The Treasury

Budget 2022 Information Release

August 2022

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TE TAI ŌHANGA
THE TREASURY

Treasury Report: HYEFU 2021 Final Economic and Tax Forecasts

Date:	19 November 2021	**Report No:**	T2021/2831
		File Number:	BM-3-6-1

Action sought

	Action sought	Deadline
Hon Grant Robertson **Minister of Finance**	**Note** final economic forecasts for HYEFU 2021 show an outlook for activity similar to the preliminary forecasts, with the dampening impact of rising interest rates and a more gradual recovery from Delta restrictions partially offset by the move to the more permissive COVID-19 Protection Framework. More persistent inflation boosts nominal GDP resulting in an upward revision in core Crown tax revenue of $9.3 billion over the five years to June 2026.	Weekly Agency Meeting, 22 November 2021

Contact for telephone discussion (if required)

Name	Position	Telephone		1st Contact
Andrew Kennedy	Analyst, Forecasting	[39]	N/A (mob)	✓
Peter Gardiner	Manager, Forecasting		[35]	

Minister's Office actions (if required)

Return the signed report to Treasury.

Note any feedback on the quality of the report

Enclosure: No

Treasury Report: HYEFU 2021 Final Economic and Tax Forecasts

Executive Summary

The New Zealand economy has continued to perform relatively strongly since the preliminary Half-Year Economic and Fiscal Update (HYEFU) 2021 forecasts, **despite the ongoing impacts of the Delta outbreak** and higher Alert Levels in part of the country. The unemployment rate dropped to a record-equalling 3.4% in the September 2021 quarter; consumer and business confidence have both been resilient compared to the previous period of prolonged restrictions; and the female labour force participation rate jumped to its highest point on record.

The major development since the preliminary forecasts is that inflation had risen well outside the Reserve Bank of New Zealand's (RBNZ's) target range of 1-3%. While some elevated pressures in tradables inflation are expected to be more transitory in nature, overall consumer price inflation will be elevated by persistently higher non-tradables inflation over the forecast period associated with labour shortages and robust domestic demand. As a result, **interest rates are anticipated to rise more rapidly and to a higher level than in the preliminary forecasts**, placing downward pressure on aggregate demand and returning inflation within the target range from late 2023.

In combination with a lower net migration track, this more rapid tightening of monetary policy is forecast to dampen real GDP growth over the medium term and check house price growth from the middle of 2022. **In the short term, the extension of public health restrictions into the December 2021 quarter results in a more gradual recovery from the Delta outbreak**. We anticipate growth in 2022 to be supported by pent-up demand, higher employment, and continued strength in residential investment. **The more permissive COVID-19 Protection Framework is forecast to have a positive effect on economic activity from the start of 2022.**

Higher inflation translates to **nominal GDP being a cumulative $38.9 billion higher over the forecast period** relative to the preliminary forecasts. This is the major driver of the **additional $9.3 billion in core Crown tax revenue** over the five years to June 2026. **Higher wages and costs, however, will constrain growth in real government consumption.**

The labour market remains tight, with increasingly less room for future expansions in employment from the resident population. Unemployment is consequently expected to drop to 3.1% in the March 2022 quarter and remain below 4.0% for the majority of the forecast period, and employment is expected to exhibit quarter-on-quarter growth**. In light of the slightly weaker migration, such demand puts more pressure on wage inflation, with labour force participation remaining elevated throughout the forecast period.**

The global economy has lost some momentum due to the emergence of Delta and ongoing supply-chain disruptions, but still remains positive amid concerns of rising inflation. Recent strength in goods import volumes has led to an upward revision over the near term, and tepid increases to export prices alongside stronger import prices are expected to result in a much smaller near-term rise in the terms of trade compared to the preliminary forecasts, though the medium term is slightly higher owing to more persistent strength in export prices.

The economic forecasts are dependent on some key assumptions. For example, public health restrictions are assumed to average an Amber setting over the first half of 2022; the international border is assumed to have a phased reopening from the start of 2022; and potential output has been revised lower than the Budget Economic and Fiscal Update (BEFU) 2021 to account for ongoing disruptions and behavioural shifts related to the pandemic. Significant deviation from these assumptions – either to the upside or downside –

would change the underlying fundamentals of the forecast, as would the realisation of key risk such as the advent of a more communicable or lethal coronavirus.

Table 1: Forecast summary, final HYEFU 2021 compared to preliminary HYEFU 2021

Year to June		**2021 Actual**	**2022 Forecast**	**2023 Forecast**	**2024 Forecast**	**2025 Forecast**	**2026 Forecast**
Real GDP (AAPC)	Final HYEFU 2021	5.1	0.8	4.9	2.2	2.3	2.3
	Preliminary HYEFU 2021	5.1	0.7	4.7	2.8	2.5	2.2
Unemployment Rate	Final HYEFU 2021	4.0	3.2	3.3	3.6	3.8	4.1
	Preliminary HYEFU 2021	4.0	3.7	3.5	3.4	3.6	4.0
CPI Inflation (APC)	Final HYEFU 2021	3.3	5.1	3.1	2.7	2.4	2.2
	Preliminary HYEFU 2021	3.3	3.2	2.3	2.4	2.3	2.1
Nominal GDP ($billion)	Final HYEFU 2021	339.7	362.8	393.9	414.7	435.8	456.5
	Preliminary HYEFU 2021	339.7	359.7	384.2	406.1	427.5	447.3
	Change	0.0	3.1	9.7	8.6	8.2	9.3
Core Crown tax revenue ($billion)	Final HYEFU 2021	98.0	102.7	113.0	119.2	126.2	133.2
	Preliminary HYEFU 2021	98.0	101.2	110.2	117.4	124.8	131.4
	Change	0.0	1.5	2.8	1.8	1.4	1.8

Recommended Action

We recommend that you:

a **note** the Treasury's HYEFU 2021 economic forecasts show a more gradual recovery from the Delta outbreak than the preliminary forecasts, partially offset by the move to the more permissive COVID-19 Protection Framework;

b **note** that inflation is expected to be higher and more enduring over the forecast period relative to the preliminary forecasts. This reflects greater persistence of inflationary pressures associated with capacity constraints and COVID-19 related disruption;

c **note** that, in line with the economic forecasts, tax revenues are higher than in the preliminary HYEFU 2021 forecasts. In total across the five years to June 2026, core Crown tax revenues forecasts are $9.3 billion higher than in the preliminary forecasts;

d **note** that the uncertainty around the economic outlook remains higher than usual and that we expect to see larger-than-normal revisions to the fiscal outlook over the coming years as Treasury updates its forecasts; and

e **refer** this report to:

- Hon Megan Woods, Associate Minister of Finance

Refer/not referred.

- Hon David Parker, Associate Minister of Finance

Refer/not referred.

Peter Gardiner
Manager, Forecasting & Modelling

Hon Grant Robertson
Minister of Finance

Treasury Report: HYEFU 2021 Final Economic and Tax Forecasts

Purpose and context of Report

1. This report provides an overview of the Treasury's final HYEFU 2021 economic and tax forecasts. These economic and tax forecasts underpin the fiscal forecasts due to be completed on Thursday 25 November. You will receive a Treasury Report on the final fiscal forecasts by 2 December 2021.

