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

[40] Out of Scope

[41] 18(c)(i) - that the making available of the information requested would be contrary to the provisions of a specified enactment

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TE TAI ŌHANGA
THE TREASURY

Treasury Report: BEFU 2022 Final Economic and Tax Forecasts

Date:	6 April 2022	**Report No:**	T2022/688
		File Number:	BM-3-6-1

Action sought

	Action sought	Deadline
Minister of Finance Hon Grant Robertson	**Note** the final BEFU 2022 economic and tax forecasts show real economic activity remains similar on average to the preliminary forecasts but is expected to be more cyclical. Nominal GDP is cumulatively $25.6 billion higher across the forecast period, owing to higher and more persistent inflation, while tax revenue is $10.4 billion higher.	None

Contact for telephone discussion (if required)

Name	Position	Telephone		1st Contact
Henry Russell	Graduate 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: BEFU 2022 Final Economic and Tax Forecasts

Executive Summary

The New Zealand economy has remained resilient despite the impacts of COVID-19. Near-term economic activity is a little stronger than in the preliminary Budget Economic and Fiscal Update (BEFU) forecasts, reflecting the 3.0% growth in December quarter GDP as activity recovered from Delta-induced disruption. Nonetheless, Omicron will dampen growth over the first half of 2022, including into the June quarter given the persistence of high case numbers, causing disruption to labour supply from worker absenteeism.

Inflation remains the key challenge to the economic outlook with continued domestic supply constraints and ongoing COVID-19 disruptions to international supply channels, compounded by the external negative supply shock from the Ukraine crisis, causing higher and more persistent inflation. Annual Consumers Price Index (CPI) Inflation is now forecast to peak at 6.7% across the first half of 2022. This necessitates a stronger monetary policy response, as well as placing greater pressure on household budgets.

It is probable that the Official Cash Rate will rise to a higher level than anticipated in the preliminary BEFU forecasts, with 90-day interest rates forecast to reach 2.9% by the end of 2022, and 3.6% by the end of 2023. As monetary policy becomes tighter it will dampen economic activity.

An exceptionally tight labour market is exacerbated by Omicron-related absenteeism. The gradual forecast increase in net migration as the border reopens helps ease supply constraints, while weaker activity arising from higher interest rates flows through to **a rising unemployment rate which is anticipated to peak at 4.8% in 2025.**

Both the current tightness in the labour market and high inflation are putting considerable pressure on wages and we see annual nominal wage growth peaking above 6% in 2023. Despite strong wage growth in the medium term, inflation continues to outpace wages across 2022. Real wages decline further in 2022, only recovering to 2020 levels by 2024.

Household spending comes under pressure as wages initially do not keep pace with inflation and as higher interest rates see further declines in house prices. **Relatively robust near-term activity gives way to a softer outlook** reflecting higher interest rates, while government consumption also declines as COVID-19-related government spending comes to an end and rising costs eat into the level of real spending.

The global economic outlook has worsened, reflecting continued inflationary pressure compounded by the impacts of the Ukraine crisis. Central banks are increasingly focused on policy tightening globally, which will slow growth. High commodity prices help to boost export revenues and New Zealand's terms of trade in the near term, though broad-based global inflation sees high import prices persist for longer.

Overall, while real activity remains on average similar to that in the preliminary BEFU forecasts, higher and more persistent inflation sees **nominal GDP cumulatively $25.6 billion higher across the forecast period**. This drives **higher tax revenue forecasts of $10.4 billion.**

Table 1: Forecast summary

Year to June		2021	2022	2023	2024	2025	2026
Real GDP (AAPC)	BEFU 2022	5.3	1.7	4.2	0.7	1.6	2.5
	Prelim BEFU 2022	5.4	0.7	4.0	2.1	2.3	2.5
Unemployment Rate	BEFU 2022	4.0	3.1	3.3	4.4	4.8	4.7
	Prelim BEFU 2022	4.0	3.1	3.4	3.8	4.0	4.1
CPI Inflation (APC)	BEFU 2022	3.3	6.7	5.2	3.6	2.7	2.2
	Prelim BEFU 2022	3.3	5.9	3.8	3.1	2.6	2.2
Nominal GDP ($bn)	BEFU 2022	342.6	362.4	401.5	421.0	441.3	464.0
	Prelim BEFU 2022	342.0	360.2	393.1	415.2	437.0	459.1
	Change	0.5	2.2	8.4	5.8	4.3	5.0
Core Crown Tax Revenue ($bn)	BEFU 2022	98.0	103.5	116.5	123.3	130.6	138.7
	Prelim BEFU 2022	98.0	102.4	114.2	121.0	128.4	136.2
	Change		1.1	2.3	2.3	2.2	2.5

Recommended Action

We recommend that you:

a) **Note** that the final BEFU 2022 economic and tax forecasts show real economic activity remains broadly similar to the preliminary BEFU forecasts but is expected to be more cyclical, though nominal GDP is cumulatively $25.6 billion higher across the forecast period, owing to higher and more persistent inflation;

b) **note** that the unemployment rate forecast, while remaining low in the near term, rises to a peak of 4.8% across 2025, as persistent inflation and tighter monetary policy weigh on economic activity;

c) **note** that core Crown tax revenues are $10.4 billion higher across the forecast period, driven by higher nominal GDP;

d) **Note** that uncertainty around the economic outlook remains high, particularly in the short term due to Omicron and geopolitical tensions; 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

Hon Grant Robertson

Minister of Finance

Treasury Report: BEFU 2022 Final Economic and Tax Forecasts

Purpose of Report

1. This report provides an **overview of the Treasury's final economic and tax forecasts for BEFU 2022**. These economic forecasts underpin the final fiscal forecasts currently being compiled, which will be finalised on 28 April with a Treasury report provided to you by 4 May.

2. The annex provides tables with additional details on the economic forecasts, including changes since the preliminary BEFU forecasts and provides the same comparisons with HYEFU 2021.

Key Assumptions for the Final Economic Forecasts

3. The economic forecasts described in this report are underpinned by the assumptions outlined below.

4. New Zealand is expected to remain at the Red and Orange settings of the COVID-19 Protection Framework across the first half of 2022. The Red setting is assumed to reduce GDP by 2-3% across the March quarter. We assume that New Zealand will remain at the Orange setting across the June quarter, which following recent changes to the CPF is assumed to reduce GDP by 0-2%.

5. The neutral interest rate assumption remains at 2.75% over the forecast period. This is consistent with our assumption in the preliminary BEFU forecasts, where we reduced the neutral interest rate from 3.0% to 2.75%. As in the preliminary BEFU forecasts, interest rates are expected to have a greater contractionary impact on activity.

6. Border assumptions have changed since the preliminary BEFU forecasts in light of the recent changes to the *Reconnecting New Zealand* plan. Since the preliminary BEFU forecasts, the Government has brought forward border reopening dates and removed self-isolation requirements for travellers. Reflecting this, we now assume a faster recovery in real exports of services beginning from the June 2022 quarter.

7. Annual net migration remains largely unchanged from the preliminary BEFU forecasts, gradually rising to 27,700 in the June 2024 quarter and subsequently reaching 40,800 by the end of the forecast period. We assume the removal of self-isolation requirements do not have the same impact on migration flows as visitor flows, given the length of isolation being much less of a hindrance for permanent arrivals.

