

# The Treasury and Office of the Minister of Finance

## Budget 2019 Information Release August 2019

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The projections in this paper were Treasury recommendations only, and do not represent final decisions. Final decisions can be found in the published fiscal strategy model on the Treasury's website.

## Treasury Report: Budget 2019 Economic Forecasts

<b>Date:</b>	Friday 12 April	<b>Report No:</b>	T2019/1049
		<b>File Number:</b>	BM-3-6-1

### Action Sought

	Action Sought	Deadline
Minister of Finance (Hon Grant Robertson)	<p><b>Note</b> the Treasury's Budget 2019 economic forecasts show an economic growth outlook that is, on average, broadly similar to the Preliminary Budget forecasts.</p> <p><b>Note</b> the forecast for nominal GDP is a cumulative \$4.4 billion higher than at the Preliminary Budget forecasts.</p> <p><b>Refer</b> this report to Associate Ministers of Finance.</p>	Budget Matters meeting, 2pm Monday 15 April

### Contact for Telephone Discussion (if required)

Name	Position	Telephone	1st Contact
Harrison Steiner-Fox	Analyst, Forecasting	[39]	N/A (mob) ✓
Peter Gardiner	Manager, Forecasting, Modelling and Research	[39]	[23] (mob)

### Actions for the Minister's Office Staff (if required)

**Return** the signed report to Treasury.  
If agreed, **refer** a copy of this report to Associate Ministers of Finance

Note any feedback on the quality of the report

**Enclosure:** No

## Treasury Report: Budget 2019 Economic Forecasts

### Executive Summary

This report provides an overview of the Treasury's Budget 2019 economic forecasts. The economic forecasts underpin the final Budget tax and fiscal forecasts that are currently being compiled. The final forecasts include recent economic developments and spending decisions taken as part of Budget 2019, including changes to operating allowances and the multi-year capital envelope. You will receive information on the final tax and fiscal forecasts on Thursday 18 April and the week beginning 6 May, respectively. There will be an opportunity to discuss the economic forecasts at Budget Matters on Monday 15 April.

The forecasts presented in this report do not incorporate any tax policy changes. We intend to send you a report on the economic implications of any changes to tax policy.

The economy continues to expand at a pace that is close to trend, supported by government spending, accommodative monetary policy, continued growth abroad and population growth. Annual economic growth is expected to average 2.6% over the forecast period (Table 1), compared with 2.6% at the Preliminary Budget forecasts and 2.7% at HYEFU 2018.

Annual average GDP growth increases from 2.4% in 2018/19 to 3.0% in 2019/20, largely driven by growth in government spending. Higher operating allowances for Budgets 2019 and 2020 provide around a \$7.4 billion increase in government spending over the forecast period compared with Preliminary Budget forecasts and HYEFU. Beyond 2020, GDP growth gradually eases back to 2.4% as the impulse from higher government spending fades and population growth declines. The slowdown in GDP per capita growth is less marked, declining from 1.5% in 2020/21 to 1.2% in 2022/23.

**Table 1: Forecast summary**

June years		2018 Actual	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast	5- year total
Economic growth <sup>1</sup>	<b>Budget</b>	<b>3.2</b>	<b>2.4</b>	<b>3.0</b>	<b>2.8</b>	<b>2.4</b>	<b>2.4</b>	
	Preliminary	3.1	2.5	2.9	2.7	2.5	2.4	
	Half Year	2.7	2.9	3.1	2.7	2.5	2.3	
Economic growth per capita <sup>1</sup>	<b>Budget</b>	<b>1.1</b>	<b>0.7</b>	<b>1.5</b>	<b>1.5</b>	<b>1.3</b>	<b>1.2</b>	
	Preliminary	1.1	0.8	1.4	1.4	1.3	1.2	
	Half Year	0.7	1.1	1.5	1.4	1.2	1.2	
Unemployment rate <sup>2</sup>	<b>Budget</b>	<b>4.4</b>	<b>4.1</b>	<b>4.0</b>	<b>4.1</b>	<b>4.2</b>	<b>4.3</b>	
	Preliminary	4.4	4.2	4.2	4.2	4.3	4.3	
	Half Year	4.4	4.1	3.9	4.0	4.1	4.1	
CPI inflation <sup>3</sup>	<b>Budget</b>	<b>1.5</b>	<b>1.8</b>	<b>2.0</b>	<b>2.1</b>	<b>2.0</b>	<b>2.0</b>	
	Preliminary	1.5	1.9	2.0	2.0	2.0	2.0	
	Half Year	1.5	2.0	2.0	2.0	2.0	2.0	
Current account balance <sup>4</sup>	<b>Budget</b>	<b>-3.4</b>	<b>-3.4</b>	<b>-3.4</b>	<b>-3.4</b>	<b>-3.3</b>	<b>-3.3</b>	
	Preliminary	-3.4	-3.6	-3.4	-3.3	-3.3	-3.5	
	Half Year	-3.4	-3.5	-3.6	-3.6	-3.6	-3.7	
Nominal GDP growth <sup>5</sup>	<b>Budget</b>	<b>5.7</b>	<b>3.8</b>	<b>5.8</b>	<b>5.4</b>	<b>4.9</b>	<b>4.7</b>	
	Preliminary	5.5	4.1	5.4	5.2	4.8	4.6	
	Half Year	5.5	4.3	5.6	5.1	4.7	4.5	
Nominal GDP (\$billion)	<b>Budget</b>	<b>288.8</b>	<b>299.7</b>	<b>317.0</b>	<b>334.0</b>	<b>350.2</b>	<b>366.6</b>	
	Preliminary	288.4	300.1	316.5	332.9	348.8	364.8	
	Half Year	289.3	301.8	318.6	334.9	350.6	366.3	
	Change v. Prelim		-0.4	0.5	1.1	1.4	1.8	4.4
	Change v. Half Year		-2.1	-1.6	-0.9	-0.4	0.3	-4.7

1. Production GDP, annual average % change 2. June quarter 3. Annual % change 4. Annual as % of GDP 5. Expenditure measure

Economic data has been mixed since the Preliminary Budget forecasts were finalised and on balance point to a slightly softer near-term domestic and global growth outlook. December 2018 quarter GDP growth was in line with expectations, however recent data point to weaker levels of economic activity over the first half of 2019. Economic growth in New Zealand's major trading partners slowed more than expected but commodity prices continue to recover, providing support to export revenue.

