2018, the valuation of the Student Loans Scheme moved from an amortised cost approach to a fair value approach owing to PBE IFRS 9 being adopted in the 2018/19 financial year. The new valuation approach resulted in a one-off increase of $628 million to the value of the student loan asset. The 2019 Previous Budget comparator has been restated to include the amount previously estimated to be the one-off impact.
2. Using a revaluation methodology unless otherwise stated.

Notes to the Forecast Financial Statements

	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
NOTE 10: Property, Plant and Equipment (continued)							
Schedule of Movements							
Cost or Valuation							
Opening balance	160,631	169,614	175,652	186,707	196,564	203,960	210,873
Additions[1]	8,912	11,333	11,608	10,665	8,594	7,520	7,176
Disposals	(1,864)	(581)	(548)	(700)	(1,059)	(546)	(509)
Net revaluations	7,972	-	19	-	-	-	-
Other[2]	1	5	(24)	(108)	(139)	(61)	(26)
Total cost or valuation	**175,652**	**180,371**	**186,707**	**196,564**	**203,960**	**210,873**	**217,514**
Accumulated Depreciation and Impairment							
Opening balance	16,081	19,791	16,634	21,494	26,517	31,632	36,777
Eliminated on disposal	(1,490)	(125)	(24)	(119)	(94)	(117)	199
Eliminated on revaluation	(2,255)	-	-	-	-	-	-
Impairment losses charged to operating balance	103	-	-	-	-	-	-
Depreciation expense	4,275	4,840	4,926	5,143	5,213	5,264	5,323
Other[2]	(80)	(2)	(42)	(1)	(4)	(2)	(3)
Total accumulated depreciation and impairment	**16,634**	**24,504**	**21,494**	**26,517**	**31,632**	**36,777**	**42,296**
Total property, plant and equipment	**159,018**	**155,867**	**165,213**	**170,047**	**172,328**	**174,096**	**175,218**
NOTE 11: NZ Superannuation Fund							
Revenue	935	937	1,052	1,053	1,141	1,264	1,402
Less current tax expense	241	807	730	894	992	1,110	1,244
Less other expenses	341	205	237	242	257	274	289
Add gains/(losses)	3,564	2,641	3,155	2,924	3,251	3,633	4,062
Operating balance	**3,917**	**2,566**	**3,240**	**2,841**	**3,143**	**3,513**	**3,931**
Opening net worth	34,466	38,865	39,053	43,353	47,724	53,103	59,157
Gross contribution from the Crown	500	1,000	1,000	1,500	2,200	2,500	2,492
Operating balance	3,917	2,566	3,240	2,841	3,143	3,513	3,931
Other movements in reserves	170	27	60	30	36	41	46
Closing net worth	**39,053**	**42,458**	**43,353**	**47,724**	**53,103**	**59,157**	**65,626**
Comprising:							
Financial assets	40,700	43,953	45,281	49,274	54,774	60,886	67,552
Financial liabilities	(3,871)	(3,465)	(4,180)	(3,930)	(4,124)	(4,260)	(4,379)
Net other assets	2,224	1,970	2,252	2,380	2,453	2,531	2,453
Closing net worth	**39,053**	**42,458**	**43,353**	**47,724**	**53,103**	**59,157**	**65,626**
NOTE 12: Payables							
Accounts payable	9,221	9,147	8,803	8,364	8,939	9,092	9,081
Taxes repayable	5,201	4,337	5,218	5,241	5,262	5,278	5,293
Total payables	**14,422**	**13,484**	**14,021**	**13,605**	**14,201**	**14,370**	**14,374**

1. 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).
2. Other mainly includes transfers to/from other asset categories.

Notes to the Forecast Financial Statements

	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
NOTE 13: Retirement Plan Liabilities							
Government Superannuation Fund	10,988	9,985	10,771	10,175	9,581	9,009	8,465
Other funds	3	2	3	3	4	4	4
Total retirement plan liabilities	**10,991**	**9,987**	**10,774**	**10,178**	**9,585**	**9,013**	**8,469**

The net liability of the Government Superannuation Fund (GSF) was calculated by GSF's actuary as at 30 September 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 30 September 2018, based on membership data as at 30 June 2018 with adjustments for cash flows to 30 September 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 30 September 2018.

Other principal long-term financial assumptions were an inflation rate, as measured by the Consumers Price Index (CPI), of 1.67% for the 19 years to 30 June 2037, then increasing gradually each year to 2.0% in the year ended 30 June 2063 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 2018).

The 2018/19 projected decrease in the net GSF liability is $217 million, reflecting a decrease in the GSF liability of $76 million and an increase in the GSF net assets of $141 million.

The overall decrease in the GSF liability of $76 million includes an actuarial loss (which increases the liability) between 1 July 2018 and 30 September 2018, of $510 million, owing to movements in the discount and CPI rates and changes to some of the demographic assumptions. The remaining $586 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 $141 million includes a gain of $120 million reflecting the updated market value of assets at 30 September 2018. The balance of $21 million is the total of the expected investment returns and contributions received/receivable, offset by the benefits paid/payable to members.

The changes in the projected net GSF liability from 2018/19 onwards reflect the net of the expected current service cost, interest cost, investment returns and contributions.

	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
GSF Liability							
Opening GSF liability	15,272	15,190	15,558	15,482	14,894	14,305	13,736
Net projected change	286	(574)	(76)	(588)	(589)	(569)	(543)
Closing GSF liability	**15,558**	**14,616**	**15,482**	**14,894**	**14,305**	**13,736**	**13,193**
Less Net Assets Available to GSF							
Opening net asset value	4,268	4,613	4,570	4,711	4,719	4,724	4,727
Investment valuation changes	466	225	343	230	230	231	231
Contribution and other income less pension payments	(164)	(207)	(202)	(222)	(225)	(228)	(230)
Closing net asset value	**4,570**	**4,631**	**4,711**	**4,719**	**4,724**	**4,727**	**4,728**
Net GSF Liability							
Opening unfunded liability	11,004	10,577	10,988	10,771	10,175	9,581	9,009
Net projected change	(16)	(592)	(217)	(596)	(594)	(572)	(544)
Closing unfunded liability	**10,988**	**9,985**	**10,771**	**10,175**	**9,581**	**9,009**	**8,465**

Notes to the Forecast Financial Statements

	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
NOTE 14: Provisions							
Provision for employee entitlements	3,677	3,510	3,580	3,593	3,608	3,639	3,623
Provision for ETS credits	2,541	2,357	2,590	2,112	1,602	1,062	830
Provision for National Provident Fund guarantee	835	751	789	732	676	624	574
Other provisions	2,084	1,855	1,986	2,052	2,202	2,310	2,087
Total provisions	**9,137**	**8,473**	**8,945**	**8,489**	**8,088**	**7,635**	**7,114**

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 September 2018.