8. The Trade-Weighted Index (TWI) exchange rate is forecast to remain constant at 75.0 from the June 2022 quarter onwards, a 1.3% increase in the level compared to preliminary BEFU forecasts.

9. Global oil prices are assumed to average USD 95 per barrel across the March 2022 quarter, and USD 110 per barrel across the June quarter before easing to just above USD 100 per barrel by the end of 2022. These higher prices reflect risks to supply due to the Ukraine crisis. Over the medium term, prices are assumed to gradually decline to just under USD 70 per barrel by the end of the forecast period.

The New Zealand economy has remained resilient in the face of COVID-19 related shocks…

10. The New Zealand economy expanded by 3.0% in real terms in the December quarter of 2021, following the 3.6% contraction in the Delta-disrupted September quarter. The rebound was much stronger than the 1.5% growth anticipated in the preliminary BEFU forecasts. The recovery was broad-based, with twelve of sixteen industries recording increases in GDP.

…and activity is robust in the near term despite headwinds to growth from Omicron…

11. The Omicron outbreak is expected to weigh on GDP in the near term, as the variant's high transmissibility leads to widespread labour-supply disruption due to self-isolation requirements. Total hours worked are forecast to fall by 2.4% in the March 2022 quarter. The COVID-19 Protection Framework (CPF) settings and changing consumer behaviour in response to the outbreak continue to weigh on consumer demand.

12. Since our initial assessment of the economic impacts of an Omicron outbreak in the preliminary BEFU forecasts, case numbers have increased to higher levels, though the outbreak took longer to accelerate than first assumed. We still expect most of the impacts to be felt in the March quarter, with the outbreak reducing quarterly GDP growth by 2-2.5 percentage points, though GDP growth remains positive at 0.7%.

13. Based on the experience of comparable countries, and reflecting the later timing of the outbreak's peak, we now expect case numbers to remain at elevated levels and continue to impact total hours worked in the June 2022 quarter. These recent developments have led us to revise up our estimated quarterly GDP impacts by 0.5 percentage points across the June quarter, reflecting the increased labour-supply disruption from self-isolation requirements.

14. While labour-supply disruption is expected to impact the June quarter, the easing of public health restrictions following the Omicron outbreak's peak in March help to support a rebound in activity. We continue to assume that New Zealand will remain at the Orange setting across the June quarter, though recent changes to the CPF settings reduce the constraints on economic activity and see stronger growth in the June quarter than in the preliminary BEFU forecasts.

15. Despite headwinds from Omicron, real GDP is higher in the near term compared to the preliminary BEFU forecasts, owing to the larger-than-expected rebound in activity in the December 2021 quarter. Activity continues to be supported by government stimulus in response to COVID-19 and favourable terms of trade.

…though activity slows in the medium term as policy responds to correct imbalances.

16. Growth slows significantly across 2023 as tighter monetary policy dampens activity (Figure 1). The economy has been operating above potential, as COVID-19 related restrictions weighed on supply while demand, supported by monetary and fiscal policy, has been much more resilient than anticipated. This has led to imbalances, resulting in acute inflationary pressure and tight labour market conditions.

17. Monetary policy reduces demand in the medium term, helping correct imbalances and reducing inflationary pressure. While inflation returns to its 1%-3% target range by the end of the forecast period, growth slows below potential, resulting in a negative output gap in the medium term (Figure 2).

Figure 1: Real GDP

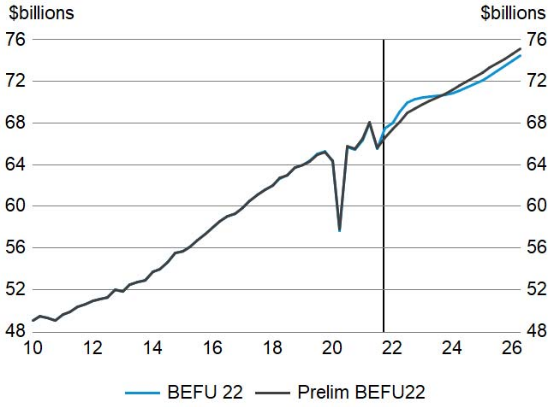
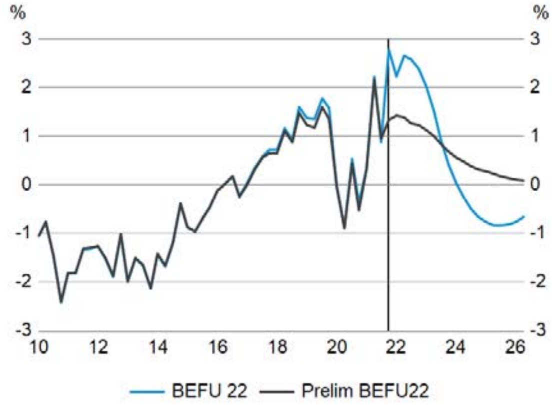


Figure 2: Output gap



Imbalances have led to inflation reaching thirty-year highs…

18. Inflation accelerated sharply in 2021, with headline inflation rising to 5.9%, and is expected to remain high across the first half of 2022. Domestic imbalances, reflecting robust demand and constrained supply, were compounded by global factors as oil prices increased sharply, global supply chains were unable to keep pace with the strong rebound in global demand, and the exchange rate remained subdued.

19. It has become clear that inflation is more widespread and persistent than previously thought. Core inflation, which the Reserve Bank of New Zealand (Reserve Bank) uses to measure the persistent component of headline inflation, is at its highest level since 2009 (Figure 3). Inflation expectations are also sharply increasing, reflecting a widespread inflation dynamic that underlies the more transitory impacts from global factors (Figure 4).

Figure 3: Inflation components

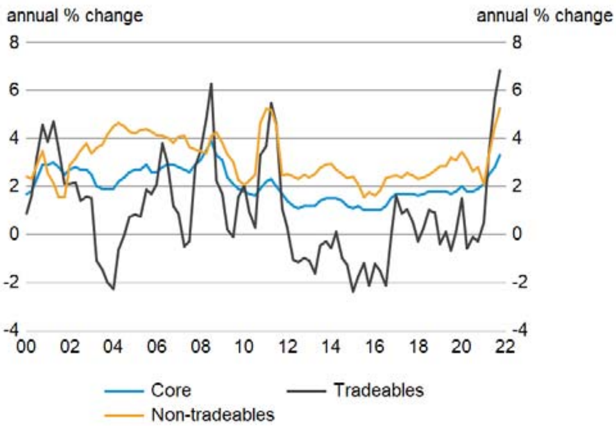
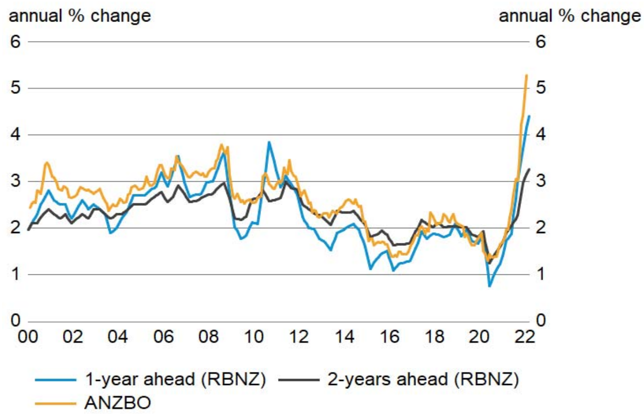


Figure 4: Surveyed inflation expectations



… and the Ukraine crisis adds further inflationary pressure…

20. Since the preliminary BEFU economic forecasts were finalised, Russia invaded Ukraine leading to disruptions to the supply of key commodities and volatility in world markets. While the direct impacts to New Zealand of the Ukraine crisis are likely to be modest, reflecting limited trade flows with the region, indirect impacts from higher oil prices are a key concern.