2. You have also received separate advice on the communication of Budget operating allowances (T2021/2875 refers). Your decisions on this advice, along with our final economic and fiscal forecasts, will be included in a Cabinet paper on Budget allowances and the Climate Emergency Response Fund (CERF) for discussion at Cabinet on 6 December. We will provide a draft paper to you on 26 November ahead of lodgement the following week.

3. Annex 1 provides tables with additional details on the economic forecasts, including changes since the preliminary HYEFU 2021 forecasts and BEFU 2021 forecasts.

Developments since preliminary forecasts

4. Since the preliminary forecasts, New Zealand's COVID-19 situation and response has continued to evolve. There is increasing evidence of labour market tightness and a combination of factors driving higher inflation.

5. The **net impact of these developments is that we expect interest rates to rise more rapidly and to a higher level** than forecast in the preliminary HYEFU forecasts. In the short term, a more uniform recovery supported by pent-up demand, building consents, and higher employment and wage growth more than offsets the negative effect of rising interest rates on real GDP growth, but over the medium term higher interest rates have a constraining impact on growth.

6. **Annual Consumers Price Index (CPI) inflation in the September quarter exceeded expectations at 4.9%,** the highest growth in over ten years and 1.1 percentage points higher than the preliminary forecast of 3.8%. This increase was underpinned by most classes of expenditure, led by housing, recreation, transport, and food. We anticipate some of these price pressures to be transitory, particularly tradables inflation related to rising petrol prices and supply-chain disruptions. To a greater extent than the preliminary forecasts, however, we expect more persistent non-tradables inflation arising from robust domestic demand and labour shortages.

7. **September quarter labour market statistics came in stronger than forecast in the preliminaries, reflecting an even tighter labour market than expected.** Driven by a 55,000-person increase to employment over the quarter, annual employment growth increased to 4.2% and the unemployment rate dropped to a record-equalling 3.4%, compared to the preliminary forecasts of 2.4% and 3.9%, respectively. Reflecting ongoing skills shortages and excess demand pressures, annual wage growth of 3.4% matched the preliminary forecast, while hours worked fell 6.6% owing to the impact of lockdown and elevated public health restrictions.

8. **Monthly house price growth rose to 2.3% in October, in line with house price growth over the past six months.** A degree of pent-up demand likely contributed to part of this increase, with Auckland house prices increasing 3.7% in October as buyers returned to the market compared to an average 1.3% increase in areas outside of Auckland. Overall sales activity rose 8.5% in October driven by some lockdown-induced volatility in Auckland where sales rose almost 70% but remain below pre-Delta-outbreak levels. The latter is also true for other parts of the country, although this could be indicative of parts of Waikato and Northland entering Alert Level 3 in October.

9. **The October ANZ Business Outlook (ANZBO) shows that business confidence is easing but remains robust.** Investment intentions and profitability expectations were both higher than in the September ANZBO, with a net 21.7% of firms expecting an increase in their own activity in the near future. Employment intentions diminished but are still positive, while a net 87.2% of firms are expecting increasing costs.

10. **Consumer confidence fell sharply in October,** reflecting the impact of rising prices, mortgage rate rises, uncertainty around the impact of the Delta variant, and supply shortages. Despite the latest fall, consumer confidence is still exhibiting resilience compared to the 2020 lockdown period.

11. **There is growing concern of stagflation in the global economy.** Annual inflation in the United States reached 6.2% in October – the highest rate since mid-1982 – while both the United States and China experienced a slowdown in growth in the September 2021 quarter. There is non-trivial risk that rising inflation will prompt central banks to consider reducing stimulus earlier than previously expected, which will weigh further on the international economic recovery and consequently New Zealand's economic position.

Key assumptions

12. **COVID-19 continues to materially influence the economic outlook and uncertainty remains high.** A number of assumptions about the impact and likely nature and timing of public health and border restrictions remain necessary.

13. **The vaccination programme is expected to enable a full shift to the COVID-19 Protection Framework from early 2022. We assume an average of the Amber setting over the first half of 2022,** which is slightly more permissive than the corresponding assumption in the preliminary forecasts that public health restrictions and behavioural responses to COVID-19 would impact activity to a similar extent as Alert Level 2.

14. **Potential output remains lower than in BEFU 2021** in the forecast period by 0.5%, as in the preliminary forecasts. This allows for ongoing disruptions related to the pandemic, the likelihood of ongoing public health restrictions over the medium term, the risk of further episodes, and relatively fewer hours worked and lower productivity levels owing to sickness.

15. **The international border is assumed to have a gradual and phased reopening from the start of 2022 and to ease more broadly in the September 2022 quarter.** This is in line with advice provided to Cabinet on the Reconnecting New Zealand plan allowing New Zealand citizens and residents to return as a first priority – which will most likely boost services imports to a greater extent than services exports as New Zealanders travel overseas – with the wider easing of restrictions from the September 2022 quarter then expected to allow for a recovery in services exports (Figure 1). This differs slightly from the assumption in the preliminary HYEFU 2021 forecasts of a gradual reopening from the start of the September 2022 quarter.

Figure 1: Net service exports

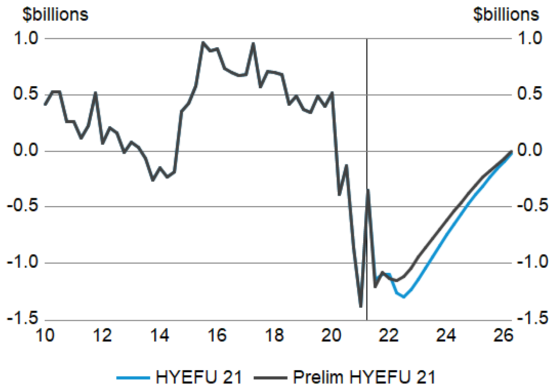
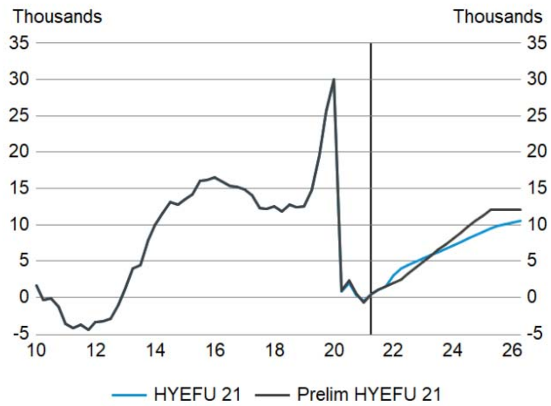


Figure 2: Quarterly net migration



16. Annual net migration is assumed to gradually rise from approximately 2,600 in the December 2021 quarter to be 27,700 in the June 2024 quarter and subsequently reach 40,800 by the end of the forecast period (Figure 2). This puts the **net migration pathway slightly higher in the near term than the preliminary forecasts but notably lower over the medium term.** At the end of the forecast period, annual net migration is just under 20,000 people shy of the approximate 60,000 average annual net migration between 2016 and 2020, reflecting the sentiment of the Immigration Rebalance work programme.