The ETS impact on the fiscal forecast is as follows:

	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
Revenue	669	784	947	1,028	1,045	1,064	1,114
Expenses	(720)	(521)	(516)	(550)	(535)	(524)	(882)
Gains/(losses)	(462)	-	(480)	-	-	-	-
Operating balance	**(513)**	**263**	**(49)**	**478**	**510**	**540**	**232**

	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
NOTE 15: Changes in Net Worth							
Taxpayers' funds	34,841	40,830	38,644	46,101	55,030	66,886	80,097
Property, plant and equipment revaluation reserve	94,750	84,089	94,707	94,642	94,528	94,438	94,356
Investment revaluation reserve	70	99	76	77	77	78	78
Intangible asset reserve	1	2	1	1	1	1	1
Cash flow hedge reserve	(57)	24	-	56	88	123	156
Foreign currency translation reserve	39	(50)	52	52	52	52	52
Net worth attributable to minority interests	5,993	5,860	5,929	5,811	5,743	5,706	5,660
Total net worth	**135,637**	**130,854**	**139,409**	**146,740**	**155,519**	**167,284**	**180,400**
Taxpayers' funds							
Opening taxpayers' funds	26,456	33,477	34,841	38,644	46,101	55,030	66,886
Impacts of adoption of NZ PBE IFRS 9[1]	-	537	628	-	-	-	-
Operating balance excluding minority interests	8,396	6,773	3,112	7,580	8,986	11,928	13,280
Transfers from/(to) other reserves	12	71	56	(135)	(80)	(98)	(98)
Other movements	(23)	(28)	7	12	23	26	29
Closing taxpayers' funds	**34,841**	**40,830**	**38,644**	**46,101**	**55,030**	**66,886**	**80,097**
Property, Plant and Equipment Revaluation Reserve							
Opening revaluation reserve	84,164	84,097	94,750	94,707	94,642	94,528	94,438
Net revaluations	10,668	-	7	-	-	-	-
Transfers from/(to) other reserves	(12)	(8)	(56)	(65)	(114)	(90)	(82)
Closing property, plant and equipment revaluation reserve	**94,750**	**84,089**	**94,707**	**94,642**	**94,528**	**94,438**	**94,356**

1. NZ PBE IFRS 9 was adopted in the 2018/19 financial year. The adoption has resulted in a one-off increase of $628 million to the value of the student loan asset impacting on taxpayers' funds - refer note 9 for further details of this one-off adjustment. The 2019 Previous Budget comparator has been restated to include the amount previously estimated to be the one-off impact.

Notes to the Forecast Financial Statements

	2018 Actual $m	2019 Previous Budget $m	2019 Forecast $m	2020 Forecast $m	2021 Forecast $m	2022 Forecast $m	2023 Forecast $m
NOTE 16: Core Crown Residual Cash							
Core Crown Cash Flows from Operations							
Tax receipts	80,079	83,525	83,533	89,356	94,887	100,350	105,470
Other sovereign receipts	900	952	966	933	919	925	903
Interest receipts	650	692	743	660	758	755	963
Sale of goods and services and other receipts	3,127	3,324	3,266	3,583	3,935	3,807	3,762
Transfer payments and subsidies	(26,253)	(29,308)	(29,248)	(30,873)	(32,154)	(33,614)	(34,880)
Personnel and operating costs	(47,740)	(51,171)	(53,646)	(52,501)	(52,766)	(52,263)	(52,671)
Interest payments	(3,483)	(3,442)	(3,468)	(3,157)	(3,315)	(2,875)	(3,110)
Forecast for future new operating spending	-	(760)	(653)	(2,599)	(5,311)	(7,896)	(10,166)
Top-down expense adjustment	-	1,145	1,475	825	500	500	500
Net core Crown operating cash flows	**7,280**	**4,957**	**2,968**	**6,227**	**7,453**	**9,689**	**10,771**
Core Crown Capital Cash Flows							
Net purchase of physical assets	(2,515)	(3,229)	(3,857)	(3,919)	(3,095)	(2,426)	(1,818)
Net increase in advances	(92)	(54)	(37)	(76)	(52)	(64)	2
Net purchase of investments	(2,827)	(3,882)	(3,560)	(2,691)	(1,426)	(1,633)	(1,240)
Contribution to NZS Fund	(500)	(1,000)	(1,000)	(1,500)	(2,200)	(2,500)	(2,492)
Forecast for future new capital spending	-	(1,267)	(857)	(997)	(1,862)	(2,292)	(2,225)
Top-down capital adjustment	-	600	1,350	450	250	100	50
Net core Crown capital cash flows	**(5,934)**	**(8,832)**	**(7,961)**	**(8,733)**	**(8,385)**	**(8,815)**	**(7,723)**
Residual cash (deficit)/surplus	**1,346**	**(3,875)**	**(4,993)**	**(2,506)**	**(932)**	**874**	**3,048**
The residual cash (deficit)/surplus is funded or invested as follows:							
Debt Programme Cash Flows							
Market:							
Issue of government bonds	7,043	7,862	8,297	8,192	7,975	6,937	5,990
Repayment of government bonds	(6,828)	(11,240)	(11,487)	(5,803)	(11,059)	-	(8,945)
Net issue/(repayment) of short-term borrowing[1]	100	(2,000)	(1,615)	(485)	2,100	(2,100)	-
Total market debt cash flows	315	(5,378)	(4,805)	1,904	(984)	4,837	(2,955)
Non-market:							
Repayment of government bonds	-	-	-	-	-	-	-
Net issue/(repayment) of short-term borrowing	-	-	-	-	-	-	-
Total non-market debt cash flows	-	-	-	-	-	-	-
Total debt programme cash flows	**315**	**(5,378)**	**(4,805)**	**1,904**	**(984)**	**4,837**	**(2,955)**
Other Borrowing Cash Flows							
Net (repayment)/issue of other New Zealand dollar borrowing	2,190	(451)	1,613	(127)	(31)	(33)	(35)
Net (repayment)/issue of foreign currency borrowing	(865)	425	(2,631)	98	(11)	(9)	(3)
Total other borrowing cash flows	**1,325**	**(26)**	**(1,018)**	**(29)**	**(42)**	**(42)**	**(38)**
Investing Cash Flows							
Net sale/(purchase) of marketable securities and deposits	(3,041)	9,082	11,242	433	1,754	(5,878)	(273)
Issues of circulating currency	396	196	233	198	204	210	217
Decrease/(increase) in cash	(341)	1	(659)	-	-	(1)	1
Total investing cash flows	**(2,986)**	**9,279**	**10,816**	**631**	**1,958**	**(5,669)**	**(55)**
Residual cash deficit/(surplus) funding/(investing)	**(1,346)**	**3,875**	**4,993**	**2,506**	**932**	**(874)**	**(3,048)**

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

Statement of Segments

	Core Crown 2018 Actual $m	Crown entities 2018 Actual $m	State-owned Enterprises 2018 Actual $m	Inter-segment eliminations 2018 Actual $m	Total Crown 2018 Actual $m
Statement of Financial Performance for the year ended 30 June 2018					
Revenue					
Taxation revenue	80,224	-	-	(628)	79,596
Other sovereign revenue	1,638	4,966	-	(1,381)	5,223
Revenue from core Crown funding	-	29,017	139	(29,156)	-
Sales of goods and services	1,598	2,269	14,911	(550)	18,228
Interest revenue	1,175	1,032	964	(373)	2,798
Other revenue	2,143	3,176	858	(2,049)	4,128
Total revenue (excluding gains)	**86,778**	**40,460**	**16,872**	**(34,137)**	**109,973**
Expenses					
Social assistance and official development assistance	26,237	-	-	(871)	25,366
Personnel expenses	7,249	13,546	2,935	(40)	23,690
Other operating expenses	43,535	22,729	11,725	(32,100)	45,889
Interest expenses	3,497	95	1,058	(499)	4,151
Insurance expenses	58	4,855	6	(1)	4,918
Total expenses (excluding losses)	**80,576**	**41,225**	**15,724**	**(33,511)**	**104,014**
Minority interest share of operating balance before gains/(losses)	(2)	-	(448)	25	(425)
Operating balance before gains/(losses)	**6,200**	**(765)**	**700**	**(601)**	**5,534**
Total gains/(losses)	2,806	342	132	(838)	2,442
Net surplus/(deficit) from associates and joint ventures	437	(51)	29	5	420
Operating balance	**9,443**	**(474)**	**861**	**(1,434)**	**8,396**
Expenses by functional classification					
Social security and welfare	*25,999*	*5,628*	*-*	*(1,432)*	*30,195*
Health	*17,159*	*14,820*	*-*	*(15,233)*	*16,746*
Education	*13,629*	*11,089*	*-*	*(10,111)*	*14,607*
Transport and communications	*2,559*	*2,903*	*7,284*	*(2,806)*	*9,940*
Other	*17,733*	*6,690*	*7,382*	*(3,430)*	*28,375*
Finance costs	*3,497*	*95*	*1,058*	*(499)*	*4,151*
Total expenses (excluding losses)	***80,576***	***41,225***	***15,724***	***(33,511)***	***104,014***
Statement of Financial Position as at 30 June 2018					
Assets					
Cash and cash equivalents	16,111	2,791	921	(483)	19,340
Receivables	16,088	5,796	1,887	(2,386)	21,385
Other financial assets	72,056	42,715	22,479	(20,455)	116,795
Property, plant and equipment	41,279	84,300	33,438	1	159,018
Equity accounted investments	45,838	12,698	250	(43,370)	15,416
Intangible assets and goodwill	1,593	664	1,580	(20)	3,817
Inventory and other assets	2,063	995	1,149	(46)	4,161
Total assets	**195,028**	**149,959**	**61,704**	**(66,759)**	**339,932**
Liabilities					
Borrowings	97,749	5,517	30,628	(18,242)	115,652
Other liabilities	34,758	53,974	8,517	(8,606)	88,643
Total liabilities	**132,507**	**59,491**	**39,145**	**(26,848)**	**204,295**
Total assets less total liabilities	**62,521**	**90,468**	**22,559**	**(39,911)**	**135,637**
Net worth					
Taxpayers' funds	37,460	37,310	4,756	(44,685)	34,841
Reserves	24,988	53,158	11,537	5,120	94,803
Net worth attributable to minority interest	73	-	6,266	(346)	5,993
Total net worth	**62,521**	**90,468**	**22,559**	**(39,911)**	**135,637**