21. Russia is a significant exporter of crude oil and natural gas, and the invasion caused sharp increases in these energy prices. Sanctions imposed on Russia as well as the threat of disruption to supply saw the price of crude oil reach USD 130 per barrel (WTI crude).

22. Rising oil prices added further inflationary pressure domestically, though the Government's temporary 25 cents per litre reduction from the petrol excise duty and equivalent reduction in road user charges rates, and further subsidy of public transport fares is helping to alleviate some of these pressures. We estimate that the combined impacts of this policy will reduce headline inflation by 0.5% in the June 2022 quarter, though the policy unwinds in the September 2022 quarter.

23. Headline inflation is nonetheless forecast to peak at 6.7% across the first half of 2022 before declining slightly to 6.1% by the end of the year (Figure 5). Higher inflation persists for longer than in the preliminary BEFU forecasts, reflecting rising inflation expectations and continued labour market constraints increasing wage pressures, while global supply disruptions take longer to ease.

…prompting a more aggressive monetary policy tightening…

24. In our assessment, the Reserve Bank will need to significantly tighten monetary policy to bring inflation back to the 2% midpoint of its 1%-3% range. We forecast 90-day interest rates to reach 2.9% by the end of 2022, rising to 3.6% by the end of 2023 where they remain across the forecast period (Figure 6). Interest rates are therefore forecast to exceed our assumed neutral interest rate by the end of 2022 and have a larger contractionary impact on economic activity.

Figure 5: Consumers Price Index

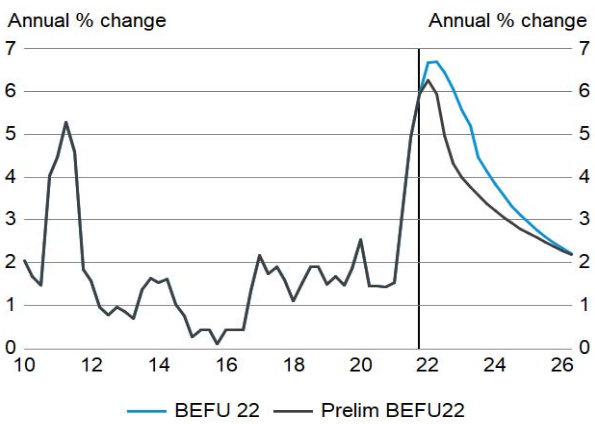
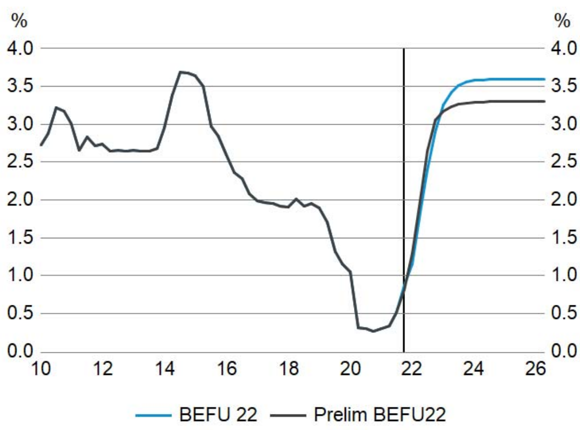


Figure 6: 90-day interest rate



Leading to house prices falling faster in the near term…

25. House prices fell in each of the last three months as the combination of rising interest rates and tightening lending conditions weighed on demand. House prices are expected to continue to fall over the next two years as rising interest rates reduce demand and house prices remain lower than current levels across the forecast period (Figure 7). House prices are forecast to decline by 5.0% across 2022 followed by a further 1.5% decline in 2023.

26. Residential investment rebounded 6.2% in the December quarter of 2021 as construction activity recommenced following the Delta-induced disruption in the September quarter. The rebound was significantly less than the 13% recovery forecast in the preliminary BEFU forecasts, owing to labour supply constraints and materials shortages leading to higher input costs and project delays. Residential investment is forecast to continue to grow in the near term, supported by the strong pipeline of work, though is expected to decrease from December 2022 quarter as rising interest rates, construction cost pressures and low population growth lower returns (Figure 8).

Figure 7: REINZ House Price Index

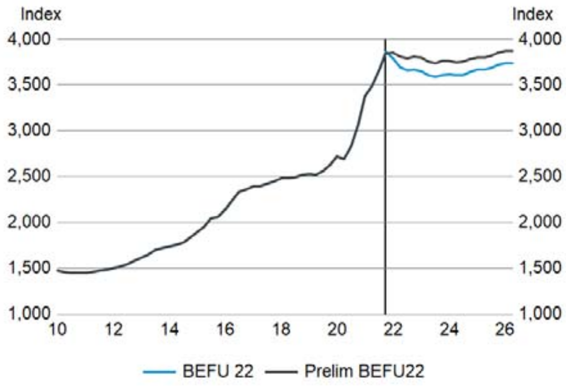
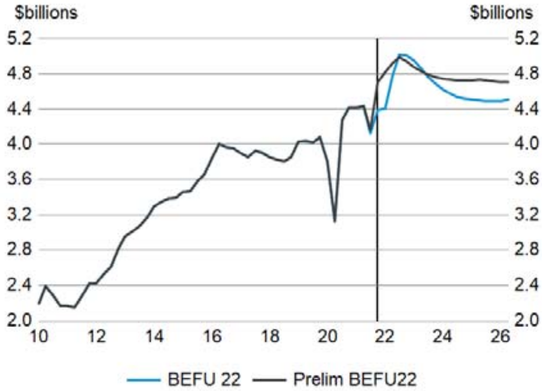


Figure 8: Residential investment



The labour market remains tight in the near term but loosens as activity slows and net migration picks up…

27. The labour market began 2022 in a state of unprecedented tightness, reflecting strong demand and constrained supply due to closed borders. Unemployment fell to a record-low 3.2% in the December 2021 quarter, the labour force participation rate remained elevated at 71.1%, and the employment rate remained at a record-high 68.8%.

28. Despite Omicron weighing on activity in the near term, labour demand remains strong with the economy being supported by continued government stimulus and robust private consumption as public health restrictions ease. Unemployment is forecast to fall further to 3.0% in the second half of 2022.

29. From 2023, as higher interest rates dampen activity and inward migration increases the supply of labour, the unemployment rate rises, peaking at 4.8% across 2025 (Figure 9). The labour force participation rate is forecast to fall to 70.7% by the end of the forecast period but remains elevated compared to recent history (Figure 10).

