The Treasury

Budget 2022 Information Release

August 2022

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[38] 9(2)(j) - to enable the Crown to negotiate without disadvantage or prejudice

[39] 9(2)(k) - to prevent the disclosure of official information for improper gain or improper advantage

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TE TAI ŌHANGA
THE TREASURY

Treasury Report: HYEFU 2021 Preliminary Economic and Tax Forecasts

Date:	15 October 2021	**Report No:**	T2021/2525
		File Number:	BM-3-6-1

Action sought

	Action sought	Deadline
Hon Grant Robertson **Minister of Finance**	**Note** preliminary economic forecasts for HYEFU 2021 show an economic outlook that is stronger than BEFU 2021, resulting in an upward revision in core Crown tax revenue of $36.4 billion over the four years to June 2025.	Weekly Agency Meeting of week beginning 25 October.

Contact for telephone discussion (if required)

Name	Position		Telephone	1st Contact
Andrew Kennedy	Analyst, Forecasting	[39]	N/A (mob)	✓
Nairn MacGibbon	Acting Team Leader, Forecasting		N/A (mob)	

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 Preliminary Economic and Tax Forecasts

Executive Summary

New Zealand's economic performance has been strong since the publication of the Budget Economic and Fiscal Update (BEFU) 2021, reflecting that the economy has been more adaptable and resilient to the COVID-19 pandemic than previously thought. Robust demand throughout the first half of 2021 has catalysed broad-based growth, with stronger-than-expected real production GDP, tax revenues exceeding forecasts, and the unemployment rate dropping to pre-Global-Financial-Crisis (pre-GFC) levels.

The Delta outbreak beginning August 2021 is expected to weaken this position in the September quarter, though we anticipate a relatively swift recovery in activity with only a small degree of scarring as restrictions ease. Accordingly, annual real GDP growth is forecast to peak in 2023, underpinned by positive growth in consumption and investment that is supported by low unemployment, buoyant house prices, and the gradual re-emergence of international tourism.

This increase in real activity, in combination with higher inflation, translates to nominal GDP being \$13.1 billion higher by the year to June 2025 and a cumulative \$54.2 billion over the forecast period. This is the main driver of the additional \$36.4 billion in core Crown tax revenue across the four years to June 2025.

COVID-19 has equally impacted the supply side, offsetting the disinflationary pressures from activity disruptions. Compounded by persistent domestic demand, supply-side pressures relating to labour/skills shortages, capacity constraints, and supply-chain disruptions will increase inflationary pressures, resulting in consumer price inflation peaking at 4.1% in the December 2021 quarter. In response, the Reserve Bank of New Zealand is expected to continue to gradually tighten monetary policy to bring inflation within the 1-3% target band which will also moderate house price growth over the medium term.

The labour market has been remarkedly resilient and is expected to persist in a state of tightness, with firms reporting record-high difficulty finding skilled labour and near record-high difficulty finding unskilled labour in the September 2021 quarter. Unemployment is consequently expected to continue to fall to 3.4% in the December 2023 quarter before rising towards 4.0% by the end of the forecast period, and employment is expected to continue to exhibit quarter-on-quarter growth; both of which will exert upward pressure on wage inflation and labour costs.

The global economic recovery has lost some momentum due to the emergence of Delta and ongoing supply-chain disruptions but remains more positive than in BEFU 2021 due to vaccination, policy support, savings drawdown, and the reopening of economic activity. A rise in export prices is forecast to boost the terms of trade in the short term, but declining export prices alongside persistently higher import prices will lead to a lower terms of trade in the medium term compared to BEFU 2021.

The economic forecasts are dependent on some key assumptions. For example, public health restrictions and behavioural responses to COVID-19 are assumed to impact activity to an extent similar to Alert Level 2 until 1 July 2022; the international border is assumed to have a gradual and phased reopening from 1 July 2022; and potential output has been revised lower to account for ongoing disruptions and behavioural shifts related to the pandemic. Significant deviation from these assumptions – either on the upside or downside – would change the underlying fundamentals of the forecast, as would the realisation of key risks such as the advent of a more communicable or lethal coronavirus.