Forecast Statement of Segments

	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	84,325	-	-	(679)	83,646
Other sovereign revenue	1,925	5,416	-	(1,534)	5,807
Revenue from core Crown funding	-	30,935	195	(31,130)	-
Sales of goods and services	1,721	2,308	15,098	(573)	18,554
Interest revenue	1,119	1,087	988	(447)	2,747
Other revenue	2,233	3,343	969	(2,118)	4,427
Total revenue (excluding gains)	**91,323**	**43,089**	**17,250**	**(36,481)**	**115,181**
Expenses					
Social assistance and official development assistance	29,275	-	-	(936)	28,339
Personnel expenses	7,681	14,304	3,018	(29)	24,974
Other operating expenses	49,059	24,567	12,260	(34,231)	51,655
Interest expenses	3,474	84	1,034	(544)	4,048
Insurance expenses	2	4,900	5	-	4,907
Forecast for future new spending	653	-	-	-	653
Top-down adjustment	(1,475)	-	-	-	(1,475)
Total expenses (excluding losses)	**88,669**	**43,855**	**16,317**	**(35,740)**	**113,101**
Minority interest share of operating balance before gains/(losses)	-	-	(376)	20	(356)
Operating balance before gains/(losses)	**2,654**	**(766)**	**557**	**(721)**	**1,724**
Total gains/(losses)	2,680	(1,014)	85	(537)	1,214
Net surplus/(deficit) from associates and joint ventures	109	64	-	1	174
Operating balance	**5,443**	**(1,716)**	**642**	**(1,257)**	**3,112**
Expenses by functional classification					
Social security and welfare	*29,020*	*6,252*	*-*	*(1,521)*	*33,751*
Health	*18,261*	*15,666*	*-*	*(16,081)*	*17,846*
Education	*14,750*	*11,765*	*-*	*(10,831)*	*15,684*
Transport and communications	*3,066*	*3,464*	*8,099*	*(3,353)*	*11,276*
Other	*21,573*	*6,624*	*7,184*	*(3,410)*	*31,971*
Finance costs	*3,474*	*84*	*1,034*	*(544)*	*4,048*
Forecast for future new spending and top-down adjustment	*(1,475)*	*-*	*-*	*-*	*(1,475)*
Total expenses (excluding losses)	***88,669***	***43,855***	***16,317***	***(35,740)***	***113,101***
Statement of Financial Position as at 30 June 2019					
Assets					
Cash and cash equivalents	17,537	1,791	518	(325)	19,521
Receivables	16,409	5,544	2,195	(2,134)	22,014
Other financial assets	64,366	44,397	23,549	(21,649)	110,663
Property, plant and equipment	43,183	87,997	34,033	-	165,213
Equity accounted investments	49,198	12,946	325	(46,404)	16,065
Intangible assets and goodwill	1,845	627	1,593	(19)	4,046
Inventory and other assets	2,333	946	1,130	(38)	4,371
Forecast for new capital spending and top-down adjustment	(493)	-	-	-	(493)
Total assets	**194,378**	**154,248**	**63,343**	**(70,569)**	**341,400**
Liabilities					
Borrowings	91,735	6,776	31,845	(18,987)	111,369
Other liabilities	33,990	56,114	8,737	(8,219)	90,622
Total liabilities	**125,725**	**62,890**	**40,582**	**(27,206)**	**201,991**
Total assets less total liabilities	**68,653**	**91,358**	**22,761**	**(43,363)**	**139,409**
Net worth					
Taxpayers' funds	43,528	38,253	5,000	(48,137)	38,644
Reserves	25,021	53,105	11,600	5,110	94,836
Net worth attributable to minority interest	104	-	6,161	(336)	5,929
Total net worth	**68,653**	**91,358**	**22,761**	**(43,363)**	**139,409**

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	89,246	-	-	(719)	88,527
Other sovereign revenue	1,960	5,670	-	(1,532)	6,098
Revenue from core Crown funding	-	30,966	130	(31,096)	-
Sales of goods and services	1,735	2,388	16,081	(578)	19,626
Interest revenue	1,042	1,071	1,127	(452)	2,788
Other revenue	2,250	3,445	999	(2,237)	4,457
Total revenue (excluding gains)	**96,233**	**43,540**	**18,337**	**(36,614)**	**121,496**
Expenses					
Social assistance and official development assistance	30,660	-	-	(1,011)	29,649
Personnel expenses	7,526	14,567	3,167	(31)	25,229
Other operating expenses	47,689	24,461	12,908	(34,141)	50,917
Interest expenses	3,253	100	1,165	(539)	3,979
Insurance expenses	1	5,431	6	-	5,438
Forecast for future new spending	2,599	-	-	-	2,599
Top-down adjustment	(825)	-	-	-	(825)
Total expenses (excluding losses)	**90,903**	**44,559**	**17,246**	**(35,722)**	**116,986**
Minority interest share of operating balance before gains/(losses)	-	-	(421)	24	(397)
Operating balance before gains/(losses)	**5,330**	**(1,019)**	**670**	**(868)**	**4,113**
Total gains/(losses)	3,052	282	26	(105)	3,255
Net surplus/(deficit) from associates and joint ventures	132	75	3	2	212
Operating balance	**8,514**	**(662)**	**699**	**(971)**	**7,580**
Expenses by functional classification					
Social security and welfare	*30,365*	*6,819*	*-*	*(1,617)*	*35,567*
Health	*18,230*	*15,664*	*-*	*(16,083)*	*17,811*
Education	*14,739*	*11,804*	*-*	*(10,824)*	*15,719*
Transport and communications	*3,035*	*3,433*	*8,471*	*(3,260)*	*11,679*
Other	*22,106*	*6,739*	*7,610*	*(3,399)*	*33,056*
Finance costs	*3,253*	*100*	*1,165*	*(539)*	*3,979*
Forecast for future new spending and top-down adjustment	*(825)*	*-*	*-*	*-*	*(825)*
Total expenses (excluding losses)	***90,903***	***44,559***	***17,246***	***(35,722)***	***116,986***
Statement of Financial Position as at 30 June 2020					
Assets					
Cash and cash equivalents	16,990	1,613	590	(296)	18,897
Receivables	16,768	5,736	2,313	(2,030)	22,787
Other financial assets	68,109	45,309	24,770	(21,991)	116,197
Property, plant and equipment	44,734	91,172	34,141	-	170,047
Equity accounted investments	52,301	13,089	331	(49,240)	16,481
Intangible assets and goodwill	2,003	689	1,729	(20)	4,401
Inventory and other assets	2,449	906	1,160	(37)	4,478
Forecast for new capital spending and top-down adjustment	54	-	-	-	54
Total assets	**203,408**	**158,514**	**65,034**	**(73,614)**	**353,342**
Liabilities					
Borrowings	93,838	8,231	33,379	(19,263)	116,185
Other liabilities	32,571	56,924	8,903	(7,981)	90,417
Total liabilities	**126,409**	**65,155**	**42,282**	**(27,244)**	**206,602**
Total assets less total liabilities	**76,999**	**93,359**	**22,752**	**(46,370)**	**146,740**
Net worth					
Taxpayers' funds	51,836	40,328	5,085	(51,148)	46,101
Reserves	25,059	53,031	11,624	5,114	94,828
Net worth attributable to minority interest	104	-	6,043	(336)	5,811
Total net worth	**76,999**	**93,359**	**22,752**	**(46,370)**	**146,740**