Figure 9: Unemployment

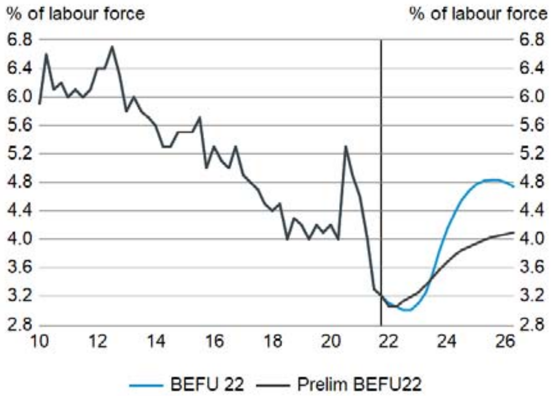
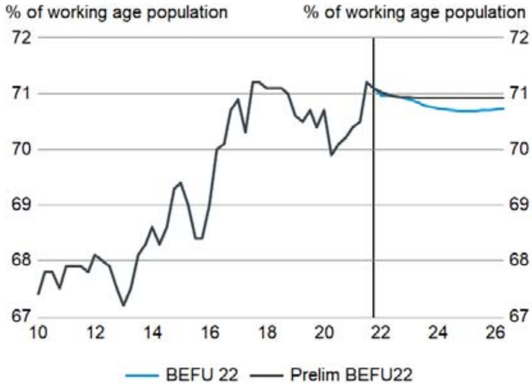


Figure 10: Labour force participation



…with wages playing catchup with inflation…

30. Annual nominal wage growth is forecast to accelerate over 2022, reaching a peak of 6.3% in the December 2023 quarter (Figure 11). This sharp acceleration can be attributed to the increased bargaining power of workers, given the limited spare capacity in the labour market, with unemployment at a record low and forecast to continue to fall across the first half of 2022. This puts upward pressure on wages as employers compete for workers, while high CPI inflation and rising inflation expectations also drive increasing wage demands from employees to offset the fall in real wages.

31. Real wages fell 2.1% in 2021 as CPI inflation accelerated faster than nominal wage growth, and the decline in real wages is forecast to continue across 2022. Real wages do not return to 2020 levels until the March 2024 quarter, where they continue to increase at an annual rate of around of 2.5% until 2026, much greater than pre-pandemic growth levels (Figure 12). Declining real wages in the near term, however, are likely to heavily impact household spending.

Figure 11: Nominal wages

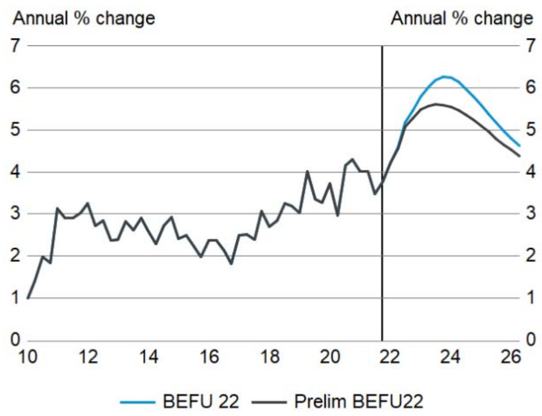
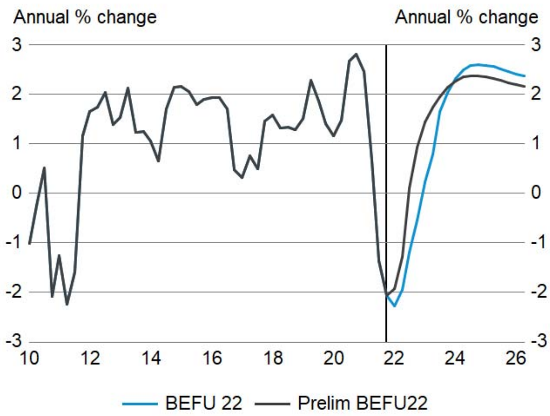


Figure 12: Real wages



…dragging on private consumption…

32. Inflationary pressures and the stronger monetary policy response reduce real private consumption compared to in the preliminary BEFU forecasts. Declining real wages weigh heavily on private consumption in the near term as cost pressures hit household spending. Falling house prices also dampen private consumption across the forecast period compared to preliminary BEFU forecasts as household spending responds to declining real wealth. Similarly, higher interest rates across the forecast period reduce disposable income for indebted households. These headwinds amount to real private consumption being persistently 1-2% lower compared to preliminary BEFU forecasts (Figure 13).

33. The fall in household spending drives the sharp increase in the unemployment rate, relative to preliminary BEFU forecasts. Higher inflation and lower house prices both contribute to lowering aggregate demand, resulting in a significant downward revision to the output gap, despite the relatively small increase to the interest rate path from preliminary BEFU forecasts.

…though high government consumption continues in the near term.

34. The economy continues to be supported by stimulatory government spending, with real government consumption nearly $3.9 billion higher across 2022 compared to preliminary forecasts, before declining from 2023 (Figure 14). Government consumption therefore becomes more procyclical in the early part of the forecast

period, as the COVID-19 stimulus unwinds while high inflation reduces real government consumption. Procyclical fiscal policy contributes to easing demand and therefore to the reduction in inflationary pressure.

Figure 13: Real private consumption

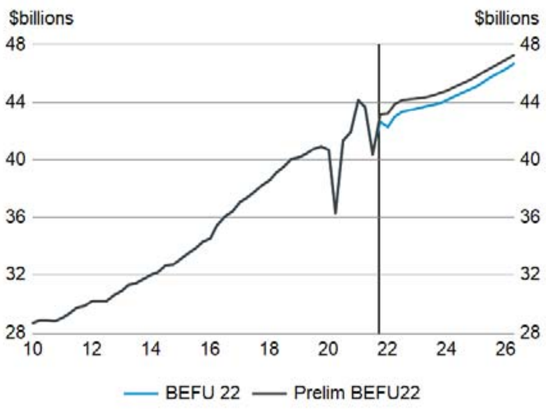
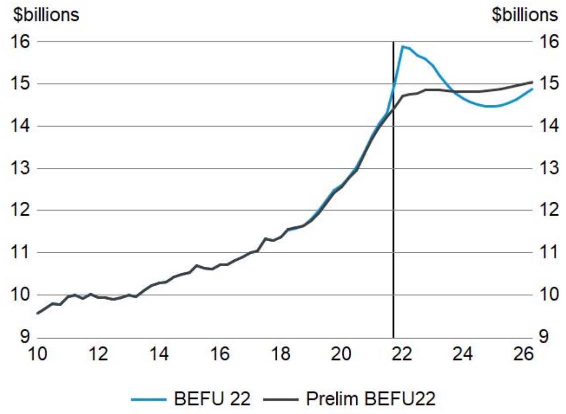


Figure 14: Real government consumption



The global economic outlook has worsened…

35. The economic outlook for our key trading partners has worsened since the preliminary forecasts as the Russian invasion of Ukraine caused commodity prices to spike, driving further global inflationary pressure. COVID-19 continues to remain prevalent globally, and while many countries are easing or removing public health restrictions, a second Omicron wave looks likely, constraining labour supply. Tightening monetary policy is a key theme globally as COVID-19 continues to disrupt supply, compounded by the negative supply shocks to key commodities from the Ukraine crisis. China continues to pursue its Zero-COVID-Policy, which risks further disruption to global supply chains, should widespread outbreaks cause prolonged lockdowns.