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

Year to June		2021 Actual	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast
Real GDP (AAPC)	Preliminary HYEFU 2021	5.1	0.7	4.7	2.8	2.5	2.2
	BEFU 2021	2.9	3.2	4.4	3.3	2.9	
Unemployment Rate	Preliminary HYEFU 2021	4.0	3.7	3.5	3.4	3.6	4.0
	BEFU 2021	5.2	5.0	4.4	4.2	4.2	
CPI Inflation (APC)	Preliminary HYEFU 2021	3.3	3.2	2.3	2.4	2.3	2.1
	BEFU 2021	2.4	1.7	1.8	2.0	2.1	
Nominal GDP ($billion)	Preliminary HYEFU 2021	339.7	359.7	384.2	406.1	427.5	447.3
	BEFU 2021	334.4	349.7	371.7	392.9	414.4	
	Change	5.3	9.9	12.6	13.2	13.1	
Core Crown tax revenue ($billion)	Preliminary HYEFU 2021	97.9	101.0	109.7	116.9	124.0	131.1
	BEFU 2021	91.5	93.2	101.7	107.1	113.2	
	Change	6.4	7.8	8.0	9.8	10.8	

Recommended Action

We recommend that you:

a **note** the Treasury's preliminary Half-Year Economic and Fiscal Update (HYEFU) 2021 economic forecasts show an economic outlook that is stronger than the BEFU 2021 forecasts. This represents the stronger-than-expected demand in early 2021 and the speed and magnitude of the expected rebound from the Delta outbreak;

b **note** that, in line with the economic forecasts, tax revenues are higher than in BEFU 2021. In total across the four years to June 2025, core Crown tax revenues forecasts are $36.4 billion higher than in BEFU 2021; and

c **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 it's forecasts.

Nairn MacGibbon
Acting Team Leader, Forecasting

Hon Grant Robertson
Minister of Finance

Treasury Report: HYEFU 2021 Preliminary Economic and Tax Forecasts

Purpose and context of report

1. This report provides an overview of the Treasury's preliminary economic and tax forecasts for HYEFU 2021. These economic and tax forecasts underpin the preliminary fiscal forecasts currently being compiled.

2. Based on these preliminary forecasts, you will receive advice on your fiscal strategy for the Budget Policy Statement 2022 (BPS) on 22 October (T2021/2424). Following discussion with you at Budget Matters on 28 October, we will provide further advice alongside preliminary fiscal forecasts to seek confirmation of budget allowances for communicating at the BPS. As noted in relation to the HYEFU 2021 and BPS timelines (T2021/2156 refers), we require your decisions on allowances by 8 November so that these can be incorporated into a consistent set of final HYEFU 2021 economic and fiscal forecasts.

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

Key assumptions underpinning the economic forecasts

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

5. **Public health restrictions and behavioural responses to COVID-19 are assumed to impact activity to a similar extent as Alert Level 2 until 1 July 2022.** Imbedded in this is the assumption that the vaccine rollout has been completed by 1 July 2022.

6. **Potential output has been revised lower** in the forecast period by 0.5% (Figure 1). This change from BEFU 2021 accounts for ongoing disruptions related to the pandemic, elevated public health restrictions over the medium term, the risk of further episodes, and relatively fewer hours worked and lower productivity levels owing to sickness.

Figure 1: Potential Output

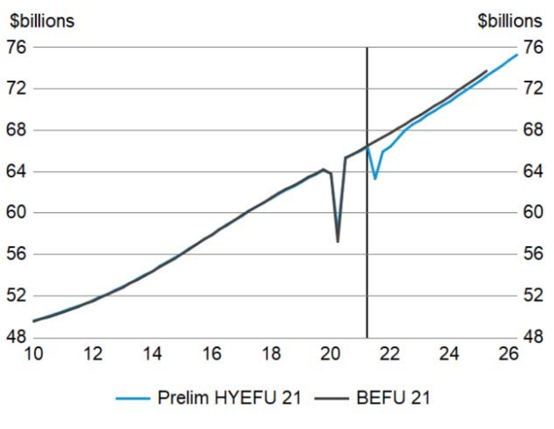
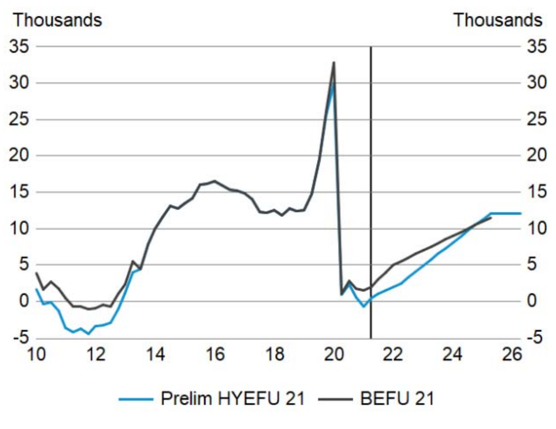


Figure 2: Net Migration



7. **The international border is assumed to have a gradual and phased reopening from 1 July 2022 until the end of the forecast period.** This differs from the working assumption in BEFU 2021 where border restrictions were assumed to ease from 1 July 2021 and to be removed from 1 January 2022.