17. **Fiscal support has increased by a net $20.2 billion relative to BEFU 2021**. This comprises an additional $7 billion in the COVID Response and Recovery Fund and a $3 billion underspend that were included in the preliminary HYEFU forecasts (totalling $10 billion), anticipated to fund the public health response, vaccine rollout, Reconnecting New Zealand programme, and future business/income supports. The extra $10.2 billion since the preliminary forecasts stems from the decisions made at Budget Ministers on 9 November to provide new operating spending of $6.0 billion for Budget 2022, $4.0 billion for Budget 2023 and $3.0 billion for Budgets 2024 and 2025. Over the forecast period, this translates to increases on our preliminary forecasts of $7.2 billion and $3.0 billion in new operating spending across Budget 2022 and Budget 2023, respectively. To this extent, additional fiscal stimulus partially offsets the impact of restrictions on activity over the medium term and the increased likelihood of added disruption due to the Delta strain or emerging variants.

Economic outlook

Strong inflationary pressures related to demand and capacity constraints expected to persist …

18. Reflecting the intense costs pressures reported in business surveys, **annual CPI inflation in the September 2021 quarter significantly exceeded market expectations at 4.9%,** the highest growth in over ten years and 1.1 percentage points higher than the preliminary HYEFU forecast of 3.8%.

19. **Domestically-driven demand-side inflationary pressures are expected to remain elevated over much of the forecast period,** reflecting tighter labour market conditions and ongoing capacity constraints, raising non-tradables inflation. On the other hand, some elevated pressures in tradables inflation, such as petrol prices and supply-chain disruptions, are expected to be transitory.

20. **CPI inflation has been revised upward across the forecast period** relative to the preliminary forecasts (Figure 3). Annual CPI inflation is forecast to peak at 5.6% in the March 2022 quarter compared to the preliminary forecast peak of 4.1% in the December 2021 quarter. Inflation then falls across 2022 and continues to decline towards the RBNZ's 2.0% target midpoint over the remainder of the forecast period.

21. **This dynamic is governed by supply-side and, to a greater extent, demand-side pressures.** Tradables inflation is expected to ease in the near term as elevated world energy prices and price effects of supply-chain disruptions unwind, whereas rising interest rates over 2022 attenuate domestic demand and continue to gradually dampen non-tradables inflation over the forecast period.

Figure 3: CPI inflation

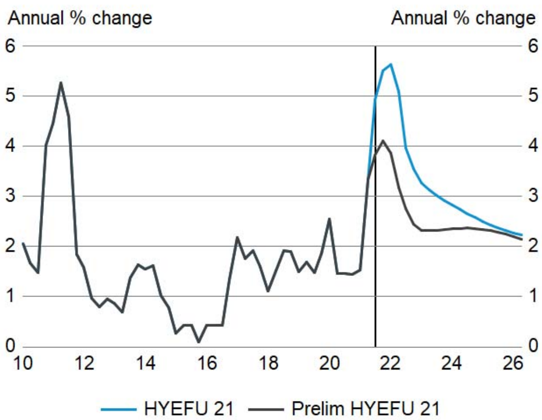
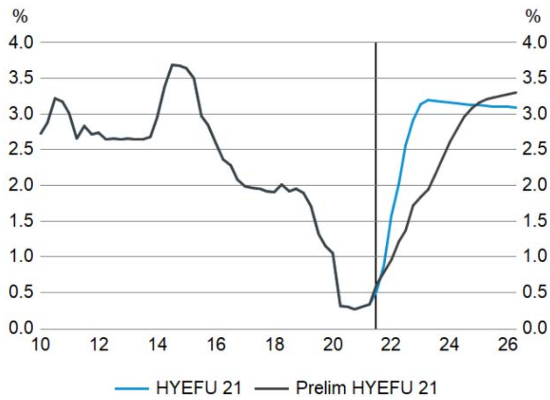


Figure 4: 90-Day interest rates



… prompting a more rapid tightening of monetary policy …

22. Having increased the Official Cash Rate (OCR) from 0.25% to 0.5% in October, the **RBNZ is expected to respond to the stronger-than-expected inflationary pressures by tightening monetary policy more rapidly than in the preliminary forecasts.**

23. **The 90-day interest rate is forecast to rise to 0.9% in the December 2021 quarter before rapidly rising to 3.1% by the March 2023 quarter where it plateaus** for the remainder of the forecast period (Figure 4). This constitutes a notable deviation from the preliminary HYEFU 2021 and BEFU 2021 forecasts and is slightly above financial market expectations of around a 200-basis point increase to the OCR by the start of 2023. This slight difference potentially reflects an information asymmetry related to fiscal spending.

24. There is considerable uncertainty among stakeholders surrounding the marginal impact of rising interest rates on households with elevated debt levels. Through Monetary Policy Statements, the RBNZ will have regular opportunities to reassess the impact it is having on wider economic activity and therefore be able to change path as appropriate.

… which moderates a slower recovery from Delta over the medium term …

25. **The persistence of COVID-19 restrictions into the December 2021 quarter results in a slower recovery than in the preliminary forecasts.** Since the finalisation of the preliminary forecasts, the public health response has shifted towards a suppression strategy. We continue to forecast an approximate 6% fall in real GDP in the September 2021 quarter due to the Delta outbreak; however, as opposed to a 5.8% bounce back in the December quarter, we now are expecting more uniform growth over the December 2021 and March 2022 quarters of 3.7% and 3.8%, respectively. This is supported by pent-up demand, higher employment, continued strength in building

consents, and the more permissive COVID-19 Protection Framework boosting activity at the start of 2022.

26. This results in **higher annual average real GDP growth from the June 2022 quarter through to the June 2023 quarter** – peaking at 5.0% in December 2022 quarter – and a higher level of real GDP until the June 2023 quarter (Figure 5). **Real GDP is thereafter marginally lower for the rest of the forecast period** than in the preliminary forecasts, stemming from a more rapid tightening of monetary policy and approximately 8,000 fewer net migrants entering New Zealand by the middle of 2026.

Figure 5: Real GDP

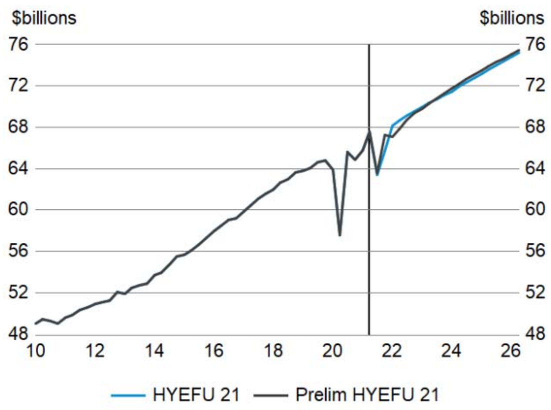
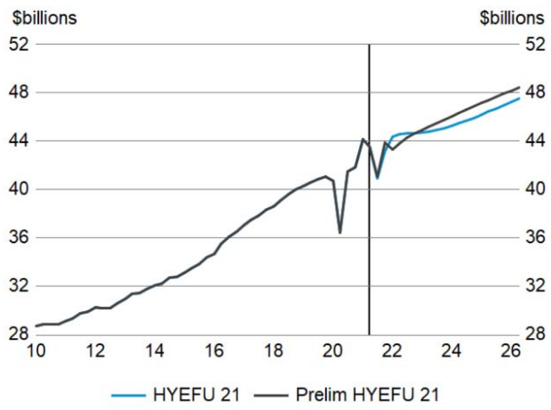


Figure 6: Real Private Consumption



27. Akin to the real GDP forecast, **we expect private consumption to be stronger throughout 2022 than the preliminary forecasts, but to be subsequently weaker from 2023 (Figure 6).** In the short term, we continue to anticipate a recovery in private consumption as restrictions on activity ease, with the impact of greater persistence of higher public health restrictions offset by higher house price growth and elevated employment. In the medium term, higher household incomes and employment levels will support consumption, but lower real wages owing to high inflation and higher interest rates depress consumption growth relative to the preliminary forecasts, with annual average private consumption growth declining to 0.8% in the December 2023 quarter before gradually increasing to 2.2% by the end of the forecast period.