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	95,003	-	-	(792)	94,211
Other sovereign revenue	1,985	5,901	-	(1,534)	6,352
Revenue from core Crown funding	-	31,675	104	(31,779)	-
Sales of goods and services	1,690	2,416	16,562	(585)	20,083
Interest revenue	1,153	1,062	1,309	(449)	3,075
Other revenue	2,354	3,845	1,034	(2,326)	4,907
Total revenue (excluding gains)	**102,185**	**44,899**	**19,009**	**(37,465)**	**128,628**
Expenses					
Social assistance and official development assistance	32,042	-	-	(1,066)	30,976
Personnel expenses	7,541	14,984	3,275	(30)	25,770
Other operating expenses	48,086	25,094	13,231	(34,948)	51,463
Interest expenses	3,372	226	1,266	(542)	4,322
Insurance expenses	1	5,749	7	-	5,757
Forecast for future new spending	5,311	-	-	-	5,311
Top-down adjustment	(500)	-	-	-	(500)
Total expenses (excluding losses)	**95,853**	**46,053**	**17,779**	**(36,586)**	**123,099**
Minority interest share of operating balance before gains/(losses)	-	-	(470)	25	(445)
Operating balance before gains/(losses)	**6,332**	**(1,154)**	**760**	**(854)**	**5,084**
Total gains/(losses)	3,418	336	26	(130)	3,650
Net surplus/(deficit) from associates and joint ventures	137	116	3	(4)	252
Operating balance	**9,887**	**(702)**	**789**	**(988)**	**8,986**
Expenses by functional classification					
Social security and welfare	*31,680*	*6,926*	*-*	*(1,691)*	*36,915*
Health	*18,120*	*15,605*	*-*	*(16,035)*	*17,690*
Education	*15,062*	*12,015*	*-*	*(11,032)*	*16,045*
Transport and communications	*3,703*	*4,101*	*8,823*	*(3,973)*	*12,654*
Other	*24,416*	*7,180*	*7,690*	*(3,313)*	*35,973*
Finance costs	*3,372*	*226*	*1,266*	*(542)*	*4,322*
Forecast for future new spending and top-down adjustment	*(500)*	*-*	*-*	*-*	*(500)*
Total expenses (excluding losses)	***95,853***	***46,053***	***17,779***	***(36,586)***	***123,099***
Statement of Financial Position as at 30 June 2021					
Assets					
Cash and cash equivalents	16,835	1,687	662	(294)	18,890
Receivables	17,140	6,183	2,386	(1,998)	23,711
Other financial assets	71,643	46,125	26,101	(22,359)	121,510
Property, plant and equipment	46,053	92,369	33,906	-	172,328
Equity accounted investments	53,788	13,222	337	(50,357)	16,990
Intangible assets and goodwill	2,111	700	1,748	(20)	4,539
Inventory and other assets	2,598	879	1,168	(38)	4,607
Forecast for new capital spending and top-down adjustment	1,666	-	-	-	1,666
Total assets	**211,834**	**161,165**	**66,308**	**(75,066)**	**364,241**
Liabilities					
Borrowings	92,990	8,892	34,595	(19,612)	116,865
Other liabilities	32,117	58,492	9,045	(7,797)	91,857
Total liabilities	**125,107**	**67,384**	**43,640**	**(27,409)**	**208,722**
Total assets less total liabilities	**86,727**	**93,781**	**22,668**	**(47,657)**	**155,519**
Net worth					
Taxpayers' funds	61,516	40,876	5,078	(52,440)	55,030
Reserves	25,107	52,905	11,625	5,109	94,746
Net worth attributable to minority interest	104	-	5,965	(326)	5,743
Total net worth	**86,727**	**93,781**	**22,668**	**(47,657)**	**155,519**

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	100,368	-	-	(857)	99,511
Other sovereign revenue	2,009	6,113	-	(1,535)	6,587
Revenue from core Crown funding	-	31,319	100	(31,419)	-
Sales of goods and services	1,613	2,448	17,031	(597)	20,495
Interest revenue	1,177	1,059	1,386	(451)	3,171
Other revenue	2,452	3,830	1,053	(2,392)	4,943
Total revenue (excluding gains)	**107,619**	**44,769**	**19,570**	**(37,251)**	**134,707**
Expenses					
Social assistance and official development assistance	33,532	-	-	(1,120)	32,412
Personnel expenses	7,602	15,163	3,392	(31)	26,126
Other operating expenses	47,291	24,296	13,483	(34,657)	50,413
Interest expenses	3,090	301	1,293	(551)	4,133
Insurance expenses	1	6,172	8	(1)	6,180
Forecast for future new spending	7,896	-	-	-	7,896
Top-down adjustment	(500)	-	-	-	(500)
Total expenses (excluding losses)	**98,912**	**45,932**	**18,176**	**(36,360)**	**126,660**
Minority interest share of operating balance before gains/(losses)	-	-	(513)	28	(485)
Operating balance before gains/(losses)	**8,707**	**(1,163)**	**881**	**(863)**	**7,562**
Total gains/(losses)	3,827	375	24	(135)	4,091
Net surplus/(deficit) from associates and joint ventures	136	137	4	(2)	275
Operating balance	**12,670**	**(651)**	**909**	**(1,000)**	**11,928**
Expenses by functional classification					
Social security and welfare	*33,072*	*7,280*	*-*	*(1,763)*	*38,589*
Health	*18,222*	*15,566*	*-*	*(16,032)*	*17,756*
Education	*15,152*	*11,968*	*-*	*(10,977)*	*16,143*
Transport and communications	*3,408*	*3,702*	*9,208*	*(3,716)*	*12,602*
Other	*26,468*	*7,115*	*7,675*	*(3,321)*	*37,937*
Finance costs	*3,090*	*301*	*1,293*	*(551)*	*4,133*
Forecast for future new spending and top-down adjustment	*(500)*	*-*	*-*	*-*	*(500)*
Total expenses (excluding losses)	***98,912***	***45,932***	***18,176***	***(36,360)***	***126,660***
Statement of Financial Position as at 30 June 2022					
Assets					
Cash and cash equivalents	16,674	1,758	897	(294)	19,035
Receivables	17,394	6,676	2,492	(1,976)	24,586
Other financial assets	83,636	47,048	27,335	(22,767)	135,252
Property, plant and equipment	46,816	93,590	33,690	-	174,096
Equity accounted investments	55,379	13,365	343	(51,600)	17,487
Intangible assets and goodwill	2,091	692	1,749	(20)	4,512
Inventory and other assets	2,664	879	1,199	(37)	4,705
Forecast for new capital spending and top-down adjustment	3,858	-	-	-	3,858
Total assets	**228,512**	**164,008**	**67,705**	**(76,694)**	**383,531**
Liabilities					
Borrowings	98,078	9,385	35,837	(19,985)	123,315
Other liabilities	31,193	60,243	9,135	(7,639)	92,932
Total liabilities	**129,271**	**69,628**	**44,972**	**(27,624)**	**216,247**
Total assets less total liabilities	**99,241**	**94,380**	**22,733**	**(49,070)**	**167,284**
Net worth					
Taxpayers' funds	73,980	41,584	5,181	(53,859)	66,886
Reserves	25,157	52,796	11,627	5,112	94,692
Net worth attributable to minority interest	104	-	5,925	(323)	5,706
Total net worth	**99,241**	**94,380**	**22,733**	**(49,070)**	**167,284**