8. Annual net migration is assumed to gradually rise from approximately 1,300 in the September 2021 quarter to be above 30,000 in the June 2024 quarter and to subsequently reach 48,400 by the end of the forecast period (Figure 2). This puts the net **migration pathway lower than assumed at BEFU 2021** and, at the end of the forecast period, is still more than 10,000 people shy of the approximate 60,000 average annual net migration between 2016 and 2020.

9. **Fiscal support has increased by a net $10 billion** relative to BEFU 2021, comprising an additional $7 billion in the COVID Response and Recovery Fund and a $3 billion underspend being pulled into the forecast period. This fiscal support is anticipated to fund the public health response, vaccine rollout, Reconnecting New Zealand programme, and future business/income supports. In this regard, the addition fiscal stimulus partially offsets the impact of higher average Alert Levels over the medium term and the increased likelihood of added disruption due to the Delta strain or emerging variants.

Economic outlook

Following strong demand in early 2021, a rapid rebound from Delta is expected …

10. Since the publication of BEFU 2021, data outturns have repeatedly demonstrated that **the New Zealand economy has been more adaptable and resilient to the COVID-19 pandemic than forecast.** This performance has been broad-based, with the unemployment rate dropping below pre-pandemic levels in the 2021 June quarter, robust demand leading to stronger-than-expected real production GDP growth, and tax revenue exceeding forecasts.

11. **The Delta outbreak from August 2021 and return to Alert Level 4 restrictions is expected to weaken this economic position, but not anywhere near to the extent of the 2020 lockdown.** Consumer and business confidence have only fallen mildly during the Delta outbreak; the labour market has remained very tight with firms continuing to report extreme difficulty finding skilled and unskilled labour; and economic activity, as measured by the New Zealand Activity Index, fell only a fraction of the 2020 Alert Four Period.

12. To this extent, the Delta outbreak from August 2021 is forecast to decrease real production GDP by 6.0% in the September quarter. This decline in activity reflects the amount of time within the quarter spent at Alert Levels 4,3, and 2, as well as the spillover effect on regions outside Auckland when Auckland was at relatively higher Alert Levels. The timing of the Delta outbreak from August 2021 means that the impact on real GDP growth is not discernible on an annual basis until the year to June 2022 where growth slows to 0.7%, down from 5.1% in 2021.

… with the bounce back in demand followed by strong but moderating growth …

13. Based on the experience from 2020 and the strength of the economy preceding the Delta outbreak**, we expect economic activity to bounce back quickly from the forecast contraction in the September 2021 quarter.** High-frequency data suggests that economic activity has already rebounded at Alert Level 2. Outside of Auckland, for instance, electronic card spending is already higher than 2019 levels and heavy traffic volumes are slightly above their pre-Delta outbreak levels.

14. Owing to this rebound, **annual real GDP growth is forecast to peak again at 4.7% in the June 2023 quarter** – reflecting both the recovery from the recent lockdown period combined with the gradual re-emergence of international tourism – before steadily declining to 2.2% in 2026 following the gradual tightening of monetary policy. This results in real production GDP being slightly higher than forecast in BEFU 2021 until the March 2024 quarter, after which real production GDP is lower than the BEFU 2021 forecast (Figure 3).

15. Following a substantial 5.6% rise in the March quarter and offsetting 1.4% fall in the June quarter, **private consumption is expected to fall 5.7% in the September quarter due to the effects of lockdown, followed by a 6.8% rebound** in the December quarter (Figure 4). Household spending is expected to bounce back as restrictions on activity ease, supported by resilient consumer confidence, fiscal support, and pent-up demand coming out of lockdown. We expect rising house prices together with strong household incomes and low unemployment to support consumption over the medium term.