We forecast 90-day interest rates to start rising from mid-2020 to around 2.6% by the end of the forecast period (Figure 4) as the Reserve Bank withdraws monetary policy stimulus to keep inflation around 2.0%. Markets are pricing in a 70% chance of two Official Cash Rate cuts by November 2019; we assume that interest rates are flat in the near-term largely owing to increased government spending that is not currently priced in by markets.

A more marked acceleration in economic growth sees the unemployment rate fall to 4.0% by 2019/20 compared with a broadly flat unemployment rate of 4.2% at the Preliminary Budget forecasts. The unemployment rate gradually increases to 4.3% by the end of the forecast period, as the growth impulse from higher government spending fades and interest rates rise.

Nominal GDP is a cumulative \$4.4 billion higher than at the Preliminary Budget forecasts, reflecting stronger government spending, although \$4.7 billion lower than at HYEPU due to a weaker forecast terms of trade and slightly weaker economic activity over the forecast period.

Risks to the international outlook remain prevalent and skewed to the downside. We forecast growth in our top 16 trading partners to be flat at 3.4% over the forecast period. There is a range of risks that could see trading partner growth lower including:

- major adjustments in global financial or equity markets as a result of more disruptive Brexit or an economic downturn in China triggered by the large increase in indebtedness over recent years;
- a larger decline in Australian growth if falling house prices have a stronger-than-anticipated dampening effect on consumption and investment; and
- increased global trade tensions resulting in lower global demand for New Zealand's exports.

These events could have large spillover effects due to the interconnectedness of the global economy, leading to a broad decline in trading partner growth. The New Zealand economy would be impacted through a range of channels, including demand for exports, global commodity price movements and shifts in financial conditions and asset prices.

Domestic risks are broadly balanced and include:

- The Treasury (and Reserve Bank) residential investment forecasts are at the top end of market forecasters, chiefly because we assume that urban development reforms and other policies unlock capacity constraints in the construction sector. Should this not occur or occur at a slower rate than assumed, this could lead to reduced economic activity and lower tax revenue;
- Higher than forecast nominal wages due to stronger-than-expected flow-on effects of a tight labour market and labour market policies having a greater spill-over effect than anticipated; and
- Stronger (weaker) aggregate demand due to net migration being higher (lower) than currently anticipated, particularly given uncertainty surrounding Stats NZ's new official measure of net migration.

## Recommended Action

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We recommend that you:

- a **note** the Treasury's Budget 2019 forecasts show an economic growth outlook that is, on average, broadly similar to the Preliminary Budget forecasts.
- b **note** nominal GDP is a cumulative \$4.4 billion higher than at the Preliminary Budget forecasts.
- c **note** the forecasts presented in this report do not include any tax policy changes.
- d **note** we intend to send you a report on the economic implications of any changes to tax policy, and
- e **refer** this report to:
  - Hon David Parker, Associate Minister of Finance  
*Refer/not referred.*
  - Hon Dr David Clark, Associate Minister of Finance  
*Refer/not referred.*
  - Hon Shane Jones, Associate Minister of Finance  
*Refer/not referred.*
  - Hon James Shaw, Associate Minister of Finance  
*Refer/not referred.*

Peter Gardiner  
**Manager, Forecasting, Modelling and Research**

Hon Grant Robertson  
**Minister of Finance**

## Treasury Report: Budget 2019 Economic Forecasts

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### Purpose of Report and Context

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1. This report provides an overview of the Treasury's Budget 2019 economic forecasts. The economic forecasts underpin the final Budget tax and fiscal forecasts that are currently being compiled. The final forecasts include recent economic developments and spending decisions taken as part of Budget 2019, including changes to operating allowances and the multi-year capital envelope. You will receive information on the final tax and fiscal forecasts on Thursday 18 April and the week beginning 6 May, respectively. There will be an opportunity to discuss the economic forecasts with officials at Budget Matters on Monday 15 April.
2. The forecasts presented in this report do not incorporate any tax policy changes. We intend to send you a report on the economic implications of any changes to tax policy.
3. The annex of this report provides tables with additional details on the economic forecasts including the changes since both the Preliminary Budget forecasts and *Half Year Economic and Fiscal Update* (HYEFU) forecasts.