Forecast Statement of Segments (continued)

	Core Crown 2023 Forecast $m	Crown entities 2023 Forecast $m	State-owned Enterprises 2023 Forecast $m	Inter-segment eliminations 2023 Forecast $m	Total Crown 2023 Forecast $m
Statement of Financial Performance for the year ended 30 June 2023					
Revenue					
Taxation revenue	105,347	-	-	(869)	104,478
Other sovereign revenue	2,038	6,235	-	(1,533)	6,740
Revenue from core Crown funding	-	31,448	102	(31,550)	-
Sales of goods and services	1,627	2,448	17,269	(603)	20,741
Interest revenue	1,442	1,060	1,467	(452)	3,517
Other revenue	2,550	3,808	1,083	(2,399)	5,042
Total revenue (excluding gains)	**113,004**	**44,999**	**19,921**	**(37,406)**	**140,518**
Expenses					
Social assistance and official development assistance	34,779	-	-	(1,121)	33,658
Personnel expenses	7,656	15,229	3,497	(30)	26,352
Other operating expenses	47,891	24,262	13,681	(34,822)	51,012
Interest expenses	3,231	353	1,364	(560)	4,388
Insurance expenses	1	6,515	8	(1)	6,523
Forecast for future new spending	10,166	-	-	-	10,166
Top-down adjustment	(500)	-	-	-	(500)
Total expenses (excluding losses)	**103,224**	**46,359**	**18,550**	**(36,534)**	**131,599**
Minority interest share of operating balance before gains/(losses)	-	-	(508)	27	(481)
Operating balance before gains/(losses)	**9,780**	**(1,360)**	**863**	**(845)**	**8,438**
Total gains/(losses)	4,264	424	8	(144)	4,552
Net surplus/(deficit) from associates and joint ventures	138	154	5	(7)	290
Operating balance	**14,182**	**(782)**	**876**	**(996)**	**13,280**
Expenses by functional classification					
Social security and welfare	*34,234*	*7,655*	*-*	*(1,783)*	*40,106*
Health	*18,211*	*15,517*	*-*	*(16,022)*	*17,706*
Education	*15,350*	*11,995*	*-*	*(11,037)*	*16,308*
Transport and communications	*3,496*	*3,819*	*9,548*	*(3,817)*	*13,046*
Other	*29,202*	*7,020*	*7,638*	*(3,315)*	*40,545*
Finance costs	*3,231*	*353*	*1,364*	*(560)*	*4,388*
Forecast for future new spending and top-down adjustment	*(500)*	*-*	*-*	*-*	*(500)*
Total expenses (excluding losses)	***103,224***	***46,359***	***18,550***	***(36,534)***	***131,599***
Statement of Financial Position as at 30 June 2023					
Assets					
Cash and cash equivalents	16,499	1,925	941	(294)	19,071
Receivables	17,648	7,415	2,574	(1,981)	25,656
Other financial assets	90,402	48,210	28,661	(23,093)	144,180
Property, plant and equipment	46,846	94,390	33,982	-	175,218
Equity accounted investments	56,570	13,518	360	(52,616)	17,832
Intangible assets and goodwill	2,066	658	1,759	(20)	4,463
Inventory and other assets	2,740	890	1,205	(38)	4,797
Forecast for new capital spending and top-down adjustment	6,033	-	-	-	6,033
Total assets	**238,804**	**167,006**	**69,482**	**(78,042)**	**397,250**
Liabilities					
Borrowings	95,094	10,432	37,551	(20,298)	122,779
Other liabilities	30,433	61,965	9,186	(7,513)	94,071
Total liabilities	**125,527**	**72,397**	**46,737**	**(27,811)**	**216,850**
Total assets less total liabilities	**113,277**	**94,609**	**22,745**	**(50,231)**	**180,400**
Net worth					
Taxpayers' funds	87,956	41,923	5,244	(55,026)	80,097
Reserves	25,217	52,686	11,626	5,114	94,643
Net worth attributable to minority interest	104	-	5,875	(319)	5,660
Total net worth	**113,277**	**94,609**	**22,745**	**(50,231)**	**180,400**

6

Core Crown Expense Tables

($millions)	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Social security and welfare	23,026	23,523	24,081	25,294	25,999	29,020	30,365	31,680	33,072	34,234
Health	14,898	15,058	15,626	16,223	17,159	18,261	18,230	18,120	18,222	18,211
Education	12,300	12,879	13,158	13,281	13,629	14,750	14,739	15,062	15,152	15,350
Core government services	4,502	4,134	4,102	3,957	4,670	5,450	4,789	4,677	4,570	4,483
Law and order	3,463	3,515	3,648	3,882	4,184	4,575	4,539	4,604	4,663	4,786
Transport and communications	2,237	2,291	2,178	2,176	2,559	3,066	3,035	3,703	3,408	3,496
Economic and industrial services	2,058	2,228	2,107	2,544	2,732	3,564	3,710	3,360	3,191	3,227
Defence	1,811	1,961	2,026	2,146	2,251	2,452	2,495	2,511	2,483	2,448
Heritage, culture and recreation	842	778	787	850	850	910	847	800	812	812
Primary services	676	667	749	644	807	1,076	838	685	623	665
Housing and community development	347	320	558	539	552	1,163	618	612	639	643
Environmental protection	533	723	587	871	1,238	1,134	1,124	1,097	1,089	1,442
GSF pension expenses	282	358	271	217	150	163	155	162	185	213
Other	579	145	461	181	299	433	392	597	317	317
Finance costs	3,620	3,783	3,590	3,534	3,497	3,474	3,253	3,372	3,090	3,231
Forecast new operating spending	..	..	..	..	..	653	2,599	5,311	7,896	10,166
Top-down expense adjustment	..	..	..	..	..	(1,475)	(825)	(500)	(500)	(500)
Core Crown expenses	**71,174**	**72,363**	**73,929**	**76,339**	**80,576**	**88,669**	**90,903**	**95,853**	**98,912**	**103,224**

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)	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Welfare benefits (see below)	21,187	21,680	22,441	23,339	24,005	26,785	28,112	29,410	30,812	32,002
Social rehabilitation and compensation	173	142	151	220	241	249	260	279	278	279
Departmental expenses	1,204	1,319	1,339	1,417	1,593	1,746	1,693	1,690	1,690	1,691
Other non-departmental expenses[1]	462	382	150	318	160	240	300	301	292	262
Social security and welfare expenses	**23,026**	**23,523**	**24,081**	**25,294**	**25,999**	**29,020**	**30,365**	**31,680**	**33,072**	**34,234**