Figure 3: Real GDP

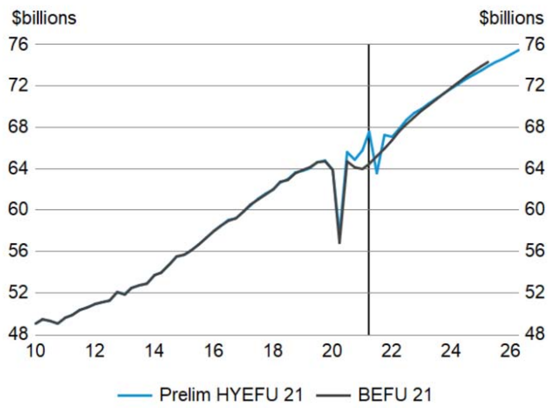
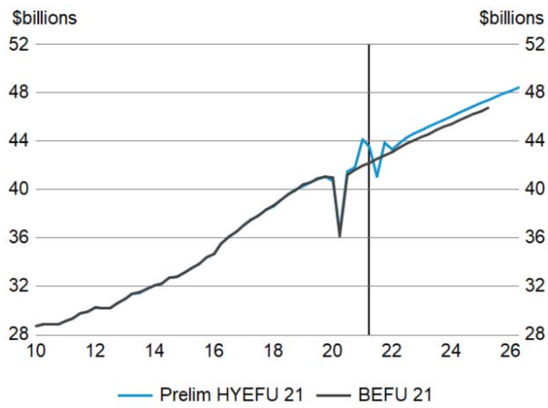


Figure 4: Real Private Consumption



16. **Quarterly business investment growth is forecast to peak in 2022,** following a 5.5% fall in the September quarter and return to 2019 levels in the December quarter with an 8.0% rebound. Business confidence waned during August and September on account of the Delta outbreak, but businesses are significantly less pessimistic than they were during last year's lockdown, evidenced by firms' own activity indicators continuing to improve in the September quarter. Elevated cost pressures and expectations that demand will remain resilient are leading to inflationary pressures, although cost and price pressures appear to be initially easing in most sectors, apart from construction. Heightened uncertainty together with a lack of specialised skills and travel restrictions owing to the closed border are holding back investment for some firms; however, a strong pipeline of Government infrastructure projects is expected to support investment.

… increasing inflationary pressures due to capacity constraints …

17. The strength in demand so far across 2021, expected recovery from the Delta outbreak, and continued supply-chain disruption has resulted in an **upward shift in the consumers price index (CPI) inflation profile across the forecast period** compared to BEFU 2021. Annual CPI inflation exceeded market expectations in the June 2021 quarter, jumping to a ten-year high of 3.3%. This increase was broad-based across most classes of expenditure, with housing construction cost increases contributing to almost a third of the quarterly movement.

18. **The impacts of the COVID-19 pandemic have equally been supply side as they have been demand side.** In virtue of this, the reduction in aggregate demand related to higher Alert Level restrictions has not been associated with as much downward pressure on inflation as it would in a traditional downturn. It has instead been offset by upward inflationary pressures stemming from more persistent supply constraints. Increases in fiscal stimulus outside of higher Alert Levels, however, have exerted inflationary pressures as usual by increasing aggregate demand.

19. **Annual CPI inflation is forecast to peak at 4.1%** in the December 2021 quarter before declining toward the 2.0% mid-point of the Reserve Bank's target range over the remainder of the forecast period (Figure 5). Outside of the inflationary pressure from resilient demand over the forecast period, this elevation in inflation is being driven by cost pressures relating to labour/skills shortages, capacity constraints, and supply-chain disruptions which will likely persist over the coming quarters; the latter of which we expect to ease next year resulting in slightly lower tradables inflation. Other pressures are anticipated to be transitory, such as petrol and food prices.

… resulting in gradual interest rate hikes …

20. In response to the strength in demand and inflation exceeding the target band, the **Reserve Bank of New Zealand (RBNZ) has tightened monetary policy** since BEFU 2021 **and we expect this trend to continue** over the forecast period. In July 2021, the RBNZ halted the Large-Scale Asset Purchases programme and, having delayed raising the Official Cash Rate (OCR) due to the Delta outbreak, increased the OCR from 0.25% to 0.50% in October. We expect interest rates will continue to rise to bring inflation back towards the RBNZ's 2.0% target midpoint – in line with financial market expectations foreseeing the OCR to reach around 1.5% by the end of 2022 – with the 90-day rate rising to 3.3% by June 2026, roughly equivalent to an OCR of 3.0% (Figure 6).