…but high commodity prices benefit exports and boost terms of trade in the near term…

36. High global commodity prices following the Russian invasion of Ukraine boost New Zealand export revenues and the terms of trade in the first half of 2022 (Figure 15). Russia and Ukraine together accounted for about 30% of global wheat exports in 2020, while Russia is also the largest exporter of fertiliser, both of which have contributed to strong dairy and meat price increases in the year to date. New Zealand's relatively less input-intensive farming practices will see New Zealand farmers increase their comparative advantage.

37. Export prices are forecast to ease from the second half of 2022 as global supply responds to the commodity price swing. High import prices are expected to persist for longer owing to the broad-based nature of global inflation. This causes the terms of trade to ease from the second half of the year.

…while reopening borders help services exports to recover faster…

38. The outlook for services exports has improved since preliminary BEFU forecasts, reflecting the timeline for the border reopening being brought forward as well as the removal of self-isolation requirements for travellers. The recovery of services exports now begins from the June 2022 quarter, and remains higher across the forecast period (Figure 16). While the outlook has improved, the recovery of services exports faces headwinds from continued border restrictions in China, higher airfares, constrained air-seat capacity, and COVID-19 continuing to impact consumer behaviour. Real services exports remain below pre-pandemic levels across the forecast period, with international visitor spending forecast to reach between 85%-90% of pre-pandemic levels by 2026.

Figure 15: Terms of trade

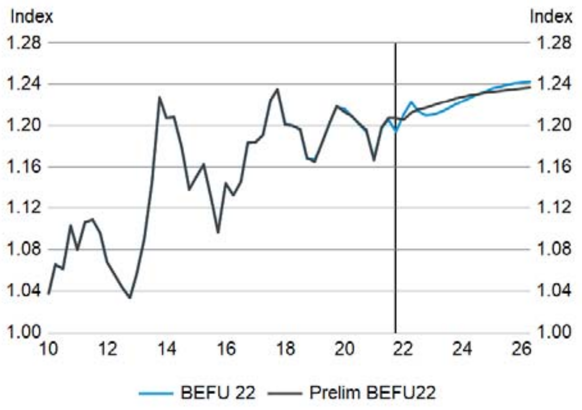
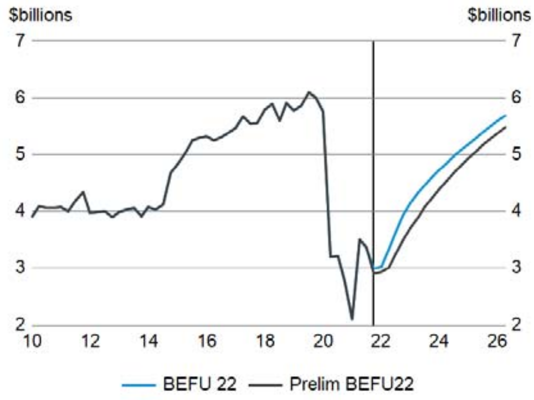


Figure 16: Real exports of services



…narrowing the current account deficit faster.

39. The current account deficit is forecast to widen to 7.0% of GDP in the September 2022 quarter, reflecting continued high demand for imports outweighing export revenues despite strong terms of trade (Figure 17). The current account deficit narrows quickly from the December 2022 quarter as services exports recover, and as demand for imports eases, owing to slowing domestic activity and consumers rebalancing consumption from goods to services as COVID-19 restrictions ease.

Overall, nominal GDP is higher across the forecast period, as weaker real activity is offset by higher inflation.

40. Across the forecast period, nominal GDP is forecast to be cumulatively $25.6 billion higher than preliminary BEFU forecasts, reflecting higher and more persistent inflation (Figure 18). Stronger near-term real activity combined with higher inflation across the forecast period more than offsets weaker real activity from 2023.

Figure 17: Annual current account deficit

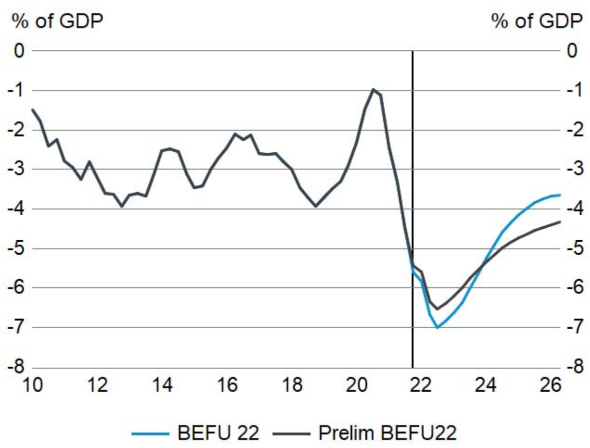
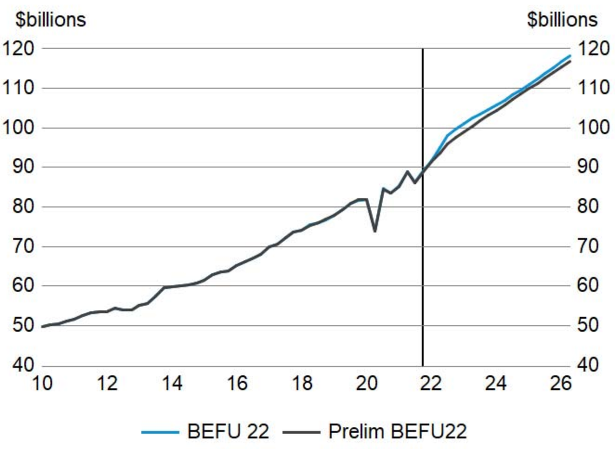


Figure 18: Nominal GDP



41. In total across the five years to June 2026, core Crown tax revenue forecasts are $10.4 billion higher than the preliminary BEFU forecasts. This is owing to an increase of $25.6 billion in nominal GDP for the same period. Growth in core Crown tax revenue is stronger in the near term due to higher-than-expected tax outturns, while growth in latter part of the forecast period is in line with nominal GDP growth.

42. Higher forecasts for some income measures of GDP and stronger than anticipated tax outturns for source deductions, corporate and other persons tax in recent months are the main drivers of increased tax revenue in the short term.

Table 2: Core Crown tax revenue forecast change since preliminary BEFU forecasts

June years, $ billions	2022	2023	2024	2025	2026	Totals
2022 Budget Update (prelim)	102.4	114.2	121.0	128.4	136.2	
% of GDP	28.4	29.0	29.1	29.4	29.7	
Forecasting changes by tax type:						
Corporate tax	+0.6	+1.1	+0.8	+0.7	+0.7	+3.9
Net other persons tax	+0.7	+0.8	+0.7	+0.7	+0.7	+3.6
Source deductions	+0.5	+0.4	+0.2	+0.3	+0.5	+1.9
GST	-0.5	+0.4	+0.6	+0.6	+0.6	+1.7
Duties	-0.2	-0.2	-0.1	-0.1	-0.1	-0.7
All other taxes	-	-0.2	+0.1	-	+0.1	-
Total change	***+1.1***	***+2.3***	***+2.3***	***+2.2***	***+2.5***	***+10.4***
2022 Budget Update	**103.5**	**116.5**	**123.3**	**130.6**	**138.7**	
% of GDP	28.6	29.0	29.3	29.6	29.9	
Nominal GDP						
2022 Budget Update (prelim)	360.2	393.1	415.2	437.0	459.1	
2022 Budget Update	362.4	401.5	421.0	441.3	464.0	
Total nominal GDP change	*+2.2*	*+8.4*	*+5.8*	*+4.3*	*+4.9*	*+25.6*

43. Increases in the corporate tax and other persons tax forecasts came from a stronger forecast for net operating surplus growth, including the stronger inflation forecast, and continued strength in 2021 tax returns being filed with Inland Revenue, which has pushed up terminal tax revenue in the current year and which also indicates that the underlying tax bases are higher than previously thought.