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)	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
New Zealand Superannuation	10,913	11,591	12,267	13,043	13,699	14,535	15,446	16,383	17,463	18,554
Jobseeker Support and Emergency Benefit	1,691	1,684	1,671	1,697	1,697	1,837	1,869	1,856	1,864	1,880
Supported living payment	1,422	1,515	1,523	1,533	1,541	1,551	1,568	1,573	1,584	1,595
Sole parent support	1,222	1,186	1,153	1,159	1,117	1,121	1,159	1,179	1,202	1,227
Family Tax Credit	1,965	1,854	1,793	1,723	1,639	2,417	2,341	2,312	2,321	2,276
Other working for families tax credits	567	549	559	596	556	543	536	531	532	523
Accommodation Assistance	1,146	1,129	1,164	1,127	1,204	1,587	1,643	1,675	1,699	1,718
Income-Related Rents	660	703	755	815	890	978	1,085	1,186	1,293	1,293
Disability Assistance	379	377	377	377	379	383	378	379	381	384
Benefits paid in Australia	19	15	40	..	..	..	..	..	..	..
Winter energy	..	..	..	..	..	442	453	461	470	479
Best start	..	..	..	..	..	40	231	373	451	474
Paid Parental Leave	165	180	217	274	288	365	380	455	475	495
Childcare Assistance	186	183	182	199	196	191	190	191	194	198
Veterans Support Entitlement[1]	119	115	107	98	93	89	84	79	74	70
Veteran's Pension	165	178	186	175	163	154	145	136	128	120
Other benefits	568	421	447	523	543	552	604	641	681	716
Benefit expenses	**21,187**	**21,680**	**22,441**	**23,339**	**24,005**	**26,785**	**28,112**	**29,410**	**30,812**	**32,002**

Source: The Treasury

Beneficiary numbers (Thousands)	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
New Zealand Superannuation	640	665	691	717	754	781	808	837	865	891
Jobseeker Support and Emergency Benefit	138	133	130	131	130	134	132	130	128	124
Supported living payment	96	98	98	97	95	94	94	93	92	91
Sole parent support	78	72	67	64	59	60	60	60	60	60
Accommodation Supplement	297	292	292	290	287	296	299	301	300	299

1. From 2015, War Disablement Pensions have been renamed Veterans Support Entitlements.

Source: Ministry of Social Development

Table 6.3 – Health expenses

($millions)	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Departmental outputs	183	190	188	192	200	222	209	197	196	196
Health services purchasing (see below)	13,648	13,937	14,361	14,855	15,449	16,254	16,305	16,259	16,257	16,257
Other non-departmental outputs	330	312	356	365	816	958	944	921	1,049	1,049
Health payments to ACC	694	587	694	697	682	773	743	715	692	681
Other expenses	43	32	27	114	12	54	29	28	28	28
Health expenses	**14,898**	**15,058**	**15,626**	**16,223**	**17,159**	**18,261**	**18,230**	**18,120**	**18,222**	**18,211**

Source: The Treasury

Table 6.4 – Health services purchasing

($millions)	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Payments to District Health Boards	12,165	12,414	12,822	13,281	13,829	14,552	14,642	14,608	14,609	14,609
National disability support services	1,087	1,126	1,167	1,188	1,256	1,269	1,264	1,251	1,247	1,247
Public health services purchasing	396	397	372	386	364	433	399	400	401	401
Health services purchasing	**13,648**	**13,937**	**14,361**	**14,855**	**15,449**	**16,254**	**16,305**	**16,259**	**16,257**	**16,257**

Source: The Treasury

Table 6.5 – Education expenses

($millions)	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Early childhood education	1,545	1,644	1,735	1,805	1,844	1,971	2,065	2,161	2,260	2,358
Primary and secondary schools (see below)	5,550	5,773	6,044	6,116	6,334	6,648	6,663	6,828	6,756	6,816
Tertiary funding (see below)[1]	4,027	4,272	4,235	4,051	4,112	4,627	4,619	4,686	4,750	4,788
Departmental expenses	1,107	1,129	1,112	1,190	1,281	1,417	1,338	1,337	1,346	1,349
Other education expenses	71	61	32	119	58	87	54	50	40	39
Education expenses	**12,300**	**12,879**	**13,158**	**13,281**	**13,629**	**14,750**	**14,739**	**15,062**	**15,152**	**15,350**

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

Source: The Treasury

Number of places provided[1]	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Early childhood education	185,336	195,817	201,475	208,063	214,434	223,235	234,835	246,239	257,733	269,050

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)	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Primary	2,812	2,920	3,033	3,091	3,216	3,356	3,362	3,434	3,369	3,375
Secondary	2,146	2,229	2,329	2,336	2,407	2,536	2,542	2,627	2,626	2,678
School transport	177	186	185	186	195	190	190	190	190	190
Special needs support	322	336	396	410	429	449	462	476	476	478
Professional development	87	98	96	88	82	109	99	94	89	89
Schooling improvement	6	4	5	5	5	8	8	7	6	6
Primary and secondary education expenses	**5,550**	**5,773**	**6,044**	**6,116**	**6,334**	**6,648**	**6,663**	**6,828**	**6,756**	**6,816**

Source: The Treasury

Number of places provided[1]	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Primary	480,908	488,649	499,876	509,634	518,333	524,666	527,105	525,387	522,451	519,433
Secondary	275,541	275,172	274,073	275,841	274,975	277,219	282,705	290,624	297,097	304,400

1. Full-time equivalents based on snapshots 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)	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Tuition[1]	2,383	2,406	2,463	2,466	2,552	2,839	2,860	2,904	2,929	2,928
Other tertiary funding	463	484	487	520	561	622	581	576	576	576
Student allowances[1]	539	511	486	465	511	597	602	610	626	645
Student loans[1]	642	871	799	600	488	569	576	596	619	639
Tertiary education expenses	**4,027**	**4,272**	**4,235**	**4,051**	**4,112**	**4,627**	**4,619**	**4,686**	**4,750**	**4,788**

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

Source: The Treasury

Number of places provided[1]	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Actual delivered and estimated funded places	239,086	233,132	231,413	223,645	228,300	223,300	223,800	226,800	226,900	227,000

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)	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Official development assistance	533	513	534	520	643	697	730	764	798	798
Indemnity and guarantee expenses	29	38	30	22	18	16	16	16	16	16
Departmental expenses[1]	1,635	1,740	1,845	1,835	2,119	2,418	2,113	2,149	2,019	1,941
Non-departmental expenses[2,3,4]	689	481	379	511	683	798	616	613	606	591
Tax receivable write-down and impairments	1,069	873	680	493	616	680	680	680	680	680
Science expenses	118	121	118	91	94	105	113	113	113	117
Other expenses	429	368	516	485	497	736	521	342	338	340
Core government service expenses	**4,502**	**4,134**	**4,102**	**3,957**	**4,670**	**5,450**	**4,789**	**4,677**	**4,570**	**4,483**

1. Departmental expenses includes costs relating to the Inland Revenue Business Transformation project.
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 2019 forecast includes the concessionary element of the Housing Infrastructure Fund loans.