Figure 5: CPI inflation

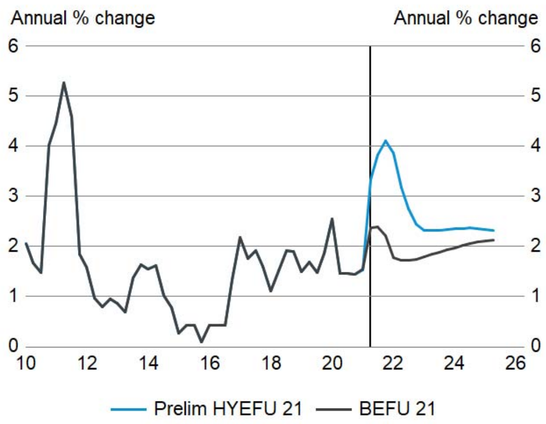
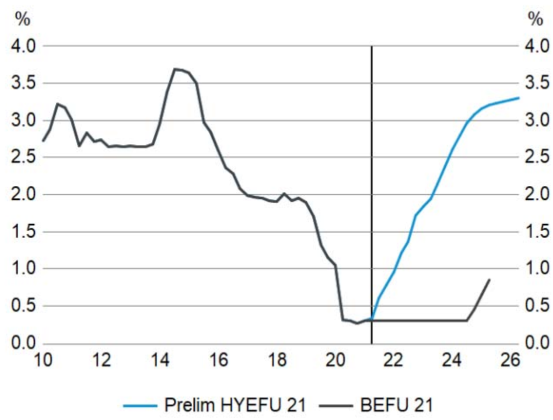


Figure 6: 90-day interest rates



… which are anticipated to cool the housing market over the medium term …

21. **House prices have continued to rise rapidly** since the finalisation of the BEFU 2021 forecasts. Monthly growth in the Real Estate Institute of New Zealand House Price Index peaked at 3.6% in February – the highest monthly growth since 1996 – and has since remained elevated averaging 1.9% per month through to September. This historically strong growth over the last year can be attributed mainly to persistently low interest rates. While restrictions on activity in August has led to fewer house sales, housing market activity is expected to rebound as restrictions ease, with industry

representatives indicating that some buyers have chosen to delay market activity until they are able to view properties in person again.

22. **Compared to BEFU 2021, house prices are forecast to rise at a faster, albeit diminishing, rate,** with peak annual growth in the June 2021 quarter abating to a very slight fall at the end of the forecast period (Figure 7). These dynamics are primarily governed by changes to monetary policy settings. Low interest rates, resilient consumer confidence, and continued robustness in the labour market are expected to initially sustain house price growth; however, with interest rates rising and tighter loan-to-value ratio restrictions for owner occupiers in effect from 1 November 2021, house price growth is expected to ease over the forecast period.

Figure 7: House prices

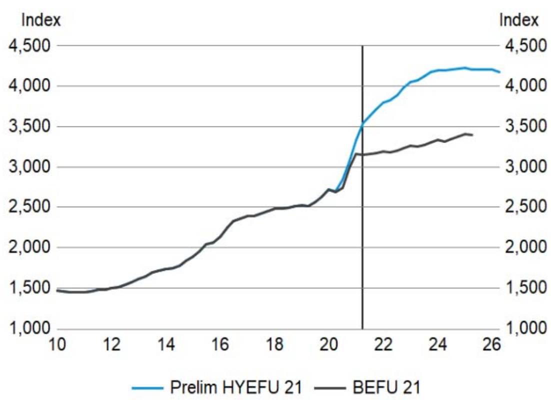
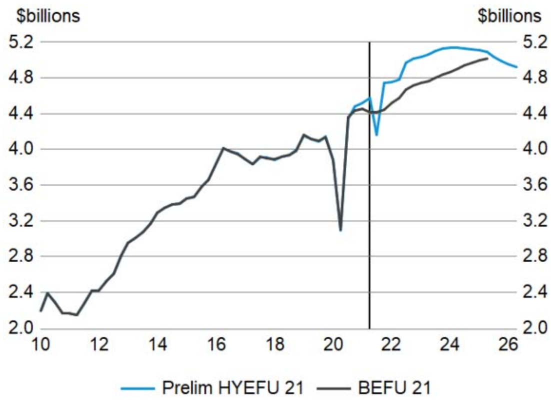


Figure 8: Residential investment



23. 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.

24. Residential investment grew 1.3% in the June 2021 quarter but is expected to fall 9.1% in the September quarter as a result of the Delta outbreak (Figure 8). Record-high building consents issuance over the past year is expected to support construction activity over the year ahead, although capacity constraints will hinder growth. **Continued high house prices will contribute to a sustained high level of residential investment activity,** but rising interest rates and relatively low population growth will dampen investment over time. The effects of the 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 over the year ahead could lead to an increase in investment activity before the effects of lower housing demand stabilise activity.

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

25. **The labour market has been remarkably resilient over the last 18 months and, despite the Delta outbreak, is currently characterised by a state of tightness.** The unemployment rate has continued to fall from its peak in the September 2020 quarter, dropping to pre-GFC levels in the June quarter at 4.0%. This relatively low peak and subsequent prompt decline can, at least in part, be credited to the COVID-19 policy response which buttressed demand and preserved attachment to the labour market, which in turn created the conditions for people who initially became displaced to quickly find another job.

