

# Budget Economic and Fiscal Update 2023 Projections

## Budget Economic and Fiscal Update 2023 of the Fiscal Strategy Model (FSM)

18 May 2023

This version of the Fiscal Strategy Model uses economic and fiscal forecasts prepared for the *Budget Economic and Fiscal Update 2023 (BEFU)*. The projection period begins in 2027/28 and extends a decade to 2036/37. These post-forecast fiscal projections are based on the long-run technical and policy assumptions outlined below.

The Fiscal Strategy Model (sometimes referred to by the acronym FSM) that produces the projections can be found on the Treasury website at <https://treasury.govt.nz/government/fiscalstrategy/model>

Forecasts attempt to predict future outcomes by using wide-ranging resources, comprehensive modelling and expert opinion and knowledge. Projections, which arise from and are heavily influenced by their forecast base, are potential paths. These paths are based on trend or long-run averages for growth rates or levels of key economic, fiscal and demographic variables, and generally assume no policy changes beyond those built into their forecast base.

### Economic projections and assumptions

Table 1 displays the macroeconomic projections from the Budget 2023 Fiscal Strategy Model.

**Table 1** – Summary of economic projections<sup>1</sup>

Year ending 30 June	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	.....	2037
	Forecasts					Projections						
Labour force	1.6	1.0	1.3	1.5	1.4	1.2	1.1	1.1	1.0	0.9	...	0.6
Unemployment rate <sup>2</sup>	3.5	4.5	5.3	5.1	4.8	4.6	4.4	4.3	4.3	4.3	...	4.3
Average weekly hours worked <sup>3</sup>	34.0	33.9	33.8	33.8	33.7	33.7	33.7	33.7	33.7	33.7	...	33.7
Labour productivity growth <sup>4</sup>	-1.3	1.3	1.9	1.4	1.3	1.2	1.1	1.0	1.0	1.0	...	1.0
Real GDP <sup>5</sup>	3.2	1.0	2.1	3.1	2.9	2.6	2.4	2.3	2.0	1.9	...	1.6
Nominal GDP <sup>6</sup>	8.5	5.3	5.3	5.5	5.1	4.7	4.5	4.3	4.0	4.0	...	3.6
Consumers Price Index	6.2	3.3	2.5	2.3	2.2	2.1	2.1	2.0	2.0	2.0	...	2.0
Government 10-year bonds	4.3	4.9	4.9	4.8	4.5	4.3	4.3	4.3	4.3	4.3	...	4.3
Average hourly wage	7.1	6.0	5.3	4.6	4.2	3.3	3.2	3.0	3.0	3.0	...	3.0

Notes:

- 1 Annual average percentage change unless otherwise stated
- 2 Total unemployed as a percentage of the labour force (annual average)
- 3 Average weekly hours worked (total hours worked ÷ total employed labour force)
- 4 Average annual growth in real GDP divided by total hours worked
- 5 Production measure, 2009/10 base
- 6 Expenditure measure

Sources: The Treasury, Stats NZ

Most economic variables are close to their assumed long-run trend growth rates or levels by the end of the forecast. If they differ from this assumption by the final forecast year, then they are transitioned to attain it over the early projected years. The annual convergence rate assumed is based on recent actual and forecast performance. Table 2 reports the five economic variables for which stable assumptions are made and the projected year in which they attain these in the Budget 2023 Fiscal Strategy Model.

**Table 2** – Economic variables with long-run stable assumptions and year of attainment

Economic variable	Stable assumption	End-of-forecast value	Attained in projected year
Unemployment rate	4.25%	4.82%	2029/30
Average weekly hours worked	33.70	33.74	2028/29
Labour productivity annual growth	1.0%	1.3%	2029/30
Consumers Price Index (CPI) annual growth (inflation measure)	2.0%	2.2%	2029/30
Government 10-year bond annual return rate	4.3%	4.5%	2027/28

Source: The Treasury

Projected real GDP grows from its forecast base via the annual combined change in the size of the employed labour force, the average hours they work and their productivity. Once the latter two variables, as well as the unemployment rate, stabilise in projected years the only variation in projected real GDP arises from that of the labour force. Statistics New Zealand’s population and labour force projections are used in projecting out the labour force’s size and annual growth.