44. A slightly stronger outlook for compensation of employees (COE) increased the source deductions forecasts. Owing to the higher inflation forecast, most of the COE forecast increase was on wages, rather than employment, which further increased the fiscal drag component of the source deductions forecast.

45. GST has come in below the HYEFU 2021 forecast recently, mainly owing to weaker-than-forecast private consumption. This resulted in a lower GST forecast for the current fiscal year. However, forecasts of nominal private consumption and services exports (mostly tourist spending in New Zealand) are stronger than in the preliminary forecast, at least partly owing to the higher inflation forecast. This increased the GST forecasts from the June 2023 year onwards.

46. Tobacco, fuel and alcohol excise have come in below forecast recently, which prompted a downward revision to excise duty forecasts in the current year. The increased inflation forecast, with its consequent effect on annual excise rate increases, wasn't enough to offset this weaker starting point through the later years of the forecast period, resulting in excise duty forecasts being lower throughout.

47. Inland Revenue produces an alternative forecast, based on the Treasury's macroeconomic forecast. The Treasury's forecasts are broadly similar to Inland Revenue's, with differences between the forecasts of total tax revenue no more than ±1% in each forecast year.

Comparison to Bank Forecasts

48. The Treasury's final BEFU 2022 economic forecasts are broadly similar to the latest forecasts of the major domestic banks. Our forecasts show a similar outlook for GDP of weakening growth in the medium term due to rising interest rates (Figure 19). Westpac is forecasting much stronger growth across the forecast period, with growth of 4.8% in 2023. ANZ is more pessimistic, with GDP forecast to lift from 2.1% in 2022 to 2.4% in 2024.

49. The Treasury's forecast peak for inflation is consistent with other forecasters, though we anticipate inflation to be more persistent across the forecast period. Consistent with our view of more persistent inflation prompting a greater monetary policy response, our forecast unemployment rate in the medium-term is higher than other forecasters (Figure 20). Westpac expects unemployment to remain low, rising to 3.8% by 2025.

Figure 19: Real production GDP forecast comparison

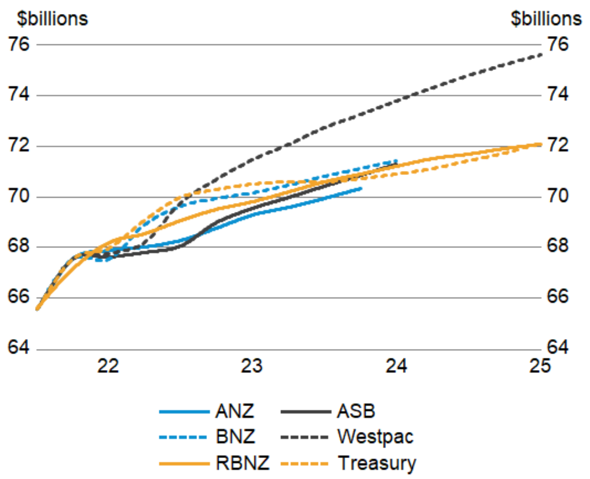
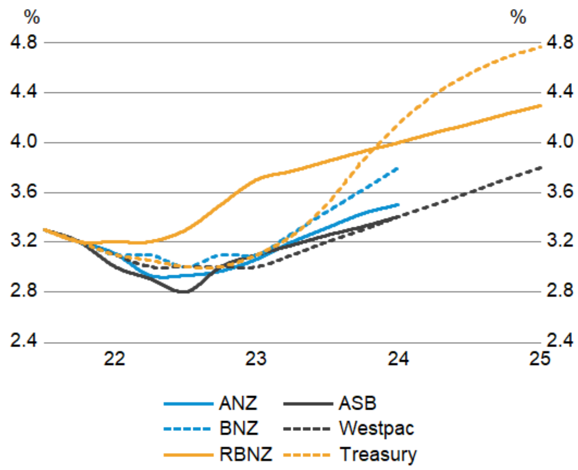


Figure 20: Unemployment rate forecast comparison



Business Sentiment on the Economic Outlook

50. During our final forecast round, we met with several major New Zealand firms across different sectors of the economy, with an emphasis on construction and retail sector firms, to understand the business community's view of the economic outlook.

51. Most businesses we spoke to viewed disruptions to labour supply due to the Omicron outbreak as a key challenge in the near term. Many businesses reported widespread worker absenteeism due to self-isolation requirements causing severe shortages. However, supply chains continued to be managed.

52. While COVID-19 continues to weigh on the near-term outlook, most businesses we spoke to viewed inflation as the paramount concern. Rising input and transport costs were leading to significant cost pressures for firms, which they were unable to continue to absorb. Inflationary pressures were also reported to be hitting household spending, weakening demand.

53. The labour market remains exceptionally tight with firms reporting difficulty in sourcing both skilled and unskilled labour. While reopening borders would likely see an easing of supply constraints for unskilled workers, some concern was raised of the possibility of a large exodus of skilled labour as New Zealanders emigrated overseas.

54. Wage pressures continue to mount for firms, owing to continued labour market tightness and workers increasing their demands for compensation as high inflation reduces real wages.

Risks to the Central Forecasts

55. There are several upside and downside risks to our central forecasts that could lead to different outcomes for the economy and tax revenue.

56. Public health restrictions under the COVID-19 Protection Framework are assumed to remain at Orange across the June quarter, incorporating the recent changes in the CPF settings. Self-isolation requirements are assumed to remain at 7 days for positive cases and 7 days for household contacts across the June quarter. Should public health restrictions become more permissive, there is upside risk to real GDP, while a tightening of restrictions adds downside risk to real GDP growth. The potential for a second Omicron wave, or the emergence of a more virulent variant adds additional downside risk to GDP.

57. Economic activity over the forecast period is dampened by rising interest rates. The extent to which rising interest rates reduce activity is uncertain, particularly as New Zealand has not experienced a tightening cycle since before the Global Financial Crisis. A stronger response of activity to rising interest rates will result in downward risk to real GDP and upward risk to unemployment. Conversely, a weaker response will result in upward risk to real GDP and inflation, and downward risk to unemployment.

58. Global inflation has been persistent, though elevated oil prices and supply chain disruptions are expected to ease toward the middle of the year. If inflationary pressures persist longer than this expectation, more aggressive monetary policy tightening may be needed, exerting downward risk to GDP. The opposite may occur if inflation pressures prove less persistent.

59. The Ukraine crisis adds further downside risk to global growth through 2022. In the event of escalating tensions, the direct impacts on New Zealand are expected to be modest due to its relatively small trade flows with the region. Higher global commodity prices, however, could strengthen the terms of trade, while high oil prices fuel domestic CPI inflation further. Indirect impacts could also result from supply chain disruption, falling confidence in wider Europe, and financial market volatility.

60. Government consumption is assumed to grow consistent with current Budget Allowances. Any increase to future allowances would see stronger demand in the economy.