### Recent Economic Developments

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#### ***Recent data point to a slightly softer near-term growth outlook...***

4. **Economic data has been mixed since the Preliminary Budget forecasts were finalised and on balance point to a slightly softer near-term domestic and global growth outlook.** December 2018 quarter GDP growth was in line with expectations, however recent data point to weaker levels of economic activity over the first half of 2019. Economic growth in New Zealand's major trading partners slowed more than expected but commodity prices continue to recover, providing support to export revenue.
5. Real GDP expanded 0.6% in the 2018 December quarter, in line with the Preliminary Budget forecasts, and annual average growth eased to 2.8%. Quarterly nominal GDP growth was weaker than forecast at Preliminary Budget forecasts (0.2% outturn, 0.9% forecast) but matched on an annual basis after historical revisions.
6. The March 2019 Quarterly Survey of Business Opinion (QSBO) pointed to a slightly weaker near-term growth outlook. Domestic trading activity experienced over the past three months (a reasonable indicator of GDP growth) dipped into negative territory, with a net 1.4% of firms reporting a decrease in domestic trading activity. Expected activity for the next three months fell from a net 16.1% of firms expecting an increase in December to a net 6.5% in March. In addition, dry weather conditions during February/March are likely to have constrained dairy and agricultural production more generally.
7. **We now expect quarterly GDP growth of 0.6% and 0.7% in 2019Q1 and 2019Q2, respectively, compared with 0.7% and 0.8% at the Preliminary Budget forecasts.**

**...while the Reserve Bank and markets signal an OCR cut**

8. The Governor of the Reserve Bank signalled in the Reserve Bank’s March Official Cash Rate (OCR) announcement that the next OCR move is more likely to be down, compared with the February Monetary Policy Statement, which signalled a neutral bias. Markets are pricing in 70% chance of two OCR cuts by November 2019. The Governor cited a weaker global outlook and slowing momentum in the domestic economy as prompting the shift in stance.
9. This ‘easing bias’ implies that the economy may need additional stimulus in order to deliver the economic growth needed to get inflation back to target. **We do not forecast an OCR cut, partly owing to an increase in government spending as a result of Budget 2019 decisions and a higher operating allowance for Budget 2020 not currently priced in by markets.**

**The international outlook is fragile but commodity prices are holding up**

10. Since finalising the Preliminary Budget forecasts **we see a slightly softer near-term global outlook consistent with recent IMF forecasts.** The overall change has a small dampening effect on domestic economic activity. The slight downgrade reflects weakness in economic activity in Australia, particularly in the housing sector, as well as weaker manufacturing activity in Europe, China and the USA. Risks to the international outlook remain prevalent and skewed to the downside.
11. Dairy auction prices have posted their ninth consecutive auction gain, up 22.4% so far this calendar year. The solid run of dairy price increases is expected to support a recovery in the terms of trade following an annual 5.3% fall in the December 2018 quarter.

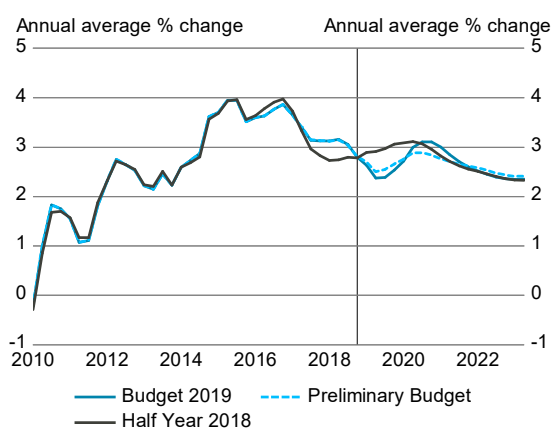
**Economic Outlook**

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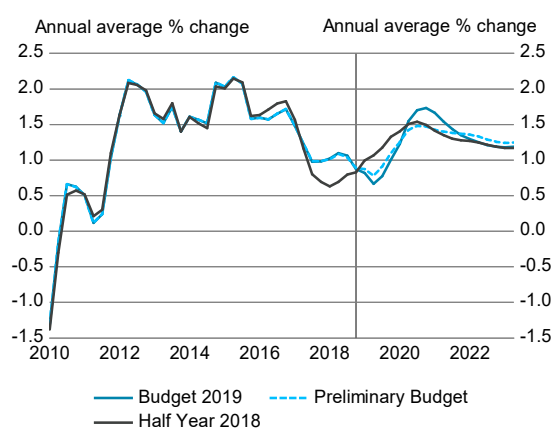
**The economy is expected to grow around trend...**

12. **The economy continues to expand at a pace that is close to trend, supported by government spending, accommodative monetary policy, continued growth abroad and population growth.** Annual economic growth is expected to average 2.6% over the forecast period (Figure 1), compared with 2.6% at the Preliminary Budget forecasts and 2.7% at HYEUFU 2018.

**Figure 1: Real GDP growth**



**Figure 2: Real GDP per capita growth**



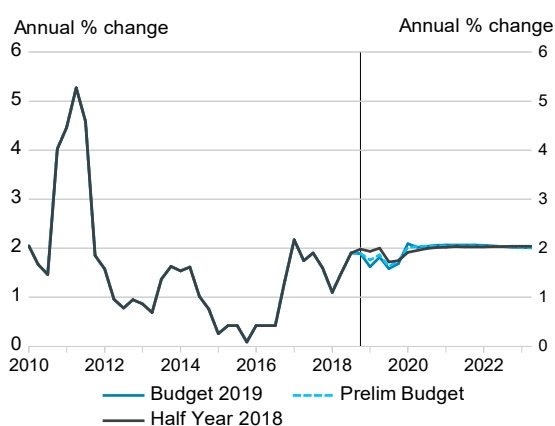


13. Annual average GDP growth picks up from 2.4% in 2018/19 to 3.0% in 2019/20, largely driven by strong growth in government spending. Higher operating allowances for Budgets 2019 and 2020 provide around a \$7.4 billion increase to government spending over the forecast period compared with Preliminary Budget forecasts and HYEFU.
14. Business investment is another key driver of growth over the forecast period as firms respond to rising labour costs, the need to expand capacity, and low interest rates. The Government's housing investment programme contributes to an acceleration in residential investment over 2019/20 and 2020/21.
15. Solid growth in real household incomes underpins annual consumption growth of around 3.0% over 2018/19 to 2020/21. Over the remainder of the forecast period, slowing population growth drives an easing in private consumption growth. Per capita consumption growth also eases as rising interest rates affect household budgets and generate a slight softening in overall labour market conditions.
16. **Beyond 2020, economic growth eases back to 2.4% as the impulse from higher government spending wanes and population growth slows.** Monetary policy begins to tighten from late 2020 in response to rising inflationary pressures. Annual working age population growth slows from around 2.0% in 2018 to 1.3% in 2023. The slowdown in annual average GDP per capita growth is less marked, declining from 1.5% in 2020/21 to 1.2% in 2022/23 (Figure 2).