Growth in nominal GDP in each projected year is achieved by adding inflation, as measured by the Consumers Price Index (CPI), to the real GDP growth. The long-run stable assumption for CPI inflation of 2 per cent per year matches the midpoint of the band set in remit for the Monetary Policy Committee. Nominal GDP growth is used to project many fiscal variables, including tax revenue. It is also the denominator for most major fiscal indicators, such as net debt to GDP.

## Fiscal projections and assumptions

Fiscal projections have changed from those published as part of the *Half Year Economic and Fiscal Update 2022* (HYEFU) version of the Fiscal Strategy Model. This reflects changes in the economic and fiscal forecast bases of the projections, as well as changes in assumptions and modelling logic.

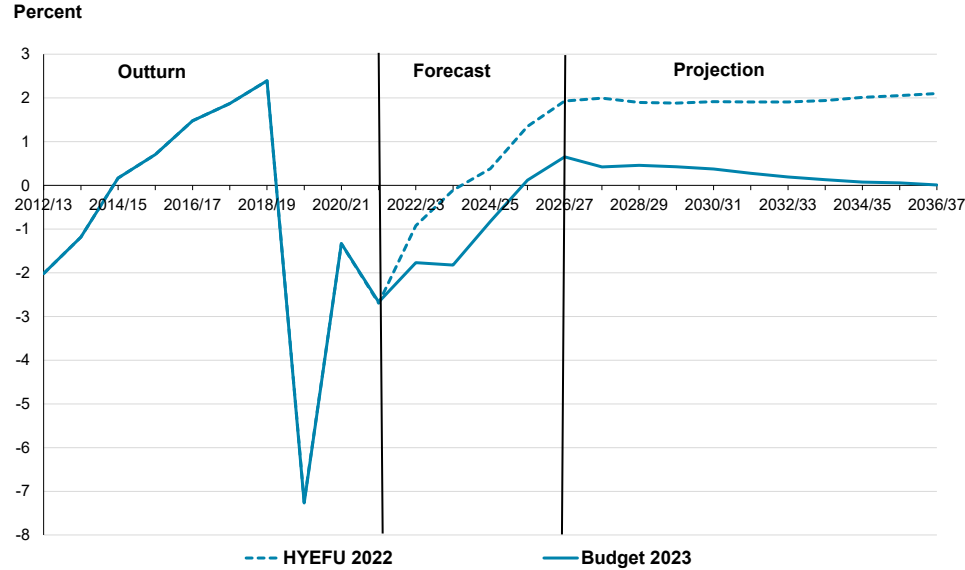
The key fiscal indicator of financial performance, the total Crown operating balance before gains and losses (OBEGAL), has declined relative to its forecast and projected track in the HYEFU 2022. As is depicted in Chart 1 below, much of the reduction occurs over the five-year forecast base of the projections. In particular tax revenue is forecast to be lower than it was at HYEFU, while expenses are expected to be higher. A revised economic outlook, the impact of North Island weather events, the establishment of the National Resilience Plan, increased operating allowances and higher interest rates on debt are all contributing factors to the reduction in OBEGAL over the forecast years. Higher operating allowances are continued into projected years, as is expenditure for the Climate Emergency Response Fund (CERF), which are both factors that further lower the OBEGAL track relative to that of the HYEFU 2022, when funding of CERF was not extended beyond the final forecast year. This is now included in the projections to best reflect the expectation of continued funding in this area, although specific policy decisions related to the CERF beyond the end of the Budget 2023 forecast horizon are yet to be made.

While the fiscal outlook is not as strong as it was at HYEUFU, the Government’s long-term fiscal objectives are still being met in the Budget 2023 forecasts and projections. These are to:

- keep OBEGAL at an average surplus between 0% and 2%, subject to economic and fiscal conditions, and
- maintain net debt below 30% of GDP, subject to significant shocks.