Figure 7: Real government consumption

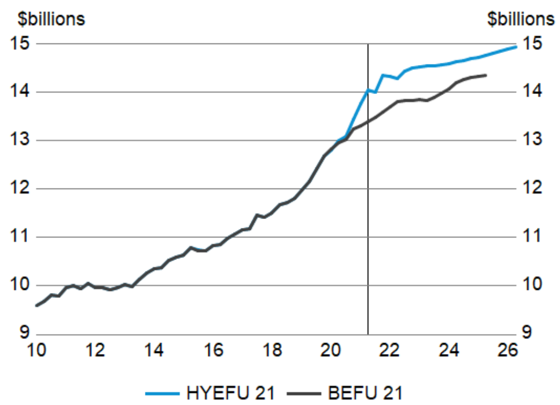
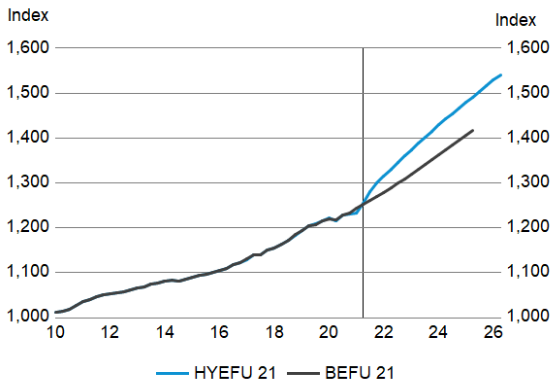


Figure 8: Government consumption deflator



28. **Annual average growth in real government consumption is forecast to be lower than in the BEFU 2021 forecasts for most of the forecast period.** This is because, although the level of real and nominal government consumption is greater due to additional fiscal spending (Figure 7), higher inflation and wage costs flow through to higher costs for government, thereby limiting the rate of growth in real government

consumption relative to nominal consumption expenditure. This is equally reflected in a significantly higher government consumption deflator (Figure 8), the price measure for government services used in the national accounts.

… and cools the housing market over the forecast period …

29. **House prices are forecast to plateau from the middle of 2022** following continued growth in late 2021 and early 2022, in contrast to the more persistent growth outlined in the preliminary forecasts (Figure 9). This stalling of growth is primarily the result of higher mortgage interest rates in the near term, but is also related to ongoing affordability challenges and tighter loan-to-value ratio restrictions for owner occupiers in effect from 1 November 2021. The denial of interest deductibility for leveraged rental property owners is also expected to have a mild dampening effect on house price growth. With the exemption period for new builds confirmed at twenty years, however, this impact is expected to be much lower than assumed at BEFU 2021 which was based on a ten-year exemption period.

30. **Record-high building consents issuance over the past year is expected to support construction activity over the year ahead, although investment is expected to ease** from an elevated level over much of the forecast period with rising interest rates and declining house price growth reducing incentives to construct new dwellings (Figure 10). The effects of the recent lockdown will also be leading to a further increase to the backlog of activity. As borders reopen and global shipping disruptions ease, a degree of pent-up demand relating to capacity constraints could lead to an increase in investment activity over the year ahead before the effects of lower housing demand stabilise activity. Given capacity constraints related to materials, labour and civil infrastructure, we expect only a modest impact on residential investment over the forecast period relating to the Medium Density Residential Standards.

Figure 9: House prices

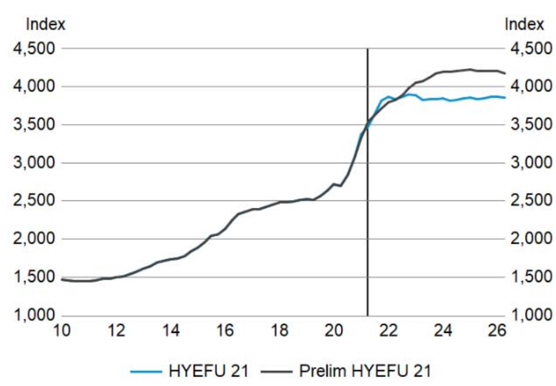
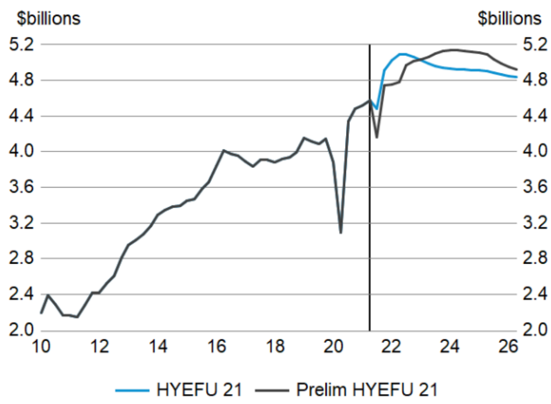


Figure 10: Residential investment



… but labour market tightness will persist on account of labour supply constraints

31. **The labour market continues to be remarkably resilient despite the Delta outbreak and remains characterised by a state of tightness.** Reflecting strong demand for labour, employment continues to increase with 55,000 more people entering employment in the September 2021 quarter, including around 50,000 more people in full-time employment. Combined with lower underemployment, this has resulted in a marked reduction in what little slack there was in the labour market.

32. There is little sign of these pressures easing in the short term. The September quarter Quarterly Survey of Business Opinion (QSBO) reported record-high difficulty finding skilled labour and near-record difficulty finding unskilled labour in the September quarter, and a net 42% of businesses planned to increase headcount in the next quarter. Although the recent surge in employment was able to be sourced from an

increase in labour force participation – with the labour force participation rate increasing 0.7 percentage points to 71.2% – **there is increasingly less room for future increases in employment to be derived from the domestic population.**

33. **The unemployment rate profile has been revised downward over the near term compared to the preliminary forecasts**. Given the tightness in the labour market and absence of short-term opportunities to increase labour supply, the unemployment rate drops to 3.1% in the March 2022 quarter before rising at a faster rate than the preliminary forecasts towards 4.1% at the end of the forecast period due to weaker demand (Figure 11). Likewise, **employment is expected to grow quarter-on-quarter** but at a slower rate than the preliminary forecasts, with annual average employment growth tempering over 2022/2023 before rising to 1.2% at the end of the forecast period.