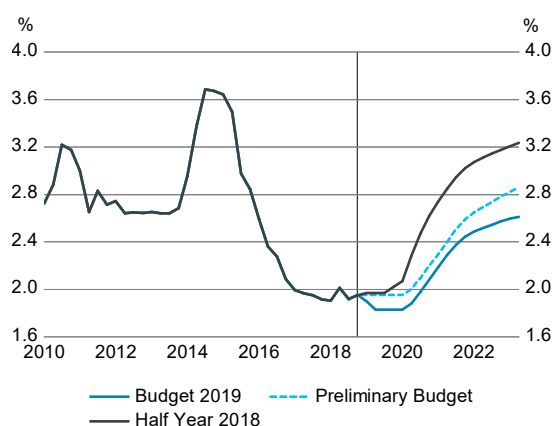
**...while inflation rises to 2.0% and interest rates remain flat in the near-term**

17. Over recent years, the economy has been growing slightly above its potential rate. This has seen capacity pressures build, particularly in the labour market, and measures of core inflation gradually rise. Survey measures show tight capacity, with firms reporting increasingly higher levels of difficulty finding skilled and unskilled labour and that their costs are rising.
18. CPI inflation is forecast to fall slightly in the near-term driven by falling tradables inflation – including a 7% decline in petrol prices. An acceleration in economic growth, a tight labour market, accommodative monetary policy and rising oil prices support annual inflation rising to the middle of the Reserve Bank's target (2.0%) in early 2020 and remaining around this level thereafter (Figure 3).

**Figure 3: CPI inflation**



**Figure 4: 90-day interest rates**

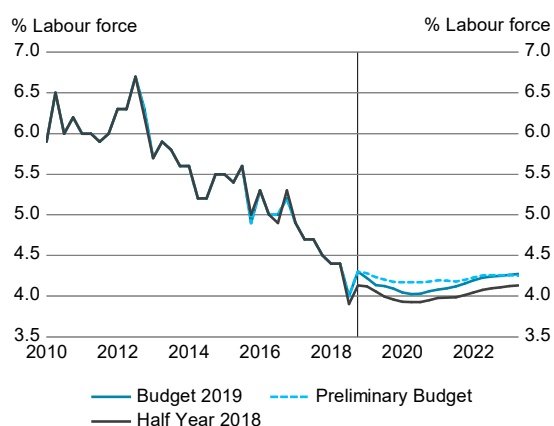


19. We have made an assumption that interest rates are less stimulatory than previously expected, following recent public communication from the Reserve Bank and a sustained period of low interest rates in New Zealand and globally. The effect is that interest rates need to rise at a slower rate and to a lower level than previously expected in order to contain inflation.
20. **Interest rates are forecast to start rising from mid-2020 to around 2.6% by the end of the forecast period (Figure 4), as the Reserve Bank withdraws monetary policy stimulus to keep inflation around 2.0%.**
21. Short-term interest rates are lower in the near-term than at HYEUFU and Preliminary Budget forecasts, reflecting recent market developments but are not expected to fall further. Interest rates are around 25 basis points lower by the end of the forecast period compared with Preliminary Budget forecasts and around 60 basis points compared with HYEUFU.
22. Markets are pricing in a 70% chance of two OCR cuts by November 2019, we assume that interest rates are flat in the near-term largely owing to increased government spending not currently priced in by markets.

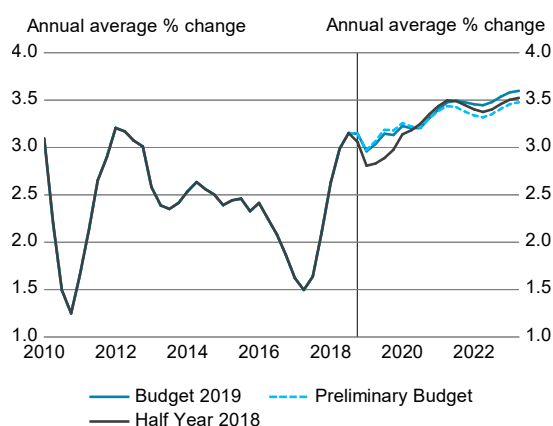
***The labour market is tight with unemployment falling and wage growth rising***

23. **A more marked acceleration in economic growth sees the unemployment rate fall steadily from 4.3% to 4.0% by 2019/20, compared with a broadly flat unemployment rate of 4.2% presented at the Preliminary Budget forecasts (Figure 5).** The unemployment rate gradually increases to 4.3% by the end of the forecast period, as the growth impulse from the higher government spending fades and interest rates rise. Employment growth declines over the forecast period but remains solid in the context of slowing population growth.