61. Annual net migration is assumed to gradually rise to 40,800 by the end of the forecast period. There remains a risk that New Zealand's current border reopening strategy will see negative net migration in the near term as New Zealanders emigrate abroad before inward migration flows increase. Negative net migration would reduce New Zealand's available labour force, compounding current supply constraints, while placing downward pressure on consumption and output.

Annex 1: Forecast Summary Tables

Table A1: Summary of economic forecasts, June years

Annual average percentage change, unless otherwise specified

June Years	2018	2019	2020	2021	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast
Private consumption	4.7	4.1	-0.9	7.8	-1.6	3.3	1.3	2.1	2.7
Public consumption	4.0	3.3	6.5	8.3	12.6	1.4	-4.8	-1.7	1.5
TOTAL CONSUMPTION	**4.5**	**3.9**	**0.8**	**7.9**	**1.8**	**2.8**	**-0.3**	**1.2**	**2.4**
Residential investment	-1.0	1.4	-4.4	16.6	0.9	12.1	-6.0	-3.1	-0.5
Business investment*	12.2	4.7	-3.7	3.8	6.6	9.9	-0.9	0.1	2.2
TOTAL INVESTMENT	**8.6**	**3.9**	**-3.9**	**6.9**	**5.1**	**10.4**	**-2.2**	**-0.7**	**1.6**
Stocks (contribution to GDP growth)	0.2	-0.5	-0.2	0.4	0.5	-0.5	0.0	-0.0	-0.0
GROSS NATIONAL EXPENDITURE	**5.8**	**3.3**	**-0.5**	**8.1**	**3.2**	**4.3**	**-0.8**	**0.7**	**2.2**
Exports	3.9	3.4	-5.1	-11.1	2.7	8.4	6.6	4.8	4.1
Imports	8.4	2.3	-5.9	-4.2	15.4	5.4	-0.2	1.2	2.9
EXPENDITURE ON GDP	**4.6**	**3.6**	**-0.4**	**6.1**	**0.4**	**4.2**	**0.8**	**1.6**	**2.5**
GDP (PRODUCTION MEASURE)	**3.6**	**3.1**	**-1.1**	**5.3**	**1.7**	**4.2**	**0.7**	**1.6**	**2.5**
- annual % change, June quarter	3.6	2.7	-10.4	17.9	1.6	2.2	0.8	2.0	2.7
Other Output Measures									
Real Gross National Disposable Income	3.8	3.0	0.7	4.9	1.4	3.4	0.6	1.8	2.6
Nominal GDP (Expenditure Basis)	7.3	4.9	2.7	7.5	5.8	10.8	4.9	4.8	5.1
Potential GDP	2.9	2.6	-0.5	5.2	0.3	4.2	2.5	2.6	2.6
Output gap (June qtr,% of potential)	1.2	1.3	-0.9	2.2	2.7	1.5	-0.3	-0.8	-0.7
Total Population (thousands, mean quarter ended)	4,893	4,972	5,087	5,112	5,141	5,187	5,240	5,300	5,366
Real GDP per capita (Production basis)	1.7	1.4	-3.0	3.9	1.2	3.3	-0.3	0.5	1.3
Labour Market									
Employment	3.6	2.0	1.6	0.7	3.4	1.0	0.1	0.5	1.4
Unemployment Rate (June quarter)	4.5	4.0	4.0	4.0	3.1	3.3	4.4	4.8	4.7
Labour Productivity (Hours worked basis)	-0.6	0.6	0.1	1.7	2.8	-0.5	0.9	1.2	1.1
Wages (QES average hourly ord time earnings, APC)	2.8	4.0	3.0	4.0	4.6	6.0	6.1	5.4	4.6
Monetary Conditions									
90-day Bank Bill Rate (June quarter ave)	2.0	1.7	0.3	0.3	1.8	3.4	3.6	3.6	3.6
10-year Bond Rate (June quarter ave)	2.8	1.8	0.8	1.7	3.2	3.5	3.8	4.1	4.1
TWI (June quarter ave)	73.8	72.7	69.7	74.7	75.0	75.0	75.0	75.0	75.0
- annual % change (June quarter)	-3.5	-1.5	-4.1	7.3	0.4	0.0	0.0	0.0	0.0
Price Measures									
CPI Inflation (ann % change, June quarter)	1.5	1.7	1.5	3.3	6.7	5.2	3.6	2.7	2.2
Consumption Deflator	1.3	1.6	1.8	1.5	4.7	6.0	4.3	3.3	2.7
GDP Deflator	2.6	1.2	3.1	1.3	5.3	6.3	4.0	3.2	2.6
House Price Inflation (ann % change, June qtr)	3.6	1.5	7.1	29.7	5.8	-2.5	0.0	1.7	1.9
Key Balances									
Current account balance ($ million)	-10,227	-10,814	-4,699	-11,385	-24,210	-25,581	-20,633	-17,507	-16,890
Current account balance (% of GDP)	-3.5	-3.5	-1.5	-3.3	-6.7	-6.4	-4.9	-4.0	-3.6
Terms of Trade (goods) - SNA Basis	4.6	-3.4	4.4	-0.4	3.3	-1.2	-1.0	-0.3	-0.4
Net International Investment Position (%GDP)	-52.2	-54.3	-56.9	-45.2	-48.1	-49.8	-52.4	-53.9	-54.9