Figure 11: Unemployment rate

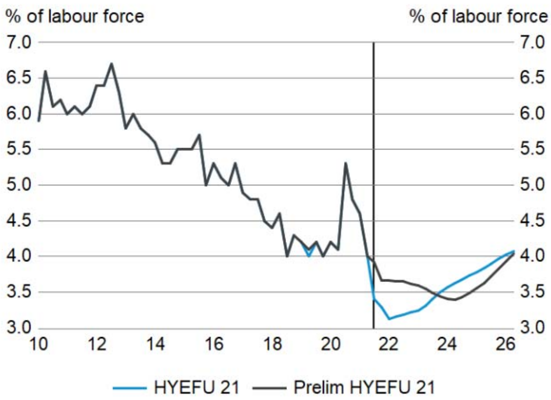
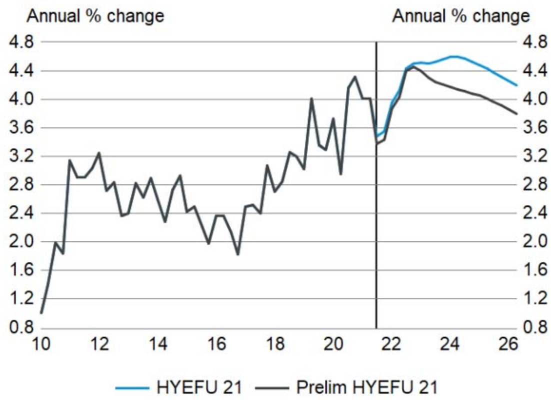


Figure 12: Annual wage growth



34. In turn, **this persistent tightness in the labour market is expected to catalyse wage growth and maintain an elevated rate of labour force participation.** Annual wage growth is forecast to reach an apex of 4.6% starting in the December 2023 quarter and then marginally decline to 4.2% by the end of the forecast period (Figure 12), while labour force participation slowly declines from 71.2% in the September 2021 quarter to 70.9% at the end of the forecast period.

The global economy has lost some momentum but remains positive …

35. **The global economic recovery has lost some momentum due to the emergence of Delta and ongoing supply-chain disruptions, but the growth outlook remains positive** due to vaccination, policy support, savings drawdown, and the reopening of economic activity (Figure 13). Growth in real GDP in the United States and China has slowed due to Delta outbreaks, and Australia's GDP is expected to contract in the September 2021 quarter but bounce back relatively quickly in 2022. While growth in the United States is expected to pick up in the December quarter, China faces a number of headwinds including energy shortages, COVID-19 lockdowns, and a precarious property market.

36. **Inflation has resurfaced as a key international risk; specifically, there are concerns of stagflation.** Global inflation pressures have risen, driven by temporary factors such as oil prices and once-off pandemic impacts, more persistent factors such as supply-chain issues and energy costs, and factors whose persistence is yet to be determined such as inflation expectations. Accordingly, inflation has surprised on the upside in a number of regions – reaching 6.2% in October in the United States – which could lead to monetary policy normalising earlier. To date, central banks have generally remained relatively dovish; however, the Korean and Norwegian central banks have

hiked interest rates and the Bank of England and United States Federal Reserve have communicated an earlier start to tightening monetary policy settings.

Figure 13: Real GDP in selected countries

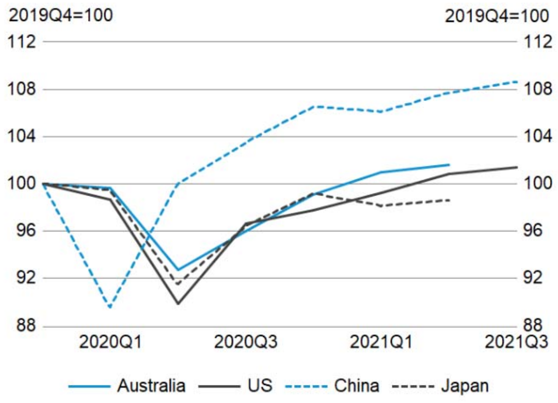
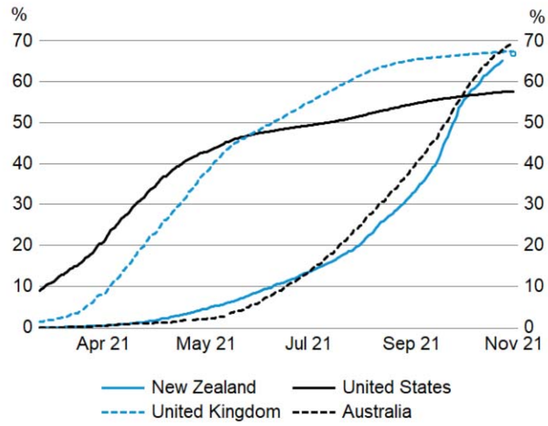


Figure 14: People fully vaccinated



37. **There is growing unease that international vaccination rates are levelling off at levels well below that required for herd immunity,** leading to weaker growth of New Zealand's key trading partners (Figure 14). Our World in Data shows that, on 8 November 2021, Australia surpassed the United Kingdom with respect to the total percentage of the population fully vaccinated and that New Zealand is set to follow suit. As of 15 November 2021, the total percentage of the population fully vaccinated against COVID-19 was 66.9% in New Zealand, 69.6% in Australia, 57.7% in the United States, and 67.5% in the United Kingdom. While developed regions have generally been successful in the procurement of vaccines, the rollout in some of New Zealand's trading partners in emerging Asia is still fairly nascent, negatively impacting global manufacturing. The emergence of new coronavirus variants, particularly those resistant to existing vaccines, remains a key risk internationally.

… leading to stronger imports and weaker terms of trade in the near term

38. The **outlook for goods exports remains similar to the preliminary forecasts**, with annual average growth forecast to peak at 5.4% in the March 2022 quarter. Global supply-chain disruption continues to bring challenges for importers and exporters, though data suggest that trade volumes have held up. **Goods import volumes appear particularly strong, with the near-term weakness in the preliminary forecasts no longer expected to occur.**

39. Trade data indicate that export prices have not risen to the extent suggested by global commodity price indexes, and import prices are set to rise more strongly as global inflation rises. This results in a **much smaller near-term rise in the terms of trade compared to the preliminary forecasts, although the medium term is slightly higher** due to more persistent strength in export prices (Figure 15).

40. The services exports assumption remains largely unchanged from the preliminary forecasts, with visitor numbers expected to recover from the September 2022 quarter in line with the Reconnecting New Zealand Plan. Services imports are now forecast to recover faster owing to the expected focus on allowing New Zealand citizens and residents to travel freely.

41. **The current account balance is expected to widen in the near term,** with stronger imports and weaker terms of trade leading to an annual current account deficit of 5.8% of GDP in the June 2022 quarter. By the end of the forecast period, the recovery in services exports and rising terms of trade narrow the deficit to 4.0% of GDP.