**Figure 5: Unemployment**



**Figure 6: Wage growth**

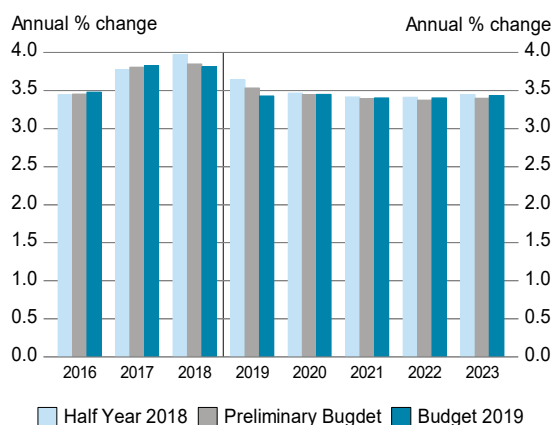


24. Wage growth is expected to accelerate over the forecast period owing to a tight labour market, higher inflation compared with recent years and a range of labour market policies (Figure 6). Real wages expand at a stable pace underpinned by a pickup in business investment and labour productivity growth.

**Continued growth abroad supports terms of trade but risks skewed to the downside**

25. **We forecast a fairly stable outlook for world growth, with growth in New Zealand’s top 16 major trading partners (TPG16) flat at 3.4% per year (Figure 7).** We have revised 2019 TPG16 growth slightly lower since the Preliminary Budget forecasts from 3.5% to 3.4%. This reflects further weakness in economic activity in Australia, particularly in the housing sector, as well as weaker manufacturing activity in Europe, China and the US.

**Figure 7: Trading partner growth**



26. A favourable outlook for TPG16 growth and a recovery in global milk prices are expected to result in modest gains in commodity prices and a recovery in New Zealand’s terms of trade. Over the medium-term we project the terms of trade to rise gradually, as growing demand for dairy exports and other commodities amid tighter supply supports export price growth.
27. **There is substantial uncertainty around the international economic outlook and risks are skewed to the downside with trade and geopolitical tensions still prevalent and uncertainty around Brexit remaining.** Although we forecast a stable outlook for trading partner growth, should the economy significantly deviate from this assumption, the New Zealand economy would be impacted through a range of channels, including demand for exports, global commodity price movements and shifts in financial conditions and asset prices.

**Nominal GDP growth is supported by government spending, rising terms of trade and growing price pressures**

28. Nominal GDP growth is supported by near-term strength in government spending growth, a rising terms of trade, inflation around 2.0% and government labour market policies. Annual average nominal GDP growth peaks at 5.9% in 2019/20 and gradually eases to 4.7% by 2022/23.
29. **Nominal GDP is a cumulative \$4.4 billion higher than at the Preliminary Budget forecasts, reflecting stronger government spending, although \$4.7 billion lower than at HYEUFU due to a weaker forecast terms of trade and slightly weaker economic activity over the forecast period.**

## Key judgements and Government Policy changes

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30. Since finalising the Preliminary Budget forecasts, there have been significant changes to Budget allowances and migration data. The treatment of these in the forecasts is set out below.
31. **Budget allowances.** Compared with Preliminary Budget forecasts the operating allowances for Budgets 2019 and 2020 is higher, at \$3.8 billion and \$3.0 billion per annum, respectively. This results in an increase in government spending by around \$7.4 billion compared with prelims and HYEUFU.
32. **Migration.** Stats NZ's new measure of migration has proved to be highly volatile. Recent data from Stats NZ shows estimated annual net migration increased to 58,000 in January 2019 from 53,000 in January 2018. In a previous release annual net migration was thought to have decreased. Based on conversations with the Stats NZ Population Insights team, the volatility of the new measure, relative labour market conditions between Australia and New Zealand and alternative measures of migrant arrivals, we have decided to largely disregard the most recent six months of data.

## Risks to the Economic Outlook

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33. Risks to the international outlook remain prevalent and skewed to the downside. There is a range of risks that could see trading partner growth lower including:
  - **Major adjustments in global financial and equity markets** hitting wealth levels, access to credit, and heightened investment uncertainty. Events that could trigger this include a more disruptive Brexit or an economic downturn in China triggered by the large increase in indebtedness over recent years;
  - **Increased global trade tensions** resulting in lower global demand for New Zealand's exports; and
  - **A larger decline in Australian growth** if falling house prices have a stronger dampening effect on consumption and investment than anticipated.
34. These events could have large spillover effects due to the interconnectedness of the global economy, leading to a broad decline in trading partner growth. The New Zealand economy would be impacted through a range of channels, including demand for exports, global commodity price movements and shifts in financial conditions and asset prices.
35. Domestic risks are more balanced and include:
  - **Stronger-than-expected impact from declining sentiment.** Survey measures of investment intentions and profitability point to weak business investment. We have assumed the dampening effect from weak sentiment is short-lived and business investment picks up. Should the impact of weak sentiment on business investment be stronger or more persistent than expected, this could lead to reduced economic activity and lower tax revenue.
  - **Capacity constraints.** The Treasury's (and Reserve Bank's) residential investment forecasts are at the top end of market forecasters, chiefly because we assumed that urban development reforms and other policies unlock capacity in the construction sector. Should this not occur, or occur at a slower rate than assumed, this could lead to reduced economic activity and lower tax revenue.

- **Higher-than-forecast wages growth** as a result of government labour market policies and wage settlements in the public sector, particularly if there is greater than anticipated spillover to the private sector, and greater-than expected capacity pressures in the labour market; and
- **Stronger (weaker) aggregate demand** due to net migration being higher (lower) than currently anticipated, particularly given uncertainty surrounding Stats NZ's new official measure of migration.

36. If the above risks were to eventuate, real activity could be different than forecast and result in higher/lower tax revenue.