Over the years 2025/26, when OBEGAL is first forecast to return to surplus, until the final year of projections, 2036/37, OBEGAL remains in surplus in every year and averages 0.3% of GDP. Net debt peaks at 22.0% of GDP in the forecast year 2023/24, and then reduces in all later years, dropping to 8.3% of GDP by 2036/37.

**Chart 1** – OBEGAL as a percentage of nominal GDP, Budget 2023 and HYEUFU 2022



A weaker forecast and projected OBEGAL track produces higher net debt levels over the second half of the forecasts and across the decade of projections. Chart 2 illustrates this.

**Chart 2** – Net debt as a percentage of nominal GDP, Budget 2023 and HYEUFU 2022

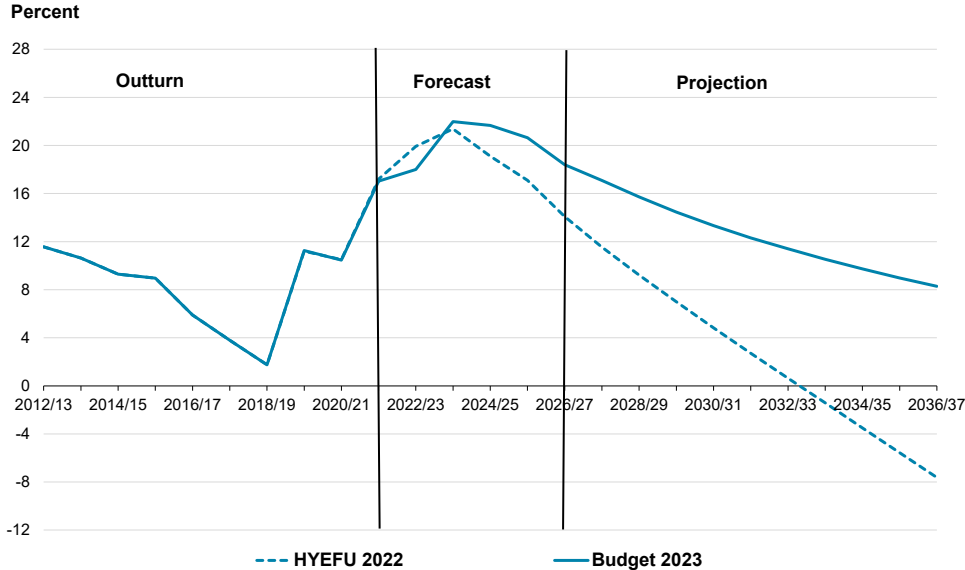


Table 3 reports the fiscal projections from the updated Fiscal Strategy Model, projecting onward from the fiscal forecasts for 2022/23 to 2026/27.

**Table 3** – Summary of fiscal projections, as percentages of nominal GDP

Year ending 30 June	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	.....	2037
	Forecasts					Projections						
Core Crown revenue	32.2	32.4	32.4	32.9	32.9	32.8	32.7	32.6	32.5	32.4	...	31.9
Core Crown expenses	32.5	33.0	32.3	32.0	31.5	31.8	31.7	31.7	31.7	31.7	...	31.6
Core Crown residual cash	-5.7	-6.5	-0.1	0.0	0.0	-0.8	-0.6	-0.6	-0.7	-0.7	...	-0.8
Total Crown revenue	39.5	40.1	39.8	40.2	40.0	39.9	39.8	39.8	39.7	39.5	...	39.0
Total Crown expenses	41.1	41.8	40.5	40.0	39.2	39.4	39.3	39.2	39.2	39.2	...	38.9
Total Crown OBEGAL <sup>1</sup>	-1.8	-1.8	-0.8	0.1	0.7	0.4	0.5	0.4	0.4	0.3	...	0.0
Total Crown operating balance <sup>2</sup>	1.1	-0.3	0.6	1.5	2.0	1.8	1.9	1.9	1.9	1.8	...	1.7
Net debt <sup>3</sup>	18.0	22.0	21.7	20.7	18.4	17.1	15.7	14.5	13.3	12.3	...	8.3
Net core Crown debt <sup>4</sup>	38.5	43.1	41.1	39.1	37.3	36.4	35.3	34.5	33.7	33.1	...	31.0
Core Crown borrowings <sup>5</sup>	47.7	50.5	51.6	50.8	49.6	48.1	46.6	45.3	44.2	43.3	...	39.6
Total Crown net worth	45.4	42.9	41.3	40.6	40.7	40.7	40.8	41.0	41.3	41.6	...	42.5
Net worth attributable to the Crown <sup>6</sup>	43.4	40.9	39.4	38.8	39.0	38.9	39.0	39.3	39.5	39.8	...	40.8