Figure 15: Terms of Trade

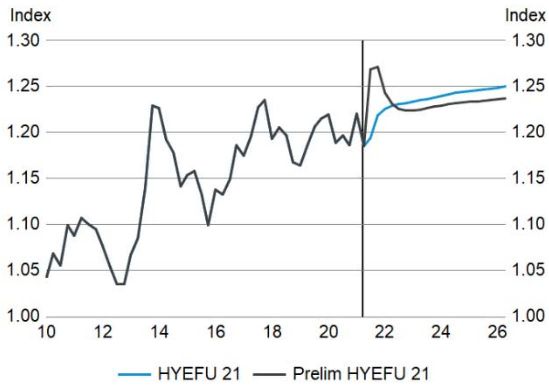
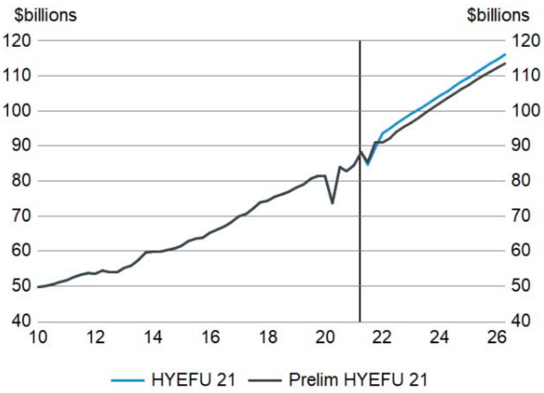


Figure 16: Nominal GDP



Higher inflation over the forecast period translates to higher nominal GDP

42. Higher inflation is the dominant driver of higher nominal GDP. **Nominal GDP is $3.1 billion above the preliminary forecasts in the year to June 2022, rising to $8-10 billion higher per annum over the 2023 to 2026 period (Figure 16). For the five-year period as a whole, nominal GDP is $38.9 billion higher than in the preliminary forecasts.** By the year to June 2024, higher nominal GDP is solely the result of higher prices in the economy.

Tax outlook

43. Higher forecasts of nominal GDP and stronger-than-anticipated tax outturns in recent months are the main drivers of increased tax revenue. **Core Crown tax revenue forecasts have increased by $9.3 billion across the five years to June 2026 compared to the preliminary tax forecasts (Table 2).**

Table 2: Estimated change in core Crown tax revenue since preliminary forecasts[1]

June years, $ billions	2022	2023	2024	2025	2026	Totals
2021 Half-year Update (prelim)	101.2	110.2	117.4	124.8	131.4	
% of GDP	28.1	28.7	28.9	29.2	29.4	
Forecasting changes by tax type:						
Corporate tax	+0.4	+1.8	+1.6	+1.5	+1.6	+6.9
Net other persons tax	-	+0.4	+0.5	+0.4	+0.4	+1.7
Source deductions	-	+0.2	+0.1	+0.3	+0.6	+1.2
Resident withholding taxes	-	+0.3	+0.3	+0.2	+0.2	+1.0
GST	+1.1	-	-0.6	-1.0	-1.1	-1.6
All other taxes	-	+0.1	-0.1	-	+0.1	+0.1
Total change	***+1.5***	***+2.8***	***+1.8***	***+1.4***	***+1.8***	***+9.3***
2021 Half-year Update Final	**102.7**	**113.0**	**119.2**	**126.2**	**133.2**	
% of GDP	28.3	28.7	28.8	29.0	29.2	

44. Most of the increase to the nominal GDP forecasts fell into operating surplus – broadly, a measure of profits in the economy – which led to increases in the forecasts of corporate tax and other persons tax.

[1] Unconsolidated tax forecasts were completed on 16 November. Core Crown tax forecasts will be finalised on 25 November.

45. The compensation of employees (COE) forecast also increased which pushed up the forecasts of source deductions. As most of the upward revision to the COE forecast was in wages rather than employment, there is also a stronger contribution from fiscal drag in the final forecast than in the preliminary forecast. A higher outlook for interest rates has increased the RWT-on-interest forecast through the forecast period.

46. **The unconsolidated forecast for GST is higher than the preliminary forecasts throughout the forecast period,** with increases to both public and private consumption forecasts outweighing a small reduction in the residential investment forecast. Aligning the forecast Crown GST eliminations with the GST on government consumption forecasts to ensure that both include the GST effects of the revised Budget allowances, however, is estimated to leave the net core Crown GST revenue forecast around $1.6 billion lower than the preliminary forecast across the forecast period.

47. **The Treasury and Inland Revenue's tax forecasts are broadly similar,** with the Treasury forecast $0.8 billion (0.1%) higher than Inland Revenue's set of forecasts over the forecast period. The main difference in the source deductions forecasts, where Treasury's forecast carries more of the current PAYE strength through the later years of the forecast period. The remaining variances in the tax forecasts are a result of differences in the modelling approaches and assumptions.

Comparison to bank forecast

48. The **Treasury's final HYEFU forecasts are generally concordant with the latest forecasts of the major domestic banks.** In line with the HYEFU 2021 forecasts, bank forecasters expect high levels of CPI inflation in the short term but believe that inflationary pressures will attenuate faster than the Treasury anticipates. The real GDP forecasts are generally situated around the upper range of the bank forecasts, with slightly higher growth over the second half of 2021 and early 2022 offset by lower growth onward to 2024. Treasury's forecasts of the unemployment rate are lower than consensus over the forecast period, reflecting both that banks are yet to incorporate the September 2021 quarter outturn and that the Treasury expects greater persistence of labour market tightness in the absence of reforms that proportionately increase labour supply.

Risks to the central forecasts

49. **There are several upside and downside risks to our central forecasts that could lead to different outcomes for the economy and, in turn, tax revenue.** We will once again communicate some of these risks with scenarios in the publication of the HYEFU 2021 document.

50. **The central forecasts assume public health restrictions to average an Amber setting in the COVID-19 Protection Framework** until 1 July 2022. Future community outbreaks of COVID-19 that necessitate the reinstatement of elevated public health restrictions will likely lead to weaker economic activity and, depending on frequency and length, could have long-term scarring effects.

51. The vaccination programme is expected to enable a full shift to the COVID-19 Protection Framework from early 2022. **If the vaccine rollout takes longer to inoculate a sufficient proportion of the population, border restrictions and public health restrictions may be lifted later than in the central forecasts. Further, if vaccines are less effective against the spread of COVID-19, then there will likely be additional long-term behavioural shifts** – such as persistent decreases in

consumption as people forego activity to prevent contracting COVID-19 – and declines in labour productivity associated with illness that will depress economic activity. Such weakening in the growth of New Zealand's trading partners would hinder services exports and put downward pressure on the exchange rate and terms of trade.

52. **Expectations about the impact of the Delta outbreak on economic activity are anchored to the experience of the 2020 lockdown period and recovery.** If this analogy is not appropriate – for instance, due to lesser pent-up demand – the economic recovery from the Delta lockdown period will likely be spread over an extended period and therefore increase the likelihood of firm failures, increase unemployment, and lower business investment. On the other hand, firms have greater certainty of the potential impact on their balance sheet so may be less likely to employ redundancy, thereby supporting a relatively faster recovery, all other things being equal.

53. **Disruptions related to supply chains are expected to continue until at least 2023.** If supply-chain disruption subsides sooner, then there will be upside risk with a reduction in cost pressures, stronger trading partner growth, and an increase to the terms of trade, vice versa.

54. Annual net migration is assumed to gradually rise from approximately 2,600 in the December 2021 quarter to be 27,700 in the June 2024 quarter and subsequently reach 40,800 by the end of the forecast period. **As part of the Immigration Rebalance work programme, limits imposed on net migration below this profile would reduce New Zealand's available labour force,** placing downward pressure on consumption and real GDP growth. Future Economic and Fiscal updates will incorporate any indicated shifts in migration policy.