Source: The Treasury

Table 6.9 – Law and order expenses

($millions)	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Police	1,416	1,456	1,498	1,539	1,629	1,751	1,754	1,814	1,858	1,901
Ministry of Justice	433	451	468	479	502	543	525	532	535	535
Department of Corrections	1,001	1,024	1,068	1,145	1,301	1,431	1,415	1,409	1,404	1,480
NZ Customs Service	150	161	153	171	174	192	200	208	212	215
Other departments	86	100	83	121	132	151	152	142	152	152
Departmental expenses	**3,086**	**3,192**	**3,270**	**3,455**	**3,738**	**4,068**	**4,046**	**4,105**	**4,161**	**4,283**
Non-departmental outputs	327	320	359	397	445	496	481	487	489	490
Other expenses	50	3	19	30	1	11	12	12	13	13
Law and order expenses	**3,463**	**3,515**	**3,648**	**3,882**	**4,184**	**4,575**	**4,539**	**4,604**	**4,663**	**4,786**

Source: The Treasury

Table 6.10 – Transport and communication expenses

($millions)	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
New Zealand Transport Agency	1,880	1,992	1,982	1,888	2,280	2,724	2,781	3,494	3,238	3,326
Departmental outputs	45	43	45	52	55	64	59	59	59	59
Other non-departmental expenses	227	114	106	168	177	208	156	112	73	73
Rail funding	56	93	3	3	3	3	3	3	3	3
Other expenses	29	49	42	65	44	67	36	35	35	35
Transport and communication expenses	**2,237**	**2,291**	**2,178**	**2,176**	**2,559**	**3,066**	**3,035**	**3,703**	**3,408**	**3,496**

Source: The Treasury

Table 6.11 – Economic and industrial services expenses

($millions)	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Departmental outputs	372	391	389	465	447	475	433	417	418	417
Employment initiatives[1]	141	75	3	3	4	16	4	4	4	4
Non-departmental outputs[2,4]	660	742	798	1,085	1,155	1,719	1,825	1,450	1,206	1,207
KiwiSaver (includes HomeStart grant)[3]	828	888	763	743	897	976	1,021	1,065	1,103	1,139
Research and development tax credits	..	..	..	..	..	70	280	320	350	350
Other expenses	57	132	154	248	229	308	147	104	110	110
Economic and industrial services expenses	**2,058**	**2,228**	**2,107**	**2,544**	**2,732**	**3,564**	**3,710**	**3,360**	**3,191**	**3,227**

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 onwards, spending includes KiwiSaver HomeStart grant initiative.
4. From 2019 onwards, non-departmental outputs includes Provincial Growth Fund expenses.

Source: The Treasury

Table 6.12 – Defence expenses

($millions)	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
NZDF core expenses	1,768	1,879	1,986	2,084	2,172	2,317	2,385	2,400	2,366	2,330
Other expenses	43	82	40	62	79	135	110	111	117	118
Defence expenses	**1,811**	**1,961**	**2,026**	**2,146**	**2,251**	**2,452**	**2,495**	**2,511**	**2,483**	**2,448**

Source: The Treasury

Table 6.13 – Heritage, culture and recreation expenses

($millions)	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Departmental outputs	286	280	274	282	302	311	289	271	271	271
Non-departmental outputs	471	468	477	512	503	523	502	502	515	515
Other expenses	85	30	36	56	45	76	56	27	26	26
Heritage, culture and recreation expenses	**842**	**778**	**787**	**850**	**850**	**910**	**847**	**800**	**812**	**812**

Source: The Treasury

Table 6.14 – Primary services expenses

($millions)	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Departmental expenses	365	384	424	458	549	684	619	502	502	501
Non-departmental outputs	135	114	100	92	188	127	124	113	65	65
Biological research[1]	92	91	95	..	..	..	..	..	..	..
Other expenses[2]	84	78	130	94	70	265	95	70	56	99
Primary services expenses	**676**	**667**	**749**	**644**	**807**	**1,076**	**838**	**685**	**623**	**665**

1. From 2017 onwards, biological research has been reclassified from primary services to non-departmental expenses within core government services.
2. From 2019 onwards, costs associated with Mycoplasma bovis are included in other expenses.

Source: The Treasury

Table 6.15 – Housing and community development expenses

($millions)	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Housing subsidies	5	5	5	5	5	5	4	4	4	4
Community Services[1]	..	..	189	189	179	186	199	200	199	199
Departmental outputs	100	113	171	187	150	192	154	152	149	149
Other non-departmental expenses[2]	138	117	114	127	193	700	214	230	246	251
Warm up New Zealand	49	37	22	..	..	..	..	..	..	..
Other expenses	55	48	57	31	25	80	47	26	41	40
Housing and community development expenses	**347**	**320**	**558**	**539**	**552**	**1,163**	**618**	**612**	**639**	643

1. From 2016 onwards, community services have been reclassified from non-departmental expenses in social security and welfare expenses and employment initiatives in economic expenses.
2. From 2019 onwards, KiwiBuild and transitional housing costs are included in non-departmental expenses.

Source: The Treasury

Table 6.16 – Environmental protection expenses

($millions)	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Emissions Trading Scheme	46	133	163	295	720	516	550	535	525	882
Departmental outputs	362	360	383	404	412	455	442	439	438	438
Non-departmental outputs	48	41	1	64	72	98	74	66	70	65
Other expenses	77	189	40	108	34	65	58	57	56	57
Environmental protection expenses	**533**	**723**	**587**	**871**	**1,238**	**1,134**	**1,124**	**1,097**	**1,089**	**1,442**

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. Core or underlying inflation measures exclude or give little weight to extreme or irregular price movements.

Contingent assets

Revenue 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 95 to 98).

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 (Multi-year capital envelope)

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 any 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.

The Southern Oscillation Index:

The Southern Oscillation Index (SOI) measures how abnormal the pressure difference between Tahiti and Darwin is. Negative values of this index correspond to El Niño conditions, while positive SOI values coincide with La Niña episodes.

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 95 to 98.

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	2009 Actual	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
$millions															
Revenue and expenses															
Core Crown tax revenue	54,681	50,744	51,557	55,081	58,651	61,563	66,636	70,445	75,644	80,224	84,325	89,246	95,003	100,368	105,347
Core Crown revenue	59,191	55,757	57,199	60,428	63,805	67,093	72,213	76,121	81,782	86,778	91,323	96,233	102,185	107,619	113,004
Core Crown expenses	63,711	63,554	70,099	68,939	69,962	71,174	72,363	73,929	76,339	80,576	88,669	90,903	95,853	98,912	103,224
Surpluses															
Total Crown OBEGAL	(3,893)	(6,315)	(18,396)	(9,240)	(4,414)	(2,802)	414	1,831	4,069	5,534	1,724	4,113	5,084	7,562	8,438
Total Crown operating balance	(10,505)	(4,509)	(13,360)	(14,897)	6,925	2,939	5,771	(5,369)	12,317	8,396	3,112	7,580	8,986	11,928	13,280
Cash position															
Core Crown residual cash	(8,639)	(9,000)	(13,343)	(10,644)	(5,742)	(4,109)	(1,827)	(1,322)	2,574	1,346	(4,993)	(2,506)	(932)	874	3,048
Debt															
Gross debt[1]	43,356	53,591	72,420	79,635	77,984	81,956	86,125	86,928	87,141	88,053	82,767	84,856	83,997	89,075	86,087
Gross debt incl RB settlement cash and bank bills	50,973	58,891	77,290	84,168	84,286	88,468	93,156	93,283	92,620	95,437	89,282	91,371	90,512	95,590	92,602
Net core Crown debt (incl NZS Fund)[2]	5,633	12,549	23,969	33,475	34,428	34,174	30,862	32,102	23,619	19,460	20,121	18,949	14,577	7,678	(2,127)
Net core Crown debt[2]	17,119	26,738	40,128	50,671	55,835	59,931	60,631	61,880	59,480	57,495	62,677	65,581	66,853	66,331	63,491
Total borrowings	61,953	69,733	90,245	100,534	100,087	103,419	112,580	113,956	111,806	115,652	111,369	116,185	116,865	123,315	122,779
Net worth															
Total Crown net worth	99,515	94,988	80,887	59,780	70,011	80,697	98,236	95,521	116,472	135,637	139,409	146,740	155,519	167,284	180,400
Total net worth attributable to the Crown	99,068	94,586	80,579	59,348	68,071	75,486	86,454	89,366	110,532	129,644	133,480	140,929	149,776	161,578	174,740
Nominal expenditure GDP (revised actuals)	189,507	196,727	205,803	215,123	218,747	236,621	244,784	257,278	273,276	287,705	300,168	316,827	333,118	348,736	364,287
% GDP															
Revenue and expenses															
Core Crown tax revenue	28.9	25.8	25.1	25.6	26.8	26.0	27.2	27.4	27.7	27.9	28.1	28.2	28.5	28.8	28.9
Core Crown revenue	31.2	28.3	27.8	28.1	29.2	28.4	29.5	29.6	29.9	30.2	30.4	30.4	30.7	30.9	31.0
Core Crown expenses	33.6	32.3	34.1	32.0	32.0	30.1	29.6	28.7	27.9	28.0	29.5	28.7	28.8	28.4	28.3
Surpluses															
Total Crown OBEGAL	(2.1)	(3.2)	(8.9)	(4.3)	(2.0)	(1.2)	0.2	0.7	1.5	1.9	0.6	1.3	1.5	2.2	2.3
Total Crown operating balance	(5.5)	(2.3)	(6.5)	(6.9)	3.2	1.2	2.4	(2.1)	4.5	2.9	1.0	2.4	2.7	3.4	3.6
Cash position															
Core Crown residual cash	(4.6)	(4.6)	(6.5)	(4.9)	(2.6)	(1.7)	(0.7)	(0.5)	0.9	0.5	(1.7)	(0.8)	(0.3)	0.3	0.8
Debt															
Gross debt[1]	22.9	27.2	35.2	37.0	35.7	34.6	35.2	33.8	31.9	30.6	27.6	26.8	25.2	25.5	23.6
Gross debt incl RB settlement cash and bank bills	26.9	29.9	37.6	39.1	38.5	37.4	38.1	36.3	33.9	33.2	29.7	28.8	27.2	27.4	25.4
Net core Crown debt (incl NZS Fund)[2]	3.0	6.4	11.6	15.6	15.7	14.4	12.6	12.5	8.6	6.8	6.7	6.0	4.4	2.2	(0.6)
Net core Crown debt[2]	9.0	13.6	19.5	23.6	25.5	25.3	24.8	24.1	21.8	20.0	20.9	20.7	20.1	19.0	17.4
Total borrowings	32.7	35.4	43.9	46.7	45.8	43.7	46.0	44.3	40.9	40.2	37.1	36.7	35.1	35.4	33.7
Net worth															
Total Crown net worth	52.5	48.3	39.3	27.8	32.0	34.1	40.1	37.1	42.6	47.1	46.4	46.3	46.7	48.0	49.5
Total net worth attributable to the Crown	52.3	48.1	39.2	27.6	31.1	31.9	35.3	34.7	40.4	45.1	44.5	44.5	45.0	46.3	48.0