## Annex 1: Forecast Summary Tables

### Table A1: Summary of Economic Forecasts – June Years

June Years	2015	2016	2017	2018	2019	2020	2021	2022	2023
(Annual average percent change, unless specified otherwise)					Forecast	Forecast	Forecast	Forecast	Forecast
Private consumption	3.2	4.3	5.6	3.6	3.6	2.9	2.9	2.7	2.7
Public consumption	3.3	1.5	2.6	3.0	1.9	4.2	1.8	0.9	1.0
<b>TOTAL CONSUMPTION</b>	<b>3.2</b>	<b>3.7</b>	<b>4.9</b>	<b>3.5</b>	<b>3.2</b>	<b>3.2</b>	<b>2.6</b>	<b>2.3</b>	<b>2.3</b>
Residential investment	6.3	9.9	4.2	2.6	3.4	5.2	5.4	3.4	2.0
Business investment*	6.9	2.4	2.1	6.8	0.7	3.8	3.6	2.4	2.1
<b>TOTAL INVESTMENT</b>	<b>6.7</b>	<b>4.3</b>	<b>2.6</b>	<b>5.6</b>	<b>1.4</b>	<b>4.2</b>	<b>4.1</b>	<b>2.7</b>	<b>2.1</b>
Stocks (contribution to GDP growth)	-0.0	-0.3	0.3	-0.1	-0.2	-0.1	0.1	0.0	0.0
<b>GROSS NATIONAL EXPENDITURE</b>	<b>3.8</b>	<b>3.3</b>	<b>4.7</b>	<b>4.1</b>	<b>2.7</b>	<b>3.2</b>	<b>3.1</b>	<b>2.4</b>	<b>2.3</b>
Exports	6.2	5.4	0.3	3.6	2.7	3.1	2.8	2.6	2.5
Imports	6.6	1.1	6.1	7.9	2.1	3.9	3.4	2.3	2.2
<b>EXPENDITURE ON GDP</b>	<b>3.8</b>	<b>4.4</b>	<b>3.1</b>	<b>2.9</b>	<b>2.5</b>	<b>3.1</b>	<b>2.9</b>	<b>2.5</b>	<b>2.4</b>
<b>GDP (PRODUCTION MEASURE)</b>	<b>4.0</b>	<b>3.6</b>	<b>3.4</b>	<b>3.2</b>	<b>2.4</b>	<b>3.0</b>	<b>2.8</b>	<b>2.4</b>	<b>2.4</b>
- annual % change, June quarter	3.9	4.0	3.0	3.2	2.1	3.2	2.6	2.4	2.4
<b>Other Output Measures</b>									
Real Gross National Disposable Income	2.8	3.8	4.4	3.5	2.5	3.3	2.9	2.4	2.2
Nominal GDP (Expenditure Basis)	3.5	5.1	6.3	5.7	3.8	5.8	5.4	4.9	4.7
Output gap (June qtr,% of potential)	-0.4	0.5	0.4	0.7	-0.0	0.4	0.3	0.1	-0.1
<b>Per Capita Output Measures</b>									
Real GDP per capita (Production basis)	2.2	1.6	1.2	1.1	0.7	1.5	1.5	1.3	1.2
Real Gross Nat. Disp Income per capita	1.1	1.7	2.2	1.5	0.8	1.8	1.6	1.2	1.1
Nominal GDP per capita (Expenditure basis)	1.7	3.0	4.0	3.6	2.0	4.3	4.0	3.6	3.5
<b>Labour Market</b>									
Employment	3.2	2.3	5.2	3.7	2.3	1.9	1.7	1.4	1.3
Unemployment Rate (June quarter)	5.4	5.0	4.7	4.4	4.1	4.0	4.1	4.2	4.3
Labour Productivity (Hours worked basis)	1.2	0.6	-1.5	-1.2	1.4	0.4	1.2	1.2	1.2
Wages (QES average hourly ord time earnings, APC)	2.7	2.1	1.6	3.0	3.3	3.2	3.5	3.5	3.6
Unit Labour Costs (Hours worked basis)	1.2	1.6	3.1	4.2	1.6	2.8	2.2	2.2	2.4
<b>Monetary Conditions</b>									
90-day Bank Bill Rate (June quarter ave)	3.5	2.4	2.0	2.0	1.8	1.9	2.3	2.5	2.6
10-year Bond Rate (June quarter ave)	3.6	2.7	2.9	2.8	1.9	2.3	2.5	2.7	2.9
TWI (June quarter ave)	76.2	73.6	76.5	73.8	73.7	73.7	73.8	74.0	74.1
- annual % change (June quarter)	-6.5	-3.4	3.9	-3.5	-0.1	-0.0	0.1	0.4	0.1
<b>Price Measures</b>									
CPI Inflation (ann % change, June quarter)	0.4	0.4	1.7	1.5	1.8	2.0	2.1	2.0	2.0
Consumption Deflator	0.6	0.8	1.0	1.3	1.7	2.3	2.4	2.2	2.1
GDP Deflator	-0.3	0.6	3.1	2.7	1.2	2.5	2.4	2.3	2.2
House Price Inflation (ann % change, June qtr)	11.8	15.0	6.5	3.6	2.9	3.8	4.2	4.3	4.8
<b>Key Balances</b>									
Current account balance (\$ million)	-8,373	-5,784	-7,383	-9,810	-10,110	-10,765	-11,428	-11,701	-12,159
Current account balance (% of GDP)	-3.4	-2.2	-2.7	-3.4	-3.4	-3.4	-3.4	-3.3	-3.3
Terms of Trade (goods) - SNA Basis	-4.7	-2.7	5.0	4.7	-1.8	0.2	0.1	0.2	0.1
Household saving ratio (% of HHDI, March yr)	-1.0	-0.6	0.1	-1.4	-0.5	-0.3	-0.6	-0.8	-0.9