26. Likewise, employment continues to increase and, due to constrained labour supply from closed borders, the **Quarterly Survey of Business Opinion (QSBO) reported record-high difficulty finding skilled labour and near-record difficulty finding unskilled labour** in the September quarter (Figure 9). This is particularly pronounced in sectors experiencing substantive demand pressures, such as construction. There is little sign of these pressures easing in the short term: in the September quarter QSBO, a net 42% of businesses planned to increase headcount in the next quarter.

27. Given this tightness in the labour market and absence of short-term opportunities to increase labour supply, **the unemployment rate profile has been revised downward across the forecast period,** dropping to 3.4% in the December 2023 quarter before rising to 4.0% at the end of the forecast period (Figure 10). Similarly, **employment is expected to continue to grow quarter-on-quarter,** with the rate of annual average growth moderating to around 1.5% from the June 2023 quarter. In turn, this persistent tightness in the labour market is expected to catalyse wage growth and increase labour force participation. Annual wage growth is forecast to reach an apex of 4.5% in the December 2022 quarter and remain elevated above 4.0% for the majority of the forecast period, while labour force participation increases to around 70.9% from the March 2024 quarter.

Figure 9: QSBO difficulty finding labour

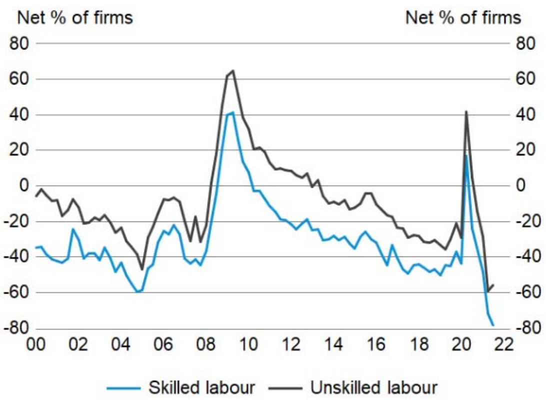
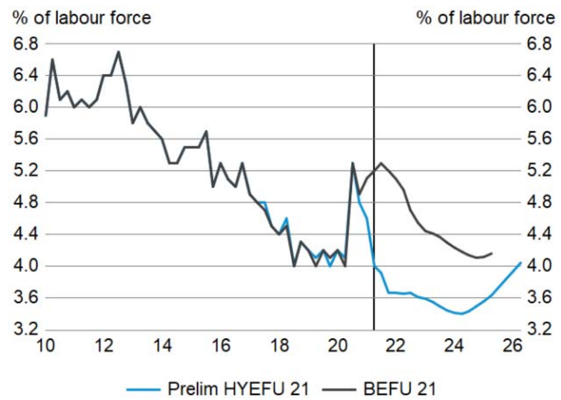


Figure 10: Unemployment rate



The global economic recovery has lost some momentum but remains positive …

28. **The international COVID-19 outlook has continued to improve since BEFU 2021,** supporting the economic performance of New Zealand's key trading partners. This is primarily due to the global vaccine rollout and subsequent relaxing of public health restrictions, such as in the United Kingdom, leading to a shift towards living with the virus. The emergence of the Delta variant, however, has weakened the global health position and resulted in differing approaches to manage the severe outbreaks experienced across various parts of the world. In China, for instance, ongoing lockdowns are being used to control Delta, whereas the United States has continued to gradually reopen and ease restrictions.

29. **There is growing concern that international vaccination rates are plateauing at levels well below required for herd immunity,** leading to weaker growth of New Zealand's key trading partners (Figure 11). As of 13 October 2021, Our World in Data show that the total percentage of the population fully vaccinated against COVID-19 was 53.0% in Australia, 55.9% in the United States, and 66.3% 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.