* Total investment excluding residential

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

Annual average percentage change, unless otherwise specified

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	-1.3	-0.4	0.2	0.0	0.1
Public consumption	-0.0	0.2	0.1	0.2	4.8	-0.7	-4.7	-1.9	0.6
TOTAL CONSUMPTION	**-0.0**	0.0	0.0	0.0	0.2	-0.5	-1.1	-0.5	0.2
Residential investment	-0.0	0.0	0.0	-0.0	-5.1	6.5	-2.9	-2.5	-0.2
Business investment*	0.0	-0.0	0.0	-0.0	6.8	0.6	-5.4	-2.6	-0.3
TOTAL INVESTMENT	**0.0**	-0.0	0.0	-0.0	3.7	2.2	-4.7	-2.5	-0.3
Stocks (contribution to GDP growth)	-0.0	-0.0	0.0	0.1	-0.2	0.1	-0.0	0.0	-0.0
GROSS NATIONAL EXPENDITURE	**-0.0**	0.0	0.0	0.2	0.7	0.4	-2.0	-1.0	0.1
Exports	0.0	-0.0	-0.0	0.0	-0.0	0.6	0.1	-0.2	-0.1
Imports	0.0	0.0	0.0	0.0	1.2	0.7	-2.7	-1.3	0.2
EXPENDITURE ON GDP	**-0.0**	0.0	0.0	0.2	0.6	0.0	-1.3	-0.7	0.0
GDP (PRODUCTION MEASURE)	**-0.0**	0.0	-0.1	-0.1	1.1	0.2	-1.4	-0.7	0.0
- annual % change, June quarter	*-0.0*	0.1	-0.2	-0.0	1.6	-0.8	-1.3	-0.4	0.3
Other Output Measures									
Real Gross National Disposable Income	-0.0	0.0	-0.1	-0.1	1.2	-0.0	-1.4	-0.5	0.2
Nominal GDP (Expenditure Basis)	0.0	-0.0	0.0	0.2	0.5	1.6	-0.8	-0.4	0.1
Potential GDP	-0.0	-0.1	-0.1	-0.1	0.3	0.1	-0.0	-0.1	-0.1
Output gap (June qtr,% of potential)	0.1	0.2	0.0	0.1	1.3	0.5	-0.7	-1.1	-0.8
Total Population (thousands, mean quarter ended)	**0**	**0**	**0**	**-4**	**-11**	**-11**	**-11**	**-11**	**-11**
Real GDP per capita (Production basis)	**-0.0**	**0.0**	**-0.1**	**-0.1**	**1.2**	**0.2**	**-1.3**	**-0.7**	**0.0**
Labour Market									
Employment	0.0	0.0	0.0	0.0	-0.1	0.1	-0.7	-0.5	0.1
Unemployment Rate (June quarter)	0.0	0.0	0.0	0.0	-0.0	-0.1	0.6	0.8	0.6
Labour Productivity (Hours worked basis)	-0.0	0.0	-0.1	-0.1	1.1	0.0	-0.4	-0.1	-0.1
Wages (QES average hourly ord time earnings, APC)	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.4	0.2
Unit Labour Costs (Hours worked basis)	0.0	-0.0	0.1	0.1	-1.1	0.3	1.1	0.6	0.4
Monetary Conditions									
90-day Bank Bill Rate (June quarter ave)	0.0	0.0	0.0	0.0	-0.2	0.2	0.3	0.3	0.3
10-year Bond Rate (June quarter ave)	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.7	0.6
TWI (June quarter ave)	0.0	0.0	0.0	0.0	2.4	1.6	1.2	1.1	1.0
- annual % change, June quarter	0.0	0.0	0.0	0.0	3.2	-1.1	-0.5	-0.2	-0.1
Price Measures									
CPI Inflation (ann % change, June quarter)	0.0	0.0	0.0	0.0	0.7	1.4	0.5	0.2	0.0
Consumption Deflator	0.0	0.0	0.0	-0.0	0.1	1.8	0.8	0.3	0.0
GDP Deflator	0.0	-0.0	-0.0	0.0	-0.2	1.5	0.5	0.2	0.1
House Price Inflation (ann % change, June quarter)	0.0	0.0	0.0	0.0	-3.3	-1.0	0.2	0.4	0.2
Key Balances									
Current account balance ($ million)	-5	-9	-10	-13	-1329	-2029	764	2708	3031
Current account balance (% of GDP)	-0.0	-0.0	-0.0	0.0	-0.3	-0.4	0.3	0.7	0.7
Terms of Trade - SNA Basis	-0.0	-0.0	-0.0	0.0	1.3	-1.0	-0.7	0.2	0.1

* Total investment excluding residential

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

June Years	**2018**	2019	2020	2021	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast
Private consumption	0.1	-0.1	-0.0	0.3	-2.8	-0.1	0.2	0.2	0.4
Public consumption	0.2	-0.3	-0.2	1.5	7.7	-0.4	-5.4	-2.5	0.4
TOTAL CONSUMPTION	**0.1**	-0.1	-0.1	0.6	-0.3	-0.2	-1.3	-0.5	0.4
Residential investment	-0.9	-2.3	1.8	-1.1	-8.0	8.7	-3.9	-2.6	0.6
Business investment*	0.2	0.8	0.8	-0.7	3.7	0.1	-5.0	-2.6	0.1
TOTAL INVESTMENT	**-0.1**	0.1	1.1	-0.9	0.6	2.4	-4.6	-2.5	0.3
Stocks (contribution to GDP growth)	-0.0	0.0	0.2	-0.1	0.2	-0.3	-0.0	0.0	-0.0
GROSS NATIONAL EXPENDITURE	**0.0**	-0.1	0.4	0.1	0.1	0.2	-2.1	-1.0	0.4
Exports	0.0	-0.0	-0.1	0.3	0.6	1.2	0.2	-0.2	-0.1
Imports	-0.0	0.0	-0.0	0.1	3.2	0.5	-3.2	-1.5	0.4
EXPENDITURE ON GDP	**0.0**	-0.1	0.4	0.2	0.2	-0.1	-1.2	-0.6	0.2
GDP (PRODUCTION MEASURE)	**-0.0**	0.2	0.3	0.1	0.9	-0.8	-1.5	-0.8	0.2
- annual % change, June quarter	*-0.1*	0.4	-0.2	0.5	-0.0	-0.2	-1.4	-0.4	0.5
Other Output Measures									
Real Gross National Disposable Income	-0.0	0.2	0.3	0.0	1.2	-1.1	-1.6	-0.6	0.3
Nominal GDP (Expenditure Basis)	-0.0	0.1	0.5	0.4	-1.0	2.2	-0.4	-0.3	0.4
Potential GDP	0.0	-0.0	0.1	-0.3	0.6	-0.4	-0.1	-0.1	-0.1
Output gap (June qtr,% of potential)	-0.1	0.4	0.0	0.7	1.2	0.2	-1.1	-1.4	-0.8
Total Population (thousands, mean quarter ended)	**0**	**0**	**0**	**-6**	**-13**	**-13**	**-13**	**-13**	**-13**
Real GDP per capita (Production basis)	**-0.0**	**0.2**	**0.3**	**0.2**	**1.1**	**-0.7**	**-1.5**	**-0.8**	**0.2**
Labour Market									
Employment	0.0	0.0	-0.0	0.0	-0.3	0.0	-0.8	-0.6	0.2
Unemployment Rate (June quarter)	-0.1	0.0	-0.1	0.0	-0.1	-0.1	0.8	1.0	0.7
Labour Productivity (Hours worked basis)	-0.0	0.2	0.3	0.1	1.2	-0.9	-0.5	-0.1	-0.1
Wages (QES average hourly ord time earnings, APC)	-0.0	-0.0	-0.0	0.0	0.5	1.5	1.6	1.0	0.4
Unit Labour Costs (Hours worked basis)	0.0	-0.2	-0.3	-0.1	-1.0	2.0	2.1	1.2	0.7
Monetary Conditions									
90-day Bank Bill Rate (June quarter ave)	0.0	0.0	0.0	0.0	-0.2	0.2	0.4	0.5	0.5
10-year Bond Rate (June quarter ave)	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.7	0.7
TWI (June quarter ave)	0.0	0.0	0.0	0.0	-2.2	-3.3	-3.7	-3.9	-3.9
- annual % change, June quarter	0.0	0.0	0.0	0.0	-2.9	-1.4	-0.6	-0.2	-0.1
Price Measures									
CPI Inflation (ann % change, June quarter)	0.0	0.0	0.0	0.0	1.6	2.1	0.8	0.3	-0.0
Consumption Deflator	-0.0	-0.1	-0.1	0.1	0.2	2.4	1.1	0.5	0.1
GDP Deflator	-0.0	0.1	0.1	0.2	-1.2	2.2	0.8	0.4	0.1
House Price Inflation (ann % change, June quarter)	0.0	0.0	0.0	0.6	-4.6	-2.3	0.4	1.3	1.3
Key Balances									
Current account balance ($ million)	-8	-8	-4	-142	-3332	-4142	-549	1575	1579
Current account balance (% of GDP)	-0.0	-0.0	0.0	-0.0	-0.9	-0.9	-0.1	0.4	0.4
Terms of Trade - SNA Basis	-0.0	0.0	0.0	-0.2	2.8	-1.7	-0.7	0.2	0.0

* Total investment excluding residential