\* Total investment excluding residential

**Table A2: Change in Economic Forecasts from Preliminary Budget – June Years**

<b>June Years</b> (Annual average % change, unless specified otherwise)	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b> Forecast	<b>2020</b> Forecast	<b>2021</b> Forecast	<b>2022</b> Forecast	<b>2023</b> Forecast
Private consumption	0.0	-0.0	-0.0	0.0	0.3	-0.1	0.1	0.1	0.1
Public consumption	-0.0	0.0	-0.0	-0.0	0.4	2.2	0.7	-0.7	-0.7
<b>TOTAL CONSUMPTION</b>	<b>0.0</b>	<b>0.0</b>	<b>-0.0</b>	<b>-0.0</b>	<b>0.3</b>	<b>0.4</b>	<b>0.2</b>	<b>-0.1</b>	<b>-0.1</b>
Residential investment	-0.0	0.0	0.0	-0.0	0.2	0.9	-0.6	-0.8	-0.0
Business investment*	0.0	-0.0	-0.0	-0.0	-0.8	-1.4	-0.6	-1.1	-0.7
<b>TOTAL INVESTMENT</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-0.0</b>	<b>-0.6</b>	<b>-0.8</b>	<b>-0.6</b>	<b>-1.0</b>	<b>-0.5</b>
Stocks (contribution to GDP growth)	0.0	-0.0	0.0	0.1	-0.2	0.1	0.1	0.0	-0.0
<b>GROSS NATIONAL EXPENDITURE</b>	<b>0.0</b>	<b>-0.0</b>	<b>0.0</b>	<b>0.1</b>	<b>-0.3</b>	<b>0.1</b>	<b>0.1</b>	<b>-0.3</b>	<b>-0.2</b>
Exports	-0.0	0.0	-0.0	-0.0	-1.2	-0.1	0.4	0.2	0.2
Imports	0.0	0.0	0.0	0.0	-1.6	0.7	0.4	-0.4	-0.2
<b>EXPENDITURE ON GDP</b>	<b>0.0</b>	<b>-0.0</b>	<b>0.0</b>	<b>0.1</b>	<b>-0.2</b>	<b>0.1</b>	<b>0.1</b>	<b>-0.1</b>	<b>-0.1</b>
<b>GDP (PRODUCTION MEASURE)</b>	<b>-0.0</b>	<b>0.0</b>	<b>-0.0</b>	<b>0.0</b>	<b>-0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>-0.1</b>	<b>-0.1</b>
- annual % change, June quarter	-0.0	-0.0	-0.0	0.0	-0.2	0.4	-0.0	-0.1	-0.1
<b>Other Output Measures</b>									
Real Gross National Disposable Income	0.0	0.0	0.0	0.0	-0.1	0.2	-0.1	-0.1	0.1
Nominal GDP (Expenditure Basis)	0.0	-0.0	0.0	0.1	-0.3	0.3	0.2	0.1	0.1
<b>Per Capita Output Measures</b>									
Real GDP per capita (Production basis)	-0.0	0.0	-0.0	0.0	-0.1	0.1	0.1	-0.1	-0.1
Real Gross Nat. Disp Income per capita	-0.0	-0.0	0.0	0.0	-0.1	0.2	-0.1	-0.1	0.1
Nominal GDP per capita (Expenditure basis)	0.0	-0.0	0.0	0.1	-0.3	0.3	0.2	0.0	0.1
<b>Labour Market</b>									
Employment	0.0	0.0	0.0	0.0	-0.0	0.1	0.1	-0.1	-0.0
Unemployment Rate (June quarter)	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.0	0.0
Labour Productivity (Hours worked basis)	-0.0	0.0	-0.0	0.0	-0.1	-0.0	0.0	-0.0	-0.0
Wages (QES average hourly ord time earnings, APC)	0.0	0.0	0.0	0.0	-0.1	0.0	0.1	0.1	0.1
Unit Labour Costs (Hours worked basis)	0.0	-0.0	0.0	-0.0	0.1	-0.0	-0.0	0.1	0.1
<b>Monetary Conditions</b>									
90-day Bank Bill Rate (June quarter ave)	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.2
10-year Bond Rate (June quarter ave)	0.0	0.0	0.0	0.0	-0.4	-0.3	-0.5	-0.7	-1.1
TWI (June quarter ave)	0.0	0.0	0.0	0.0	0.2	0.1	-0.4	-0.3	-0.4
- annual % change, June quarter	0.0	0.0	0.0	0.0	0.3	-0.2	-0.6	0.0	-0.1
<b>Price Measures</b>									
CPI Inflation (ann % change, June quarter)	0.0	0.0	0.0	0.0	-0.0	-0.0	0.0	0.0	-0.0
Consumption Deflator	-0.0	0.0	0.0	0.0	-0.1	0.3	0.4	0.2	0.1
GDP Deflator	0.0	0.0	0.0	0.0	-0.1	0.2	0.1	0.1	0.2
House Price Inflation (ann % change, June quarter)	0.7	1.0	0.1	0.0	0.5	-0.3	-0.2	-0.1	0.1
<b>Key Balances</b>									
Current account balance (\$ million)	-15	-21	-22	-22	749	67	-516	-31	668
Current account balance (% of GDP)	-0.0	-0.0	-0.0	-0.0	0.2	0.0	-0.1	0.0	0.2
Terms of Trade - SNA Basis	-0.0	-0.0	0.0	0.0	0.5	-0.5	-0.7	-0.3	-0.0
Household saving ratio (% of HHDI, March year)	0.0	0.0	0.0	0.0	-0.3	-0.2	-0.5	-0.8	-0.9