Notes:

- 1 Operating balance before gains/(losses)
- 2 Excludes minority interests
- 3 Includes Crown entity borrowings and financial assets of the NZSF and core Crown advances
- 4 Excludes financial assets of the NZSF and core Crown advances and excludes Crown entity borrowings
- 5 Includes unsettled purchases of securities
- 6 Excludes assets and liabilities belonging to minority interests

The assumptions underpinning the projections are reported in Table 4.

**Table 4** – Summary of fiscal assumptions

Tax revenue	Linked to growth in nominal GDP. Each of the six major tax types, as well as the inter-segment elimination between core Crown and total Crown tax, moves from its end-of-forecast percentage of GDP towards a stable percentage of GDP, based on the average for the tax type over the five forecast years and the previous four outturn (historical) years. A transition rate of 0.05 percentage points of GDP is used for all of the tax types.
New Zealand Superannuation (NZS)	Demographically adjusted and linked to net wage growth, via the “wage floor”. The latter refers to the net (after-tax) weekly NZS rate for a couple as set in legislation to lie between 66 per cent and 72.5 per cent of net (after tax) average ordinary time weekly earnings (AOTWE).
Jobseeker Support, Supported Living Payment and Sole Parent Support	The three main working-age benefits are grown via demographic adjustment of recipient numbers and annual growth in the net AOTWE for payment rate indexation. For Jobseeker Support, which is the most sensitive in terms of recipient numbers to economic conditions, modelling is incorporated to reduce or increase recipient growth in early projected years if recipient numbers are considered to be unusually high or low at the end of the forecast period.
Other benefits	These are projected in the same way as tax revenue types, and the same transition rate is also applied.
Climate Emergency Response Fund (CERF) expenses	Projected CERF operating expenses of \$554 million per year and capital expenses of \$62 million per year in total match the \$616 million per year in projected cash proceeds from auctions of Emissions Trading Scheme units.
Other expenditure	Most expense categories, such as health, education, core government services, etc, are held constant in projected years at their end-of-forecast values. This is because their growth is assumed to come from a share of the projected Operating Allowance annual increment. A notable exception is transport expenditure, which is funded from hypothecated transport taxes and hence is projected in line with that tax type’s growth. A few small components of expenses, like Student allowances in Education, are projected by some form of growth driver, rather than kept constant, because they are not funded from the Operating Allowances.
Finance costs	A function of debt levels and interest rates.
Operating allowance	\$3.5 billion in 2027/28. Operating Allowances continue to grow at 2 per cent per year from this value in later projected years.
Capital allowance	\$7.0 billion in 2027/28. Capital Allowances continue to grow at 2 per cent per year from this value in later projected years.
National Resilience Plan (NRP)	Operating expenditure related to the NRP of \$600 million per year continues for one year into the projections while NRP capital expenditure continues for six years into projections at \$300 million per year.
New Zealand Superannuation Fund (NZSF)	Contributions to the NZSF follow the legislated formula and are calculated by the Treasury’s NZSF model using 2023 Budget economic and fiscal forecast inputs, in particular nominal GDP and aggregate net NZS expenses.