Annex 1: Forecast summary tables

Table A1: Summary of economic forecasts, June years

June Years	2018	2019	2020	2021	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast
Private consumption	4.6	4.2	-0.8	7.5	1.2	3.4	1.1	2.0	2.2
Public consumption	3.8	3.6	6.8	6.8	4.8	1.8	0.6	0.8	1.1
TOTAL CONSUMPTION	**4.4**	**4.1**	**0.9**	**7.3**	**2.1**	**3.0**	**1.0**	**1.7**	**2.0**
Residential investment	-0.1	3.7	-6.1	17.8	8.9	3.4	-2.1	-0.5	-1.1
Business investment*	12.0	3.9	-4.5	4.5	2.9	9.8	4.0	2.6	2.1
TOTAL INVESTMENT	**8.7**	**3.9**	**-4.9**	**7.8**	**4.5**	**8.0**	**2.4**	**1.8**	**1.3**
Stocks (contribution to GDP growth)	0.2	-0.5	-0.4	0.5	0.3	-0.3	0.0	-0.0	0.0
GROSS NATIONAL EXPENDITURE	**5.7**	**3.4**	**-1.0**	**7.9**	**3.1**	**4.2**	**1.3**	**1.7**	**1.8**
Exports	3.9	3.4	-5.0	-11.4	2.1	7.1	6.3	5.0	4.2
Imports	8.4	2.3	-5.9	-4.2	12.2	4.9	3.0	2.7	2.5
EXPENDITURE ON GDP	**4.6**	**3.7**	**-0.8**	**5.9**	**0.3**	**4.3**	**2.0**	**2.2**	**2.2**
GDP (PRODUCTION MEASURE)	**3.7**	**2.9**	**-1.4**	**5.1**	**0.8**	**4.9**	**2.2**	**2.3**	**2.3**
- annual % change, June quarter	3.7	2.2	-10.2	17.4	1.6	2.4	2.2	2.3	2.3
Other Output Measures									
Real Gross National Disposable Income	3.9	2.7	0.5	4.9	0.2	4.5	2.1	2.4	2.3
Nominal GDP (Expenditure Basis)	7.3	4.8	2.2	7.1	6.8	8.6	5.3	5.1	4.8
Potential GDP	2.9	2.6	-0.6	5.5	-0.3	4.6	2.6	2.7	2.7
Output gap (June qtr,% of potential)	1.3	1.0	-0.9	1.5	1.5	1.3	0.9	0.5	0.2
Total Population (thousands, mean quarter ended)	4,893	4,972	5,087	5,118	5,155	5,200	5,253	5,313	5,379
Real GDP per capita (Production basis)	1.7	1.2	-3.3	3.8	0.1	4.1	1.2	1.2	1.1
Labour Market									
Employment	3.6	2.0	1.6	0.7	3.7	0.9	0.9	1.1	1.2
Unemployment Rate (June quarter)	4.6	4.0	4.1	4.0	3.2	3.3	3.6	3.8	4.1
Labour Productivity (Hours worked basis)	-0.6	0.4	-0.2	1.6	1.6	0.4	1.4	1.2	1.1
Wages (QES average hourly ord time earnings, APC)	2.8	4.0	3.0	4.0	4.1	4.5	4.6	4.4	4.2
Monetary Conditions									
90-day Bank Bill Rate (June quarter ave)	2.0	1.7	0.3	0.3	2.0	3.2	3.1	3.1	3.1
10-year Bond Rate (June quarter ave)	2.8	1.8	0.8	1.7	2.6	2.9	3.2	3.4	3.4
TWI (June quarter ave)	73.8	72.7	69.7	74.7	77.2	78.3	78.7	78.9	78.9
- annual % change (June quarter)	-3.5	-1.5	-4.1	7.3	3.3	1.4	0.6	0.2	0.1
Price Measures									
CPI Inflation (ann % change, June quarter)	1.5	1.7	1.5	3.3	5.1	3.1	2.7	2.4	2.2
Consumption Deflator	1.3	1.6	1.9	1.4	4.5	3.5	3.2	2.8	2.6
GDP Deflator	2.6	1.1	3.0	1.1	6.5	4.1	3.2	2.8	2.5
House Price Inflation (ann % change, June qtr)	3.6	1.5	7.1	29.0	10.4	-0.2	-0.4	0.5	0.6
Key Balances									
Current account balance ($ million)	-10,219	-10,806	-4,695	-11,243	-20,879	-21,439	-20,084	-19,082	-18,470
Current account balance (% of GDP)	-3.5	-3.5	-1.5	-3.3	-5.8	-5.4	-4.8	-4.4	-4.0
Terms of Trade (goods) - SNA Basis	4.6	-3.4	4.4	-0.2	0.5	0.4	-0.4	-0.4	-0.4
Net International Investment Position (%GDP)	-52.2	-54.2	-57.2	-45.8	-48.6	-50.2	-52.5	-54.4	-55.9