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

Economic Indicators

June Years Annual average % change	2009 Actual	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Private consumption	-1.0	2.3	2.0	3.5	2.5	3.5	3.4	4.2	5.0	3.5	2.9	2.9	2.7	2.5	2.5
Public consumption	3.3	-0.4	2.5	0.8	0.0	3.0	3.3	1.5	2.9	5.2	3.2	1.5	0.9	1.2	1.4
TOTAL CONSUMPTION	0.1	1.6	2.2	2.8	1.8	3.4	3.4	3.5	4.5	3.9	2.9	2.6	2.3	2.2	2.2
Residential investment	-22.0	-2.5	-3.1	10.2	18.2	13.1	6.4	10.6	4.9	1.8	2.0	5.4	6.1	4.0	1.9
Business investment	-8.9	-8.0	8.2	6.0	0.8	9.5	7.2	3.8	3.9	5.4	4.5	4.1	4.2	3.3	2.7
TOTAL INVESTMENT	-12.1	-6.8	5.6	6.9	4.6	10.4	7.0	5.5	4.1	4.4	3.9	4.5	4.7	3.5	2.5
Stock change (contribution to growth)	-1.4	0.9	-0.1	0.1	-0.3	0.4	0.0	-0.4	0.2	-0.1	-0.2	0.2	0.0	0.0	0.0
GROSS NATIONAL EXPENDITURE	-4.2	0.7	2.7	4.0	2.2	4.8	4.0	3.5	4.6	4.1	2.9	3.2	2.9	2.6	2.3
Exports	-2.9	4.8	2.2	2.1	3.0	0.3	6.2	5.4	0.3	3.6	4.4	3.2	2.3	2.2	2.3
Imports	-12.0	-1.0	11.4	4.4	2.6	9.0	6.6	1.1	6.2	8.0	3.8	3.5	3.1	2.7	2.3
EXPENDITURE ON GDP	-1.3	2.6	0.2	3.3	2.3	2.4	3.9	4.6	3.0	2.9	3.0	3.0	2.6	2.4	2.3
GDP (production measure)	-1.7	0.9	1.2	2.7	2.2	2.7	3.9	3.8	3.3	2.7	2.9	3.1	2.7	2.5	2.3
- annual % change	-2.0	2.6	1.0	2.6	2.4	2.8	3.8	4.4	2.8	2.8	2.9	3.0	2.6	2.4	2.3
Real GDP per capita	-2.5	-0.3	0.2	2.1	1.6	1.5	2.1	1.7	1.2	0.7	1.1	1.5	1.4	1.2	1.2
Nominal GDP (expenditure basis)	0.3	3.8	4.6	4.5	1.7	8.2	3.6	5.2	6.2	5.5	4.3	5.6	5.1	4.7	4.5
GDP deflator	1.6	1.1	4.4	1.2	-0.6	5.7	-0.3	0.6	3.1	2.5	1.3	2.4	2.4	2.2	2.1
Output gap (% deviation, June year average)	-0.6	-1.3	-1.9	-1.3	-1.5	-1.5	-0.6	0.0	0.3	0.1	0.2	0.5	0.5	0.3	0.1
Employment	-0.2	-1.3	1.5	0.9	0.2	3.2	3.2	2.3	5.2	3.6	2.7	2.0	1.6	1.3	1.2
Unemployment (% June quarter s.a.)	5.7	6.5	6.0	6.3	5.9	5.2	5.4	5.0	4.7	4.4	4.1	3.9	4.0	4.1	4.1
Wages (average ordinary-time hourly, ann % change)	4.7	1.1	3.0	2.9	2.1	2.5	2.7	2.1	1.6	3.0	3.1	3.3	3.5	3.4	3.5
CPI inflation (ann % change)	1.9	1.7	5.3	1.0	0.7	1.6	0.4	0.4	1.7	1.5	2.0	2.0	2.0	2.0	2.0
Merchandise terms of trade (SNA basis)	-4.3	-3.0	9.7	-1.7	-3.8	16.4	-4.7	-2.7	5.0	4.7	-2.1	0.2	1.1	0.6	0.3
House prices (ann % change)	-3.2	3.4	0.4	4.2	9.1	6.9	11.2	14.0	5.5	5.2	4.2	3.7	5.1	5.0	4.4
Current account balance - $billion	-9.4	-3.5	-6.0	-7.7	-7.9	-5.9	-8.4	-5.8	-7.4	-9.8	-10.7	-11.6	-12.0	-12.7	-13.5
Current account balance - % of GDP	-4.9	-1.8	-2.9	-3.6	-3.6	-2.5	-3.4	-2.2	-2.7	-3.4	-3.5	-3.6	-3.6	-3.6	-3.7
TWI (June quarter)	62.3	68.6	70.8	72.4	76.3	81.5	76.2	73.6	76.5	73.8	73.5	73.9	74.8	75.1	75.2
90-day bank bill rate (June quarter)	2.9	2.9	2.7	2.6	2.6	3.4	3.5	2.4	2.0	2.0	2.0	2.3	2.9	3.1	3.2
10-year bond rate (June quarter)	5.6	5.7	5.3	3.7	3.5	4.4	3.6	2.7	2.9	2.8	3.0	3.4	4.0	4.3	4.4

Data for 2019 and subsequently are forecasts. Data for 2018 and prior years are those that were available when the forecasts were finalised.

Nominal GDP growth is calculated using quarterly seasonally adjusted nominal expenditure GDP. No adjustment is made for the annual GDP data released after the economic forecasts were finalised.