Figure 11: People fully vaccinated

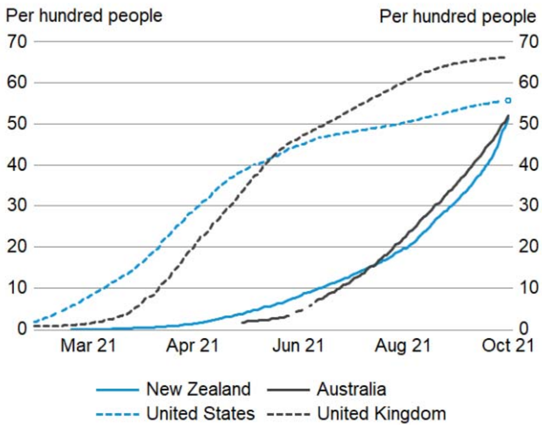
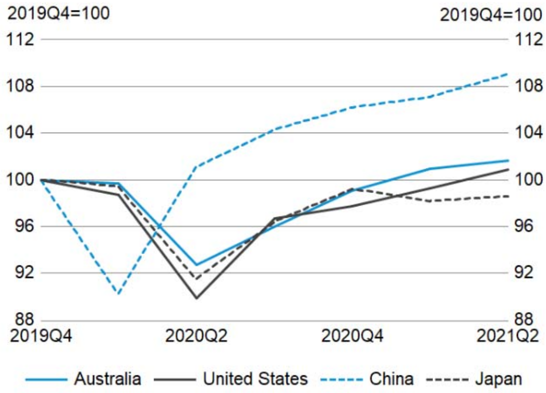


Figure 12: Real GDP in selected countries



30. **The global economic recovery has lost some momentum due to the emergence of Delta and ongoing supply-chain disruptions but remains more positive than in BEFU 2021** due to vaccination, policy support, savings drawdown, and the reopening of economic activity (Figure 12). Growth in real GDP in the United States and China has slowed due to Delta outbreaks, and Australia is expected to contract in the September 2021 quarter but bounce back relatively quickly in 2022.

31. **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 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 communicated an earlier start to tapering their quantitative easing programmes.

… supporting higher commodity export prices and the terms of trade in the short term

32. Despite the slowdown in global growth, **demand for New Zealand's goods exports is expected to remain strong. Global supply-chain disruption is causing challenges for exporters and is expected to have lingering impacts,** with real goods exports now forecast to be 1.1% lower in 2025 compared to BEFU 2021. Services exports are forecast to begin to recover from the second half of 2022 in line with the Reconnecting New Zealand plan. The return of international visitors, however, is likely to be more gradual compared to BEFU 2021 as a result of the worldwide spread of the Delta variant.

33. **Goods import volumes are expected to be subdued over the next few quarters as global supply-chain disruption continues** and ongoing public health restrictions weaken the New Zealand economy. In the medium term, widespread vaccination allows for a steady recovery in private consumption and business investment, resulting in a similar outlook to BEFU 2021.

34. **Commodity export prices have risen to record highs,** driven by the global economic recovery as well as stockpiling behaviour from buyers motivated by supply-chain

concerns. Prices are expected to ease over 2022 as global agricultural supply recovers and global demand normalises.

35. **The rise in export prices is forecast to boost the terms of trade,** though higher import prices driven by supply-chain disruption will hold back the increase to some extent. The terms of trade are expected to fall next year as export prices ease, with persistently higher import prices causing the terms of trade to be lower in the medium term compared to BEFU 2021 (Figure 13).

36. **The current account deficit is forecast to be wider compared to BEFU 2021,** reaching 4.8% of annual GDP in 2023 before beginning to narrow. This is driven by the slower recovery in services exports and the weaker income balance resulting from higher interest rates increasing debt-servicing costs.

Figure 13: Terms of Trade

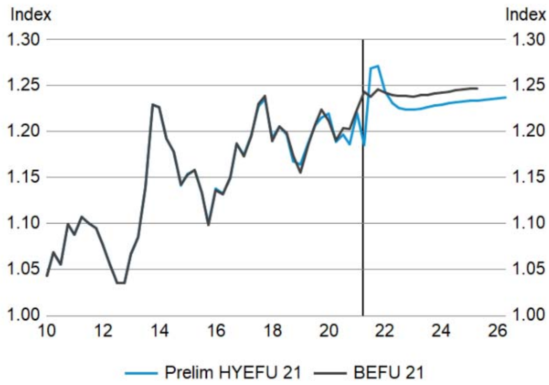
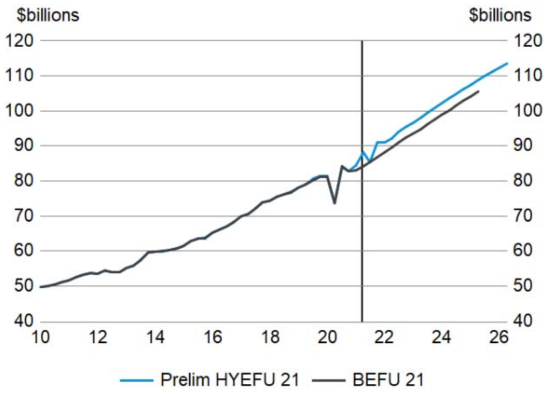


Figure 14: Nominal GDP



Higher inflation over the forecast period translates to higher nominal GDP

37. In the near term, higher real activity and higher prices are expected to provide a boost to nominal GDP. **In the year to June 2021, nominal GDP was $5.3 billion higher than forecast in BEFU 2021. This is forecast to rise to $9.9 billion and $13.1 billion above BEFU 2021 in the 2022 to 2025 June years, respectively, culminating in an additional $54.2 billion over the forecast period (Figure 14).** By the year to June 2025, higher nominal GDP is solely the result of higher prices in the economy.