* Total investment excluding residential

Table A2: Change in economic forecasts from preliminary forecasts, June years

June Years	**2018**	2019	2020	2021	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast
Private consumption	0.0	0.0	0.0	0.0	0.5	-0.7	-1.5	-0.4	0.0
Public consumption	0.0	0.0	0.0	0.0	-1.4	3.0	1.5	-0.2	-0.2
TOTAL CONSUMPTION	**0.0**	0.0	0.0	0.0	0.1	0.3	-0.8	-0.4	-0.0
Residential investment	0.0	0.0	0.0	0.0	6.0	-5.5	-4.2	-0.2	1.6
Business investment*	0.0	0.0	0.0	0.0	0.3	0.3	-0.5	-0.1	0.5
TOTAL INVESTMENT	**0.0**	0.0	0.0	0.0	1.8	-1.3	-1.5	-0.1	0.8
Stocks (contribution to GDP growth)	0.0	0.0	0.0	0.0	0.7	-0.5	-0.2	-0.0	0.0
GROSS NATIONAL EXPENDITURE	**0.0**	0.0	0.0	0.0	0.5	-0.1	-1.0	-0.3	0.2
Exports	0.0	0.0	0.0	0.0	-0.6	0.5	0.3	-0.0	0.1
Imports	0.0	0.0	0.0	0.0	4.0	-1.8	-1.7	-0.5	0.3
EXPENDITURE ON GDP	**0.0**	0.0	0.0	0.0	-0.1	0.1	-0.7	-0.2	0.1
GDP (PRODUCTION MEASURE)	**0.0**	0.0	0.0	0.0	0.1	0.2	-0.6	-0.2	0.1
- annual % change, June quarter	*0.0*	0.0	0.0	0.0	1.3	-1.3	-0.5	-0.0	0.2
Other Output Measures									
Real Gross National Disposable Income	0.0	0.0	0.0	0.0	-0.9	0.9	-0.4	0.1	0.3
Nominal GDP (Expenditure Basis)	0.0	0.0	0.0	0.0	0.9	1.8	-0.4	-0.2	0.2
Potential GDP	0.0	0.0	-0.0	0.1	-0.1	-0.0	-0.0	-0.1	-0.1
Output gap (June qtr,% of potential)	-0.1	-0.1	-0.1	-0.2	0.6	0.1	-0.4	-0.4	-0.0
Total Population (thousands, mean quarter ended)	**0**	**0**	**0**	**0**	**2**	**5**	**3**	**-5**	**-13**
Real GDP per capita (Production basis)	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.2**	**-0.6**	**-0.0**	**0.3**
Labour Market									
Employment	0.0	0.0	-0.0	-0.1	1.6	-0.5	-0.7	-0.3	-0.0
Unemployment Rate (June quarter)	0.0	-0.1	0.0	0.0	-0.5	-0.2	0.2	0.2	0.0
Labour Productivity (Hours worked basis)	-0.0	-0.0	0.0	0.1	0.4	-0.6	-0.0	0.1	0.0
Wages (QES average hourly ord time earnings, APC)	0.0	0.0	0.0	0.0	0.1	0.2	0.5	0.4	0.4
Unit Labour Costs (Hours worked basis)	0.0	0.0	-0.0	-0.1	-0.3	0.7	0.4	0.3	0.4
Monetary Conditions									
90-day Bank Bill Rate (June quarter ave)	0.0	0.0	0.0	0.0	0.8	1.3	0.3	-0.1	-0.2
10-year Bond Rate (June quarter ave)	0.0	0.0	0.0	0.0	0.3	0.4	0.4	0.3	0.3
TWI (June quarter ave)	0.0	0.0	0.0	0.0	0.2	1.3	1.7	1.9	1.9
- annual % change, June quarter	0.0	0.0	0.0	0.0	0.2	1.4	0.6	0.2	0.1
Price Measures									
CPI Inflation (ann % change, June quarter)	0.0	0.0	0.0	0.0	1.9	0.8	0.4	0.1	0.1
Consumption Deflator	0.0	0.0	0.0	0.0	1.5	0.9	0.4	0.1	0.0
GDP Deflator	0.0	0.0	0.0	0.0	1.0	1.6	0.2	-0.0	0.0
House Price Inflation (ann % change, June quarter)	0.0	0.0	0.0	-2.4	2.4	-6.8	-3.3	0.1	1.4
Key Balances									
Current account balance ($ million)	0	0	0	0	-6631	-3036	-672	658	920
Current account balance (% of GDP)	0.0	0.0	0.0	0.0	-1.8	-0.7	-0.1	0.2	0.3
Terms of Trade - SNA Basis	0.0	0.0	0.0	0.0	-3.8	4.5	0.3	0.1	0.1

* Total investment excluding residential

Table A3: Change in economic forecasts from BEFU 2021, June years

June Years	**2018**	2019	2020	2021	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast
Private consumption	0.0	-0.1	0.1	2.5	-1.8	0.5	-1.4	-0.4	NA
Public consumption	-0.0	0.0	0.1	2.7	1.8	0.4	-0.8	-1.2	NA
TOTAL CONSUMPTION	**0.0**	-0.0	0.1	2.5	-0.9	0.5	-1.3	-0.6	NA
Residential investment	0.0	0.0	-0.1	1.8	7.2	-1.8	-4.8	-3.1	NA
Business investment*	-0.2	-0.2	0.2	3.9	-2.2	0.4	-1.1	-1.0	NA
TOTAL INVESTMENT	**-0.2**	-0.1	0.1	3.4	0.3	-0.3	-2.1	-1.6	NA
Stocks (contribution to GDP growth)	-0.0	-0.0	0.0	0.2	0.0	-0.3	0.0	-0.0	NA
GROSS NATIONAL EXPENDITURE	**-0.0**	-0.1	0.1	2.8	-0.5	0.3	-1.5	-0.8	NA
Exports	-0.1	0.2	0.6	-1.1	-4.0	0.3	0.9	0.3	NA
Imports	-0.0	-0.1	0.1	0.8	1.5	-1.1	-1.0	-0.7	NA
EXPENDITURE ON GDP	**-0.1**	0.0	0.2	1.6	-1.6	0.5	-1.1	-0.6	NA
GDP (PRODUCTION MEASURE)	**0.0**	-0.0	0.4	2.2	-2.4	0.6	-1.1	-0.6	NA
- annual % change, June quarter	*-0.0*	-0.0	1.2	4.0	-3.2	-1.3	-1.0	-0.4	NA
Other Output Measures									
Real Gross National Disposable Income	-0.0	0.0	0.3	2.0	-3.4	0.3	-1.0	-0.6	NA
Nominal GDP (Expenditure Basis)	-0.1	0.0	0.2	1.5	2.2	2.3	-0.4	-0.4	NA
Potential GDP	-0.0	-0.0	0.4	-0.3	-2.8	2.1	-0.0	-0.0	NA
Output gap (June qtr,% of potential)	-0.1	-0.1	-0.2	4.6	2.3	1.0	0.1	-0.2	NA
Total Population (thousands, mean quarter ended)	**0**	**0**	**-3**	**-8**	**-13**	**-19**	**-26**	**-34**	**NA**
Real GDP per capita (Production basis)	**0.0**	**-0.0**	**0.4**	**2.3**	**-2.3**	**0.7**	**-0.9**	**-0.4**	**NA**
Labour Market									
Employment	-0.0	0.0	-0.1	0.5	2.3	-1.5	-1.0	-0.7	NA
Unemployment Rate (June quarter)	0.1	0.0	0.1	-1.2	-1.8	-1.1	-0.5	-0.3	NA
Labour Productivity (Hours worked basis)	-0.0	-0.0	0.4	1.8	-1.0	-1.6	-0.1	0.0	NA
Wages (QES average hourly ord time earnings, APC)	-0.2	-0.4	-0.0	0.5	1.1	2.1	1.8	1.2	NA
Unit Labour Costs (Hours worked basis)	-0.2	-0.1	-0.7	-1.5	1.7	3.7	2.0	1.4	NA
Monetary Conditions									
90-day Bank Bill Rate (June quarter ave)	0.0	0.0	0.0	0.0	1.7	2.9	2.8	2.3	NA
10-year Bond Rate (June quarter ave)	0.0	0.0	0.0	-0.0	0.4	0.5	0.5	0.5	NA
TWI (June quarter ave)	0.0	0.0	0.0	0.2	2.7	3.8	4.0	3.8	NA
- annual % change, June quarter	0.0	0.0	0.0	0.3	3.3	1.4	0.3	-0.3	NA
Price Measures									
CPI Inflation (ann % change, June quarter)	0.0	0.0	0.0	1.0	3.4	1.3	0.7	0.3	NA
Consumption Deflator	-0.0	0.0	-0.0	0.2	3.0	1.4	0.7	0.3	NA
GDP Deflator	-0.0	0.0	-0.0	-0.1	3.8	1.7	0.6	0.2	NA
House Price Inflation (ann % change, June quarter)	0.0	0.0	0.3	11.8	9.4	-2.3	-2.5	-2.0	NA
Key Balances									
Current account balance ($ million)	458	830	982	-2247	-9054	-8476	-6981	-6196	NA
Current account balance (% of GDP)	0.2	0.3	0.3	-0.6	-2.4	-2.0	-1.5	-1.3	NA
Terms of Trade - SNA Basis	-0.0	0.1	-0.2	-0.5	-0.5	1.3	-0.0	-0.1	NA

* Total investment excluding residential