\* Total investment excluding residential

**Table A3: Change in Economic Forecasts from HYEFU – June Years**

<b>June Years</b> (Annual average percent change, unless specified otherwise)	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b> Forecast	<b>2020</b> Forecast	<b>2021</b> Forecast	<b>2022</b> Forecast	<b>2023</b> Forecast
Private consumption	-0.2	0.2	0.7	0.2	0.7	-0.0	0.2	0.1	0.3
Public consumption	-0.0	-0.0	-0.3	-2.1	-1.3	2.7	0.9	-0.3	-0.4
<b>TOTAL CONSUMPTION</b>	<b>-0.1</b>	<b>0.1</b>	<b>0.4</b>	<b>-0.4</b>	<b>0.3</b>	<b>0.6</b>	<b>0.4</b>	<b>0.1</b>	<b>0.1</b>
Residential investment	-0.1	-0.7	-0.7	0.8	1.4	-0.2	-0.7	-0.6	0.1
Business investment*	-0.4	-1.4	-1.8	1.4	-3.8	-0.3	-0.6	-0.9	-0.6
<b>TOTAL INVESTMENT</b>	<b>-0.3</b>	<b>-1.3</b>	<b>-1.5</b>	<b>1.2</b>	<b>-2.5</b>	<b>-0.3</b>	<b>-0.6</b>	<b>-0.8</b>	<b>-0.4</b>
Stocks (contribution to GDP growth)	-0.0	0.0	0.1	0.0	0.0	-0.3	0.0	0.0	0.0
<b>GROSS NATIONAL EXPENDITURE</b>	<b>-0.2</b>	<b>-0.2</b>	<b>0.1</b>	<b>-0.0</b>	<b>-0.2</b>	<b>0.0</b>	<b>0.2</b>	<b>-0.1</b>	<b>0.0</b>
Exports	-0.0	-0.0	-0.0	-0.0	-1.6	-0.1	0.5	0.3	0.2
Imports	0.0	0.0	-0.0	-0.1	-1.7	0.5	0.3	-0.4	-0.1
<b>EXPENDITURE ON GDP</b>	<b>-0.2</b>	<b>-0.2</b>	<b>0.1</b>	<b>-0.0</b>	<b>-0.5</b>	<b>0.1</b>	<b>0.3</b>	<b>0.1</b>	<b>0.1</b>
<b>GDP (PRODUCTION MEASURE)</b>	<b>0.0</b>	<b>-0.1</b>	<b>0.1</b>	<b>0.4</b>	<b>-0.5</b>	<b>-0.1</b>	<b>0.1</b>	<b>-0.0</b>	<b>0.0</b>
- annual % change, June quarter	0.1	-0.3	0.3	0.3	-0.8	0.2	0.0	-0.0	0.0
<b>Other Output Measures</b>									
Real Gross National Disposable Income	0.0	-0.1	0.1	0.4	-0.5	0.3	-0.0	-0.1	0.0
Nominal GDP (Expenditure Basis)	-0.2	-0.2	0.1	0.2	-0.6	0.2	0.2	0.2	0.2
<b>Per Capita Output Measures</b>									
Real GDP per capita (Production basis)	0.0	-0.1	0.1	0.4	-0.4	0.0	0.2	0.0	0.0
Real Gross Nat. Disp Income per capita	0.0	-0.1	0.1	0.4	-0.3	0.4	0.0	-0.0	0.0
Nominal GDP per capita (Expenditure basis)	-0.2	-0.2	0.1	0.2	-0.4	0.4	0.3	0.2	0.2
<b>Labour Market</b>									
Employment	0.0	-0.0	0.0	0.0	-0.4	-0.1	0.1	0.0	0.1
Unemployment Rate (June quarter)	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Labour Productivity (Hours worked basis)	0.0	-0.1	0.1	0.4	0.8	-0.7	0.0	-0.0	-0.0
Wages (QES average hourly ord time earnings, APC)	0.0	0.0	-0.0	-0.0	0.2	-0.0	0.0	0.1	0.1
Unit Labour Costs (Hours worked basis)	-0.0	0.1	-0.1	-0.4	-0.6	0.7	-0.1	0.1	0.1
<b>Monetary Conditions</b>									
90-day Bank Bill Rate (June quarter ave)	0.0	0.0	0.0	0.0	-0.1	-0.4	-0.6	-0.6	-0.6
10-year Bond Rate (June quarter ave)	0.0	0.0	0.0	0.0	-1.1	-1.2	-1.4	-1.6	-1.5
TWI (June quarter ave)	0.0	0.0	0.0	0.0	0.2	-0.2	-1.0	-1.1	-1.1
- annual % change, June quarter	0.0	0.0	0.0	0.0	0.3	-0.6	-1.0	-0.2	0.1
<b>Price Measures</b>									
CPI Inflation (ann % change, June quarter)	0.0	0.0	0.0	0.0	-0.2	0.1	0.0	0.0	-0.0
Consumption Deflator	-0.0	-0.0	0.0	0.0	-0.3	0.2	0.5	0.3	0.2
GDP Deflator	0.0	-0.0	0.0	0.2	-0.1	0.1	-0.0	0.1	0.1
House Price Inflation (ann % change, June quarter)	0.7	1.0	1.0	-1.6	-1.3	0.1	-0.9	-0.7	0.4
<b>Key Balances</b>									
Current account balance (\$ million)	-17	-28	-19	-28	554	825	559	1,029	1,301
Current account balance (% of GDP)	-0.0	-0.0	-0.0	-0.0	0.2	0.2	0.2	0.3	0.4
Terms of Trade - SNA Basis	0.0	0.0	-0.0	0.1	0.2	0.0	-1.0	-0.5	-0.2
Household saving ratio (% of HHDI, March year)	0.4	0.6	2.9	1.2	0.9	0.4	-0.2	-0.5	-0.7

\* Total investment excluding residential