Tax outlook

38. Higher forecasts of nominal GDP and stronger-than-anticipated tax outturns in recent months are the main drivers of increased tax revenue over the forecast period**. Core Crown tax revenue forecasts have increased by $36.4 billion across the four years to June 2025 compared to BEFU 2021 (Table 2).**

39. Much of the forecast increase in tax has come from the upward revision to nominal GDP forecasts. Moreover, to align the tax forecasts with recent tax outturns, the forecast contains some of the positive tax adjustments from previous forecasts.

Table 2: Estimated change in core Crown tax revenue since 2021 BEFU[1]

June years, $ billions	2022	2023	2024	2025	2026	Totals
2021 Budget Update	93.2	101.7	107.1	113.2		
% of GDP	26.6	27.4	27.3	27.3		
Forecasting changes by tax type:						
Source deductions	+1.9	+2.5	+3.4	+4.2		+12.0
Net other persons tax	+2.3	+1.7	+1.9	+2.0		+7.9
Corporate tax	+2.8	+1.7	+1.6	+1.6		+7.7
GST	+0.6	+1.6	+1.8	+1.9		+5.9
Resident withholding taxes	-	+0.1	+0.3	+0.3		+0.7
All other taxes	+0.1	+0.2	+0.4	+0.3		+1.0
Total forecasting change	**+7.7**	**+7.8**	**+9.4**	**+10.3**		**+35.2**
Policy changes	+0.1	+0.2	+0.4	+0.5		+1.3
Total change	**+7.8**	**+8.0**	**+9.8**	**+10.8**		**+36.4**
2021 Half-year Update (prelim)	**101.0**	**109.7**	**116.9**	**124.0**	**131.1**	
% of GDP	28.1	28.6	28.8	29.0	29.3	

40. **Increases in the forecasts of nominal GDP and its components add $27.3 billion to tax revenue over the forecast period.** In addition to this, tax revenue outturns for the two months up to August 2021 are close to $1.9 billion above the BEFU 2021 forecasts, further suggesting that the economy was stronger than anticipated prior to the Delta outbreak.

Comparison to bank forecasts

41. The **Treasury's preliminary HYEFU forecasts are generally concordant with the latest forecasts of the major domestic banks.** Bank forecasters, on average, are slightly more optimistic about GDP growth over the near term, but this is offset by weaker growth expectations in the medium term. In contrast, Treasury's forecasts of the unemployment rate are lower than consensus over the forecast period, reflecting that the Treasury expects greater persistence of labour market tightness in the absence of reforms that proportionately increase labour supply. Likewise, Treasury forecast higher house price growth than the bank consensus over the short term given the expected resilience in demand. Inflation forecasts are comparable to the bank consensus forecasts, with high inflation in 2022 easing to just over 2% in the medium term.

Risks to the central forecasts

42. **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.**

43. **The central forecasts assume public health restrictions to broadly average Alert Level 2** until 1 July 2022. Future community outbreaks of COVID-19 that necessitate

[1] The unconsolidated tax revenue forecasts were completed on 14 October. Since the Crown eliminations forecasts (used for calculating core Crown and total Crown measures of tax) are not yet available, all numbers in Table 2 should be regarded as approximate.

the reinstatement of higher Alert Levels will likely lead to further declines in economic activity and, depending on frequency and length, have long-term scarring effects.

44. Parallel to the Alert Level assumptions, the vaccine programme is assumed to be complete by 1 July 2022. **If the vaccine rollout takes longer to inoculate a sufficient proportion of the population, border restrictions and Alert Level 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.

45. **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 multiple quarters 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.

46. **Disruptions related to supply chains are expected to subside by the end of 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.

47. Annual net migration is assumed to gradually rise from approximately 1,300 in the September 2021 quarter to be above 30,000 in the June 2024 quarter and to subsequently reach 48,400 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 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

(Annual average percent change, unless specified otherwise)

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 BEFU 2021, June years

(Annual average percent change, unless specified otherwise)

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